APPENDIX G

COASTAL ZONE MANAGEMENT AND LOCAL WATERFRONT REVITALIZATION PROGRAMS

Appendix G1: New York State Department of State
Appendix G2: Village of Ocean Beach
Appendix G3: Town of East Hampton

APPENDIX G1

New York State Department of State

STATE OF NEW YORK
DEPARTMENT OF STATE
ONE COMMERCE PLAZA
99 WASHINGTON AVENUE
ALBANY, NY 12231-0001
WWW.DOS.NY.GOV

ANDREW M. CUOMO
GOVERNOR

ROSSANA ROSADO
SECRETARY OF STATE

April 16, 2019

Mr. Peter Weppler, Chief
Environmental Analysis Branch
U.S. Army Corps of Engineers/New York District
26 Federal Plaza
New York, NY 10278-0090

Re: **F-2019-0129 (DA)** - U.S. Army Corps of Engineers/New York District submission of a consistency determination for the **Fire Island to Montauk Point (FIMP)** General Reevaluation Report (GRR) and Environmental Impact Statement (EIS), and Final Monitoring and Adaptive Management Plan. Atlantic Ocean, South Shore of Long Island from Fire Island Inlet to Montauk Point, Suffolk County.
Concurrence with Consistency Determination - With Recommendations

Dear Mr. Weppler:

The Department of State (Department) has completed its review of your consistency determination regarding the consistency of the above-referenced activity with the New York Coastal Management Program.

Pursuant to 15 CFR §930.41, and based upon the project information submitted, the Department of State concurs with your consistency determination for this activity. This concurrence is without prejudice to and does not obviate the need to obtain all other applicable licenses, permits, or other forms of authorization or approval that may be required pursuant to existing State statutes.

The Department would also like to offer the following recommendation regarding the consistency of this proposal: Considering that the FIMP GRR and EIS have yet to be finalized and individual project components are still under development, it is strongly recommended that coordination with the Department of State, the Local Waterfront Revitalization Program communities of Village of Ocean Beach and Town of East Hampton, and all federal and non-federal sponsors continue as the details of this project are developed and finalized to ensure continued consistency with the New York State Coastal Management Program and applicable LWRPs. Also, please note that for proposed Federal agency activities that were previously determined by the Department to be consistent with the management program, but which have not yet begun, the Corps shall further coordinate with the Department and prepare a supplemental consistency determination if the proposed activity will affect any coastal use or resource substantially different than originally described.[1]

[1] See 15 CFR § 930.46. Substantially different coastal effects are reasonably foreseeable if:
(1) The Federal agency makes substantial changes in the proposed activity that are relevant to management program enforceable policies; or
(2) There are significant new circumstances or information relevant to the proposed activity and the proposed activity's effect on any coastal use or resource.
(3) Substantial changes were made to the activity during the period of the State agency's initial review and the State agency did not receive notice of the substantial changes during its review period, and these changes are relevant to management program enforceable policies and/or affect coastal uses or resources.

Please contact Matthew Maraglio at: Matthew.Maraglio@dos.ny.gov or 518-474-6000 if you have any questions, and please reference file no. F-2019-0129 (DA).

Sincerely,

Gregory L. Capobianco
Office of Planning, Development and
Community Infrastructure

GLC/jls

ecc: COE/NY District Regulatory – Steve Ryba
DEC (CEHA) Central Office – Matthew Chlebus
DEC Region 1 Permits – Sue Ackerman
Suffolk County Planning - Sarah Lansdale, Robert Whelan
Town of East Hampton – Brian Frank
East Hampton Town Trustees
Village of Ocean Beach - Steven W. Brautigam
NYS DOS Local Programs – Kaitlyn Smith
NYS DOS South Shore Estuary Reserve – Jeremy Campbell

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

Environmental Analysis Branch

February 14, 2019

Mr. Matthew Maraglio
Consistency Review
NYS Department of State
Office of Planning, Development & Community Infrastructure
99 Washington Avenue
One Commerce Plaza - Suite 1010
Albany, New York 12231

Subject: Atlantic Coast of Long Island, Fire Island Inlet to Montauk Point (FIMP), New York Coastal Storm Risk Management Project, Coastal Zone Consistency Determination (CZM)

Mr. Maraglio:

The U.S. Army Corps of Engineers, New York District (District) is pleased to provide the final project description for the FIMP General Reevaluation Report (GRR) and Environmental Impact Statement (EIS) (Enclosure 1), the final Monitoring and Adaptive Management Plan (Enclosure 2), District's Final Coastal Zone Consistency Determination as well as local Waterfront Revitalization Program Policy Statements and Waterfront Assessment Forms (Enclosure 3) and District Final Responses to the New York State's comments (Enclosure 4) on the July 2016 Draft GRR and EIS received via letter dated October 28 2016.

The District, New York State Department of Environmental Conservation (NYSDEC) and local partners, and other agencies including the New York State Department of State (NYSDOS), have participated in extensive coordination to finalize the project description, in particular the details of the Coastal Process Features (CPFs) which are designed to achieve no net loss of sediment into the back bay system as part of the mutually acceptable plan as well as for compliance with Section 7 of the Endangered Species Act by creating early successional habitat for piping plovers (*Charadrius melodus*).

The following updates have been made to the project based on the extensive sponsor, local partner, resource agency and public coordination since the release of the July 2016 Draft GRR and EIS:

1. Updated sand quantities in tables and text
2. Additional language regarding "no net loss" of sediment (how to achieve the goal of approximately 4.2 million cubic yards of sand)
3. Additional section on proactive breach response triggers (ex: Southampton transitioned from Proactive to Reactive for Real Estate purposes)

4. Updated discussion of Downtown Montauk related to beach nourishment
5. Additional language describing that vacant land will be acquired as part of mainland nonstructural plan
6. Updated description of current list of CPFs, including renumbering sites and the removal of sites that do not have landowner support and are no longer included (Cupsogue, Sunken Forest, Point of Woods, Carrington, Regan Property)
7. Incorporated an updated CPF table with quantities to achieve the approximate 4.2 MCY. The quantity in the table alone will not achieve the 4.2 MCY quantity and therefore Adaptive Management will be utilized to reach the overall total
8. Included a description of mainland CPF's.

The District has carefully considered and responded to all New York State comments (Enclosure 4) and has incorporated the comments where appropriate in the GRR and EIS. These documents will be available in mid-February for each agency to back check and then finalize their respective environmental coordination. The District requests that NYSDOS please provide concurrence on the District's CZM Determination no later than April 15, 2019 in order to be included in the Final EIS and maintain the overall project schedule for project approval

The District looks forward to working with your office to complete the Feasibility phase and throughout the Pre-Engineering and Design and Construction phases and thanks you for your continued assistance and input to this process which helps to advance the execution of this regionally-significant project.

If you require any additional information, please feel free to contact Mr. Robert Smith, Project Biologist at 917-790-8726.

Sincerely,

Peter Weppler
Chief, Environmental section

Enclosure 1 FIMP Final Project Description
Enclosure 2 FIMP Final Monitoring and Adaptive Management Plan
Enclosure 3 Final Coastal Zone Consistency Determination
Enclosure 4 District Response to NYS comments on July 2016 Draft GRR and EIS

cc: Town of East Hampton-Frank
Village of Ocean Beach-Brautigam

NEW YORK STATE DEPARTMENT OF
STATE COASTAL ZONE MANAGEMENT PROGRAM

Policy Statement Supplement to Federal Consistency Assessment Form

Project: Fire Island to Montauk Point (FIMP) Reformulation Project

Applicant: U.S. Army Corps of Engineers, New York District

Applicable Policies: In accordance with the Coastal Management Program (CMP) policies of New York State (NYDOS 2006), 26 policies were identified as potentially applicable to the proposed Project. These policies are presented below, followed by an explanation of Project consistency. Policies that are clearly not applicable are not discussed.

Policy 1 Restore, revitalize and redevelop deteriorated and underutilized waterfront areas for commercial, industrial, cultural, recreational and other compatible uses.

Determination – The New York District is proposing measures to provide shore protection and reduce storm damage reduction for the south shore of Long Island, New York, from Fire Island to Montauk Point. The majority of Fire Island lies within the legislative boundaries of the Fire Island National Seashore (FIIS). The study area includes the barrier island chain from Fire Island Inlet to Southampton inclusive of the Atlantic Ocean shorelines, and adjacent back-bay areas along Great South, Moriches, and Shinnecock Bays. The study area also includes portions of the Towns of Babylon, Islip, Brookhaven, Southampton and Easthampton, as well as 12 incorporated Villages, the entirety of FIIS, the Poospatuck Indian Reservation, and the Shinnecock Indian Reservation. The area/land supports a variety of commercial, industrial, cultural, recreational and other compatible uses. The Project will help to stabilize the south shore of Long Island, protecting it from storm damage, and protecting these uses. The without Project condition would eventually impact commercial, industrial, cultural, recreational and other compatible uses. CENAN has determined that the Recommended Plan would be consistent with, and would advance, this policy.

Policy 2 Facilitate the siting of water dependent uses and facilities on or adjacent to coastal waters.

Determination – The Project area supports a variety of public recreational activities. Numerous water dependent uses, such as marinas, beaches, parks and small business which support the summer tourism industry are located within the Project area. The Project will help to stabilize the south shore of Long Island, protecting it from storm damage, and protecting these uses. The without Project condition would eventually impact public recreational activities. CENAN has determined that the Recommended Plan would be consistent with, and would advance, this policy.

Policy 4 Strengthen the economic base by encouraging the development and enhancement of those traditional uses and activities that have provided such areas with their unique maritime identity.

Determination – The Recommended Plan would insure that traditional uses of the south shore of Long Island would be enhanced and preserved. The Recommended Plan would stabilize the shoreline and manage the risk from coastal storm damage to the surrounding area, thus encouraging the development and enhancement of those traditional uses and activities that have provided the Project area with its unique maritime identity. Therefore, the District has determined that the Recommended Plan would be consistent with this policy.

Policy 5 Encourage the location of development in areas where public services and facilities essential to such development are adequate.

Determination – The Recommended Plan would manage the risk of coastal storm damage to existing infrastructure along the south shore of Long Island from hurricane and storm surge flooding. Risk management would provide stability and enhancement to existing and future development Projects. The without Project condition would eventually impact development as contractors would be hesitant to develop in an unstable, unprotected environment. Therefore, CENAN has determined that the Recommended Plan would be consistent with this policy.

Policy 7 Significant coastal fish and wildlife habitat will be protected, preserved, and where practicable, restored so as to maintain their viability as habitats.

Determination - All of Great South Bay and many adjoining marshes and natural areas are designated as Significant Coastal Fish and Wildlife Habitat (SCFWH). Policy 7 states that filling of shallows, grading, shoreline alteration and dredging are among generic activities most likely to affect protected habitats. These activities are integral to the proposed Project which consists of dredging sand from offshore borrow areas for placement on the Atlantic shoreline of Fire Island to create enhanced beach area and dunes for coastal storm risk management. No dredging will occur within State-designated SCFWH. No filling or grading will occur within marshes or wetlands; beach and dune fill will be focused on the Atlantic shoreline; material placement on the bay side of the barrier island would reestablish coastal processes associated with breaching and overwash.. Fill placement along the Atlantic shoreline of Fire Island in the Project area will create wider beaches and dunes to minimize breaching and overwashing. The Coastal Process Feature (CPF) aspects of the Recommended Plan would offset the corresponding reduction in early successional sandy habitat to yield no net loss of habitat for sensitive species. There will be no change in existing tidal exchange patterns, only a continuation of the non-storm induced conditions.

A comprehensive assessment of potential Project impacts to threatened and endangered species and habitats was conducted and is presented in Chapter 4 of the Environmental Impact Statement (EIS) prepared for the Project and the Biological Assessment (BA) (see Appendix B). The proposed activities would be undertaken in a manner consistent with this policy.

Policy 8 Protect fish and wildlife resources in the coastal area from the introduction of hazardous wastes and other pollutants which bio-accumulate in the food chain or which cause significant sub-lethal or lethal effect on those resources.

Determination – The material that may be obtained from the offshore borrow areas, consists primarily of clean, coarse-grained sand. The material that would be dredged and used for beach nourishment on the down drift beaches would not contain hazardous wastes or other pollutants that would bio-accumulate in the food chain or cause significant sub-lethal or lethal effects on those resources. Sediment re-suspension is likely to cause temporary increases in turbidity; however, these increases would be limited in duration and spatial extent and are not expected to significantly affect fish or aquatic wildlife in the Project areas. The proposed activities would not adversely affect fish and wildlife resources and would be undertaken in a manner consistent with this policy.

Policy 12 Activities or development in the coastal area will be undertaken so as to minimize damage to natural resources and property from flooding and erosion by protecting natural protective features including beaches, dunes, barrier islands and bluffs.

Determination – The Long Island south shore barriers, inlets, and associated beaches, dunes, and nearshore areas are natural "defenses" that help preserve coastal lands and property from damage and reduce the danger to resources and property resulting from flooding and erosion. The proposed activities would be conducted in the inlets, mainland (10-year floodplain non-structural building retrofits, floodproofing, relocation, and acquisition, and road raising in 4 locations), and barrier islands. These properties and their associated coastal processes ordinarily provide varying levels of risk management measures to the barrier island upland areas, the south shore bays, and Long Island south shore mainland. The purpose of the Project is to implement measures that will augment and restore the natural protective capabilities of the barrier islands, inlets, and mainland.

The nourishment of beaches and dunes with appropriate material is an allowable activity pursuant to the coastal erosion hazard area regulations contained in 6 NYCRR Part 505 (see also Policy 35), and is a non-structural erosion control measure preferred over structural measures by the State in its tidal wetlands, erosion hazards, and coastal management program statutes and regulations (see Policies 17, 35, and 44). Restoring the natural protective characteristics of the barrier island, inlets, and associated beaches, dunes, and nearshore areas (resulting in the protection of the barrier island itself, the bay-system and the mainland of Long Island) would be consistent with and further promote Policy 12, which is to minimize damage to natural resources and property by protecting the naturally occurring protective characteristics and the associated physical processes.

Policy 13 The construction or reconstruction of erosion protection structures shall be undertaken only if they have a reasonable probability of controlling erosion for at least thirty years as demonstrated in design or construction standards and or assured maintenance or replacement programs.

The proposed Project is a long-term (50-year) plan for storm damage reduction.

Policy 14 Activities and development, including the construction or reconstruction of erosion protection structures, shall be undertaken so that there will be no measurable increase in erosion or flooding at the site of such activities or development, or at other locations.

Determination – The proposed Project consists of beach fill, breach response plans, groin removal, inlet maintenance and sand bypassing, coastal process features (CPFs), and non-structural measures (10-year floodplain non-structural building retrofits, flood proofing, relocation, and acquisition,), as well as periodic renourishment for coastal storm risk management for the south shore of Long Island. No structures that would generate increases in erosion or flooding will be constructed. The Project is consistent with and would advance this policy.

Policy 15 Mining, excavation or dredging in coastal waters shall not significantly interfere with the natural coastal processes which supply beach materials to land adjacent to such waters and shall be undertaken in a manner which will not cause an increase in erosion of such land.

Determination – The Recommended Plan includes the removal of material from offshore borrow sources. The borrow areas are located more than 1 mile offshore, where excavation and dredging has been demonstrated to have a negligible impact on the nearshore coastal processes, and will not cause an increase in coastal erosion. Best management practices will be followed during all dredging activities and the proposed dredging depth in the borrow areas will not reduce the flow of sediments to adjacent areas. Coastal processes along the shoreline sand placement areas will not be interfered with as only natural sands will be placed; no structures or shoreline hardening is proposed. Monitoring and Adaptive Management will be conducted throughout the project 30 year life to confirm these expectations. The proposed activities are consistent with this policy.

Policy 16 Public funds shall only be used for erosion protective structures where necessary to protect human life, and new development which requires a location within or adjacent to an erosion hazard area to be able to function, or existing development; and only where the public benefits outweigh the long-term monetary and other costs including the potential for increasing erosion and adverse effects on natural protective features.

Determination – The Project will minimize breaching and overwashing of the barrier islands and is a necessary measure for storm damage reduction on the barrier islands as well as the south shore of Long Island. The Project will enhance and recreate natural protective features of the barrier islands through beach renourishment and berm construction and coastal process features. Benefits to the human and natural environments outweigh the expenditures of public funds. This has been demonstrated through the completion of a comprehensive economic assessment of the Reformulation Plan. The Project is consistent with this policy.

Policy 17 Non-structural measures to minimize damage to natural resources and property from flooding and erosion shall be used whenever possible.

Determination – The proposed use of suitable dredged sand for beach nourishment and dune creation is a non-structural measure. The beach nourishment minimizes damage to natural resources and property from flooding and erosion by strengthening natural protective characteristics and providing the sediments necessary for these characteristics to function (see also Policies 12 and 15). Non structural measures will also be utilized to protect buildings on the mainland. The policy explanation states that consistency with this policy requires the use of such non-structural measures when they are appropriate and available. The Project is consistent with this policy.

Policy 18 To safeguard the vital economic, social and environmental interests of the State and of its citizens, proposed major actions in the coastal area must give full consideration to those interests, and to the safeguards which the State has established to protect valuable coastal resource areas.

Determination – The Project will reduce the frequency and degree of breaches and overwashes of the barrier islands and mainland and thereby afford coastal storm risk management to the barrier as well as communities on the south shore of Long Island. In addition, several of the inlets (such as Fire Island Inlet and Moriches Inlet) are regionally important navigation inlets that must be stabilized and maintained. The areas adjacent to the inlet support regionally important water-dependent and water-related uses, including commercial fishing and recreational boating facilities, public parklands, and other uses. The physical character of the barriers must be maintained to protect these uses.

The south shore of Long Island also supports a variety of public recreational and commercial activities. The south shore of Staten Island's coastline must be maintained to protect these uses. The without Project condition would eventually impact public recreational and commercial activities. The Project would provide coastal storm risk management to an important public recreational area and adjacent commercial and residential properties with minimal short-term impacts to economic, social, and environmental resources. Therefore, the District has determined that the Recommended Plan would be consistent with and advance this policy.

Policy 19 Protect, maintain, and increase the level and types of access to public water related recreation resources and facilities.

Determination – The beach areas in the proposed Project area support a variety of public recreational activities (see also Policies 18 and 20). The Recommended Plan would result in positive impacts on recreation as a result of better coastal storm risk management in the Project area. The without Project alternative would result in increased flood risks and increased erosion, thereby decreasing recreational potential in the area.

Buffer areas approximately 1,000 feet in length will be closed during construction activities for safety reasons. Although a reduction in public access to the work site during construction would occur, this impact would be temporary. As beach placement activities are completed within each 1,000-foot compartment, the buffer is shifted accordingly. Public use of the beach area would be restored at that time. The proposed activities would be undertaken in a manner consistent with this policy. Also, over the 50-year Project life the proposed activities would advance the policy to protect, maintain, and increase public access to and use of public water-related recreation resources and facilities.

Policy 20 Access to publicly-owned foreshore and to lands immediately adjacent to the foreshore or the water's edge that are publicly-owned shall be provided and it shall be provided in a manner compatible with adjoining uses.

Determination – Many of the lands and waters adjacent to and at the sites of the proposed activities are publicly-owned and accessible underwater lands and parklands that support a variety of public uses are present in the area (see also Policies 18 and 19). Based on the Policy 19 analysis above, the proposed activities would be undertaken in a manner consistent with and would advance this policy.

Policy 21 Water dependent and water enhanced recreation will be encouraged and facilitated, and will be given priority over non-water-related uses along the coast.

Determination – Many of the lands and waters within the Project area are publicly-owned and currently support a variety of public water dependent uses such as fishing, boating and beaching. The Project will protect and enhance these uses in the long-term, with only staggered short-term loss of use during construction, as described under Policy 19. The proposed Project is consistent with and will advance this policy.

Policy 22 Development when located adjacent to the shore will provide for water-related recreation whenever such use is compatible with reasonably anticipated demand for such activities, and is compatible with the primary purpose of the development.

Determination – The Project is not "development" per se, but is a coastal storm risk management measure. Water-related recreation is a primary land use in the Project area and will remain as such. The Project will protect and enhance these water-dependent recreational uses in the long-term, with only staggered short-term loss of use during construction, as described under Policy 19. The proposed Project is consistent with and will advance this policy.

Policy 23 Protect, enhance and restore structures, districts, areas or sites that are of significance in the history, architecture, archeology or culture of the State, its communities, or the Nation.

Determination – The Fire Island Light Station (Town of Islip) and the Beach Road Historic District (Village of Southampton) are the only properties within the study area that are listed on the National Register. A number of other structures, each more than 50 years of age, which may possess the requisite characteristics and integrity to be eligible for the National Register are visible from the beach (JMA 2000), including: the Robert Moses State Park Tower; the former Point O' Woods Life Saving Station (presently the Fire Island Hotel and Resort), and houses in various communities in the study area (see Table 3.10-1 of the EIS). The Project will afford additional coastal storm risk management to existing properties on the National Register, as well as the other identified structures. The Project will not affect archaeological site or marine resources, such as shipwrecks. The Project will protect cultural resources and is consistent with this policy.

Policy 24 Prevent impairment of scenic resources of statewide significance.

Determination – Portions of East Hampton have been designated as scenic resources of statewide significance (NYSDOS 2010). Although some of these portions of East Hampton are within the Project area, CENAN is not proposing any actions in these areas that will impact these scenic resources of statewide significance. Consequently, the Project will not impair scenic resources of statewide significance.

Policy 25 Protect, restore, or enhance natural and man-made resources which are not identified as being of statewide significance, but which contribute to the overall scenic quality of the coastal area.

Determination – Implementation of the Recommended Plan would require the use of large construction equipment, such as dredge barges and excavators that would visually interrupt the natural landscape during construction activities. These short-term impacts would be similar to visual impacts that currently occur and would not be significant. Long-term, the Recommended Plan would reduce the impacts from storm and flooding events that may cause significant erosion or breaching of beaches, dunes, and shorelines. By reducing these types of impacts, the Recommended Plan will contribute positively to the overall scenic quality of the coastal area.

Policy 30 Municipal, industrial, and commercial discharge of pollutants, including but not limited to, toxic and hazardous substances, into coastal waters will conform to State and National water quality standards.

Determination – The Project will not discharge pollutants. The Project is likely to result in sediment re-suspension and associated increases in turbidity during dredging in the borrow areas and during sand placement along the shoreline. These turbidity increases will be temporary and will not result in a violation of this policy.

Policy 35 Dredging and dredge spoil disposal in coastal waters will be undertaken in a manner that meets existing State dredging permit requirements and protects significant fish and wildlife habitats, scenic resources, natural protective features, important agricultural lands and wetlands.

The proposed dredging of clean, relatively coarse-grained accumulated sand from offshore borrow areas will not adversely affect significant coastal fish and wildlife habitats (see Policy 7), natural protective characteristics (see Policies 12, 14, 15, 17, and 18), or wetlands (see Policy 44).

The proposed dredging activities would take place in waters greater than 6 feet deep, and are therefore not required to meet the regulatory standards contained in the State's tidal wetlands land use regulations in 6 NYCRR Part 661. However, the use of the dredged material for beach nourishment in the areas adjacent to the Atlantic Ocean tidal wetland littoral zone would require a tidal wetlands permit (see Policy 44). The sand placement area is within state designated significant fish and wildlife habitats. The State tidal wetlands regulations in 6 NYCRR Part 661 indicate that the use of the dredge material for beach nourishment in an area adjacent to tidal wetlands is a generally compatible use; however, such a use is dependent on several character and resource values and the effects of such nourishment and its associated dredged materials might have on intertidal wetlands and adjacent areas. The material to be dredged and used to nourish the beaches is compatible with the material currently on the beaches. The nourishment of beaches and dunes where necessary and appropriate is an activity that may be authorized pursuant to the coastal erosion hazard area regulations in 6 NYCRR Part 505 (see also Policy 12).

The Project will be implemented in such a manner as to avoid adverse impacts to these habitats during construction to the extent practicable. Along with the twelve barrier island CPF sites that will serve to reestablish coastal processes and create bayside early successional habitat, long-term benefits to significant fish and wildlife habitats are anticipated as the placement of the beach fill would lead to larger and wider beach areas that could be used for breeding and nesting by shorebirds.

There is an overriding need to maintain the physical character of the barrier island and its associated natural protective characteristics, as well as the natural resource values of these characteristics. An EIS has been prepared for the Project which details the potential impacts to natural and cultural resources. In addition, all required permits, such as a NYSDEC Tidal Wetlands Permit, Section 401 Water Quality Certificate, Clean Water Act Section 404 permit, will be acquired and all permit conditions will be complied with.

Consultation and coordination with State and Federal resource agencies (US Fish &Wildlife Service, NOAA Fisheries, National Park Service and State Natural Resource agencies) will be conducted and species specific seasonal restrictions and mitigation measures will be put in place. The proposed activities will be conducted in a manner consistent with this policy.

Policy 38 <u>The quality and quantity of surface water and groundwater supplies will be conserved and protected, particularly where such waters constitute the primary or sole source of water supply.</u>

Determination – The Project will not affect water supply sources. Temporary increases in turbidity may occur during dredging and sand placement activities; however, these will be limited to construction periods and will be limited in spatial extent and duration. Best management practices will be implemented to minimize impacts. The Project is consistent with this policy.

Policy 41 Land use or development in the coastal area will not cause national or State air quality standards to be violated.

Determination – The Project will result in mobile air emissions sources during construction only. No stationary sources are proposed. A conformity analysis is being conducted for the Project and any required mitigation measures to offset temporary emissions increases will be implemented. A detailed air impact analysis is included with the EIS prepared for the Recommended Plan. The Project is consistent with this policy.

Policy 43 Land use or development in the coastal area must not cause the generation of significant amounts of the acid rain precursors: nitrates and sulfates.

Determination – Refer to the response to Policy 41; the Project is consistent with this policy.

Policy 44 Preserve and protect tidal and freshwater wetlands and preserve the benefits derived from these areas.

Determination – As demonstrated above in the Policy 35 analysis, the proposed activities would take place areas adjacent to the Atlantic Ocean littoral zone and intertidal wetland areas. The proposed activities are compatible uses according to the tidal wetlands land use regulations in 6 NYCRR Part 661. The proposed activities include one of the preferred non-structural erosion control measures identified in the State erosion hazard area regulations, the Coastal Policies contained in the State's Coastal Management Program document, the State tidal wetlands land use regulations, and Article 42 of the Executive Law and its implementing regulations in 19 NYCRR Part 600. The beach nourishment activities will result in physical changes to the intertidal area that will adversely affect some invertebrates at the site of the beach nourishment activities while the Project is being undertaken (see Policy 35 analysis). However, these adverse effects would not be significant, would be temporary, and would not result in significant adverse effects nor significantly impair the benefits derived from the tidal wetland areas. The barrier island bayside CPFs would also result in placement of material into estuarine littoral zone wetlands; placement would avoid vegetated wetlands and SAV and would serve to reestablish coastal processes and benefits to the ecosystem associated with breaches and overwashing. The proposed activities would be undertaken in a manner consistent with this policy.

References

JMA 2000 — John Milner Associates, Inc. (JMA). 2000. Cultural Resources Baseline Study Fire Island Inlet to Montauk Point. Suffolk County, New York Reformulation Study. Prepared for The Greeley-Polhemus Group and the U.S. Army Corps of Engineers New York District.

NYSDOS 2006 — New York State Department of State (NYSDOS). "Coastal Management Program, State Coastal Policies (Including Program changes from 1982-2006)." 2006.

NYSDOS 2010 — NYSDOS, Division of Coastal Resources. "East Hampton Scenic Areas of Statewide Significance." January 2010.

FIRE ISLAND TO MONTAUK POINT, NY COASTAL STORM RISK MANAGEMENT STUDY - DRAFT GENERAL REEVAULATION REPORT AND DRAFT ENVIRONMENTAL IMPACT STATEMENT (JULY 2016)

This document presents a summary of NYS' review comments for the subject reports, and the USACE's response to comments.
NYS' comments were documented in an October 28, 2016 letter from Mr. Alan A. Fuchs, P.E. (Director, NYSDEC Bureau of Flood Protection and Dam Safety) to Mr. Robert Smith (Planning Division, USACE New York District).
The comments in the letter and this document are organized by NYS Office: NYSDEC and NYSDOS.
Comments are abridged for clarity and space. Comment ID numbers were assigned by USACE in order to organize this document.
Referenced page numbers are those from either NYS' letter, or the USACE's reports.

Key to Terms

BLC = baseline condition. BRP = breach response plan. CEHA = Coastal Erosion Hazard Area. DEC = New York State Department of Environmental Conservation. DOS = New York State Department of State. FEIS = Final Environmental Impact Statement.
FEMA = Federal Emergency Management Agency. FGRR = Final General Reevaluation Report. FIMI = Fire Island to Moriches Inlet. FVC = future vulnerable condition. LWRP = Local Waterfront Revitalization Programs. NYS = New York State.
NYS CMP = NYS Coastal Management Program. NYSDEC = New York State Department of Environmental Conservation. NYSDOS = New York State Department of State. OMRR&R = Operation, Maintenance, Repair, Replacement and Rehabilitation.
TSP = Tenatively Selected Plan. USACE = U.S. Army Corps of Engineers. PED = Pre-construction Engineering Design. USGS = U.S. Geological Survey. WQC = water quality certificate. WOSI = West of Shinnecock Inlet.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDEC				
NYSDEC 001	General		Coastal Process Features	The plans for the Coastal Process Features have been revised based on extensive coordination with NYS, DOI, and other partners. The FGRR and FEIS include updated descriptions of the plan.
NYSDEC 002	General		Sunken Forest Bay Shoreline Process Restoration	
NYSDEC 003	General		Reagan Property	
NYSDEC 004	General		Great Gun Wetland Restoration	
NYSDEC 005	General		Tiana Marsh Restoration, Upland Enhancement and SAV	
NYSDEC 006	General		WOSI Bay Shoreline and Wetland Restoration	
NYSDEC 007	General		Atlantique	
			Bay Side of Barrier Islands in Great South Bay	
NYSDEC 008	General		Robert Moses State Park- To offset the impact of the loss of overwash habitat at the Lighthouse Tract, enhance shorebird habitat at Democrat Point by establishing a better, more reliable connection between the existing tidal pond just west of the jetty and Fire Island Inlet. The minimization of dune height at the Lighthouse Tract is not a sufficient offset for the loss of overwash habitat which will result from the project	
NYSDEC 009	General		Robert Moses State Park - Landward of Field 5. In order to compensate for the loss of cross island and other coastal process features which will occur as a result of the proposed beach fill, remove Phragmites and restore Spartina sp. in the tidal marsh which exists in the northern portion of the barrier island at this location. Re-establishing a fully functioning tidal marsh will provide coastal storm risk reduction benefits.	
NYSDEC 010	General		Village of Saltaire - Clam Pond should be included in the report for further evaluation and potential inclusion in the subset of appropriate sites chosen to move forward for design consideration.	
NYSDEC 011	General		Carrington Tract - Bay Shoreline Between Cherry Grove & Fire Island Pines should be included in the report for further evaluation and potential inclusion in the subset of appropriate sites chosen to move forward for design consideration.	
NYSDEC 012	General		Bay Shoreline Between Regan Property & Talisman Beach should be included in the report for further evaluation and potential inclusion in the subset of appropriate sites chosen to move forward for design consideration.	
NYSDEC 013	General		Talisman Beach should be included in the report for further evaluation and potential inclusion in the subset of appropriate sites chosen to move forward for design consideration.	
NYSDEC 014	General		Point 'O Woods should be included in the report for further evaluation and potential inclusion in the subset of appropriate sites chosen to move forward for design consideration.	
			Great South Bay wetland properties on mainland in towns of Islip and Brookhaven	
NYSDEC 015	General		Islip Meadows (USACE Identifier T-22) should be considered for nonstructural acquisition, structure removal, and subsequent wetland restoration (Why was this site removed from the report?)	
NYSDEC 016	General		Timber Point Tidal Wetland should be considered for nonstructural acquisition, structure removal, and subsequent wetland restoration.	
NYSDEC 017	General		Pepperidge Hall Tidal Wetland site should be considered for nonstructural acquisition, structure removal, and subsequent wetland restoration.	
NYSDEC 018	General		Bellport Bay Tidal Wetlands should be considered for nonstructural acquisition, structure removal, and subsequent wetland restoration.	
NYSDEC 019	General		Fireplace Neck Tidal Wetlands should be considered for nonstructural acquisition, structure removal, and subsequent wetland restoration.	

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
			Great South Bay Islands	
NYSDEC 020	General		Why was John Boyle Island (USACE Designator T-11) removed from the report? DEC believes this site should be considered as a potential site for modification/enhancement to provide habitat for several types of sensitive bird-species. This could include roosting/rookery habitat for wading birds; sparsely vegetated, sandy areas for tern species and expanded tidal flat habitat to benefit multiple species.	
			Moriches bay - Barrier Island Bayside shoreline	
NYSDEC 021	General		Smith Point County Park - In the area west of the existing dredged material disposal site and near West Inlet and New Made Islands, evaluate the potential and feasibility of restoring the extensive, mosquito-ditched tidal marsh to offset the loss of coastal processes such as overwash and cross island sand movement which will occur due to the FIMP beach fill. This will enhance the resiliency of the marsh and this section of the barrier island.	
NYSDEC 022	General		Spit at Westhampton. Real estate-related legal issues will prevent FIMP-related activities from being developed here at this time.	
NYSDEC 023	General		Bayside of Cupsogue Beach County Park should be included in the report for further evaluation (plovers?) and potential inclusion in the subset of appropriate sites chosen to move forward for design consideration.	
			Moriches Bay - Mainland Bayside shoreline	
NYSDEC 024	General		Coastal process restoration may also be done on the mainland in this area in conjunction with the 4,100 homes which will be elevated as part of the FIMP action. As mentioned above, functioning tidal marshes can provide significant coastal storm risk reduction capacity. Acquisition of Certain Mainland Properties (Southeast corner of Mastic peninsula; mouth of Forge River) The acquisition of homes in very low density areas in proximity to significant marsh areas should be explored because such situations provide the opportunity for the restoration, expansion or sea-level-rise-related migration of large tracts of wetland with the minimal effort of removing a few houses and simple roads.	
			Moriches Bay Islands	
NYSDEC 025	General		New Made Island. This island is in close proximity to Smith Point County Park, which received extensive beachfill via the Fire Island to Moriches Inlet (FIMI) project and is proposed to continue to receive beachfill as needed for 30 years under FIMP. This island appears to have the potential to be relatively easily modified to improve its habitat potential for such listed species as least terns and potentially other listed shorebirds which may not be benefitting from the large scale beachfill taking place on the barrier island.	
NYSDEC 026	General			
			Shinnecock Bay - Bayside of Barrier Islands	
NYSDEC 027	General		Overwash Fan at Mermaid Lane. This site should be investigated to determine the feasibility of filling the relic dredged channel to match the bathymetry of the surrounding, undisturbed areas as a way of improving the stability of the barrier island and potentially developing an overwash feature or wetland.	
NYSDEC 028	General		The East Quogue Overwash should be evaluated for potential inclusion in the subset of appropriate sites chosen to move forward for design consideration.	
NYSDEC 029	General		The Overwash Site Immediately East of Tiana Pavilion Parking Lot should be evaluated for potential inclusion in the subset of appropriate sites chosen to move forward for design consideration.	
NYSDEC 030	General		Ocean Beach Between Roads K & L should be included in the report for further evaluation and potential inclusion in the subset of appropriate sites chosen to move forward for design consideration.	
			Shinnecock Bay - Islands	
NYSDEC 031	General		Evaluate the feasibility of modifying one or more of the Warner Islands to compensate for the barrier island processes interrupted by the project and to maintain and enhance habitat for endangered and threatened species of shorebirds.	
NYSDEC 032	General		Water quality is integral to habitat quality. Mainland house raising should provide for the ability to upgrade septic systems where appropriate. The elevation of upland housing provides the majority of the benefits for the FIMP project. How does the USACE propose to assure these benefits are acquired through the house raising program in FIMP?	

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
			Groin Modifications	
NYSDEC 033	General		Westhampton Groin Field DEC has no objection to the concept of the modification of this existing groin field. On beach construction work will be subject to the familiar April 1 through August 31 no work activity window to protect listed species of nesting shorebirds. The optimum work sequence from the coastal processes perspective should also be determined, IE: should the groin modification proceed from east to west, or from west to east?	Modification of the Westhampton groin field is no longer a feature of the Recommended Plan. The FGRR and FEIS include updated descriptions of the plan.
NYSDEC 034	General		Ocean Beach Groins. While DEC has no objection to the concept of the shortening of the Ocean Beach groins, there does not appear to be a compelling justification to remove them completely. This work will also be subject to the spring/summer no work window to protect shorebird nesting.	The full extent of modification and/or removal of the Ocean Beach groins will be determined in the project design phase. USACE will continue coordinating with NYS about this project feature. The FGRR and FEIS state that final design will be determined during Pre-construction Engineering Design, and that the project cost estimate assumes complete removal of the groins. USACE concurs that project construction may be subject to no-work windows to protect shorebird nesting.
NYSDEC 035	General		Georgica Groins. It does not appear that significant justification exists to remove these structures at this time.	Modification of the Georgica Pond groins is no longer a feature of the Recommended Plan. The FGRR and FEIS include updated descriptions of the plan.
			Inlet Modifications	
NYSDEC 036	General		DEC is concerned that ebb shoal dredging has the potential to impact the storm resiliency functions of downdrift areas by interrupting the movement of material in the littoral system. We suspect that the ebb shoal is the feature by which material from the updrift side of the inlet can bypass to the downdrift side. Using the ebb shoal as a borrow source will result in it behaving as a deposition basin. The impact of conducting such dredging has not been provided in any assessments provided to date. Before undertaking any actions to impact ebb shoal locations, USACE must model and provide data that evaluates the potential impact of such actions. In addition, any proposal to remove material from inlet ebb shoals must be preceded by complete benthic physical and biological characterizations of the proposed dredging area. If use of an ebb shoal is authorized, the Water Quality Certification will include requirements for post dredging physical and biological sampling and monitoring of the dredge area.	The purpose of dredging the ebb shoal is to restore littoral transport by placing sand that accumulate in the Inlet ebb shoals directly on the downdrift beach. USACE concurs with requirements for post-dredging physical and biological sampling if requested per Water Quality Certificate conditions. Further investigations of the impacts of ebb shoal dredging will take place during Pre-construction Engineering Design.
NYSDEC 037	General		What is the project life for the sediment bypass areas? Are they tied to the 30/50 year renourishment? Or are they tied to inlet navigation authorization to continue past year 30? Additionally, what happens if the volume of sand is inadequate the fill the sediment management areas to design? Will offshore or upland fill be used to fill in any shortfalls (both for initial construction and renourishment)?	Inlet bypassing from the navigation channel and ebb shoal is expected to take place during the entire 50 year period of analysis. While It is expected that a sufficient volume of sand is available from the navigation channels and ebb shoals for the needed inlet bypassing, offshore or upland fill will be used to meet any shortfalls. The FGRR and FEIS include text that clarifies this matter.
NYSDEC 038	General		Fire Island Inlet. Please note that the subaerial spit west of the Democrat Point jetty is prime piping plover habitat which cannot be disturbed or removed by dredging or related activities.	Dredging of the subaerial spit west of the Democrat Point jetty is not a feature of the Recommended Plan.
			Sediment Management	
NYSDEC 039	General		From a permitting perspective, DEC has no objection to the concept of sand placement at the Downtown Montauk or Sagaponack (Potato Road) sites to restore or enhance the movement of sand in the longshore transport system. The standard windows restricting on-beach work to protect nesting shorebirds will apply.	Sand placement at Sagaponack (Potato Road) is no longer a feature of the Recommended Plan. The FGRR and FEIS include updated descriptions of the plan. USACE acknowledges that the standing windows restricting on-beach work to protect nesting shorebirds will apply to the Montauk Beach sand placement action.
NYSDEC 040	General		From a logistical standpoint, DEC would like to understand the rational for choosing the Sagaponack site due to the anticipated high cost of real estate, and current existence of a private erosion control district	Sand placement at Sagaponack (Potato Road) is no longer a feature of the Recommended Plan. The FGRR and FEIS include updated descriptions of the plan.
			Traditional Dune & Beach Fill	
NYSDEC 041	General		DEC has already authorized the dune alignments for the three FIMI contract areas, so the landward toe or baseline of the fill areas are essentially fixed already. These locations are considerably landward of the pre-Sandy proposed alignment. Can the baseline be allowed to migrate landward in areas without infrastructure? In a scenario in which a major storm hits the area 15 to 16 years after FIMP is approved and implemented, will the green baseline depicted on the project map be moved landward?	In the major NPS Federal tracts (including the Otis Pike Wilderness area), the baseline would be allowed to migrate landward. Outside the Federal tracts, the established FIMP dune alignment will generally be maintained within the adaptive management framework detailed in FGRR Appendix J "Monitoring and Adaptive Management Plan." The FGRR includes information to clarify this point.
NYSDEC 042	General		The reports must spell out very clearly the beach/dune maintenance or restoration activities local interests/municipalities would be allowed to undertake on the beach with their own resources.	FGRR Appendix F "Real Estate Plan" and FGRR Appendix K "OMRR&R Requirements" specify the beach/dune maintenance or restoration activities that local interests/municipalities would be allowed to undertake on the beach with their own resources. The project OMRR&R manual will also include this information; it will be finalized during Pre-Construction Engineering Design. Project modifications can be requested post-construction and would be considered as part of a permit process.
NYSDEC 043	General		What level of protection do the three proposed cross-section templates provide? When (what frequency storm) would one expect some overwash to occur with each template?	The design alternatives were not specifically designed to provide a particular level of protection; instead, a reasonable range of alternatives were developed to provide a range of protection to allow for optimization. The life-cycle economics model is ultimately the tool which was used to identify the benefits afforded by the various alternatives now and in the future. That said, modeling results suggest that the Annual Exceedance Probability of overwash (defined as start of dune lowering) for the Small, Medium and Large beachfill templates would be approximately 0.2%, 0.1% and 0.03% along the barrier islands from Fire Island Inlet to Southhampton Beach.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDEC 044	General		A monitoring plan template for the offshore borrow areas was agreed upon, approved, and included in the WQCs for the FIMI, WOSI and Rockaway projects. Please provide the required post-dredging monitoring reports/assessments for these projects as soon as possible.	Post-dredging monitoring reports/ assessments for the FIMI, WOSI, and Rockaway projects will be provided under separate cover.
NYSDEC 045	General		Borrow area monitoring will be an essential requirement for the use of offshore borrow areas under the FIMP. We must have this information in order to assess impacts from the dredging on the biological and sediment resources of the borrow areas. Information such as pre and post dredging bathymetry, sedimentation rates and recovery rates along with a characterization of any changes to the benthic biota of the borrow sites after dredging should be provided. A borrow area monitoring plan which sets forth the above information for the proposed borrow sites and a selection of undredged control sites must be included in the final FIMP document. The plan must also speak to the necessity for final reporting with conclusions on the project's impact to borrow area resources. The post dredging study provided for one of the borrow areas used for WOSI described a completely different benthic community populating the borrow site. This demonstrates the importance of pre and post dredging monitoring.	FGRR Appendix J "Monitoring and Adaptive Management Plan" includes a description of borrow area monitoring requirements. The plan includes Information including pre- and post-dredging bathymetry, sedimentation rates, recovery rates, benthic community monitoring requirements.
			Mainland Nonstructural	
NYSDEC 046	General		The reports should recognize and note that every road raising undertaken as part of The FIMP essentially creates a small levy. What is the level of protection of the road raisings?	Road raisings are no longer a feature of the Recommended Plan. The FGRR and FEIS include updated descriptions of the plan.
NYSDEC 047	GRR,Formulation (Section C)	P.121	How were the floodplains used for the non-structural analysis determined? When was the data derived? Are the elevations stillwater or do they include wave runup? Do they include SLR? Will any additional analysis be done during PED to further refine the locations of buyouts?	The floodplains for the nonstructural analysis were determined by the modeled stillwater elevations, which has recently been updated and provides the basis for the revised recommended nonstructural plan. Since it is site specific, wave run-up was not considered in the stillwater elevation model. Sea level change was been included. Additional analysis to further refine the locations of buyouts will be completed during Pre-construction Engineering Design.
NYSDEC 048			The fill placement associated with the road raisings / levy construction has the potential to fill wetland areas. In such cases, the wetland fill will require mitigation.	Road raisings are no longer a feature of the Recommended Plan. The FGRR and FEIS include updated descriptions of the plan.
NYSDEC 049			One of the places where significant road elevation is proposed is Mastic Beach, a location containing extensive areas of both tidal and freshwater wetlands. The report should include an explanation of how the road elevation projects, through the placement of fill to create levees or berms, will affect the hydrology of the freshwater wetland areas "captured" within the limits of the berm areas. Will the freshwater wetlands survive as freshwater features, will they be converted to Phragmites-dominated basins, or somehow become tidally influenced?	Road raisings are no longer a feature of the Recommended Plan. The FGRR and FEIS include updated descriptions of the plan.
NYSDEC 050			How will stormwater drainage be handled in the areas circumscribed by the elevated roadways? Pump stations, other?	Road raisings are no longer a feature of the Recommended Plan. The FGRR and FEIS include updated descriptions of the plan.
NYSDEC 051			As proposed, FEMA will not remap the floodplain after the road raising work is completed. Homes protected by the elevated roads / levees will continue to be located in Zone AE and will not be eligible for the same flood insurance premium reduction available to homes which are elevated in the same AE Zone. Can the USACE design, construct, and provide the necessary analysis to FEMA to allow the road raisings to qualify for FEMA levee certification? This would remove the protected 1020 structures from the FP, eliminating the need for flood insurance.	Road raisings are no longer a feature of the Recommended Plan. The FGRR and FEIS include updated descriptions of the plan.
NYSDEC 052			There appear to be some locations where the acquisition of only a few properties in a very low density area would allow the removal of the buildings and the roadway servicing the parcels, providing the opportunity to expand the existing wetlands in the area or allow for their natural migration in response to sea level rise. There are locations, such as the southeastern corner of the Mastic peninsula and the mouth of the Forge River, where the acquisition of a few houses would allow for the connection of large tracts of wetland acreage which could provide substantial storm damage reduction for the nearby residential areas.	Consistent with the Assistant Secretary of the Army (Civil Works) policy waiver (October 11, 2017), buyouts in the Mastic peninsula are included in the Recommended Plan. The FGRR and FEIS include updated descriptions of the plan.
NYSDEC 053			Home raisings must include all associated work necessary to achieve a safe and sanitary condition. This includes sanitary hookups, state and local freeboard requirements, and any other items the construction might necessitate to get a certificate of occupancy.	USACE concurs and acknowledges that home elevations must include all associated work necessary to achieve a safe and sanitary condition. USACE will continue coordination with NYS, local municipalities, and homeowners to ensure compliance with safety standards that are required for a certificate of occupancy.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
			Breach Response Plan	
NYSDEC 054			The premise of the tentative federal selected plan (TSP) is that all breaches will be closed at some point, by either human action or nature. This approach is understood, but the timing of such should be more nuanced to include the ability to assess an open breach in the Otis Pike Wilderness or other large publicly owned tracts before the decision is taken as to when to actively close it. For example, the breach currently open at Old Inlet has not to date caused significant loss of life or property based on the storms experienced, and actually has been shown to be responsible for an improvement in overall water quality in eastern Great South Bay with associated positive effects on marine habitats and fishery resources. Based on the breach size and location it may be beneficial to monitor the breach over a longer period of time.	The primary reason that the current breach at Old Inlet has not caused significant loss of life or property is because the area has not been impacted by a major hurricane since Hurricane Sandy (2012). Modeling has shown that with the Old Inlet Breach open, additional flooding would occur that could exacerbate damages (see Appendix A Sub-Appendix 1 "Storm Surge Modeling Stage Frequency," Plates I-1 through I-27). Specifically, post-Hurricane Sandy numerical modeling efforts detailed in Appendix A Sub-Appendix 4 "Numerical Modeling of Breach Open at Old Inlet" show that although the breach open conditions at Old Inlet have a very small effect (up to 1 inch) on daily tidal fluctuations and small storm tides, they could have a large effect (up to 22 inches) on storm tides during severe hurricanes and nor'easters. USACE and partner agencies have a coordinated breach response process and the identification of a Bayesian protocol as a means to satisfy multiple agency priorities. The process was proposed and agreed upon in concept in several working level meetings. The USACE anticipates further development in Pre-construction Engineering Design, and anticipates a collaborative approach to identifying the substantive detail. Participants from DOI have been in general agreement with this approach in these workshops. USACE and DOI have identified the need for separate contingency criteria for the Otis Pike Wilderness Area versus other Federal tracts. The FGRR includes an updated description of the breach response plan.
NYSDEC 055			The wording of the Conditional Breach Response Plan should be corrected or clarified with regard to the conditions under which action will be taken to close an open breach. It should state that action will be taken if the breach is not closing naturally within 45 days of opening or modeling indicates the breach will not close.	The FGRR, FEIS, and their appendices clarify the wording for each of the four breach response plans: Proactive, Reactive, Conditional and Wildness Response Plans. The FGRR includes a table that identifies the applicable breach response plan for each project reach. For areas identified for Conditional breach closure, the Breach Closure Team, which includes representatives from NPS, USACE, and USGS, would evaluate whether the breach is likely to close naturally, with action initiated by day 60 to close the beach if it has not closed naturally. For areas identified for "Wilderness" breach closure, the breach would only be closed if if is determined that leaving the breach open would have an significant adverse effect.
NYSDEC 056			The report indicates that the Proactive zone· of the Breach Response Plan is predicated on maintaining a 25 year level of protection. How will this 25 year level of protection be measured: shoreface damages only, or must the barrier island itself drop below the 25 year level before action is taken? According to the last bullet under "beach and dune fill", for years 31-50, any areas that had been renourished will be switched to proactive breach response. Please provide details on this. Does this mean that the dune height will be built back to +13 instead of +15? Does this include the sediment bypass and sediment management areas?	The FEIS includes a desription of the thresholds and methods used for determining project performance.
NYSDEC 057			Once a breach has been closed mechanically, what does it mean to 'maintain' the closure elevation to +9 feet? Is that a minimum elevation, a maximum elevation or both?	Breach closures in areas where beachfill is proposed will be maintained according to the corresponding beachfill design template. Breach closures in Conditional Breach Response areas will not be maintained. Breach closures in Proactive Breach Response areas would be maintained according to the Proactive Breach Response protocols. .
NYSDEC 058			Once it has been determined that a breach will be closed mechanically, can local interests, with their own resources (money), add additional sand or snow fence to try to increase ground elevations above the Breach Response Plan design template? The plan must be very explicit and clear in describing the types of activities state and local entities can undertake with their own funds on FIMP-breach closure sites.	Generally, state and local entities can undertake with their own funds on FIMP-breach closure sites if and as permitted by USACE and other agencies. All activities proposed by local interests would be considered as part of a permit process. FGRR Appendix K "OMRR&R Requirements" summarizes this point.
			Beyond Year 30	
NYSDEC 059			The TSP indicates that after year 30 the Traditional Beachfill component is discontinued, leaving only the Breach Response Plan (BRP). The rationale for the assignment of a particular reach of shoreline to one of the Proactive, Reactive or Conditional Response categories depends upon whether the BRP is, or isn't in effect along with Traditional Beachfill activities. The report fails to recognize or explain this distinction. For example; the infrastructure surrounding the pavilion in Smith Point County Park will receive a lower BRP level of protection than the undeveloped portion of the park serviced by Burma Road to the east. This only makes sense when the pavilion is receiving periodic traditional beachfill.	The FEIS includes a table that clarifies by sub-reach which actions are included in the initial construction, and also the specific lifecycle management for years 1-30 and 31-50.
NYSDEC 060			The plan must be very explicit and clear in describing the types of activities state and local entities can undertake with their own funds within the Project footprint after year 30. The report is unclear as to whether or not the TSP imposes a prohibition of beach fill by local efforts for the final 20 years of the project. For example, if the state and local agencies must strictly adhere to this plan, after year 30, Robert Moses State Park would have to allow much of its beach to erode away and stand by as the park is reduced to some critical level before action can be taken. Furthermore, since USACE projects are ineligible for FEMA disaster assistance, RMSP will no longer be able to seek disaster assistance funding from FEMA.	FGRR Appendix K "OMRR&R Requirements" includes a statement that local interests could supplement the beachfill, particularly after year 30, to maintain the design template. Such activities should be coordinated with the USACE and non-federal sponsor to ensure no violation of environmental regulations. Fill greater than the design template would be considered on a case by case basis and would be subject to the regulatory permit process. USACE will continue coordination with NYS and local municipalities about this matter.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDEC 061			The mainland Non-Structural program should be evaluated to determine if the proposed Breach Response Plan continues to provide sufficient risk reduction after year 30.	The plan for the mainland provides for coastal storm risk management for a total of 4,432 structures that are located within the existing 0.1% exceedance floodplain. Of these, 3,675 would be elevated, 650 would receive flood proofing, 93 would receive ringwalls, and 14 would be bought out. The FGRR and FEIS include updated descriptions of the plan.
NYSDEC 062			Stockpiles. The plan should consider the creation of strategically placed sand stockpiles throughout the project area to provide a material source for state and local entities to act in response to non-declared storm events.	The Recommended Plan does not currently include the creation of stockpiles, but assumes that sand could be trucked-in from available quarries. Historically, stockpiles have been constructed on an ad-hoc basis, but there have been limited opportunities given available real estate. Stockpiles could be considered during Pre-construction Engineering Design.
NYSDEC 063			Adaptive Management. Given the low level of detail included in the reports for most features and activities, the few recommendations for adaptive management we were able to develop have been incorporated into our comments under the previous sections.	Acknowledged. Please note that FGRR Appendix J "Monitoring and Adaptive Management Plan" includes an updated description of monitoring and adaptive management activities.
NYSDEC 064			Public Access Plan. The USACE needs to provide feedback on the public access plan submitted by NYDEC, and confirm that the plan meets USACE requirements for public access.	Acknowledged. Once all plan details have been finalized, the USACE will provide feedback on the Public Access Plan to ensure that it meets USACE requirements.
NYSDEC 065			Damages Summary. Executive Summary Page 6: The inclusion of this chart is confusing to include without also including more of the descriptions of the categories (Appendix D section 7.1), specifically the difference in tidal inundation and breach damages categories. At the least Appendix D should be referenced to provide additional information. The summary should also break out damages caused by backbay inundation by future breaches.	The referenced table has been revised to indicate the breakout of damage categories, future breaches, and references to Appendix D "Benefits."
NYSDEC 066			Project Area. What type of projects will local communities and residents be able to undertake within the project area following project completion (such as private beach nourishment projects)? This needs to be explicitly described in the GRR, along with what the process is for approvals.	FGRR Appendix K "OMRR&R Requirements" includes a statement that local interests could supplement the beachfill, particularly after year 30, to maintain the design template. Such activities should be coordinated with the USACE and non-federal sponsor to ensure no violation of environmental regulations. Fill greater than the design template would be considered on a case by case basis and would be subject to the regulatory permit process. USACE will continue coordination with NYS and local municipalities about this matter.
			Specific Comments - GRR	
NYSDEC 067	DGRR	ES P.18 Economics	Please provide definition of "fully funded".	"Fully funded" refers to the anticipated total project cost when taking into account future inflation. A footnote to be added defining "fully funded" in the FGRR Executive Summary.
NYSDEC 068	DGRR	ES P. 6, Tab. 1 .	Expected Average Annual Damages in Without Project Future Condition. The table presents $4,732,600 damage inundation from open Wilderness Breach, and $3,578,400 damage inundation from future breaches; less damages from future breaches than from the existing Wilderness Breach? What are the assumptions? The same comment on p. 15, Tab. 3 and p. 75, Tab. 25.	The Wilderness Breach breach is considered a permanent feature and impacts flood levels throughout the project lifecycle. Future breach damages are a comparatively infrequent occurrence and are limited to a 9-12 month duration. The short duration of future breaches relative to the permanent opening at the Wilderness Breach results in lower damages over the lifecycle. The FGRR includes a description of the assumptions used in this determination.
NYSDEC 069	DGRR	ES P. 6, Tab. 1	It reads that, "Tidal inundation occurring due to inlet conditions, wave setup, storm-related breaching and overwash in back bay is $115,398,800." Do we know what the tidal inundation is occurring due to breaching only? Do we know what the tidal inundation is occurring due to inlet condition only?	The impact and damages of a breach forming during a storm cannot be separated from other the impacts of overwash. Damages from a breach remaining open have been evaluated separately. The FGRR provides estimates for damages for flow through the inlet only (a no breach or overwash scenario).
NYSDEC 070	DGRR	ES P. 6, Tab. 1	Executive Summary Page 6: The inclusion of this chart is confusing to include without also including more of the descriptions of the categories (Appendix D section 7.1), specifically the difference in tidal inundation and breach damages categories. At the least Appendix D should be referenced to provide additional information. The summary should also break out damages caused by backbay inundation by future breaches.	The referenced table has been revised to indicate the breakout of damage categories, future breaches, and references to Appendix D "Benefits." In addition, text was added to clarify this matter.
NYSDEC 071	DGRR	ES P. 11,	Inlet Modifications (Continuation of authorized project+ ebb shoal dredging). Will the continuation of maintenance dredging of the authorized channel (that we have existing agreements for) be part of the FIMP project cost now or just the ebb shoal dredging?	While future maintenance dredging of the authorized channel is not a project cost, dredging of the authorized channel to the authorized depths and dredging of the ebb shoal is included in the initial project cost, since the area is being used as a borrow source The borrow source for future periodic nourishment/sand bypassing could come from a combination of the navigation channel, ebb shoal, or another borrow site.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDEC 072	DGRR	ES P. 12, Reactive Breach Response	Please add what elevation this provides.	The referenced table clarifies by sub-reach the specific plan for both the initial construction and actions to be undertaken over the project life cycle.
NYSDEC 073	DGRR	P. 20, Coastal Process Features	Coastal Process Features. What are the ramifications of inlet management now being considered as coastal process features? Does this have any impact on the funding available to complete other coastal process features?	The inlet management actions included as part of the Coastal Process Features would not have any impact on Federal funding available to construct other coastal process features.
NYSDEC 074	DGRR	P. 40, Closing Breaches	Closing Breaches. It reads that closure would take between 9 and 12 months, as was the case in 1980 and 1992. Was not the existing Breach Contingency Plan, 1996, developed to respond more quickly to any breaches (much quicker than closing the Westhampton breach) to avoid significant damages and additional cost for closure? The typical response was up to 11 months, so the Breach Contingency Plan called for up to 2.5 - 3 months (?).	Text in the FGRR clarifies that the 1996 Breach Contingency Plan is no longer applicable. The FGRR states that for the without-project condition, closure was estimated for 9-12 months. For the with-project condition, clssure was determined to take between 2.5 to 3 months.
NYSDEC 075	DGRR	P. 109,	What type of projects will local communities and residents be able to undertake within the project area following project completion (such as private beach nourishment projects)? This needs to be explicitly described in the GRR, along with what the process is for approvals.	The FGRR includes a statement that local interests could supplement the beachfill, particularly after year 30, to maintain the design template. Such activities should be coordinated with the USACE and non-federal sponsor to ensure no violation of environmental regulations. Fill greater than the design template would be considered on a case by case basis and would be subject to the regulatory permit process. USACE will continue coordination with NYS and local municipalities about this matter.
NYSDEC 076	DGRR	P. 109,	Barrier Island Breach Response, Proactive Breach Response. Please be clear that areas that will receive re-nourishment for 30-y, will receive Reactive Breach Response for 31 through 50 years, after re-nourishment will end.	The FEIS clarifies that areas that will receive renourishment for 30 years will receive Proactie Breach Response for 31 through 50 years, after re-nourishment is scheduled to end.
NYSDEC 077	DGRR	P. 112	Will the Cupsogue receive beach and dune fill, as the Westhampton Interim project area? There was a breach at Cupsogue in 2012 that was closed per existing Breach Contingency Plan to +9.5 ft (no dune allowed). The TSP calls for +15ft dune in this location, but Reactive Breach Response +9ft. - Is that correct?	The FEIS includes text summarizing that the Recommended Plan for Cupsogue Park area includes a 15 ft. dune and 9.5 ft berm, 30 years of periodic nourishment, and a proactive beach response after 30 years.
NYSDEC 078	DGRR	P. 113, Tab. 31	OK to locals putting fill on the beach within the design template and will be included in OMRR&R. However, please note that all activities that any local interests may conduct would be coordinated by the USACE prior to any implementation to ensure no violation of NEPA is recommended. Each activity would be reviewed on a case by case basis. All activities will be identified in the OMRR&R manual which will also be coordinated with the nonfederal sponsor and local interests. Fill greater than the design template would be considered on a case by case basis and may be subject for application for permit (408).	FGRR Appendix K "OMRR&R Requirements" includes a statement that local interests could supplement the beachfill, particularly after year 30, to maintain the design template. Such activities should be coordinated with the USACE and non-federal sponsor to ensure no violation of environmental regulations. Fill greater than the design template would be considered on a case by case basis and would be subject to the regulatory permit process. USACE will continue coordination with NYS and local municipalities about this matter.
NYSDEC 079	DGRR	P. 113, Tab. 31	Please revise "Contingent Breach Response" to "Conditional..." to be consistent throughout the Report.	The FGRR consistency uses the phrase "Conditional Breach Response."
NYSDEC 080	DGRR	P. 113, Tab. 31	It reads that Smith Point County Park West will receive beach, dune and re-nourishment. According to Fig. 22. Overall Plan, there will be no dune. Please clarify.	The referenced table clarifies that only a berm (no dune) will be provided in the Smith Point County Park West reach.
NYSDEC 081	DGRR	P. 113, Tab. 31	It reads that Sediment Management at Potato Rd and Montauk Beach will be for 50-years. - Is that correct?	The FEIS states that sediment management will be provided for Montauk Beach for 30 years after project construction. Action at Potato Road is no longer included in the Recommended Plan. The FGRR and FEIS include updated descriptions of the plan.
NYSDEC 082	DGRR		Will there be any Breach Response for Gilgo Beach?	The Recommended Plan does not include a breach response plan for Gilgo Beach.
NYSDEC 083	DGRR	P. 138, Borrow Area	It reads that NYSDEC will provide the USACE with authorization to use the Borrow Area as sand source through a New York State Department of Environmental Conservation Law Section 401 WQC. - How about the OGS permit for borrow area?	The FGRR clarifies that USACE will coordinate with NYSDEC about an OGS permit prior to construction.
			Engineering Appendix	
NYSDEC 084	Engineering	Section 4.6.5	Section 4.6.5 discusses the breach open condition, and states several instances where multiple breaches within the same reach cannot co-exist. How was this assumption developed? Did the analysis include the inlets?	Historical evidence, hydrodynamic modeling, and inlet/breach stability analyses do not support the existence of two breaches within the same reach. The tidal prism of one breach would become dominant, and the other breach would naturally close. Text has been included in FGRR Appendix A "Engineering" to explain why adjacent breaches would not remain.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDEC 085	Plates (Appendix A1)		Westhampton groins not shown on plans.	Modification of the Westhampton groins is no longer a features of the Recommended Plan. The FGRR and FEIS include updated descriptions of the plan.
NYSDEC 086	Plates (Appendix A1)		What proactive areas are getting sand during initial construction? These areas need to be identified on the plans, and included in the report (and exec. summary).	With recent construction of the FIMI project, it is assumed that the FIMI and Westhampton template (based on erosion rates and sediment modelling) are already at the FIMP template and won't require additional sand during initial construction. There are five proactive subreaches that are anticipated to receive sand during initial construction: Shinnecock Park West (2 locations), Sedge, Tiana, and WOSI. All proactive breach areas will be surveyed prior to initial nourishment. The FGRR includes information about sand nourishment areas during initial construction.
NYSDEC 087	Appendix D Benefits	P. 39, Tab. 16 Summary of Without Project Annual Damages	There is less inundation damage from future breaches versus an open breach at Wilderness Area. What are the assumptions?	The Wilderness Area breach is considered a permanent feature and impacts flood levels throughout the project lifecycle. The future breach damages are a comparatively infrequent occurrence and are limited to a 12 month duration. The short duration of future breaches relative to the permanent opening at Old Inlet results in lower damages over the lifecycle.
NYSDEC 088	Appendix D Benefits	P. 40	It reads that "The modified TSP includes +15 ft dune at Lighthouse Tract" According to Fig. 2. TSP from the GRR, there is only Proactive Breach Response proposed at the Lighthouse Tract. See below on p. 41, Proactive Breach Response- +13 ft. Please clarify.	FGRR Appendix D "Benefits" clarifies that Proactive Breach Response with 13 ft. dune (no planting) will be provided in the Lighthouse Tract.
NYSDEC 089	Appendix D Benefits	P. 41	It reads "Shortening of 1-15 groins at Westhampton", is that correct? In some portion of the Report it reads 1-13 groins.	Modification of the Westhampton groins is no longer a features of the Recommended Plan. The FGRR and FEIS include updated descriptions of the plan.
NYSDEC 090	Appendix D Benefits	P. 41	Need to add Reactive Breach Response to the Breach Response Plan. Is future re-nourishment included in the TSP for Potato Road and Montauk Beach?	Reference to Reactive Breach Response information is included in FGRR Appendix D "Benefits." The Recommended Plan for the Montauk Beach feeder beach provides for about 450,000 cy per 4-year renourishment cycle for 30 years. The feeder beach at Potato Road is no longer a feature of the Recommended Plan.
NYSDEC 091	Appendix D Benefits		Under Inlet Modification Plan (Continuation of authorized project + ebb shoal dredging), will the continuation of maintenance dredging of the authorized channel (that we have existing agreements for) be part of the FIMP project cost now/just the ebb shoal dredging?	Maintenance dredging of the authorized channel is not a feature of the Recommended Plan. However, dredging of the ebb shoal is a project feature. Some additional volume from the channel may be utilized for initial construction as a project cost. After initial construction, only ebb shoal dredging or dredging from the inlet in excess of amount needed for channel maintenance would be a project feature/cost. FGRR Appendix A "Engineering" (Table 7-9-3), and Table 35 of the FGRR main report now match the policy waiver approved by the Assistant Secretary of the Army (Civil Works) (October 11, 2017).
NYSDEC 092	Appendix D Benefits	P. 45	It may be good to revise "Responsive BRP" to "Reactive BRP" to stay consistent.	Reference to "Responsive BRP" has been revised to "Reactive BRP" in FGRR Appendix D "Benefits."
NYSDEC 093	Appendix D Benefits	P. 46, Tab. 18- Breach Closure Cost	Why closure cost is higher Without the Project versus With the Project? Will the breach be closed quicker with the Project versus per Breach Contingency Plan? Quicker than 3 months?	Breach Response Plans provide for rapid closure of breaches. With their absense in the future-without project condition, it is likely that closure would take at least 9-12 months to close because of the need to obtain funding and regulatory approvals. Because the breach is likely to grow bigger over time, it requires more quantities of sand to fill the breach and higher overall costs vs. in the with-project condition.
NYSDEC 094	Appendix I Physical Monitoring	P. I-2, Project Description	Report reads that the project has a planned re-nourishment life of 50 years. - This needs to be revised to "30-years".	The renourishment period is stated as 30 years in FGRR Appendix J "Monitoring and Adaptive Management Plan."
NYSDEC 095	Appendix I Physical Monitoring	P. I-2, Project Description	Modification of Westhampton groin field - Please add that the plan also includes modification to Ocean Beach groins.	Modification of the Westhampton groins is no longer a features of the Recommended Plan. The FGRR and FEIS include updated descriptions of the plan, including reference to modification/removal of the Ocean Beach groins.
NYSDEC 096	Appendix I Physical Monitoring	P. I-2	Report reads that "Interim sediment management projects have been initiated along Fire Island ... " - Please specify what projects have been initiated.	FGRR Appendix J "Monitoring and Adaptive Management Plan" includes a statement that the Fire Island to Moriches Inlet (FIMI) and Downtown Montauk stabilization projects have been initiated along Fire Island.
NYSDEC 097	Appendix I Physical Monitoring	P. I-3	Report reads under project layout that the beach fill plan will be maintained for 50-y? Does it mean that the project will be re-nourished for 50-years or required to be maintained for 50-y? Please clarify.	FGRR Appendix J "Monitoring and Adaptive Management Plan" clarifies that the renourishment period is 30 years, and the OMRR&R period is 50 years.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDEC 098	Appendix I Physical Monitoring	P. I-3, Breach Response Plan	Please list all three Breach Response Plans, provide description and breach closure templates for Reactive and Conditional Breach Response.	FGRR Appendix J "Monitoring and Adaptive Management Plan" includes a description and breach closure templates for Reactive and Conditional Breach Response plans.
NYSDEC 099	Appendix I Physical Monitoring	P. I-9, par. d. Groin Modification	Please add Ocean Beach groin Modification.	FGRR Appendix J "Monitoring and Adaptive Management Plan" includes reference to modification/removal of the Ocean Beach groins.
NYSDEC 100	Appendix I Physical Monitoring	P. I-13, Tab. D-1	The table includes 50-y re-nourishment. Please revise the renourishment cycle. It should only be 8, if nourishment will only be for 30-years.	The referenced table in FGRR Appendix J "Monitoring and Adaptive Management Plan" includes information about the 30 year period of renourishment, and additional monitoring actions requested by USGS. Certain monitoring will be required for 50 years, such as site visits, structure inspections, long range beach profiles, LIDAR surveys, overwash/breach bay profiles, post-storm LIDAR topography, web server maintenance, and data analysis. Breach Profiles and Post-storm LIDAR data collection has been increased to 5 rather than 4, since USACE projects 5 breaches will occur during the 50 year period (vs. 8 in the without-project condition).
NYSDEC 101	Appendix I Physical Monitoring	P. 1-15, Fig. D-1	Project Plan - Please replace with the most current plan.	FGRR Appendix J "Monitoring and Adaptive Management Plan" includes a description of the Recommended Plan.
NYSDEC 102	Appendix I Physical Monitoring	P. 1-21, Tab. DA-3	Beach Profile Inventory- Should not Gilgo Beach be included in the monitoring (beach profiles, shoreline change monitoring)?	Gilgo Beach receives by-passed sand under the Fire Island Inlet and Shores Westerly to Jones Inlet Beach Erosion Control and Navigation Project replenishment. When bypass sand placement is put at Gilgo Beach as part of the FIMP project, such placement will be monitored under the FIMP project.
NYSDEC 103	Appendix J Operation, Maintenance, Repair, Replacement and Rehabilitation	P. 1	Report reads "50-year nourishment life" - needs to revise to 30-y.	The renourishment period is stated as 30 years in FGRR Appendix K "OMRR&R Requirements."
NYSDEC 104	Appendix J Operation, Maintenance, Repair, Replacement and Rehabilitation	P. 2, Tab. 1	Initial Beachfill Quantities includes only initial fill volume at Fire Island. Should not this table include initial sand quantity for the entire project area?	Reference to initial beachfill quantities has been removed from FGRR Appendix K "OMRR&R Requirements." This information will be included in the OMRR&R manual, which will be developed in consultation with the project sponsor during Pre-construction Engineering Design. The OMRR&R Manual will be formally adopted upon completion of initial construction.
NYSDEC 105	Appendix J Operation, Maintenance, Repair, Replacement and Rehabilitation	P. 3, par. a	Report reads that Maintenance Repair, Replacement & Rehabilitation is grading and reshaping the beach using sand beyond the project design section. - What does that mean? Would this require bringing sand from outside of the project area? If so, who will be responsible for it? The USACE? On other projects, the locals are usually responsible only for grading and reshaping the beach to original elevation by bringing sand from areas of excessive accumulation to areas of depletion within the project area only. If sufficient accreted material beyond the design section is not available within the project limits, beach nourishment should be initiated, which is cost-shared between the partners. Please be clear about that in this paragraph. The same comment in the Westhampton Manual, p.4, par. a.	Information about federal and local responsibilities for grading and reshaping, and technical details about these actions will be included in the OMRR&R manual, which will be developed in consultation with the project sponsor during Pre-construction Engineering Design. The OMRR&R Manual will be formally adopted upon completion of initial construction.
NYSDEC 106	Appendix J Operation, Maintenance, Repair, Replacement and Rehabilitation	P. 4	It looks like Tab.3 includes re-nourishment quantities for 50-y project life. Please revise to reflect quantity for 30-y of re-nourishment.	Table 3 was removed from FGRR Appendix K "OMRR&R Requirements."

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDEC 107	Appendix J Operation, Maintenance, Repair, Replacement and Rehabilitation	P. 4	Report reads that "while reaches GSB-3A require initial fill, re-nourishment is not expected in the future" Is that correct? According to Fig. 2. TSP from GRR, it looks like this area will be included under re-nourishment. Please clarify.	The referenced statement has been removed from FGRR Appendix K "OMRR&R Requirements."
NYSDEC 108	Appendix J Operation, Maintenance, Repair, Replacement and Rehabilitation		Please specify what are the OMRR&R responsibilities for areas that will receive new beaches and dunes, sand from Inlet Management (sand bypassing); and Breach Response.	Information about federal and local responsibilities will be included in the OMRR&R manual, which will be developed in consultation with the project sponsor during Pre-construction Engineering Design. The OMRR&R Manual will be formally adopted upon completion of initial construction.
NYSDEC 109	Appendix J Operation, Maintenance, Repair, Replacement and Rehabilitation	P. 6, Tab. 4	Initial Dune Quantities includes sand quantities only for Fire Island. The table would need to be updated to include other area such as Cupsogue, Pikes Beach where sand will be placed during initial construction.	The referenced statement has been removed from FGRR Appendix K "OMRR&R Requirements."
NYSDEC 110	Appendix J Operation, Maintenance, Repair, Replacement and Rehabilitation	P. 8, par. F	Report reads that "Any major repair, replacement, or rehabilitation design shall be approved by the District Engineer prior to execution, and inspected afterward for satisfactory accomplishment of the design." - Should not the USACE be responsible for major repair and replacement? See Tab. 6. Summary of Responsibilities, p. 17.	Major rehabilitation, replace, and repair is generally a non-Federal responsibility. Exceptions include actions taken as part of post-disaster recovery and repair projects. Table 6 has been removed from FGRR Appendix K "OMRR&R Requirements."
NYSDEC 111	Appendix J Operation, Maintenance, Repair, Replacement and Rehabilitation	P. 12, Tab. 5	Coordinates of Profile Origin Points - Gilgo Beach should be added to the monitoring, Tab. 5 should be updated.	Table 5 has been removed from FGRR Appendix K "OMRR&R Requirements."
NYSDEC 112	Appendix J Operation, Maintenance, Repair, Replacement and Rehabilitation	P. 15, par. 3	Report reads that the number of profiles to be surveyed over the 30-y project life ... " -Should not the project life be 50-y and 30-y for re-nourishment; and beach profile survey should be done over 50-y?	Breach profile surveys will be conducted for the 50 yr project life to ensure proactive project thresholds are being met from years 31-50. Text in FGRR Appendix K "OMRR&R Requirements" has been corrected.
NYSDEC 113	Appendix A to Appendix J Operation, Maintenance, Repair, Replacement and Rehabilitation	P. A-6, Tab. A 1	Construction Activities from 1996 to the present - Please update the table to include all of the constriction activities; it only includes years 1996-2009.	Table A.1 has been removed from FGRR Appendix K "OMRR&R Requirements."

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDEC 114	Attachment E (Westhampton Interim OMRR&R Manual) to Appendix J Operation, Maintenance, Repair, Replacement and Rehabilitation	P. 3, Tab. 1	Construction Activities - Please update to include last PL 84-99 repairs.	Attachment E has been removed from FGRR Appendix K "OMRR&R Requirements." Information about construction activities at Westhampton, including the last PL 84-99 repairs, are included in the FGRR main report.
NYSDEC 115	Attachment E (Westhampton Interim OMRR&R Manual) to Appendix J Operation, Maintenance, Repair, Replacement and Rehabilitation	P. 4, par. a. Maintenance, Repair, Replacement and Rehabilitation	Report reads that " ... maintenance, repair, replacement and rehabilitation are used interchangeably. These are defined collectively as (a) Grading and reshaping the beach using sand beyond the project design section." What does that mean? Would this require bringing sand from outside of the project area? If so, who will be responsible for it? The USACE? On other projects, the locals are usually responsible only for grading and reshaping the beach to original elevation by bringing sand from areas of excessive accumulation to areas of depletion within the project area only; not beyond the project design section (?) Please clarify. On p. 8, par. 18. Maintenance Responsibilities, it reads that" ... the Superintendent will be responsible only for maintaining the dune and berm cross-section in the most effective condition, but will not be responsible for replacing lost material from offsite sources."	Attachment E has been removed from FGRR Appendix K "OMRR&R Requirements."
NYSDEC 116	Appendix A to Westhampton Interim OMRR&R Manual	P. 8, Table A 1	Construction Activities - Please update the table to include PL 84-99 repairs for Westhampton.	Appendix A has been removed from FGRR Appendix K "OMRR&R Requirements." All construction activities from 1996 to present are described in the FGRR main body.
NYSDEC 117	Appendix A to Westhampton Interim OMRR&R Manual		Will the Westhampton Interim OMRR&R Manual be replaced by the FIMP OMRR&R Manual that would cover the entire project area?	The FIMP project supersedes the Westhampton project. Information about how all or some of the Westhampton OMRR&R manual is superceeded by FIMP will be included in the OMRR&R manual, which will be developed in consultation with the project sponsor during Pre-construction Engineering Design. The OMRR&R Manual will be formally adopted upon completion of initial construction.
NYSDEC 118	Appendix K Adaptive Management Plan Outline	P. 5	Please spell out O&M.	FGRR Appendix J "Monitoring and Adaptive Management Plan" includes a definition of O&M.
NYSDEC 119	Appendix K Adaptive Management Plan Outline	P. 6	"breach" needs to be revised to "beach" in first par. Breach Response. "Proactive Breach Response is a plan where action is triggered when the breach and dune ... " to" ..... the beach and dune ... ".	FGRR Appendix J "Monitoring and Adaptive Management Plan" includes the word "beach" instead of "breach."
NYSDEC 120	Appendix K Adaptive Management Plan Outline	P. 6	Please present "Breach Response" and "Beach and Dune Fill" as separate project features, as the remaining ones ..... , and delete "Barrier Island" or present them as "Barrier Island Breach Response" and "Barrier Island Beach and Dune Fill".	FGRR Appendix J "Monitoring and Adaptive Management Plan" includes "breach response" and "beach and dune fill" as separate project features. The phrase "Barrier Island" has been deleted from the text.
NYSDEC 121	Appendix K Adaptive Management Plan Outline	P. 6	At what dune and berm elevation would the Proactive Breach Response be initiated?	FGRR Appendix J "Monitoring and Adaptive Management Plan" includes a description of Proaction Beach Response triggers.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDEC 122	Appendix K Adaptive Management Plan Outline	P. 6	What design level does the Proactive Breach Response provide for?	The Proactive Breach Eesponse template provides for approximately a 4% Annual Exceedance Probability.
NYSDEC 123	Appendix K Adaptive Management Plan Outline	P. 6	What design level does the Reactive Breach Response will provide for?	Reactive Breach Response actions vary based on site-specific characteristics.
NYSDEC 124	Appendix A Breach Response Protocol to Appendix K Adaptive Management Plan		Will a Conditional Breach Response Plan apply to all publicly owned tracts on Fire Island? or just to Federally owned tracts? Will Conditional Breach Response Plan apply to Smith Point County Park/part of? According to Fig. 2.TSP from the GRR, Proactive and Reactive Breach Response Plan apply to Smith Point County Park. Please clarify. If the Conditional applies only to Wilderness Area, please change "publicly owned tracts" to "Federally owned tracts". See comments below:	Conditional Breach Response will apply to Federally owned tracts except for Talisman (Reactive) and the Lighthouse Tract (Proactive). A separate Conditional Breach Response Plan exists in the Wilderness Area. Other publicly-owned tracts include Robert Moses (Reactive) and Smith Point County Park (Proactive). The FGRR and FEIS include updated descriptions of the plan. Please note that a summary of the Breach Response protocol is included in the FGRR main body, and is no longer included in FGRR Appendix A "Engineering" or FGRR Appendix J "Monitoring and Adaptive Management Plan."
NYSDEC 125	Appendix A Breach Response Protocol to Appendix K Adaptive Management Plan	P. 15, par. 3	Conditional Breach Response. Please change "Publicly-owned tracks along Fire island" to "Federally owned tracks ... "	The referenced text was revised to state "Federally owned tracts." Please note that a summary of the Breach Response protocol is included in the FGRR main body, and is no longer included in FGRR Appendix A "Engineering" or FGRR Appendix J "Monitoring and Adaptive Management Plan."
NYSDEC 126	Appendix A Breach Response Protocol to Appendix K Adaptive Management Plan	P. 16, second paragraph	"Within the large, publicly owned tracts of land along Fire Island there is a desire to determine the likelihood of natural breach closure ... " Please revise "publicly owned tracks" to "Federally-owned tracks".	The referenced text was revised to state "Federally owned tracts." Please note that a summary of the Breach Response protocol is included in the FGRR main body, and is no longer included in FGRR Appendix A "Engineering" or FGRR Appendix J "Monitoring and Adaptive Management Plan."
NYSDEC 127	Appendix A Breach Response Protocol to Appendix K Adaptive Management Plan	P. 16, paragraph 6	Locations Considered for Conditional Breach Response - please revise "Publicly owned tracts" to "Federally-owned tracts". Please delete Smith Point County Park.	The referenced text was revised to state "Federally owned tracts." Please note that a summary of the Breach Response protocol is included in the FGRR main body, and is no longer included in FGRR Appendix A "Engineering" or FGRR Appendix J "Monitoring and Adaptive Management Plan."
NYSDEC 128	Appendix A Breach Response Protocol to Appendix K Adaptive Management Plan	P. 17, paragraph 8	Please revise "Publicly-owned Tracks" to "Federally-owned Tracks".	The referenced text was revised to state "Federally owned tracts." Please note that a summary of the Breach Response protocol is included in the FGRR main body, and is no longer included in FGRR Appendix A "Engineering" or FGRR Appendix J "Monitoring and Adaptive Management Plan."

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDEC 129	Appendix A Breach Response Protocol to Appendix K Adaptive Management Plan	P. 17, paragraph 8	Please revise "(see 5.c below)" to "(see 8.c below)".	The reference has been corrected. Please note that a summary of the Breach Response protocol is included in the FGRR main body, and is no longer included in FGRR Appendix A "Engineering" or FGRR Appendix J "Monitoring and Adaptive Management Plan."
NYSDEC 130	Appendix A Breach Response Protocol to Appendix K Adaptive Management Plan	P. 18, par. c)	Please revise "Publicly-owned Tracks" to "Federally-owned Tracts".	The referenced text was revised to state "Federally owned tracts." Please note that a summary of the Breach Response protocol is included in the FGRR main body, and is no longer included in FGRR Appendix A "Engineering" or FGRR Appendix J "Monitoring and Adaptive Management Plan."
NYSDEC 131	Appendix A Breach Response Protocol to Appendix K Adaptive Management Plan	P. 18, par. 9	Please revise "4.b above" to "8.b above".	The reference has been corrected. Please note that a summary of the Breach Response protocol is included in the FGRR main body, and is no longer included in FGRR Appendix A "Engineering" or FGRR Appendix J "Monitoring and Adaptive Management Plan."
NYSDEC 132	Appendix A Breach Response Protocol to Appendix K Adaptive Management Plan	P. 18	Please revise "(see 6. below)" to "(see 10. below)".	The reference has been corrected. Please note that a summary of the Breach Response protocol is included in the FGRR main body, and is no longer included in FGRR Appendix A "Engineering" or FGRR Appendix J "Monitoring and Adaptive Management Plan."
NYSDEC 133	Appendix A Breach Response Protocol to Appendix K Adaptive Management Plan	P. 20, par. 12	Report reads that "The Science and Engineering Advisory Team will come together to exercise the probabilistic Bayesian of breach closure, to predict natural breach closure or growth within fourteen days of breach occurrence ... If a full breach does not form, no breach closure activities will be enacted" Is that correct? No Conditional Breach Closure, if a full breach does not form?	The Science and Engineering Advisory Team will determine if site conditions have degraded enough to hit thresholds that warrant breach response.
NYSDEC 134	Appendix A Breach Response Protocol to Appendix K Adaptive Management Plan	P. 21, par. 13	Revise "publicly owned tracts" to "Federally owned tracts."	The referenced text was revised to state "Federally owned tracts." Please note that a summary of the Breach Response protocol is included in the FGRR main body, and is no longer included in FGRR Appendix A "Engineering" or FGRR Appendix J "Monitoring and Adaptive Management Plan."

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYS DOS				
NYSDOS 001	Appendix A Engineering: Comment 1	p.24	Relative Level of Effort Examining Coastal Barrier Processes Versus Mainland Flood Risks: The overwhelming majority of effort has been dedicated to modeling coastal barrier processes, with scant effort to study or describe the effects of storms, tides and sea level rise on mainland communities. Since most of the damages occur in the mainland communities, more effort should have been dedicated to understanding the causes, impacts and relative geographic vulnerabilities there. If information on mainland risks is not available to be cited in the engineering reports, general statements in the introductory material concerning factors that contribute to risk (low elevation, proximity to surges, lack of protective features or vegetation), erosive fill soils, insufficient depth to groundwater, etc.) would be helpful. If available, these particular items would be helpful to support risk management.	FGRR Appendix A "Engineering" includes a discussion of hydrodynamic modeling used to produce the stage-frequency curves for the mainland. The information was used in the HEC-FDA economic modeling, the results of which are presented in FGRR Appendix D "Benefits."
NYSDOS 001a	Appendix A Engineering: Comment 1a	p.25	Which areas are most frequently affected, which are infrequently effected, and which areas are relatively secure? Which areas are effected by flooding through the navigation inlets with no breach event, and given the possible high rates of sea level rise, which additional areas might be affected or how might flood water depths increase?	FGRR Appendix A "Engineering" includes flood inundation maps that illustrate the potential impacts of relative sea level change. Because of the complexity of the system it is not possible to identify specific areas that are impacted by potential tidal surge traveling through the inlets.
NYSDOS 001b	Appendix A Engineering: Comment 1b	p.25	In the event breaches occur, estimates of areas that will experience minimal or no increased flooding, areas that will experience significant increased flooding, what are the increased areas flooding due to the breach, and what are the increased depths of flooding due to the breach?	It is not possible to say definitively which areas will experience flooding or not in the event breaches occur. Flooding depends on numerous factors such as the location of the breach and hydrodynamics.
NYSDOS 001c	Appendix A Engineering: Comment 1c	p.25	Delineate areas where there is inadequate depth to groundwater to allow septic wastewater systems under current conditions. Also, delineate areas where there would be inadequate depth to ground water given higher sea level rise projections to the end of the project life (50 years).	Analysis of groundwater conditions is not within the scope of the study. Site-specific analysis of groundwater conditions relative to septic systems will be conducted during Pre-construction Engineering Design if required for permitting of nonstructural construction.
NYSDOS 002	Appendix A Engineering: Comment 2	p.25	End of Project Life conditions: There is no estimate of change in overall risk or vulnerability in the project area at the end of the project life. There is no way to evaluate whether the proposed measures actually reduce risk of storm damages in the project area. Estimated "benefits" are reduced damages during the life of the project only. What condition will the area be in when the project is over? It would be helpful to reiterate the project goal and vision that by the end of the project the region should be less vulnerable and ecologically healthier.	Periodic nourishment/ breach response are needed in order to continue to realize project benefits. Project benefits are expected to decrease when the periodic renourishment ends after 30 years.
NYSDOS 003	Appendix A Engineering: Comment 3	p.25	Portrayal of Breach Effects: A primary goal of the project is to prevent breaches from occurring. Although breaches are a normal, albeit infrequent, event for unmanaged coastal barriers, and necessary for long-term barrier survival, management of barriers such as Fire Island, where the landscape has a long history of human use and modification, needs to recognize and incorporate other factors. Given the situation, it would be more realistic to set an objective to minimize breaches where they would have significant detrimental effects in the near term, while federal, state and local partners aim for land use change and other adaptations over the long term. An outcome of this modified approach might be that the breach response protocol include consideration of breach open conditions in Federal tracts, as well as incorporation of rigorous monitoring of the physical condition of any breach and bay water levels during normal and storm conditions such that both benefits and consequences of the breach are documented and evaluated.	The Recommended Plan includes breach response plans, monitoring, adaptive management, and land management. A specific breach response plans is identified for each of the project subreaches. A conditional breach plan would be used for the large Federal tracts managed by the NPS, that would allow up to 60 days for a breach to close naturally. There is also a Wilderness breach plan where the breach would be closed only if it is determined that it would result in a significant impact. A description of monitoring of any breach during normal and storm conditions is included in FGRR Appendix J "Monitoring and Adaptive Management Plan." Monitoring data will enable the appropriate level of response and is part of the project's adaptive management strategy. Federal land management responsibility is limited to the Federal tracts managed by the NPS, and also where permanent easements have been obtained for the construction and maintenance of the project. For all other areas, enactment and enforcement of land use regulations is a state and local responsibility.
NYSDOS 004	Appendix A Engineering: Comment 4		Sea Level Rise (SLR): Most analyses are reported relative to historic rates of SLR. This is no longer realistic. It would be more beneficial if sections referring the SLR reported how conditions might change if higher rates (high USACE estimates) prevail. Descriptions of flood risks and coastal processes should include information on accelerating effects due to the estimated higher range of SLR, to help describe potential futures that served as the boundary for project recommendations.	A description of project performance under different relative sea level change projections is included in the FGRR.
NYSDOS 005	Appendix A Engineering: Comment 5		Major Storm Occurrence: The analyses anticipate breaches with major storms, but do not describe alternative management responses. Coastal barriers migrate landward in correlation with sea level rise. How will management activities be modified in the future to accommodate these natural processes?	Adaptive management of natural migration of the coastal barrier are not a plan feature. However, response to the breaches because of the natural migration of the coastal barrier can be adaptively managed through monitoring and appropriate responses through adaptive management.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 006	Appendix H Land Management Comment 1		The Appendix does not make a clear distinction between actual measures that are being recommended in the TSP and further actions for local/state/federal consideration (e.g., acquisition). We have indicated in the comments several instances where this distinction could be improved, but overall the language could be clarified. It appears that p. 14, Section VII, outlines TSP actions that contribute to improved land use management; however, they are general in nature and could be improved by indicating specific actions and locations. This information could also be placed in the introduction of the Appendix to give readers a better understanding, perhaps in the form of an executive summary.	FGRR Appendix H "Land Management Plan" includes a clear description of actions that are recommended for local consideration. Federal land management responsibility is limited to the Federal tracts managed by the NPS and also where permanent easements have been obtained for the construction and maintenance of the FIMP project. For all other areas, enactment and enforcement of land use regulations is a state and local responsibility. In conjunction with the Project's Annual Inspection with local interests, reporting of any new development within the project area to the appropriate federal, state, and local entities responsible for enforcing applicable land use regulations may occur.
NYSDOS 007	Appendix H Land Management Comment 2		Recommendations in this appendix focus on local/state/federal actions. The following language can be inserted into the appendix as an additional resource being developed for municipalities under the Community Risk and Resiliency Act (CRRA): *"As it pertains to improved local land use management, DOS, in cooperation with DEC, is preparing model local laws that include consideration of future physical climate risk due to flooding, storm surge, and sea level rise under authority of the Community Risk and Resiliency Act. These model laws, which include categories for zoning, floodplain development management, resilient constriction, and more, will be made available for use by municipalities. These model local laws can be adapted for use by municipalities that are interested in better managing risk on the local level. "*	The suggested language is included in FGRR Appendix H "Land Management Plan."
NYSDOS 008	Appendix I Physical Monitoring		Need clarification of who will be responsible for what aspects of monitoring activities, particularly where there is overlap.	FGRR Appendix J "Monitoring and Adaptive Management Plan" identifies an interagency team that will be responsible for overseeing the monitoring.
NYSDOS 004	Main GRR Report - Executive summary	P. 6, Quantification of Problem	It should be noted that damages from breaches remaining open are only 6% of the total damages in the without project condition. There is a great emphasis on damages from breach open conditions, when in fact the damages calculated are quite low. Consider similar additions to section 4.5.5, Bayside Damage Models, p. 71-72 and Damage Categories, Breach-Open Conditions, p.75	Damages from breaches remaining open are one of the damage categories identified in the FGRR.
NYSDOS 005	Main GRR Report - Executive summary	P. 16	Project Performance and Residual damages. Consider modifying the language within this section (see comment). Also, clarify which measure/combination of measures 50% of damage reductions come from.	The FGRR states that under the current condition (without-project condition), the largest source of damages is flooding in the back bays through the existing maintained inlets. The majority of the damages that are experienced are due to flooding to the mainland communities that occurs during storm events. This flooding is due to the combined effects of tidal surge through the inlets and wind and wave setup within the bays. The FEIS includes a statement that shorefront damages are reduced by 50% in the with-project condition.
NYSDOS 006	Main GRR Report - Executive summary		Language that the report "... acknowledges the continued flooding that is likely to occur with the existing breach in the wilderness area" is misrepresentative. Prior DOS comments recommend comparison of USACE breach models to those studies performed by USGS on water levels in the bay after the Wilderness breach. For this reason, we recommend the term "continued" be removed.	The word "continued" was removed from the FGRR. In addition, a better definition of the Wilderness Conditional Breach response plan is included in the FGRR.
NYSDOS 007	Main GRR Report - Section 1- Introduction, Section 1.6	P. 12	For the bullet on barrier island segments, please clarify that breaches will impact development adjacent to the breach on the island itself. The bullet on mainland areas, clarify that the portions of the mainland that are vulnerable to tidal flooding experience the majority of flooding through the maintained inlets.	The referenced bullet in the FGRR pertaining to barrier island segments is correct. The bullet pertaining to mainland areas in the FGRR is clearer about how most of the damages take place on the mainland due to storm surge through the inlets.
NYSDOS 008	Main GRR Report - Section 2- Existing Conditions, Section 2.1.5	p. 18-19	As it relates to the NYS sea level rise projections, please provide a descriptive comparison between the rates proposed by the USACE and the state projections. Are they comparable? If not, how will this project comply with the state adopted rates? As has been observed from public meetings, there is some confusion on how the USACE plans to incorporate sea level change, and at which rate (see comment)	A comparison between USACE sea level change projections and NYS sea level change projects is not required per USACE guidance. USACE will consider NYS sea level change projections as part of the climate change analysis, and may graphically show differences in the projections if possible.
NYSDOS 009	Main GRR Report - Section 2- Existing Conditions, Section 2.1.7	p. 19-20	There is reference to interruption of littoral drift that leads to erosion. Please provide an example, such as 'shore perpendicular structures, such as groins or jetties'. There should be specific reference to stabilization structures as a contributing factor to interruption of littoral drift.	The FGRR states that perpendicular structures, such as groins or jetties, along the shoreline can interrupt the littoral drift, leading to erosion.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 010	Main GRR Report - Section 2- Existing Conditions, Section 2.1.9.4	p. 25	Please clarify whether separate models/efforts (i.e., USGS v. USACE) were used to reach the conclusions about tidal elevations and storm water levels. Also see Section 4.6, Damage Sensitivity and Uncertainty, p.77	The FEIS states that models utilized to determine tidal elevations storm water levels included models developed in conjunction with the North Atlantic Coast Comprehensive Study and FEMA December 2012 stage frequency curves, which includes wave set up.
NYSDOS 011	Main GRR Report - Section 2- Existing Conditions, Section 2.1.11	p. 26	First bullet, please clarify the size of a breach that "is large enough". The Wilderness breach has not increased bay tide levels.	The referenced phrase "large enough" is a relative term sine it is not possible to specifically quantify the size of breach that makes it big enough result in impacts. The FGRR includes a statement that the Wilderness Breach has not increased bay tide levels. However, closing breaches contributes to the sustainability of the barrier island, providing risk management to the communities of the island and back bay.
NYSDOS 012	Main GRR Report - Section 2- Existing Conditions, Section 2.1.12	p. 26	This section is not clear as to the main cause of mainland flooding. First it says that the topographic condition of the barrier is the cause, then it says that surge through the inlets is the main cause. Does the topographic condition of the barrier refer to its' potential to breach? Does the topographic condition of the barrier refer to its' potential to breach? The report states earlier that the flooding through the maintained inlets is the main cause of back bay flooding, and that breaching has the potential to contribute to back bay flooding. We recommend clarifying what is meant by topographic condition, and if it means the potential to breach or overwash, consider rewording this section to put the emphasis on flooding from surge through the maintained inlets. It would be helpful if the USACE could associate a percentage to the flooding from the inlets (e.g., 60% of the flood damages to the back bay occurs from surge entering the maintained inlets).	The FGRR identifies "topographic condition" as the potential to breach or overwash. The referenced section emphasizes that the existing inlets "act both as hydraulic conveyances and hydraulic constrictions which limit the storm surge entering the bays." Given the complexity of the system, associating a percentage to the flooding from the inlets may be misleading.
NYSDOS 013	Main GRR Report - Section 2- Existing Conditions, Section 2.2.5	p. 31	Please make the following changes to the description of the NYS CMP: (see comment)	The FGRR includes the requested language: "The CMP and Article 42 establish a balanced approach for managing development and providing for the protection of resources within the state's designated coastal area. The policies of New York State, reflected in the CMP, express clear preference for non-structural solutions for erosion and flooding, such as elevating or flood-proofing buildings. Municipalities are encouraged to prepare Local Waterfront Revitalization Programs (LWRPs) in order to refine the state's CMP and take local factors into account. In communities with fully approved LWRPs, federal actions must be consistent with the LWRP policies in order for a consistency determination to be issued."
NYSDOS 014	Main GRR Report - Section 3- Without Project Future Condition, Section 3.2	p. 39	There should be discussion of existing efforts such as stormwater infrastructure upgrades and home elevation or acquisition. There is reference to these efforts under Section 3.3, but there should be discussion of the local and state/federal actions beyond the USACE in the local risk management section.	The FGRR Section 3.2 includes the following language: "The WOPFC does not anticipate significant upgrades of stormwater infrastructure or coastal storm risk management measures for individual residences (eg. elevating homes) unless significant federal funding such in was case following Hurricane Sandy is provided."
NYSDOS 015	Main GRR Report - Section 3- Without Project Future Condition	p. 40	Closing Breaches- There should be the opportunity to revisit a breach open condition under the adaptive management protocol being developed for the TSP. In addition, how long did it take to close the breaches after Sandy? The USACE presents breach closure scenarios from 1980 and 1992, but there are more recent closures that could also be used as examples and which demonstrate a greater range of management scenarios.	The FGRR includes a summary of more recent breach closures. The Recommended Plan includes specific Subreaches for which conditional breach closure (and also Wildness breach closure) and adaptive management responses that allow for a breach open condition.
NYSDOS 016	Main GRR Report - Section 3- Without Project Future Condition, Section 3.4, Environmental resources	p. 42	As it relates to water quality, studies conducted within the bay after the Wilderness breach have shown positive improvements in water quality. Considering that the WOPFC leaves the Wilderness breach open, mention of the benefits to water quality should be included.	The FGRR and FEIS include descriptions of benefits to water quality.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 017	Main GRR Report - Section 4- Problems and Opportunities, Section 4.4.1.1		Given the proposed groin modifications at Ocean Beach, the report should reconsider the potential for breach in the area west of the Ocean Beach groins. How will these modifications change the rate of erosion, and will this action lower the vulnerability for a breach to occur there?	This matter will be considered during design of the Ocean Beach groin modifications (Pre-construction Engineering and Design).
NYSDOS 018	Main GRR Report - Section 5- Plan Formulation, Section 5.4.2.2		Sediment and Inlet management alternatives. Did the USACE undertake any modeling to show that shallowing the inlets (the minimum to maintain navigability) did not reduce back bay flooding?	All modelling assumed inlet channel maintenance to their authorized depths.
NYSDOS 019	Main GRR Report - Section 5- Plan Formulation, Section 5.4.2.4	P. 91	Clarify that although the elevation and floodproofing options are voluntary, acquisition would be mandatory if recommended under the TSP.	The FGRR includes language to explain the difference between voluntary and mandatory nonstructural measures.
NYSDOS 020	Main GRR Report - Section 6- Identification of the Tentatively Selected Plan, Section 6.1.2	P. 117	The report states that 195 structures would be "rebuilt". Please define what this entails.	"Rebuild" refers to structures that, because their condition, are not able to be elevated and would be demolished and rebuilt above the 1% floodplain. Due to a USACE policy determination, the final nonstructural component of the Recommended Plan does include any "rebuilds." The FGRR includes a description of plan changes.
NYSDOS 021	Main GRR Report - Section 6- Identification of the Tentatively Selected Plan, Section 6.1.3.2	P. 119	Reactive and Conditional breach response, p. 119 states "The breach closure plans will include an additional quantity of sand on the bayside of the barrier island to replicate this process, to enhance the long-term stability and resiliency of the closure action." We· have not seen information elsewhere regarding this proposed measure for the reactive and conditional breach response. The EIS BCP Appendix (I), states that this additional sand on the bayside "could" be included, for the conditional breach only (p. 1-3). We recommend including this additional back bay sediment in both the conditional and reactive BCP: In addition, any coastal process features that emulate these back bay shoals in areas identified as vulnerable to breaches would be favorable.	The Recommended Plan calls for placement of 4.2 million cy of sand on bayside of barrier island to ensure no net loss of sediment band and to replicate the natural coastal processes that are impacted from both the berm and dune and breach closures.
NYSDOS 022	Main GRR Report - Section 6- Identification of the Tentatively Selected Plan, Section 6.4	Table 44	Under the environmental impact of reduction in potential for breaching/overwash, clarify that the overwash will be reduced in community areas, but will be encouraged in more natural areas.	The FGRR includes a description about how overwash will be less likely to occur in the communities, but more likely to occur in the unpopulated areas where only a conditional breach response plan is provided.
NYSDOS 023	Main GRR Report - Section 6.9 Coastal Monitoring	P. 141-42	Although the adaptive management plan will include climate change considerations, the physical monitoring plan should also consider climate change impacts. Not only should the monitoring plan understand physical processes and their interaction with project performance, but also how climate change impacts those physical processes and project performance.	The physical monitoring plan will consider climate change impacts, as detailed in FGRR Appendix J "Monitoring and Adaptive Management Plan."
NYSDOS 023	Main GRR Report - Section 8-Executive Order (EO) 11988 And Public Law 113-2 Considerations, Section 8.2.1	P. 151	The report states that the nonstructural measures do not "enhance the resiliency of the coastal system". However, nonstructural measures, such as elevation, greatly improve the resiliency of the community as a whole. Elevation measures do not try to constrict or resist the natural coastal processes and water movement; this is a preferred approach to risk reduction.	Nonstructural measures do not have the ability to adapt to changing conditions; however, they would increase the area's ability to withstand and rapidly recover from disruption due to coastal storms. Adaptability is incorporated into the nonstructural algorithm to take into account accelerated sea level change over 50 years.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 024	Main GRR Report - Section 8-Executive Order (EO) 11988 And Public Law 113-2 Considerations, Section 8.2.1	P. 151	The report states that "The intent is to replicate the function of beaches in areas that were once part of natural, undeveloped systems that have subsequently experienced significant human development and utilization." Trying to stabilize beaches and barrier islands in order to provide storm risk reduction fundamentally means that they can't behave as natural features. Suggest adding the following language: "It is acknowledged that the beach exists in tandem with human development, and actions to provide coastal storm risk reduction may inhibit the natural functioning of the beach. In order to truly replicate natural beach functioning, structures that encroach on the beach or interrupt coastal process, or development that relies on an artificially maintained beach template, must be moved."	The FGRR includes a clarifying statement about the Recommended Plan replicating the "function of beaches" and beaches' ability to "provide resiliency and reduce storm damages".
NYSDOS 025	Main GRR Report - Section 8-Executive Order (EO) 11988 And Public Law 113-2 Considerations, Section 8.2.2 Sustainability/Adaptability		The assessment in this section could be improved with more detail on how each of the three systems (environmental, social, and economic) are accounted for and maintained over the long-term. While the project is economically justified for the USACE, what are the considerations for the local responsibilities? Will the local sponsors be able to meet financial commitments in the near-term? While these answer cannot be predicted over the long-term, there should at least be consideration of the local perspective and potential hardships faced. The environmental concerns are evaluated and accounted for, but how does this pertain to sustainability over time? There should be mention of the adaptive management plan. Social accounts go beyond maintenance of recreation areas. For example, consideration of any socially vulnerable populations, such as low income or isolated populations. Finally, it should be noted that the nourishment timeline has been decreased from 50 years to 30 years. This decreases the commitment of limited resources, which is a more sustainable approach.	The FGRR includes a description about how the environmental, social, and economic systems are accounted for and maintained over the long-term.
NYSDOS 026 - Comment 1a	Appendix A Engineering, Section 1.4	A-19	The subparagraph on barrier breaches emphasizes the risk to homes but fails to point out this is a natural process that sustains the barrier over time. In order to achieve community resilience it will be necessary to understand barrier processes, so it would be helpful if this observation was included in the report. In addition, the original Breach Contingency Plan recognized the need for more study of breaches to help determine when and how they could be left unmanaged. It would be helpful if the report emphasized this need also.	The "Problem Identification" section of FGRR Appendix A "Engineering" includes a summary of problems in the study area. The two bullet points directly above the reference text discuss the need for additional data collection and scientific study.
NYSDOS 026- Comment 1b	Appendix A Engineering, Section 1.4	A-19	Back Bay segment. This subparagraph emphasizes that barrier breaches increase flooding. The existing breach at Old Inlet demonstrates no increase in bay flooding. The paragraph should be modified to indicate the potential for increased flooding due to breaching on the barrier is variable. In addition, most backbay flooding is due to water flowing in through the navigation inlets. The paragraph should add this information so that residents and local governments are properly alerted to the primary issue.	The "Problem Identification" section of FGRR Appendix A "Engineering" includes a summary of problems in the study area. The two bullet points directly above the reference text discuss the need for additional data collection and scientific study.
NYSDOS 026- Comment 1c	Appendix A Engineering, Section 1.4	A-19	Atlantic Ocean Shoreline. This subparagraph refers to variable risks "...due to the nature of the existing development. ..". This should be modified to "due to the location of existing development relative to high- risk areas". It is the location, rather than the type of development that creates the risks	The referenced sentence states, "Within this area, the damages are more localized, due to the nature of the existing development and physical conditions." Within the referenced area, damages are localized due to the nature of the existing development (including elevation, type of development, population impacted, and costs associated with structures and their contents) and physical conditions (such as berm and dune size and condition, localized erosion, existing structures, etc).
NYSDOS 027	Appendix A Engineering, Section 2.0 Shoreline history	A-19	Include a chart or table describing beach construction/ repair efforts over time. The quantities of sand placed should be reported, or stated as unknown.	FGRR Appendix A "Engineering" Section 2.2 "Historical Development and Management of Project Area" includes a description of historical beach construction and repair efforts. USACE does not have a full accounting of quantities placed by all Federal, State, County, local municipality, or private interests. Qualitative descriptions of those activities are presented in the text.
NYSDOS 027	Appendix A Engineering, Section 2.0 Shoreline history	A-20	Highlight artificial landform construction in the bays, on the barriers and along the mainland shores. Identify places where fill has been placed.	FGRR Appendix A "Engineering" Section 2.2 "Historical Development and Management of Project Area" includes a description of artificial landform construction in the back bays, barrier islands, and the mainland shore.
NYSDOS 027	Appendix A Engineering, Section 2.0 Shoreline history	A-21	The storm history section should conclude with a summary that the types of storms and environmental events described are normal for the project area and can be expected to continue in the future. Adaptive management will be needed in response to future storm events.	FGRR Appendix A "Engineering" includes an improved description of storm history.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 028	Appendix A Engineering, Section 3.0	A-35	A sentence should be inserted in the paragraph describing the sand ridges along Fire Island indicating that the littoral sediment supply increases towards the western half of Fire Island, which may be a result of contributions from these ridges. Further study is needed to understand the physical processes in this area, along with careful management of the resource.	Text from paragraph 6 on Pages B-2 and B-3 of FGRR Appendix B "Borrow Areas" is incorporated into FGRR Appendix A "Engineering.
NYSDOS 029	Appendix A Engineering, Section 3.1.8 Sea Level Change	A-44	(No comment provided)	Noted.
NYSDOS 030	Appendix A Engineering, Section 3.4	Beginning on A-61	The paragraph at the top of page A-62 refers to inlet bypassing. Qualitative statements about how much of the incoming littoral supply bypasses would be helpful. Also, a note should be added that dredging the inlet or the ebb shoals could interrupt littoral transport, and that careful management will be needed to avoid detrimental effects.	FGRR Appendix A "Engineering" qualitatively describe the effects of the inlets, including whether the sand naturally bypasses or not. Dredging the inlet and ebb shoals and placing the material directly downdrift in the littoral system is not expected to interrupt littoral transport. Any risks would be mitigated by monitoring and adaptive management. If the shoals are stable (i.e., not accumulating sediment) then the inlet is effectively bypassing and additional dredging would not be required.
NYSDOS 030	Appendix A Engineering, Section 3.4	Beginning on A-61	The paragraph about Shinnecock Inlet (A-62) should note that earlier efforts to dredge an outlet from the bay to the ocean contributed to formation of the inlet, which breached outward during a storm. The reference that natural bypassing forms an attachment shoal at Ponquogue is helpful. It would also be helpful to mention that sand mobilized by waves on the west side of the inlet inside the attachment shoal is drawn back into the inlet during 'flood tides. Most importantly, it should be noted that the loss of sediment on the west side of the inlet due to the jetties creates a chronic erosion site that needs to be addressed if breaching and possible destabilization of the west side barrier is to be avoided.	The suggested language is included in the FEIS.
NYSDOS 030	Appendix A Engineering, Section 3.4	Beginning on A-61	The paragraph about Moriches Inlet (A-62) should reference Jim Allen's (NPS) research that substantial natural bypassing occurs here. It should also note the east side of the inlet is prone to washovers or breaches which have occurred on several occasions.	A references to Allen (2002) is included in FGRR Appendix A Sub-Appendix 3 "Tidal Inlet Investigations."
NYSDOS 030	Appendix A Engineering, Section 3.4	Beginning on A-61	The Fire Island Inlet paragraph (A-63) should note that absent stabilization by the jetties and dredging, sand shoals would be likely to close Fire Island Inlet and attach to Jones Island, with a new inlet, more hydraulically efficient, forming further to the east. As a result, at some point in the future natural forces affecting this area may need to be addressed but additional information may be needed to guide decision making. The paragraph should also note an approximate annual amount of sand that has been dredged and placed in adjacent areas in recent years.	USACE concurs with NYSDEC's characterization of coastal processes. The referenced section in FGRR Appendix A "Engineering" is specific to describing the history and existing conditions of the inlets; language has not been added to the text.
NYSDOS 030	Appendix A Engineering, Section 3.4	Beginning on A-61	Wilderness Breach (A-63). The last sentence in this paragraph says model simulations indicate bay water levels will be significantly increased during a storm. Current records documenting multiple passing storms show no significant increase in bay water levels. Therefore, this sentence should be modified to say either that elevated water levels have not been seen in storms to date and might occur only under certain conditions, or that the model simulations are not borne out by actual breach effects and further monitoring and study is needed to understand the potential for increased flooding. It's important for future managers and local interests to understand the actual behavior of breaches as opposed to the models.	The FGRR, FEIS, and their appendices clarify the wording for each of the four breach response plans: Proactive, Reactive, Conditional and Wildness Response Plans. The FGRR includes a table that identifies the applicable breach response plan for each project reach. For areas identified for Conditional breach closure, the Breach Closure Team, which includes representatives from NPS, USACE, and USGS, would evaluate whether the breach is likely to close naturally, with action initiated by day 60 to close the beach if it has not closed naturally. For areas identified for "Wilderness" breach closure, the breach would only be closed if if is determined that leaving the breach open would have an significant adverse effect.
NYSDOS 030	Appendix A Engineering, Section 3.4	Beginning on A-61	Qualitative statements about how much of the incoming littoral supply bypasses would be helpful. A note should be added that dredging the inlet or the ebb shoals could interrupt littoral transport. There are several notes in the comment regarding the paragraphs about Shinnecock Inlet (A-62), Moriches Inlet (A-62), Fire Island Inlet (A-63), and Wilderness Breach (A-63).	FGRR Appendix A Sub-Appendix 3 "Tidal Inlet Investigations" includes Information regarding existing bypassing around the inlets based on sediment budget work. USACE respectfully disagrees with the NYSDOS's assessment that dredging the inlet or the ebb shoals could interrupt littoral transport. If sediment dredged from the inlets is placed downdrift then it is expected that there would be a net reduction in littoral transport, unless as a result of the dredging and stabilization the ebb shoal grows larger than it would otherwise. The latter scenario is the issue that the proposed inlet modifications (dredging of the ebb shoal) will address.
NYSDOS 031	Appendix A Engineering, Section 4.6.3	A-69	Future Vulnerable Conditions (FVC). As a basis for modelling the USACE speculates on an FVC with lower dune heights, smaller beach widths, and narrower barrier widths. What is the basis for assuming these conditions? Have they occurred in the past or would they be created by accelerating sea level rise?	Future Vulnerable Conditions are based on historic conditions, sediment budget, existing erosion rates, and modeling results. Some of these conditions have occurred in the past, and others could occur in the absence of beach restoration measures.
NYSDOS 031	Appendix A Engineering, Section 4.6.3	A-69	If there are historic records for when FVC-type conditions occurred, could the report say something about how frequent and extensive they were?	FGRR Appendix A "Engineering" includes a description of historic FVC-type conditions.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 031	Appendix A Engineering, Section 4.6.3	A-69	The report should compare current conditions to unmanaged, natural conditions and the FVC, so that managers have some awareness of how the barriers could be expected to behave with no intervention, and to help understand the reasonableness of models.	Future Vulnerable Conditions closely represent unmanaged conditions, except for the continued presence of managed inlets.
NYSDOS 032	Appendix A Engineering, Section 4.6.5	A-70	Several options state it is not possible for two breaches to be open into one bay. A little further explanation of the reason for this would be helpful. The potential for catastrophic failure of artificially maintained barriers suggests multiple breaches might occur in the future under active management programs. Is there any record of historic storm breaching suggesting only one can remain open into a bay?	Historical evidence, hydrodynamic modeling, and inlet/breach stability analyses do not support the existence of two breaches within the same reach. The tidal prism of one breach would become dominant, and the other breach would naturally close. Text has been included in the FEIS "Engineering" to explain why adjacent breaches would not remain.
NYSDOS 032	Appendix A Engineering, Section 4.6.5	A-70	Section 4 is generally intended to describe "recent" conditions. It is unclear why various speculative breach conditions are included in this section. The description of the breach alternatives is difficult to follow. A more general description of the historic frequency of breaching and the potential effects of accelerated sea level rise would be helpful, with a description of recent breach events as needed. Modelling results should be compared with those realities.	FGRR Appendix A "Engineering" Sections 2 and 3 include a description of historic and existing conditions. The referenced section is meant to present the basis for the modeling of future without-project conditions that was done in support of the lifecycle economic analysis.
NYSDOS 032	Appendix A Engineering, Section 4.6.5	A-70	Post-Sandy [beach conditions], p. A-72: "In the previous BCP analysis for Great South Bay, a maximum breach cross section of 36,200 ft2 was assumed. In order to reflect the recent observations at the Wilderness Area Breach an additional cost estimate was developed at all Great South Bay breach locations for a smaller breach with a maximum breach cross sectional area, AO, of 6,500 ft2." These sentences indicate the previous assumptions of breach size were greatly over estimated, over 5.5 times too large. There is no reporting in this section on what that means for estimated potential impacts. Does the smaller breach cross section indicate that potential damages have changed from earlier estimates? Has the revised likely breach cross section been incorporated into the damage findings on which the study recommendations are based? Have the earlier estimates based on unreasonably large breaches been replaced in the other reports and findings? These answers could be significant for the project and for subsequent management efforts by others.	Updated assumptions based on post-Hurricane Sandy data have been incorporated into the most recent damage estimates. FGRR Appendix A "Engineering" includes a summary of the updated analysis.
NYSDOS 033	Appendix A Engineering	A-73	A sentence should be added explaining that further evaluations of borrow site sediment transport patterns based on additional data (BOEM efforts) and results of monitoring are planned, and modifications of borrow site usage or locations may be determined as a result of this information.	FGRR Appendix A "Engineering" includes text explaining that further evaluations of borrow site sediment transport patterns based on additional data (BOEM efforts) and results of monitoring are planned, and modifications of borrow site usage or locations may be determined as a result of this information.
NYSDOS 034	Appendix A Engineering, Section 6	A-74	Coastal Process Investigations (See below comments 10 a through g)	Noted.
NYSDOS 034	Appendix A Engineering, Section 6	A-74	Section 6.1: "Stations within the three bays influenced by storm-induced barrier island overwash and breaching are marked in red." No stations are marked in red in the chart.	Reference has been added to Figure 6-1 and Figure 6-4 in the cited sentence.
NYSDOS 034	Appendix A Engineering, Section 6	A-74	Section 6.1: The description should be amended to include the conditions of the inlets that were used in the models. Depths, lengths and cross sectional areas affect flows through the inlets. What size and shape of inlet was in the model? In addition, the relationship of the modeled inlets to typical conditions in the field should be described, so readers have an understanding of how well the models reflect actual conditions.	FGRR Appendix A "Engineering" includes a note that modeled inlet dimensions are representative of typical conditions.
NYSDOS 034	Appendix A Engineering, Section 6	A-74	Did the modelers examine inlets with reduced depths and/or cross sections? These factors might help reduce flooding in bay shore communities by limiting inflows. If smaller inlets were modeled, the report should describe that. If some other method was used to reach a conclusion that reducing inlet cross section or depth would not be helpful, that line of reasoning should be explained.	Inlets were not modeled with a reduced cross-section. All modelling assumed inlet channel maintenance to the authorized depth.
NYSDOS 034	Appendix A Engineering, Section 6	A-74	What size assumption was made for breaches in the modelling? The narrative indicates the system is insufficient to maintain two breaches into a single basin, but doesn't describe the size of the breaches in the models. It will be difficult for readers to understand the models without this information.	Three different breach sizes were considered. A description is included in FGRR Appendix A "Engineering."

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 034	Appendix A Engineering, Section 6	A-74	Section 6.1.1, page A-82, Numerical Modeling: A set of models is described which presumably are intended to examine beach and dune erosion, overwash and breaching in coordination with estimated storms. The objectives of the modelling effort are not described. No modeling is described that examines the natural performance of the coastal barriers. As a result, there are questions about the overall modeling package and how well it represents actual shoreline processes.	The referenced "beach and dune erosion, overwash and breaching in coordination with estimated storms" are the natural barrier processes that are relevant to the issue of back bay flooding.
NYSDOS 034	Appendix A Engineering, Section 6	A-74	If the models reproduced coastal processes over a long period of time, would the package and assumptions produce a self- sustaining barrier system that gradually retreats in response to sea level rise, as is documented with the Fire Island barrier over the past 7,000 years? Are the models capable of producing barrier breaches with inlets that gradually migrate and fill completely over time, as is documented in the sediment record? Do the models tend to over-estimate erosion because they do not account for sand accumulating processes in the offshore bars, beaches and dunes? Do the models replicate the regional sediment budgets and littoral sand quantities increasing from the east to the west in the project area?	There are no USACE numerical models capable of simulating response to sea level rise, during the long-term geological time-scale. The models used could theoretically reproduce inlet migration and/or filling, but unfortunately runs are extremely long so these kids of simulations are not practical with available technology. The storm surge / breaching model does not overestimate erosion. In addition, the models conserve sediment, and account for all sediment movement (erosion/accretion) during storm events. All models used in the study confirm littoral transport from east to west. GENESIS (Shoreline Change Model) also confirms increasing transport from east to west.
NYSDOS 034	Appendix A Engineering, Section 6	A-74	6.1.1.3 modeling, p. A-823. The report states that an assumption in SBEACH is that all material is distributed across the profile and longshore transport can be neglected because it is uniform. Obviously beaches and sometimes dunes erode during storms. Is USACE saying that SBEACH distributes the eroded material along the profile? It would be helpful for the report to clarify this. Does SBEACH return material to the beach and nearshore when calmer conditions with long period wave swells prevail after the storm? It would be helpful to explain this so readers understand the performance of the model. Presumably the USACE modeled the Montauk area prior to construction of the interim sandbag project. Has the project performed as the model anticipated? An explanation about this would be helpful to validate the model. Did SBEACH/DELFT3D generate breaches comparable to the Hurricane Sandy breaches at Smith Point County Park, Moriches Inlet and the Fire Island Wilderness Area? What are the differences between SBEACH/DELFT3D performance and size and shape of breaches from these actual events? In Section 6.1.2 on page A-89, the abbreviations BLC and FVC are used. It would be helpful if the meaning of these abbreviations was repeated in this section because their original appearance on page A-69 is quite a bit earlier in the text.	SBEACH models distribution of eroded sand along the profile. SBEACH is not typically used to investigate periods of calm weather. A detailed assessment of project performance using models would require a significant amount of data, including nearshore wave data, that is not available. Anecdotally, however, the project has performed as expected. Despite differences in conditions prior to the storm and the storm itself, SBEACH/Delft3D generated significant overwash and breaches at those locations for large storm events. These definitions are provided in FGRR Appendix A "Engineering."
NYSDOS 034	Appendix A Engineering, Section 6	A-74	Section 6:1.5.1 Ocean Wave Setup, p. A-114, and 6.1.5.2 Bay Wave Setup, p. A-119. Does the USACE have empirical evidence or some other basis for adding estimated wave heights to estimated surge water levels to calculate total water level? It is difficult to tell whether the combined estimates result in realistic water levels. Does wave setup attributed to "all historical storms" (p. A-119) refer to estimated amounts calculated by the USACE for historical storms, or to actual empirical data. In general, are the estimates of total water height that incorporate modeled surge and modeled (or empirical) wave setup reasonable?	Wave setup is a physical fluid-dynamic process involving transfer of wave momentum to the water column as waves approach shore. This transfer of momentum results in an increasing pressure gradient directed toward shore, resulting in a sloped increase in water levels. The process is well-understood and has been thoroughly studied and documented. For more information on wave setup, refer to USACE Coastal Engineering Manual, Part II, Chapter 4, or to the FEMA Coastal Flood Hazard Analysis and Mapping Guidelines Focused Study Report on Wave Setup. Wave setup was calculated (waves, tides, storm surge) for each of the historical storms. The estimates of total water level (not height) including surge and wave setup are reasonable.
NYSDOS 035	Appendix A Engineering, Section 6.1.3	p. A-107	Stage-Frequency Methodology. As far as we can see, the modeling is based on current water levels. We suggest a subset of inundation models be run under high sea level rise assumptions, to provide an outside bound of potential conditions for the project area. This information is vital to state and regional planning. If it is available elsewhere, a note in this section would be helpful.	The FGRR includes new Section 7.4.2 "Expected and Probabilistic Values of Damage Reduced" that discusses the impacts under different USACE sea level change projections.
NYSDOS 036	Appendix A Engineering, Section 6.1.6.1	p. A-121	It would be helpful if the project reports said something general about very long return period storms, if there are credible sources. For example, how do the 500 and 1000 year return period water levels compare with the 100 year return period levels? In some places the long term stage/frequency curves are relatively flat while in other locations they are steeper, indicating there is the potential for storm water levels well above those reflected in the project analysis and management measures. Knowing this information would be valuable to regional and local planning.	FGRR Appendix A Sub-Appendix 1 "Storm Surge Modeling Stage Frequency" includes a description of differences in stage-frequency curves.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 037	Appendix A Engineering, Section 6.1.6.2 Future Vulnerable Conditions (FVC)	p. A-121	Data from researchers working at the Fire Island Wilderness Area breach indicate bay water levels during recent higher frequency return period storms have not significantly increased above the no-breach condition. This suggests that the models are over-predicting storm water levels with the FVC. Please address this difference between empirical evidence and the models, and estimate how it would affect overall damage estimates in the USACE methodology. The existing paragraph identifies Western Moriches Bay as the location with the greatest increase in bay water levels under storms with the FVC. What is the additional area of flooding of upland areas, and what are the water depth increases on land due to this effect? This information is needed for planning to reduce risk and to help focus community resilience strategies. The description notes Moriches Inlet is more efficient than Fire Island Inlet at exchanging water with the ocean, and Shinnecock Inlet is most efficient. In this case the water levels in Moriches Bay and Shinnecock Bay would not differ significantly in the FVC versus the BLC, because the higher efficiency inlets already admit most or all of the water needed to reach the same elevation as the ocean. In other words, the water levels within the bays are largely a function of the navigation inlets, and levels cannot exceed the surge heights in the adjacent ocean, regardless of barrier condition. The descriptive paragraph should highlight this condition for the benefit of local and regional planning.	The primary reason that the current breach at Old Inlet has not caused significant loss of life or property is because the area has not been impacted by a major hurricane since Hurricane Sandy (2012). Modeling has shown that with the Old Inlet Breach open, additional flooding would occur that could exacerbate damages (see Appendix A Sub-Appendix 1 "Storm Surge Modeling Stage Frequency," Plates I-1 through I-27). Specifically, post-Hurricane Sandy numerical modeling efforts detailed in Appendix A Sub-Appendix 4 "Numerical Modeling of Breach Open at Old Inlet" show that although the breach open conditions at Old Inlet have a very small effect (up to 1 inch) on daily tidal fluctuations and small storm tides, they could have a large effect (up to 22 inches) on storm tides during severe hurricanes and nor'easters. USACE and partner agencies have a coordinated breach response process and the identification of a Bayesian protocol as a means to satisfy multiple agency priorities. The process was proposed and agreed upon in concept in several working level meetings. The USACE anticipates further development in Pre-construction Engineering Design, and anticipates a collaborative approach to identifying the substantive detail. Participants from DOI have been in general agreement with this approach in these workshops. USACE and DOI have identified the need for separate contingency criteria for the Otis Pike Wilderness Area versus other Federal tracts. Water levels would not differ significantly in the bays vs. the ocean.
NYSDOS 035	Appendix A Engineering, Section 6.1.6.2 Future Vulnerable Conditions (FVC)	p. A-121	Data from researchers working at the Fire Island Wilderness Area breach indicate bay water levels during recent higher frequency return period storms have not significantly increased above the no-breach condition. This suggests that the models are over-predicting storm water levels with the FVC. Please address this difference between empirical evidence and the models, and estimate how it would affect overall damage estimates in the USACE methodology. The existing paragraph identifies Western Moriches Bay as the location with the greatest increase in bay water levels under storms with the FVC. What is the additional area of flooding of upland areas, and what are the water depth increases on land due to this effect? This information is needed for planning to reduce risk and to help focus community resilience strategies. The description notes Moriches Inlet is more efficient than Fire Island Inlet at exchanging water with the ocean, and Shinnecock Inlet is most efficient. In this case the water levels in Moriches Bay and Shinnecock Bay would not differ significantly in the FVC versus the BLC, because the higher efficiency inlets already admit most or all of the water needed to reach the same elevation as the ocean. In other words, the water levels within the bays are largely a function of the navigation inlets, and levels cannot exceed the surge heights in the adjacent ocean, regardless of barrier condition. The descriptive paragraph should highlight this condition for the benefit of local and regional planning.	USACE assumes NYSDOS' comment refers to research documented in van Ormond et al. (2015) and Aretxabaleta et al. (2014). This research, which only included evaluation tidal and very small storm conditions, was reviewed as part of FIMP engineering efforts and their results generally agree with the USACE analysis summarized in FGRR Appendix A Sub-Appendix 4 "Numerical Modeling of Breach Open at Old Inlet." However, the text in Section 6.1.6.2 of FGRR Appendix A "Engineering" refers to the impacts of significantly larger storms than those considered by van Ormond et al. (2015) and Aretxabaleta et al. (2014), and which result in larger differences under existing breach open conditions (see Sub-Appendix A-4) and between BLC and FVC conditions.
NYSDOS 037	Appendix A Engineering, Section 6.1.6.4	p. A-122	Breach Open Conditions. The existing content states that water levels are higher in the bays during breach open conditions, even when the breach is small. However, Newsletter Number 2 dated October 2016, Wilderness Breach Management Plan /Environmental Impact Statement of the National Park Service, Fire Island National Seashore, says "Analysis of Great South Bay water level data indicates that the height of high tide has not changed significantly since before Hurricane Sandy." This empirical data reported by NPS/FINS differs with the USACE report in this section. Is it possible for the USACE to clarify their statement? There have been storms in the interval that the breach has been open with no significant increases in bay water levels. We recommend that the USACE investigate circumstances under which some breaches exhibit little to no effect on bay water levels. Management measures could then target these locations for modified management strategies.	The primary reason that the current breach at Old Inlet has not caused significant loss of life or property is because the area has not been impacted by a major hurricane since Hurricane Sandy (2012). Modeling has shown that with the Old Inlet Breach open, additional flooding would occur that could exacerbate damages (see Appendix A Sub-Appendix 1 "Storm Surge Modeling Stage Frequency," Plates I-1 through I-27). Specifically, post-Hurricane Sandy numerical modeling efforts detailed in Appendix A Sub-Appendix 4 "Numerical Modeling of Breach Open at Old Inlet" show that although the breach open conditions at Old Inlet have a very small effect (up to 1 inch) on daily tidal fluctuations and small storm tides, they could have a large effect (up to 22 inches) on storm tides during severe hurricanes and nor'easters. USACE and partner agencies have a coordinated breach response process and the identification of a Bayesian protocol as a means to satisfy multiple agency priorities. The process was proposed and agreed upon in concept in several working level meetings. The USACE anticipates further development in Pre-construction Engineering Design, and anticipates a collaborative approach to identifying the substantive detail. Participants from DOI have been in general agreement with this approach in these workshops. USACE and DOI have identified the need for separate contingency criteria for the Otis Pike Wilderness Area versus other Federal tracts. Water levels would not differ significantly in the bays vs. the ocean.
NYSDOS 038	Appendix A Engineering, Section 6.1.7	p. A-122	Breaching and Overwash Frequency. Please revise the paragraph to recognize positive effects of overwash	The positive effects of overwash are described in FGRR Appendix A "Engineering."

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 039	Appendix A Engineering, Section 6.2	p. A-130	A series of theoretical erosion conditions of coastal barrier land form features are described, and the models are used to estimate the frequency of such conditions. There is no description of how or why these parameters were set or how it helps understand the coastal barrier behavior evolution over time. How do these conditions relate to the historic barrier behavior? The barriers have persisted for a long time without USACE intervention. Is the USACE predicting these parameters for the purpose of setting conditions to be maintained? Coastal barriers are highly variable land forms and the natural community is adapted to these changes. Is the USACE intending to stabilize the barrier land forms and provide fill whenever any movement occurs? Has the USACE estimated regional effects on the ecological community that could result from constant land form maintenance?	As stated in the response to the previous comment, this section pertains to Modeling. The positive effects of overwash and the concepts of natural barrier island rollover have been addressed elsewhere. The ecological effects of the Recommended Plan are addressed in the EIS and also will be summarized in the Main Report. This discussion is not appropriate for the Engineering Appendix.
NYSDOS 040	Appendix A Engineering, Section 6.2.3	p. A-132	Section 6.2.3, Baseline Conditions Response-Frequency Relationships, p. A-132. In the Montauk reach (true for all reaches as well), the derivation of erosion and beach recession is based on historic data, which is largely under conditions without shoreline structures. This section should point out that to the extent shoreline structures like revetments, bulkheads and jetties restrict contributions of sand to adjacent beaches, erosion of downdrift shores will accelerate. In the Montauk reach in particular, revetments, sand bag dunes and other structures are proliferating. This paragraph should point out that these measures will inevitably lead to accelerated erosion down drift, reduced beach widths in front of the structures and steepening profiles offshore. Wave impacts and erosive forces will increase with additional structures in the future unless these structures are somehow mitigated. It is important to provide this information in the report to facilitate effective management.	The FEIS includes a description of localized effects of extant structural measures on downdrift erosion, and the ecological effects of the Recommended Plan.
NYSDOS 041	Appendix A Engineering, Section 6.3	p. A-152	The paragraph states there have been no modifications in the region that would change the sediment budget. This is not accurate because significant additional amounts of sediment have been added to regional beaches through the interim projects at Shinnecock Inlet and Westhampton, and some back passing of sediment from Fire Island Inlet to the Robert Moses State Park area has occurred. It would be more accurate to note these efforts and highlight the scale and location of their effects.	Interim projects at Shinnecok and Westhampton, and backpassing at Robert Moses State Park are accounted for in the sediment budget.
NYSDOS 042	Appendix A Engineering, Section 6.3.1	p. A-155	We recommend discussing this section with USGS and adding relevant references and information.	A reference to the USGS work is provided in FGRR Appendix A "Engineering."
NYSDOS 042	Appendix A Engineering, Section 6.3.1	p. A-155	Page A-155 states "it was determined that future projects must maintain these nourishment rates to preserve present-day beach conditions." If the USACE is claiming the proposed measures will maintain present-day beach conditions, the report should be explicit about that commitment. We suspect such a commitment is unsustainable, but if the USACE is willing to make that promise, the report should express the guarantee sufficiently so that partners and stakeholders fully understand performance expectations.	The referenced section summarizes historical and existing sediment budgets. USACE makes no commitment to provide nourishment at the nourishment rates forever. The sentence on Page A-155 qualitatively states that those are the nourishment rates needed to preserve present-day conditions. If USACE or NYS do not continue to nourish at those rates, beach conditions would degrade compared to present conditions.
NYSDOS 042	Appendix A Engineering, Section 6.3.1	p. A-158	Section 6.3.3.4, p. A-158 states the long-term average annual losses sediment loss due to sea level rise is estimated at 305,000 cu m/yr. At this rate would the coastal barrier tend to disappear over the course of time? Are the sediment budgets and modelling set up to reflect the fact that the barriers have maintained themselves without mechanical sand placement for thousands of years? If the assumptions about sediment movement and erosion don't incorporate this fact, how are they useful in estimating future without project conditions, and what are the implications for recommended management actions?	In addition to providing for periodic nourishment and OMRR&R, the Recommended Plan also provides for monitoring and adaptive management in order to best accomplish the project objectives.
NYSDOS 042	Appendix A Engineering, Section 6.3.1	p. A-155	Section 6.3.3.5 states offshore contributions are not necessary to balance the sediment budget. Discussion with USGS should be held to clarify whether this conclusion is supported across the broader scientific community	A reference to the USGS work is provided in FGRR Appendix A "Engineering."

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 043	Appendix A Engineering, Section 6.5.1	p. A-193	The narrative states breaches at Shinnecock (1938), Cupsogue (1980) and Pikes Beach (1992) were used as references of "typical" breach behavior in the region. Two of these breaches are atypical and therefore not good references. The breach at Shinnecock occurred at a location where local interests had excavated the barrier from the bay side to try and create navigation access and a significant hole was left in the barrier. At Pikes Beach, substantial erosion due to the effects of 15 groins in Westhampton contributed to severe beach sand loss and weakening of the barrier. Absent these interventions, it is likely these breaches would have been much smaller and shorter-lived. These facts should be reported in this section, and conclusions should be modified accordingly. It should also be reported that the long-term sediment record demonstrates breaches have occurred in more than 30 locations since colonization in the 1th century, and in all cases those breaches closed naturally over periods ranging from months to about a decade.	The referenced section summarizes the evolution/growth of a breach once it opens, not what caused the breach in the first place.
NYSDOS 043	Appendix A Engineering, Section 6.5.1	p. A-193	Section 7.5.3 Breach Response measures, p. A-218. It doesn't seem reasonable to fit an equation on potential breach sizes to the 1992 Pikes Inlet breach ("Survey data for the 1980 and 1992 breaches at Cupsogue and Pikes Beach, respectively, were used to estimate breach growth characteristics."), because this breach was artificially large due to the effects of the updrift groin field. Experience from the Old Inlet/Wilderness Area breach would be more applicable. Can the report findings be modified to address these factors?	Sandy Wilderness breach data was incorporated into Great South Bay breach predictions.
NYSDOS 044	Appendix A Engineering, Section 7.0	p. A-202	A general introduction covering which management options were investigated, which were dropped and the reasons, and which were carried forward, would help support the detailed investigations described later.	FGRR Appendix E "Plan Formulation" provides a detailed discussion of the development and screening of alternatives.
NYSDOS 044	Appendix A Engineering, Section 7.0	p. A-202	Section 7.4.4, Sediment Management (Inlet Sand Modification), p. A-206, describes examination of changes in dredging practices to improve littoral transport, but does not describe options to reduce inlet cross sections to control flood flows into the bays.	Reducing cross-sections to control flood is not considered compatible with safe navigation best practices.
NYSDOS 044	Appendix A Engineering, Section 7.0	p. A-202	The option of acquiring affected private land areas on the barriers where breaches occur is not mentioned. Previously the USACE agreed this was a good idea. It should be mentioned here in combination with other acquisitions to reduce damages.	This topic is addressed in FGRR Appendix H "Land Management," specifically in Section III, in identifying the land management risk associated with breach response plans, and in Section IV, Land and Development Management Opportunities in Formulation. USACE has identified that the minimum real estate necessary to construct a breach response is temporary construction easements. Acquisition of homes in breach vulnerable areas, or land management measures to address rebuilding in breach vulnerable areas should be considered as part of the local sponsor's floodplain management plan. Please note, since the Recommended Plan includes conditional breach response largely in publicly-owned tracts of land, there are limited instances where this would be a concern over the first 30 years of the project.
NYSDOS 045	Appendix A Engineering, Section 7.2.3	p. A-203	We recommend assigning reaches to bayshore areas for management purposes and making general recommendations about conditions and opportunities for restorative actions that could reduce flood risks.	Project reach designations reflect original project authorization. Study-specific physical reaches and design subreaches are provided in FGRR Appendix A "Engineering" Table 7-1.
NYSDOS 046	Appendix A Engineering	p. A-237	When buildings and homes are removed by acquisition there is no possibility of future damages under any storm or sea level rise scenario. On the other hand, coastal barrier fills, breach management, elevations and flood proofing keep development in high risk areas, leaving a possibility for future damages. Do acquisition options receive any favorable points on this basis? If so, the outcome should be reported here. If not, the fact that acquisition permanently limits damages, while other measures have some potential to fail, should be mentioned here.	This topic is addressed in FGRR Appendix H "Land Management," specifically in Section III, in identifying the land management risk associated with breach response plans, and in Section IV, Land and Development Management Opportunities in Formulation. USACE has identified that the minimum real estate necessary to construct a breach response is temporary construction easements. Acquisition of homes in breach vulnerable areas, or land management measures to address rebuilding in breach vulnerable areas should be considered as part of the local sponsor's floodplain management plan. Please note, since the Recommended Plan includes conditional breach response largely in publicly-owned tracts of land, there are limited instances where this would be a concern over the first 30 years of the project.
NYSDOS 046	Appendix A Engineering	p. A-237	Are there other benefits from acquisitions that might improve the benefit estimates? For example, restoration of aquatic, marsh or forest vegetation that could provide storm damage benefits; water quality benefits; elimination of local costs for road, sewer or other utilities; alternative site uses or other benefits.	All potential allowable benefits have been taken into account, per USACE economic guidance and best practices.
NYSDOS 046	Appendix A Engineering	p. A-237	After the first cost of implementing an acquisition, there are no (or limited) operation and maintenance costs, while other measures require ongoing maintenance and/or periodic reconstruction. How does this factor affect the evaluation of acquisition?	The fact that there would be no (or limited) O&M costs associated with implementing an acquisition has been taken into account, per USACE economic guidance and best practices.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 046	Appendix A Engineering	p. A-237	How would the high rate of USACE sea level rise estimates affect the number of homes in the respective flood plains? These amounts should be reported and compared with the numbers in the as-is evaluation.	FGRR Appendix E "Plan Formulation" provides a detailed discussion of nonstructural plan formulation. The floodplains used in the analysis are based on present-year data, per USACE economic guidance and best practices.
NYSDOS 046	Appendix A Engineering	p. A-237	If or when breaches occur in the future, the barrier land area affected by management measures should be acquired, due to the potential for additional repeat breaches in the future. Previously the USACE agreed this was a good recommendation. A reference to this recommendation should be included in this section, along with suggestions on how such acquisitions might be funded.	This topic is addressed in FGRR Appendix H "Land Management," specifically in Section III, in identifying the land management risk associated with breach response plans, and in Section IV, Land and Development Management Opportunities in Formulation. USACE has identified that the minimum real estate necessary to construct a breach response is temporary construction easements. Acquisition of homes in breach vulnerable areas, or land management measures to address rebuilding in breach vulnerable areas should be considered as part of the local sponsor's floodplain management plan. Please note, since the Recommended Plan includes conditional breach response largely in publicly-owned tracts of land, there are limited instances where this would be a concern over the first 30 years of the project.
NYSDOS 047	Appendix A Engineering - Non-structural Road Raising Alternatives	p. A-242	Are costs for augmented drainage structures to get water out of enclosed areas included in the costs of road raising alternatives? These costs should be described.	Road raisings are no longer part of the Recommended Plan.
NYSDOS 048	Appendix A Engineering, Section 8.0 Post-Sandy TSP Modifications	p. A-376	The USACE concludes that post-Hurricane Sandy beach conditions require intervention. This conclusion is not fully supported by subsequent events. How does the USACE reach the conclusion that the situation is urgent, what is at risk, and how will the risks be mitigated by the proposed actions?	Conditions post-Hurricane Sandy were closer to Future Vulnerable Conditions than Base Level Conditions in many areas, which modeling results suggest would result in greater damages. This can explain the increased urgency foro action.
NYSDOS 049	Appendix A Engineering, section 9.4.2.1. Breach Closure Costs	p. A-411	We recommend revising Table 7-95 to reflect breaches with a size comparable to the existing one at Old Inlet in the Wilderness Area of Fire Island National Seashore. In addition, any cost or quantity estimates in the reports should be similarly revised to reflect more realistic breaches.	The cost estimates and quantities reflect recent data from Old Inlet.
NYSDOS 050	Appendix A Engineering. Overwash	p. A-426	The definition in the report should include the essential role overwash plays in coastal barrier formation.	FGRR Appendix A "Engineering" includes the definition for overwash. A discussion of the processes that are important to coastal barrier island formation and evolution (including inlets) is included in the FGRR and FEIS.
			Borrow Source Investigations	
NYSDOS 051	Appendix B Borrow Source Investigations: Objective	p. B-1	Describe method for how sample locations for beach sand models were chosen. Provide reference to study that concluded that sand bypassing evaluated in the engineering appendix is not expected to provide more than a small percentage of fill needs.	The profile locations for which sediment samples were collected tried to achieve a spacially balanced placement (ata aoproximtely every other profile). The locations along each profile that sediment samples were collected tried to achieve a balanced representation of different beach segments to inform the design parameters of beach fill. Of these samples, a decision was made to omit the deepest 2 samples. The reasoning for this was that the active profile locations better represent the exposure to wave energy the profile would experience. Additionally, typically the deepest samples contain sand with the smallest grain size diameter. Longevity of sand fill is correlated to coarser sand grains. And placement typically occurs on the higher elevations of the profile. Typical annual bypassing rates for Shinnecock Inlet and Moriches Inlet are less than 100,000 cy/year, whereas the fill volumes recommended forWesthampton and Fire Island, respectively are roughly an order of magnitude greater than that. This information is summarized in FGRR Appendix B "Borrow Areas."
NYSDOS 052	Appendix B Borrow Source Investigations - Para. 7. Screening Criteria	p. B-2	Clarify whether insufficient quantity of fill is limited to availability of borrow sites, or if there are instead economic limitations that preclude transport of sufficient fill from distant borrow sites. Identify surveys that were conducted which concluded negligible long term impact to flora and fauna from suspension of fines.	The referenced paragraph in FGRR Appendix B "Borrow" provides the criteria that was utilized in screening the potential borrow sites.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 053	Appendix B Borrow Source Investigations - Para 8-Grain Size Characteristics	p. B-3	Provide upfront definition of compatibility with the existing beach system in the context of this project.	The grain size distribution is the most important factor in beach/borrow compatibility. The compatibility of available sediments is ranked by a factor which estimates the volume of sand with a given distribution needed to produce a required volume of beach fill. This factor allows some compensation for the difference between borrow and native sand. The portion of borrow material that does not match the native sediment gain size distribution is assumed to be lost to the offshore. The existing beach system shows coarser sediments at Montauk, getting progresively finer towards Fire Island Inlet. For this reason, the beach was divided into numerous reaches. This allowed design borrow fill to reflect this horizontal distribution better. This information is summarized in FGRR Appendix B "Borrow Areas."
NYSDOS 054	Appendix B Borrow Source Investigations - Para 9-Grain Size Characteristics	p. B-3	Describe method for collection of samples, particularly on the horizontal plane. Identify whether random or not. Provide number of samples taken.	The method of collection of sediment samples was to have the surveyor who was collecting profile data to concurrently collect beach samples at the Back-Berm; Fore-Berm; Mean High Water (MHW); 0 ft. NGVD; Mean Low Water (MLW); 6.0 ft. NGVD, -12.0 ft NGVD; -18 ft. NGVD; and -30.0 ft. NGVD using a scoop. USACE specified which profile lines to collect samples at (it was roughly every other profile). This information is summarized in FGRR Appendix B "Borrow Areas."
NYSDOS 055	Appendix B Borrow Source Investigations - Para 10-Grain Size Characteristics	p. B4	Explain what measures will be taken to account for cross-shore sediment transport when deciding on placement of dredge material.	The overfill factor methodology attempts to estimate the amount of cross-shore loss during placement or in the short-term following placement of the incompatible faction of the borrow sediment. (generally sand finer than the native sand). For example, with an overfill factor of 1.15, 1.15 cubic yards of borrow sediment will be placed for each 1 cubic yard of beach fill desired. Approximately 1 cy will remain, and a larger portion of the 0.15 cy will be lost cross-shore due to the placement and short-term sorting operations. The remainder of the 0.15 cy will be lost during the longer-term sorting from varying storm waves sporadically reaching the higher elevations of the beach profile. This information is summarized in FGRR Appendix B "Borrow Areas."
NYSDOS 056	Appendix B Borrow Source Investigations - Para 11 Grain Size Characteristics	p. B4	Identify the "various comparative analysis techniques" referenced. These studies are from the 60's and 70's; are there more recent studies available for reference? Clarify how much time is required for a beach to approach native grain size distribution. Will this occur before the next installment of beach nourishment, which is set to occur every 4 years? Explain in what way borrow material (that does not match the native sediment grain size distribution) will be lost offshore. Explain why the re-nourishment factor, which addresses higher alongshore transportability of fine grained sediment, is no longer recommended in beach fill design calculations.	Paragraph 11 provides background information on determining the compatibility of borrow material. Additionally, there are methods more recent than the 60's and 70's, however they are less conservative (i.e., they show smaller overfill factors, and prescribe less fill). Same issue with the Rj fact: if and Rj factor, say 1.5, shows that a profile should be renourished more frequenty than a more compatible material would (say Rj= 1.0). Ths FIMP analysis would simply exclude the borrow material, and would only allow material with an Rj factor of 1.0 or less. This reduces the amount of sediments outside the native size distribution. As for the time for the native profile to reachieve it's pre-fill distribution, that is highly dependent on the storms that are able to activate (wet) the higher portions of the profile. Theoretically, if no storms occur during the project life, the sediment above the mean higher high water elevation would never adjust. Adjustment requires each unsuitable grain to be mobilized by water access. Picture a glass jar with a variety of grain sizes mixed inside. Gravel, sand, silt sizes. and you shake the jar. The fines would sink to the bottom, only instead of being confined by the jar, the sediment sizes finer than the native would sink and spread horizontally (cross-shore).
NYSDOS 057	Appendix B Borrow Source Investigations - Para 12-Grain Size Characteristics	p. B4	Provide greater transparency of which, if not all, samples were averaged together. It appears that in using this method, a combination of excessively low and excessively high mean grain diameter may be averaged together and deemed acceptable. It is stated that the use of the "simplified methodology" of a mechanical sieve analysis over more robust methods was chosen because differences in results would not result in a great enough change for inclusion or exclusion of a potential source. Clarify what the threshold is for a "great enough change"	The protocal followed is based on EM 1110-2-1100. The core samples were averaged by legth of layer the sample represented. For example is sample S-1 represented the top 5 feet of the core, and sample S-2 represented the bottom 15 feet of the 20 foot core, then the S-2 sample would be weighted 3x more than sample S-1. Mechanical sieve analysis is required in any event. But the equations used to define the mean and standard deviation very by analysis method. For example, the historic definition of sample mean is the 84th and the 16th percentile grain size in phi units, averaged. The Method of Moments has the mean equal to the 84th, the 50th, and the 16th percentile grain sizes in phi units, averages. Both methods were tested, and the results on the overfill factors was negligible. Had non-negligible changes been observed, the older analysis would have been scrapped and the more detailed Method-of-Moments used. This information is summarized in FGRR Appendix B "Borrow Areas."
NYSDOS 058	Appendix B Borrow Source Investigations - Para 13 Beach Model Development	p. B-5	Beach Model Development: Sediment samples were collected in 1995. Identify whether Beach sediment samples were re-evaluated post-Sandy. Explain basis for small sample set of 11 beach models to represent 83 miles of shoreline. What method was used in selecting location?	Beach sediment samples were not re-evaluated post-sandy. Based extensive prior experience in evaluating coastal projects, the 11 beach models selected were determined to be approriate. Post-storm samples are the farthest from "native" condition. Storms erode the finer materials, leaving the coarsest sediments. The months and years following a storm, fines are re-introduced into the profile by summer "building waves" and by normal longshore transport. The material distribution represents the wave energy experienced. Finer material means lower energy, coarser material means higher energy. In this case the coarsest material was on Montauk, and the finest was on Fire Island. The shoreline was divided into models representing morphological and hydrodynamic zones. And the the mean grain size only varied between 0.48mm and 0.39mm between Montauk and Fire Island Inlet. The overfill method is not that sensitive to the thousanth decimal of mean grain size to warrent more than 11 models.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 059	Appendix B Borrow Source Investigations - Para 15 Borrow Source Screening	p. B-5	Borrow Source Screening: Vibracore datasets used are dated.	Noted. The striation of sediment underneath the ocean floor only varies in high energy wave environments. The majority of core samples are located in deeper water where the ocean floor is relatively stable. For example is a core was taken in a no energy zone 50 years ago, and coring equipment was able to exactly replicate the location, the core would reasonable be expected to be exactly the same striation.
NYSDOS 060	Appendix B Borrow Source Investigations - Para 16 Borrow Source Screening	p. B-5	Revise sentence globally for clarity: "Trucked in fill has no wave, geomorphological, and when specified in a detailed enough manner, negligible fines"	FGRR Appendix B "Borrow Areas" provides a clear description of trucked fill. Trucked sand is placed by dump truck and moved by bull dozers to include the shallow nearshore zone. Dozers are limited to "dry" ground, and rely on waves and tides to distibute material in the deeper nearshore zones. These zones are the end of the wave transformation zone, and thus have little effect of the wave climate Additionally the adjustment of the fill to the deeper areas is slower and would thus be slower to have any effect on wave development. Furthermore, quarried sand is typically more uniform than sand subjected to an ocean environment. So the quarried sand having a mean of 0.40mm will have the majority of grains much closer to 0.40mm than ocean sand, which results in less fine material.
NYSDOS 061	Appendix B Borrow Source Investigations - Para 16 Borrow Source Screening	p. B-5	Globally, provide basis for the statement that inlet flood shoals are likely to contain material unsuitable for ocean beach fill, when there is currently no data available.	Inlet flood shoals generally contain significant amounts of fine sands and silts that making them unsuitable as borrow material for the high energy ocean fronting beach. This information is summarized in FGRR Appendix B "Borrow Areas."
NYSDOS 062	Appendix B Borrow Source Investigations - Para 16 Borrow Source Screening	p. B-5	Provide cut-off for consideration of whether inlets are in close enough proximity of fill area to be considered a feasible option.	There is no specific cut-off for consideration of dredged material from Inlet dredging as borrow material. The Recommended Plan provides for placing essentially all of the dredged material from Inlet maintenance on the beach.
NYSDOS 063	Appendix B Borrow Source Investigations - Para 21 Borrow Source Screening	p. B-5	Was sediment characterization data of quarry material requested at the time of screening? If not, why?	As stated in Par 21, none of the quarries met the quantity available threshold, so there was no need to obtain any further sediment characterization.
NYSDOS 064	Appendix B Borrow Source Investigations - Table 1	p. B-6	It would be beneficial to provide standard deviation of Mean Grain Size (mm)	The standard deviation of mean grain size is provided in FGRR Appendix B "Borrow Areas" Table 1.
NYSDOS 065	Appendix B Borrow Source Investigations - Table 3	p. B-7	Provide reasoning for why grain size data was not provided for potential upland sources.	Since none of the quarries met the quantity available threshold, there was no need to obtain any further sediment characterization.
NYSDOS 066	Appendix B Borrow Source Investigations - Para 16	p. B-7	Why isn't grain size used as a measure of compatibility. A better explanation of the overfill factor would be helpful. Identify which offshore locations were analyzed before the conclusion was made that there are no suitable locations.	FGRR Appendix B "Borrow Arees" clarifies that there is sufficient fill material from maintenance dredging of nearbt Fire island Inlet, which is the most economal borrow source.
NYSDOS 067	Appendix B Borrow Source Investigations - Para 18	p. B-8	Clarify what is considered a "convenient distance"/ "convenient fill range" from quarry to fill area.	FGRR Appendix B "Borrow Areas" clarifies that use of an offshore borrow site was more economically viable.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 068	Appendix B Borrow Source Investigations - Para 22	p. B-9	Discuss what USACE uses as guidelines for sensitive geomorphic areas.	In this context, non-sensitive geomorphic areas are those with negligible sediment elevation changes, minimal erosion or accretion. This information is summarized in FGRR Appendix B "Borrow Areas."
NYSDOS 069	Appendix B Borrow Source Investigations: Para 27 Borrow Source Recommendations	p. B-12	Provide explanation of why hundreds of miles of seismic data that was collected is not being used due to difficulty of use. How recent are the Holocene thickness maps that are used for delineation?	The referenced sentence in FGRR Appendix B "Borrow Areas" has been deleted for clarity.
NYSDOS 070	Appendix B Borrow Source Investigations: Para 27 Borrow Source Recommendations	p. B-12	Explain why use of quarry fill was out ruled in favor of initial placement of offshore fill that was located so far from the site that it was not considered in the initial borrow source screening. It would be beneficial to provide the distance and method of transport of offshore fill. Will sediment characterization of quarry material be conducted before recommendations are finalized?	FGRR Appendix B "Borrow Areas" clarifies that use of quarry fill was determined not to be economic with respect to the offshore borrow sites. Therefore no further characterization of quarry material is needed.
NYSDOS 071	Appendix B Borrow Source Investigations - Para 31	p. B-13	Should include reference to placement of maintenance dredge material as part of initial fill or future re-nourishments.	Reference to placement of maintenance dredge material as part of initial fill or future re-nourishments is included in FGRR Appendix B "Borrow Areas."
NYSDOS 072	Appendix B Borrow Source Investigations - Para 34	p. B-13	Since breach contingency plan is proactive, it would make sense to provide anticipated quantity of fill to be placed, and anticipated frequency.	A description of anticipated quantity of fill to be placed, and anticipated frequency is included in FGRR Appendix B "Borrow Areas."
NYSDOS 073	Appendix B Borrow Source Investigations - Para 35	p. B-13	Provide explanation of why no fill is recommended at Southampton reach.	The Southampton dune-berm system in this reach is in excellent condition and is not expected to require renourishment during the project life.
NYSDOS 074	Appendix B Borrow Source Investigations - Para 35. Wave Attenuation Avoidances	p. B-16	(note: numbering is inconsistent). Are there more recent beach profile survey studies/data that can be used? This study identifies that GENESIS results with or without the project both anticipate a decreased, or stable, net transport rate within 3 miles down drift of Cherry Grove, thus causing no adverse impact; it does not reveal whether there would be a difference in the decreased amount of net transport.	FGRR Appendix B "Borrow Areas" includes the correct numbering system. The beach profie surveys utilized contain the most complete data for the model runs. The analyses performed did not consider whether there would be a difference in the decreased amount of net transport.
NYSDOS 075	Appendix B Borrow Source Investigations - Para 38	p. B-19	With regard to statement "In order to have sufficient fill for Fire Island, it is impossible with the data currently existing to avoid use of the borrow areas on the ridges". It would be beneficial to clarify if it is meant that it is impossible to do in a different way while remaining cost-effective.	FGRR Appendix B "Borrow Areas" clarifies that use of borrow sites is necessary from a cost-effective standpoint.
		Plan Formulation Appendix		
NYSDOS 076	Appendix E Plan Formulation, Section 3-B-5	P 35	Data and observations from the recent Wilderness breach should be included when discussing breach response and impacts. The impacts from the Wilderness breach have been studied by both the USGS and USACE. Initial findings from Aretxabaleta, 2014, indicate that water level response in back-barrier bays remain unchanged following the breach by Hurricane Sandy. We suggest including language that references observations from this breach.	The suggested language and reference is included in FGRR Appendix E "Plan Formulation."
NYSDOS 077	Appendix E Plan Formulation, Section 3-D-2	P 40	We suggest including similar language in the Main GRR Report, perhaps in section 2.1.11 on Breach and overwash impacts.	The suggested language and reference is included in the FGRR main body.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 078	Appendix E Plan Formulation, Section 4-G, NYS CMP	P 120	Please make the following changes to the description of the NYS CMP: "The CMP and Article 42 establish a balanced approach for managing development and providing for the protection of resources within the state's designated coastal area. The policies of New York State, reflected in the CMP, express clear preference for non-structural solutions for erosion and flooding, such as elevating or flood-proofing buildings. Municipalities are encouraged to prepare Local Waterfront Revitalization Programs (LWRPs) in order to refine the state's CMP and take local factors into account. In communities with fully approved LWRPs, federal actions must be consistent with the LWRP policies in order for a consistency determination to be issued."	The suggested language is included in FGRR Appendix E "Plan Formulation."
NYSDOS 079	Appendix E Plan Formulation, Section 4-I	P 134	The fact that pre-Sandy analysis has determined which measures move forward does not capture the potential change in options post-Sandy. Of particular note are plans which remove structures from dunes.	FGRR Appendix E "Plan Formulation" includes a discussion of changes in the project area/project in response to Hurricane Sandy.
NYSDOS 080	Appendix E Plan Formulation, Section 5-A	p. 135	Please make the following edits: " The approach gives first priority to management options, particularly options that restore natural processes. The second priority is to include non-structural alternatives, with beach nourishment or other structural alternatives considered last. This formulation approach is consistent with the approach taken in the policies and procedures of the NY State Coastal Zone Management Program, and also places a priority on avoiding or minimizing any negative environmental impacts. This approach also considers the entire area as a system". Please use this suggested language in the other appendices where the original language appears (e.g., Appendix A, A-329; Main GRR Report, p. 99).	The suggested language appears in the FGRR main body, FGRR Appendix A "Engineering, and FGRR Appendix E "Plan Formulation."
NYSDOS 081	Appendix E Plan Formulation, Section 5-A	p. 157	Are the non-structural measures not included in the budget? It is understood that acquisition measures are not included in the budget, but the non-structural approaches are included (over $600 M non-structural measures). A similar statement is not made about the beach fill activities, so there is some confusion about available funds.	Nonstructural measures, including acquisition, are included in the Recommended Plan cost estimate.
NYSDOS 082	Appendix H Land Management, Section I	P. 2	Please insert language that explicitly states that the USACE is fulfilling a requirement under FIMP to investigate land use management, but that recommended actions that are outside of USACE jurisdiction are not the responsibility of the USACE. The report indicates that the Appendix contains recommendations, but it should be clear that they are not funded through FIMP.	FGRR Appendix H "Land Management" includes the suggested language.
NYSDOS 083	Appendix H Land Management, Section II	P. 5	Please make the following changes to the description of the NYS CMP: (See comment)	FGRR Appendix H "Land Management" includes the suggested language.
NYSDOS 084	Appendix H Land Management, Section III	P. 5	We would agree that there is value in maintaining an open bay to ocean connection in some situations; however, the FIMP TSP does not include any options in the BCP for a breach to remain open indefinitely. The idea of allowing an open breach to exist was introduced during early discussions of the BCP, but the option was not included in the final BCP. This needs to be recognized in the statement above.	Approval is needed by the National Park Service for actions on land managed by the agency.
NYSDOS 085	Appendix H Land Management, Section III	P. 5-6	There are additional public benefits to acquisition beyond habitat restoration, which should be noted. For example, benefits such as flood water retention.	FGRR Appendix H "Land Management" includes a description of the benefits of acquisition beyond habitat restoration.
NYSDOS 086	Appendix H Land Management, Section IV	P. 7	Please indicate when these "meetings" took place. The overall FIMP formulation spans many decades.	Reference in the FGRR Appendix H "Land Management" was removed. FEIS Appendix O "Public Comments" includes a summary of public coordination and meetings.
NYSDOS 087	Appendix H Land Management, Section IV	P. 9	An additional improvement to CEHA in conjunction with the map updates would be public online access to these maps. They are currently inaccessible online.	USACE will make the maps available to NYS if it should want to post them on its website.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 088	Appendix H Land Management, Section IV	P. 10	The establishment of an acquisition fund is recommended, but not described in any detail. What are the options for establishing this fund? Would this be solely a local responsibility, or would the State/ Federal contribute as well? The report mentions different entities that might be able to purchase property, but it does not describe how this would occur.	Land acquisition is a non-federal responsibility.
NYSDOS 089	Appendix H Land Management, Section IV	P. 11	Please elaborate on "selective acquisition is considered further in the context of restoration alternatives." Is this restoration in terms of the CPFs or is this in reference to the acquisition under the nonstructural measures?	Reference to selective acquisition was removed from FGRR Appendix H "Land Management" for clarity.
NYSDOS 090	Appendix H Land Management, Section IV	P. 12	Please make the distinction between the operations and maintenance of the FIMP project post-storm and post-storm response planning. As it is currently written, it is unclear which responsibilities fall under the O&M manual and which would be included in a local post-storm response plan.	Confusing language was removed from FGRR Appendix H "Land Management" for clarity.OMRR&R responsibilities are detailed in the FGRR main body, and FGRR Appendix K "OMRR&R Requirements." Local post-storm redevelopment plans are outside the scope of the OMRR&R actions for the project.
NYSDOS 091	Appendix H Land Management, Section IV	P. 12	There is some confusion in the report about which measures might be implemented under FIMP authority and which are recommended for additional local/state/ federal consideration. For example, "one option under consideration is the development and implementation of local post storm redevelopment plans ... " It is unclear what "under consideration" means, by whom? This type of recommendation is supported by DOS in conjunction with other planning initiatives, such as a local/county Hazard Mitigation Plan, an LWRP, or other comprehensive plan. The NY Rising Community Reconstruction Program (NYRCR) is an example of a specific post-storm planning initiative that focused on development and implementation of community-driven rebuilding and resilience strategies. Several communities within the FIMP study area completed these plans. Below is suggested language that puts a greater emphasis on the importance of this type of planning: "Planning in the form of pre- and post-storm response is critical for communities that are at risk of flooding and storm damage. In addition to these types of local storm response and preparation plans, other planning documents, such as a local or regional Hazard Mitigation Plans or a Local Waterfront Revitalization Program (LWRP), can help bolster and prepare communities for future storm and flooding impacts. These types of planning efforts should include an assessment of the hazards and risks to a community and its assets, along with regional implications. Post-storm redevelopment planning should not solely focus on rebuilding back to pre-storm conditions, but preparing in advance for future storm events so that capital spending and redevelopment are completed in a resilient manner. Lessons learned from past storms can help shape future recommendations for rebuilding restrictions, rebuilding to safer standards or relocating out of hazardous areas."	FGRR Appendix H "Land Management" includes the suggested language.
NYSDOS 092	Appendix H Land Management, Section V	P. 12-13	As written, it is unclear that any acquisition is taking place under FIMP. The Main GRR, p. 106, notes that the post-Sandy plan includes acquisition or relocation of 40 homes located within the dune. Please clarify how many homes are being acquired under FIMP TSP, and whether they are part of the mainland non-structural measures.	While the exact number of homes to be acquired is still being determined, acquisitions where justified are part of the mainland nonstructural plan. FGRR Appendix F "Real Estate Plan" includes information about the estimated number of homes to be acquired.
NYSDOS 093	Appendix H Land Management, Section VI and VII	P. 13-14	Adaptive management. There is inconsistency in the adaptive management plan that is referenced in this Appendix. Under Section V, the plan appears to consist only of adaptive management for nourishment. However, as described under Section VI and in the Main GRR (p. 111), it covers all elements of the TSP (" ... accommodate climate changes as it relates to all the project elements"). We suggest utilizing similar language in section VII.	Confusing language was removed from FGRR Appendix H "Land Management" for clarity.
NYSDOS 094	Appendix I Physical Monitoring	P. I-2	Project description. Revise planned re-nourishment life from 50 years to 30 years plus 20 years post monitoring.	FGRR Appendix J "Monitoring and Adaptive Management Plan" includes information about the 30-year renourishment period.
NYSDOS 095	Appendix I Physical Monitoring	P. I-3	Inlet management Plan. It would be beneficial to include a revised, post-Sandy, sediment budget. See Comment Document Marked in pdf as NYSDOS 001 p. 26	FGRR Appendix J "Monitoring and Adaptive Management Plan" includes a description of back bay sediment in the conditional and reactive BCP, and Coastal Process Features that emulate back bay shoals.
NYSDOS 096	Appendix I Physical Monitoring	P. I-5	Shoreline Inspection. Describe the method of documentation of the general condition of shoreline reaches during site visits. Identify what may classify as an "unusual condition" during inspection	FGRR Appendix J "Monitoring and Adaptive Management Plan" clarifies that documentation will be detailed in a memorandum with notes and photos, prepared and submitted to the Adaptive Management Team. Unusual conditions include observable erosion (e.g., escarpment erosion), accretion, or other condition of note that deviates substantially from design.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 097	Appendix I Physical Monitoring	P. I-6	Wave Measurements. Are there any existing buoys from which data can be used to compliment this study?	FGRR Appendix J "Monitoring and Adaptive Management Plan" states that data from existing buoys will be used.
NYSDOS 098	Appendix I Physical Monitoring	P. I-7	Water Level Measurements. Clarify the length of time in which water level gages will be used for monitoring. Does long term mean entire length of the project (50 years)?	FGRR Appendix J "Monitoring and Adaptive Management Plan" states that water level gages will be used for 50 years.
NYSDOS 099	Appendix I Physical Monitoring	P. I-7	Borrow Area Monitoring. Document whether dredge removal from borrow site will affect sediment transport of controls. How many vibracore samples will be taken at each profile? Will the experienced geologist elected to do sampling be USACE staff or contracted?	A detailed borrow area moniotoring plan will be developed during Pre-construction Engineering Design, in coordination with NYS and other partners.
NYSDOS 100	Appendix I Physical Monitoring	P. I-8	Beach Fill. It would be beneficial to discuss cross-section drift at inlets as well as shoreline updrift and downdrift. Is there a possibility of modeling currents based on erosion/accretion locations and rates?	A decision about modeling currents will be made during Pre-construction Engineering Design, in coordination with NYS and other partners.
NYSDOS 101	Appendix I Physical Monitoring	P. I-8	Beach Profiles. Provide explanation for choosing to model only winter profile. How will dunes be protected during survey activities? How will control profiles be chosen?	Beach profiles will be surveyed twice per year following completion of initial construction throughout the first nourishment cycle (4 years), after which one post-winter survey/year is proposed. Specific details will be developed during Pre-construction Engineering Design, in coordination with NYS and other partners.
NYSDOS 102	Appendix I Physical Monitoring	P. I-9	Inlet Management. Confirm whether there will be an analysis of cross shore transport and whether controls will be used.	There are no plans at the present time to analyze cross shore sediment transport.
NYSDOS 103	Appendix I Physical Monitoring	P. I-9	Ground Modification. It would be beneficial to show multiple beach profiles in horizontal succession, parallel to the shoreline, in order to illustrate where erosion/accretion is occurring on both sides of the groin.	A decision about how to best illustrate erosion and accretion will be made during Pre-construction Engineering Design, in coordination with NYS and other partners.
NYSDOS 104	Appendix I Physical Monitoring	P. I-10	Breach Response Plan. Paragraph is lacking explanation of identification process to determine which areas are more likely to experience overwash and breaching. Identify exactly when/protocol for determining when post-storm beach profiles will be conducted.	A decision about how to best identify areas likely to experience overwash and breaching will be made during Pre-construction Engineering Design, in coordination with NYS and other partners.
NYSDOS 105	Appendix I Physical Monitoring	P. I-10	Sediment Transport Modeling. In response to statement "Sediment transport modeling will be performed in order to increase our ability to predict the effects of alterations in the ridge system (borrow area dredging) on the shoreline", what will be done to address the rate and direction of sediment transport from long-shore drift?	FGRR Appendix J "Monitoring and Adaptive Management Plan" describes an intereagency agreement for sediment transport modeling.
NYSDOS 106	Appendix I Physical Monitoring	P. I-11	Wave, current, bed load and suspended sediment concentration measurements. Need better explanation of the relationship between ridge systems and sediment transport. Why will gages at nearshore remain in place for only several weeks, while offshore gages will remain for several months?	FGRR Appendix J "Monitoring and Adaptive Management Plan" describes an intereagency agreement for gage placement and data collection.
NYSDOS 107	Appendix I Physical Monitoring	P. I-12	Analysis and Reports. Is there a possibility for locations besides western Fire Island to be monitored for wave, current, bed load and suspended sediment concentration?	Only western Fire Island was considered necessary for monitoring for waves, currents, bed load, and suspended sediment concentration.
NYSDOS 108	Appendix I Physical Monitoring	Attachment B-Page 3 (B-3)	General OMRR&R Duties of the Local Sponsor. Provide criterion for permanent appointment of local official. Describe permanent easement by which local communities will be bound. Identify when Project Cooperation Agreement will be finalized.	A decision about how and when to identify permanent appointment of a local official will be made during Pre-construction Engineering Design, in coordination with NYS and other partners.
NYSDOS 109	Appendix I Physical Monitoring	B-4	Beach and Berm. Identify whether localities have weighed in on proposed maintenance responsibilities and describe how these projects will be funded. Describe what is meant by "original" in the statement: "The berm and beach shall be graded and reshaped to original elevations to repair erosion ... "	"Original" refers to the project design. As the non-federal sponsor, NYSDEC is responsible for working with local interests with regard to the details of OMRR&R.
NYSDOS 110	Appendix I Physical Monitoring	B-5	Provide method of coordination between USACE and municipalities for OMRR&R requirements.	As the non-federal sponsor, NYSDEC is responsible for working with local interests with regard to the details of OMRR&R.

COMMENT #	SECTION	PAGE	COMMENT	RESPONSE
NYSDOS 111	Appendix I Physical Monitoring	LiDAR Requirements, Section 4.3 Aircraft	Describe how often planes will fly, and provide anticipated associated costs.	A decision about how often planes will fly will be made during Pre-construction Engineering Design, in coordination with NYS and other partners.

APPENDIX G2

Village of Ocean Beach

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

Environmental Analysis Branch

February 14, 2019

Steven W. Brautigam
Clerk/Treasurer
Village of Ocean Beach
PO box 457
Ocean Beach, New York 11770-0457

Subject: Atlantic Coast of Long Island, Fire Island Inlet to Montauk Point (FIMP), New York Coastal Storm Risk Management Project, Local Waterfront Revitalization Program (LWRP) Consistency Determination.

Mr. Brautigam:

The U.S. Army Corps of Engineers, New York District (District) is pleased to provide the final project description for the FIMP General Reevaluation Report (GRR) and Environmental Impact Statement (EIS) (Enclosure 1) and the District's Final Local Waterfront Revitalization Program (LWRP) Policy Statements and Waterfront Assessment Forms (Enclosure 2).

The District, New York State Department of Environmental Conservation (NYSDEC) and local partners, and other agencies including the New York State Department of State (NYSDOS), have participated in extensive coordination to finalize the project description, in particular the details of the Coastal Process Features (CPFs) which are designed to achieve no net loss of sediment into the back bay system as part of the mutually acceptable plan as well as for compliance with Section 7 of the Endangered Species Act by creating early successional habitat for piping plovers (*Charadrius melodus*).

The following updates have been made to the project and are reflected in the LWRP consistency determination, based on the extensive sponsor, local partner, resource agency and public coordination since the release of the July 2016 Draft GRR and EIS:

1. Updated sand quantities in tables and text
2. Additional language regarding "no net loss" of sediment (how to achieve the goal of approximately 4.2 million cubic yards of sand)
3. Additional section on proactive breach response triggers (ex: Southampton transitioned from Proactive to Reactive for Real Estate purposes)
4. Updated discussion of Downtown Montauk related to beach nourishment

5. Additional language describing that vacant land will be acquired as part of mainland nonstructural plan
6. Updated description of current list of CPFs, including renumbering sites and the removal of sites that do not have landowner support and are no longer included (Cupsogue, Sunken Forest, Point of Woods, Carrington, Regan Property)
7. Incorporated an updated CPF table with quantities to achieve the approximate 4.2 MCY. The quantity in the table alone will not achieve the 4.2 MCY quantity and therefore Adaptive Management will be utilized to reach the overall total
8. Included a description of mainland CPF's.

The District requests that the Village of Ocean Beach please provide concurrence on the District's LWRP Determination no later than April 15, 2019 in order to be included in the Final EIS and maintain the overall project schedule for project approval

The District looks forward to working with your office to complete the Feasibility phase and throughout the Pre-Engineering and Design and Construction phases and thanks you for your continued assistance and input to this process which helps to advance the execution of this regionally-significant project.

If you require any additional information, please feel free to contact Mr. Robert Smith Project Biologist at 917-790-8726.

Sincerely,

Peter Weppler
Chief, Environmental section

Enclosure 1 FIMP Final Project Description
Enclosure 2 Final Village Ocean Beach LWRP Consistency Determination

cc: NYSDOS - Maraglio

INC. VILLAGE OF OCEAN BEACH

Waterfront Assessment Form (WAF)

A. INSTRUCTIONS (Please print or type all answers)

1. Applicants, or in the case of direct actions, Village of Ocean Beach agencies, shall complete this Waterfront Assessment Form (WAF) for proposed actions which are subject to the consistency review law. This assessment is intended to supplement other information used by the designated Village of Ocean Beach agency in making a determination of consistency.

2. Before answering the questions in Section C, the preparer of this form should review the policies and explanations of policy contained in the Local Waterfront Revitalization Program (LWRP), a copy of which is on file in the Village of Ocean Beach Village Clerk's office. A proposed action should be evaluated as to its significant beneficial and adverse effects upon the coastal area.

3. If any questions in Section C on this form are answered "yes", then the proposed action may affect the achievement of the LWRP policy standards contained in the consistency review law. Thus, the action should be analyzed in more detail and, if necessary, modified prior to making a determination regarding its consistency with the LWRP policy standards. If an action cannot be certified as consistent with the LWRP policy standards, it shall not be undertaken.

B. DESCRIPTION OF SITE AND PROPOSED ACTION

1. Type of agency action (check appropriate response):

__X__ (a) Directly undertaken (e.g. capital construction, planning activity, agency regulation, land transaction)
____ (b) Financial assistance (e.g. grant, loan, subsidy)
____ (c) Permit, approval, license, certification
____ (d) Agency undertaking action

2. Type of Approval Action Requested (check all that apply)

☐ Site Plan Approval ☐ Variance
☐ Rezoning ☐ Building Permit
☐ Subdivision ☐ Special Use Permit
☒ Other

3. Describe nature and extent of action:
Atlantic Coast of Long Island, New York. The U.S. Army Corps of Engineers, New York District (CENAN) is proposing measures to provide shore protection and reduce storm damage for the south shore of Long Island, New York, from Fire Island Inlet to Montauk Point (Fire Island Montauk Point Reformulation Project). Beach fill from offshore sites, and other associated actions, to be placed on Fire Island barrier island in Ocean Beach, resulting in a +15 ft dune and 90 ft berm. Project will minimize damage to natural resources and property from flooding and erosion by protecting natural features including beaches, dunes, barrier islands and bluffs and through measures to reestablish coastal process features.

4. Location: *The project is located along the Atlantic coast shoreline from the Fire Island inlet to the Montauk Point and includes the segment within the Village of Ocean Beach*.

5. Size of site: *The project includes the 2,000 foot segment of Atlantic coast shoreline within the Village of Ocean Beach.*

6. Present land use*: The project area is an existing beach within the Fire Island National Seashore*.

7. Present zoning classification: N/A

8. Describe any unique or unusual land forms on the project site (i.e. steep slopes, swales, ground depressions, other geological formations):
The project generally includes the existing berm and dunes along the shoreline.

9. Percentage of site which contains slopes of 15% or greater: N/A

10. Streams, lakes, ponds or wetlands existing within or contiguous to the project area?

(1) Name: N/A
(2) Size (in acres):

11. If an application for the proposed action has been filed with the agency, the following information shall be provided:
(a) Name of applicant: USACE- New York District
(b) Mailing address: 26 Federal Plaza, New York, NY 10278
(c) Telephone number: 917-790-8729 Robert Smith

12. Will the action be directly undertaken, require funding, or approval by a state or federal agency?
Yes X No If yes, which agency US Army Corps of Engineers, New York State Department of Environmental Conservation

C. Waterfront ASSESSMENT (Check either "Yes" or "No" for each of the following questions)

1. Will the proposed action have a significant effect upon: YES NO
(a) Commercial or recreational use of fish and wildlife resources? NO
(b) Scenic quality of the waterfront environment? YES
(c) Development of future, or existing water dependent uses? NO
(d) Stability of the shoreline? YES
(e) Surface or groundwater quality? NO
(f) Existing or potential public recreation opportunities? NO
(g) Structures, sites or districts of historic, archeological or cultural significance to the Village of Ocean Beach, State or Nation? NO

2. Will the proposed action involve or result in any of the following: YES NO

(a) Physical alteration of land along the shoreline, land under water or waterways? YES
(b) Physical alteration of two (2) acres or more of land located elsewhere in the waterfront area? YES
(c) Expansion of existing public services or infrastructure in undeveloped or low density areas of the waterfront? NO
(d) Energy facility not subject to Article VII or VIII of the Public Service Law? NO

(e) Mining, excavation, filling or dredging?YES

(f) Reduction of existing or potential public access to or along the shore? NO

(g) Sale or change in use of publicly-owned lands located on the shoreline or under water? NO

(h) Development within a designated flood hazard area? NO

(i) Development on a natural feature that provides protection against flooding or erosion?Yes

(j) Diminished surface or groundwater quality? NO

(k) Removal of ground cover from the site? NO

3. PROJECT YES NO

(a) If a project is to be located adjacent to shore:

(1) Will water-related recreation be provided? NO

(2) Will public access to the foreshore be provided? NO

(3) Does the project require a waterfront site? YES

(4) Will it supplant a recreational or maritime use? NO

(5) Do essential public services and facilities presently exist at or near the site? NO

(6) Is it located in a flood prone area? YES

(7) Is it located in an area of high erosion? YES

(b) If the project site is publicly owned:

(1) Will the project protect, maintain and/or increase the level and types of public access to water-related recreation resources and facilities? YES

(2) If located in the foreshore, will access to those and adjacent lands be provided? NO

(3) Will it involve the siting and construction of major energy facilities? NO

(4) Will it involve the discharge of effluents from major steam electric generating and industrial facilities into waterfront facilities? NO

(c) Is the project site presently used by the community neighborhood as an open space or recreation area? YES

(d) Does the present site offer or include scenic views or vistas known to be important to the community? YES

(e) Is the project site presently used for commercial fishing or fish processing? NO

(f) Will the surface area of any waterways or wetland areas be increased or decreased by the proposal? NO

(g) Does any mature forest (over 100 years old) or other locally important vegetation exist on this site which will be removed by the project? NO

(h) Will the project involve any waste discharges into waterfront waters? NO

(i) Does the project involve surface or subsurface liquid waste disposal? NO

(j) Does the ~~project~~ involve transport, storage, treatment or disposal of solid waste or hazardous materials? NO

(k) Does the project involve shipment or storage of petroleum products? NO

(l) Does the project involve discharge of toxics, hazardous substances or other pollutants into the *waterway?* _*NO*_

(m) Will the project affect any area designated as a tidal or freshwater wetland? _NO_

(n) Will the project alter drainage flow, patterns or surface water runoff on or from the site? _NO_

(o) Will best management practices be utilized to control stormwater runoff into waterfront waters? _NO_

(p) Will the project utilize or affect the quality or quantity of sole source or surface water supplies? _NO_

(q) Will the project cause emissions which exceed federal or state air quality standards or generate significant amounts of nitrates or sulfates? _YES_

D. REMARKS OR ADDITIONAL INFORMATION: (Add any additional sheets to complete this form.)

Refer to the attached policy statement which discusses project consistency with relevant policies of the Local Waterfront Revitalization Program of the Village of Ocean Beach.

If assistance or further information is needed to complete this form, please contact Village of Ocean Beach Building Inspector at (631) 583-7018.

Preparer's Name: Robert Smith
Title: Project Manager
Agency: U.S. Army Corps of Engineers, N.Y. District
Telephone Number: (917) 790-8729
Date: 2-14-2019

APPENDIX G3

Town of East Hampton

TOWN OF EAST HAMPTON
300 Pantigo Place – Suite 105
East Hampton, New York 11937-2684

Planning Department
Marguerite Wolffsohn
Director

Telephone (631) 324-2178
Fax (631) 324-1476

May 29, 2019

Peter Weppler
Chief, Environmental Section
U.S. Army Corps of Engineers - Planning
New York District
26 Federal Plaza - Room 2131
New York, NY 10278-0090

Re: Atlantic Cost of Long Island, Fire Island to Montauk Point (FIMP), New York Coastal Storm Risk Management Project, East Hampton Local Waterfront Revitalization Program (LWRP) Consistency Determination

Dear Mr. Weppler,

Thank you for your April 23, 2019 response to the Town's March 11, 2019 comments regarding the Fire Island to Montauk Point (FIMP) General Reformulation Report (GRR). The Town recognizes the importance of finalizing the Environmental Impact Statement and maintaining the overall project schedule for this regionally significant project. It is important to recognize, however, that the Downtown Montauk Stabilization Project is unique in the history of Long Island's coastal erosion management along the Atlantic Ocean. The frequency and cost of maintaining the project design parameters have significantly exceeded the estimates of the Corps. These costs have been borne primarily by the Town as the local project sponsor. The detail regarding adaptive management options for maintain the geotextile bags and the thresholds for their possible removal are very limited in the GRR and Appendices. Consequently, Town of East Hampton concurrence with the Corps LWRP Consistency determination is contingent on compliance with an acknowledgement of the local sponsor's maintenance practices and financial expenditures since initial project completion relative to their initial estimates. It appears unlikely that the stabilization project would have met the Corps cost-benefit analysis criteria if the actual maintenance costs were factored into the analysis.

The Montauk Feeder Beach project recommended in FIMP for downtown Montauk may limit the importance of maintaining the Stabilization Project's original design parameters. The Town respectfully requires local input to be given great deference into identifying appropriate parameters for the removal of the geotextile bags if they are damaged or frequently exposed by coastal processes during the Feasibility and Pre-Engineering phases of the FIMP. The Concurrence with Consistency Determination issued by the Department of State on April 16, 2019 also strongly recommended coordination with the Town to ensure continued consistency with the New York State Coastal Management Program and the Town's LWRP.

Sincerely,

Brian Frank
Chief Environmental Analyst
brifrank@ehamptonny.gov

Electronic copy: NYSDOS Consistency Review Unit
East Hampton Town Supervisor

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

Environmental Analysis Branch

February 14, 2019

Mr. Brian Frank
Chief Environmental Analyst
East Hampton Planning
300 Pantigo Place
East Hampton, NY 11937

Subject: Atlantic Coast of Long Island, Fire Island Inlet to Montauk Point (FIMP), New York Coastal Storm Risk Management Project, East Hampton Local Waterfront Revitalization Program (LWRP) Consistency Determination.

Mr. Frank:

The U.S. Army Corps of Engineers, New York District (District) is pleased to provide the final project description for the FIMP General Reevaluation Report (GRR) and Environmental Impact Statement (EIS) (Enclosure 1).

The District, New York State Department of Environmental Conservation (NYSDEC) and local partners, and other agencies including the New York State Department of State (NYSDOS), have participated in extensive coordination to finalize the project description, in particular the details of the Coastal Process Features (CPFs) which are designed to achieve no net loss of sediment into the back bay system as part of the mutually acceptable plan as well as for compliance with Section 7 of the Endangered Species Act by creating early successional habitat for piping plovers (*Charadrius melodus*).

The following updates have been made to the project based on the extensive sponsor, local partner, resource agency and public coordination since the release of the July 2016 Draft GRR and EIS. These updates will not require any updates to the Districts Town of East Hampton existing LWRP consistency determination:

1. Updated sand quantities in tables and text
2. Additional language regarding "no net loss" of sediment (how to achieve the goal of approximately 4.2 million cubic yards of sand)
3. Additional section on proactive breach response triggers (ex: Southampton transitioned from Proactive to Reactive for Real Estate purposes)
4. Updated discussion of Downtown Montauk related to beach nourishment
5. Additional language describing that vacant land will be acquired as part of mainland nonstructural plan
6. Updated description of current list of CPFs, including renumbering sites and the removal of sites that do not have landowner support and are no longer

included (Cupsogue, Sunken Forest, Point of Woods, Carrington, Regan Property)

7. Incorporated an updated CPF table with quantities to achieve the approximate 4.2 MCY. The quantity in the table alone will not achieve the 4.2 MCY quantity and therefore Adaptive Management will be utilized to reach the overall total
8. Included a description of mainland CPF's.

The District requests that the Town of East Hampton please provide concurrence on the District's LWRP Determination no later than April 15, 2019 in order to be included in the Final EIS and maintain the overall project schedule for project approval

The District looks forward to working with your office to complete the Feasibility phase and throughout the Pre-Engineering and Design and Construction phases and thanks you for your continued assistance and input to this process which helps to advance the execution of this regionally-significant project.

If you require any additional information, please feel free to contact Mr. Robert Smith, Project Biologist at 917-790-8726.

Sincerely,

Peter Weppler
Chief, Environmental section

Enclosure 1 FIMP Final Project Description
Enclosure 2 Final LWRP Consistency Determination

cc: NYSDOS - Maraglio

NEW YORK STATE DEPARTMENT OF
STATE COASTAL ZONE MANAGEMENT PROGRAM

Policy Statement for the Town of East Hampton Local Waterfront Revitalization Program

Project: Fire Island to Montauk Point (FIMP) Reformulation Project

Applicant: U.S. Army Corps of Engineers, New York District

Applicable Policies: The Town of East Hampton Local Waterfront Revitalization Program (LWRP) policies (East Hampton 1999) were reviewed as to their applicability to the FIMP Reformulation Project. Based upon this review, 26 LWRP policies and sub-policies were identified as potentially applicable to the proposed Project. These policies are presented below, followed by an explanation of Project consistency. Policies that are clearly not applicable are not discussed.

Policy 4 Strengthen the economic base by encouraging the development and enhancement of those traditional uses and activities that have provided such areas with their unique maritime identity.

Determination – As applied to Three Mile and Montauk Harbors, the Recommended Plan would insure that traditional uses of the south shore of Long Island would be enhanced and preserved. The Recommended Plan would stabilize the barrier island shoreline and manage the risk from coastal storm damage to the surrounding area, thus encouraging the development and enhancement of those traditional uses and activities that have provided Three Mile and Montauk Harbors with their unique maritime identity. Therefore, the District has determined that the Recommended Plan would be consistent with this policy.

Policy 5 Encourage the location of development in areas where public services and facilities essential to such development are adequate.

Determination – This policy is intended to further the rural pattern of the Town, which concentrates development in village and hamlet centers. The Recommended Plan would manage the risk of coastal storm damage to existing infrastructure along the south shore of Long Island from hurricane and storm surge flooding. Risk management would provide stability and enhancement to existing and future development Projects. The without Project condition would eventually impact development as contractors would be hesitant to develop in an unstable, unprotected environment. Therefore, CENAN has determined that the Recommended Plan would be consistent with this policy.

Policy 7 Significant coastal fish and wildlife habitat will be protected, preserved, and where practicable, restored so as to maintain their viability as habitats.

Policy 7a (Locally Significant Fish and Wildlife Habitats)
Locally significant coastal fish and wildlife habitat, as identified on the coastal area map, shall be protected, preserved, and where practicable, restored so as to maintain their viability as habitats.

Policy 7b (Protection of Diversity)
Protect to the maximum extent practicable the vulnerable plant and animal species and natural communities that have been identified on the state and federal levels by the New York Heritage Program, the NYSDEC protected native plant list (NYCRR 193.3), the NYSDEC list of endangered, threatened and special concern species and the federal list of endangered and threatened wildlife and plants (50 CFR 17).

Determination - All of Great South Bay and many adjoining marshes and natural areas are designated as Significant Coastal Fish and Wildlife Habitat (SCFWH). Policy 7 states that filling of shallows, grading, shoreline alteration and dredging are among generic activities most likely to affect protected habitats. These activities are integral to the proposed Project which consists of dredging sand from offshore borrow areas for placement on the Atlantic shoreline of Fire Island to create enhanced beach area and dunes for coastal storm risk management. No dredging will occur within State-designated SCFWH. No filling or grading will occur within marshes or wetlands; fill placement is limited to the Atlantic shoreline only. Fill placement along the Atlantic shoreline of Fire Island in the Project area will create wider beaches and dunes to minimize breaching and overwashing and consequent damage to habitats and communities on the barrier island and along the south shore of Long Island. There will be no change in existing tidal exchange patterns, only a continuation of the non-storm induced conditions. The Recommended Plan includes twelve barrier island locations where coastal process features (CPFs) will be reestablished to meet the overall reformulation objective of no net loss of habitat or sediment.

A comprehensive assessment of potential Project impacts to threatened and endangered species and habitats was conducted and is presented in Chapter 4 of the Environmental Impact Statement (EIS) prepared for the Project and the Biological Assessment (BA) and Programmatic Biological Opinion (PBO) (see Appendix B of the EIS). The proposed activities would be undertaken in a manner consistent with this policy.

Policy 8 Protect fish and wildlife resources in the coastal area from the introduction of hazardous wastes and other pollutants which bio-accumulate in the food chain or which cause significant sub-lethal or lethal effect on those resources.

Determination – The material that may be obtained from the offshore borrow areas, consists primarily of clean, coarse-grained sand. The material that would be dredged and used for beach nourishment on the down drift beaches would not contain hazardous wastes or other pollutants that would bio-accumulate in the food chain or cause significant sub-lethal or lethal effects on those resources. Sediment re-suspension is likely to cause temporary increases in turbidity; however, these increases would be limited in duration and spatial extent and are not expected to significantly affect fish or aquatic wildlife in the Project areas. The proposed activities would not adversely affect fish and wildlife resources and would be undertaken in a manner consistent with this policy.

Policy 12 Activities or development in the coastal area will be undertaken so as to minimize damage to natural resources and property from flooding and erosion by protecting

natural protective features including beaches, dunes, barrier islands and bluffs.

Determination – The Long Island south shore barriers, inlets, and associated beaches, dunes, and nearshore areas are natural "defenses" that help preserve coastal lands and property from damage and reduce the danger to resources and property resulting from flooding and erosion. The proposed activities would be conducted in the inlets, mainland (10-year floodplain non-structural building retrofits, floodproofing, relocation, and acquisition), and barrier islands. These properties and their associated coastal processes ordinarily provide varying levels of risk management measures to the barrier island upland areas, the south shore bays, and Long Island south shore mainland. The purpose of the Project is to implement measures that will augment and restore the natural protective capabilities of the barrier islands, inlets, and mainland.

The nourishment of beaches and dunes with appropriate material is an allowable activity pursuant to the coastal erosion hazard area regulations contained in 6 NYCRR Part 505 (see also Policy 35), and is a non-structural erosion control measure preferred over structural measures by the State in its tidal wetlands, erosion hazards, and coastal management program statutes and regulations (see Policies 17, 35, and 44). Restoring the natural protective characteristics of the barrier island, inlets, and associated beaches, dunes, and nearshore areas (resulting in the protection of the barrier island itself, the bay-system and the mainland of Long Island) would be consistent with and further promote Policy 12, which is to minimize damage to natural resources and property by protecting the naturally occurring protective characteristics and the associated physical processes.

Policy 15 Mining, excavation or dredging in coastal waters shall not significantly interfere with the natural coastal processes which supply beach materials to land adjacent to such waters and shall be undertaken in a manner which will not cause an increase in erosion of such land.

Determination – The proposed action includes the removal of material from offshore borrow sources. The borrow areas are located more than 1 mile offshore, where excavation and dredging has been demonstrated to have a negligible impact on the nearshore coastal processes, and will not cause an increase in coastal erosion. Best management practices will be followed during all dredging activities and the proposed dredging depth in the borrow areas will not reduce the flow of sediments to adjacent areas. Coastal processes along the shoreline sand placement areas will not be interfered with as only natural sands will be placed; no structures or shoreline hardening is proposed. The twelve barrier island and two mainland CPF locations will reestablish the coastal processes of breaching and overwashing with the introduction of approximately 4.2 million cubic yards of material into the bay ecosystem over the project life. The Monitoring and Adaptive Management aspect of the Recommended Plan will document that coastal processes are maintained. The proposed activities are consistent with this policy.

Policy 16 Public funds shall only be used for erosion protective structures where necessary to protect human life, and new development which requires a location within or adjacent to an erosion hazard area to be able to function, or existing development; and only where the public benefits outweigh the long-term

monetary and other costs including the potential for increasing erosion and adverse effects on natural protective features.

Determination – The Project will minimize breaching and overwashing of the barrier islands and is a necessary measure for storm damage reduction on the barrier islands as well as the south shore of Long Island. The Project will enhance and recreate natural protective features of the barrier islands through beach renourishment and berm construction and does not include structural measures. Benefits to the human and natural environments outweigh the expenditures of public funds. This has been demonstrated through the completion of a comprehensive economic assessment of the Reformulation Plan. The Project is consistent with this policy.

Policy 17 Non-structural measures to minimize damage to natural resources and property from flooding and erosion shall be used whenever possible.

Policy 17A (Only Non-structural Measures Permitted in Certain Reaches)
Along the south shore ocean facing reaches of the town, only non-structural measures to minimize flooding and erosion are permitted.

Determination – The proposed use of suitable dredged sand for beach nourishment and dune creation is a non-structural measure. The beach nourishment minimizes damage to natural resources and property from flooding and erosion by strengthening natural protective characteristics and providing the sediments necessary for these characteristics to function. The Project is consistent with this policy.

Policy 18 To safeguard the vital economic, social and environmental interests of the State and of its citizens, proposed major actions in the coastal area must give full consideration to those interests, and to the safeguards which the State has established to protect valuable coastal resource areas.

Determination – The Project will reduce the frequency and degree of breaches and overwashes of the barrier islands and mainland and thereby afford coastal storm risk management to the barrier as well as communities on the south shore of Long Island. In addition, several of the inlets (such as Fire Island Inlet and Moriches Inlet) are regionally important navigation inlets that must be stabilized and maintained. The areas adjacent to the inlet support regionally important water-dependent and water-related uses, including commercial fishing and recreational boating facilities, public parklands, and other uses. The physical character of the barriers must be maintained to protect these uses.

The south shore of Long Island also supports a variety of public recreational and commercial activities. The south shore of Staten Island's coastline must be maintained to protect these uses. The without Project condition would eventually impact public recreational and commercial activities. The Project would provide coastal storm risk management to an important public recreational area and adjacent commercial and residential properties with minimal short-term impacts to economic, social, and environmental resources. Therefore,

the District has determined that the Recommended Plan would be consistent with and advance this policy.

Policy 19 Protect, maintain, and increase the level and types of access to public water related recreation resources and facilities.

Determination – The beach areas in the proposed Project area support a variety of public recreational activities (see also Policies 18 and 20). The Recommended Plan would result in positive impacts on recreation as a result of better coastal storm risk management in the Project area. The without Project alternative would result in increased flood risks and increased erosion, thereby decreasing recreational potential in the area.

Buffer areas approximately 1,000 feet in length will be closed during construction activities for safety reasons. Although a reduction in public access to the work site during construction would occur, this impact would be temporary. As beach placement activities are completed within each 1,000-foot compartment, the buffer is shifted accordingly. Public use of the beach area would be restored at that time. The proposed activities would be undertaken in a manner consistent with this policy. Also, over the 50-year Project life the proposed activities would advance the policy to protect, maintain, and increase public access to and use of public water-related recreation resources and facilities.

Policy 20 Access to publicly-owned foreshore and to lands immediately adjacent to the foreshore or the water's edge that are publicly-owned shall be provided and it shall be provided in a manner compatible with adjoining uses.

Determination – Many of the lands and waters adjacent to and at the sites of the proposed activities are publicly-owned and accessible underwater lands and parklands that support a variety of public uses are present in the area (see also Policies 18 and 19). Based on the Policy 19 analysis above, the proposed activities would be undertaken in a manner consistent with and would advance this policy.

Policy 21 Water dependent and water enhanced recreation will be encouraged and facilitated, and will be given priority over non-water-related uses along the coast.

Policy 21A **(Water-related Recreation Improvement Sites)**
Water dependent and water-enhanced recreation will be encouraged and facilitated at sites recommended under "Opportunities for Improvement" and "Recreational Uses Compatible with New Development" in the analysis narrative of "Town of East Hampton Local Waterfront Revitalization Program" (East Hampton 1999) and in "Public Access and Recreation Improvements" in Projects, Section XIV of "Town of East Hampton Local Waterfront Revitalization Program" (East Hampton 1999).

Determination – Many of the lands and waters within the Project area are publicly-owned and currently support a variety of public water dependent uses such as fishing, boating and beaching. The Project will protect and enhance these uses in the long-term, with only staggered short-term loss of use during construction, as described under Policy 19. The proposed Project is consistent with and will advance this policy.

Policy 23 Protect, enhance and restore structures, districts, areas or sites that are of significance in the history, architecture, archeology or culture of the State, its communities, or the Nation.

Determination –The Fire Island Light Station (Town of Islip) and the Beach Road Historic District (Village of Southampton) are the only properties within the study area that are listed on the National Register, and none of these properties are in East Hampton. A number of other structures, each more than 50 years of age, which may possess the requisite characteristics and integrity to be eligible for the National Register are visible from the beach (JMA 2000), including: the Robert Moses State Park Tower; the former Point O' Woods Life Saving Station (presently the Fire Island Hotel and Resort), and houses in various communities in the study area (see Table 3.10-1 of the EIS). None of the properties listed in Table 3.10-1 are located in East Hampton. The Project will afford additional coastal storm risk management to existing properties on the National Register, as well as the other identified structures. The Project will not affect archaeological site or marine resources, such as shipwrecks. The Project will protect cultural resources and is consistent with this policy.

Policy 24 Prevent impairment of scenic resources of statewide significance.

Determination – Portions of East Hampton have been designated as scenic resources of statewide significance (NYSDOS 2010). Although some of these portions of East Hampton are within the Project area, CENAN is not proposing any actions in these areas that will impact these scenic resources of statewide significance. Consequently, the Project will not impair scenic resources of statewide significance.

Policy 25 Protect, restore, or enhance natural and man-made resources which are not identified as being of statewide significance, but which contribute to the overall scenic quality of the coastal area.

Determination – Implementation of the Recommended Plan would require the use of large construction equipment, such as dredge barges and excavators that would visually interrupt the natural landscape during construction activities. The Project would not require the use of construction equipment within the Town of East Hampton. These short-term impacts would be similar to visual impacts that currently occur and would not be significant. Long-term, the Recommended Plan would reduce the impacts from storm and flooding events that may cause significant erosion or breaching of beaches, dunes, and shorelines. By reducing these types of impacts, the Recommended Plan will contribute positively to the overall scenic quality of the coastal area.

Policy 30 Municipal, industrial, and commercial discharge of pollutants, including but not limited to, toxic and hazardous substances, into coastal waters will conform to State and National water quality standards.

Determination – The Project will not discharge pollutants. The Project is likely to result in sediment re-suspension and associated increases in turbidity during dredging in the borrow areas and during sand placement along the shoreline. These turbidity increases will be temporary and will not result in a violation of this policy.

Policy 35 Dredging and dredge spoil disposal in coastal waters will be undertaken in a manner that meets existing State dredging permit requirements and protects significant fish and wildlife habitats, scenic resources, natural protective features, important agricultural lands and wetlands.

The proposed dredging of clean, relatively coarse-grained accumulated sand from offshore borrow areas will not adversely affect significant coastal fish and wildlife habitats (see Policy 7), natural protective characteristics (see Policies 12, 14, 15, 17, and 18), or wetlands (see Policy 44).

The proposed dredging activities would take place in waters greater than 6 feet deep, and are therefore not required to meet the regulatory standards contained in the State's tidal wetlands land use regulations in 6 NYCRR Part 661. However, the use of the dredged material for beach nourishment in the areas adjacent to the Atlantic Ocean tidal wetland littoral zone would require a tidal wetlands permit (see Policy 44). Likewise, the placement of material on the bayside of the barrier island as part of the CPFs would also take place in the littoral zone, requiring a tidal wetlands permit. The sand placement area is within state designated significant fish and wildlife habitats. The State tidal wetlands regulations in 6 NYCRR Part 661 indicate that the use of the dredge material for beach nourishment in an area adjacent to tidal wetlands is a generally compatible use; however, such a use is dependent on several character and resource values and the effects such nourishment and its associated dredged materials might have on intertidal wetlands and adjacent areas. The material to be dredged and used to nourish the beaches is compatible with the material currently on the beaches. The nourishment of beaches and dunes where necessary and appropriate is an activity that may be authorized pursuant to the coastal erosion hazard area regulations in 6 NYCRR Part 505 (see also Policy 12).

The Project will be implemented in such a manner as to avoid adverse impacts to these habitats during construction to the extent practicable. Long-term benefits to significant fish and wildlife habitats are anticipated as the placement of the beach fill would lead to larger and wider beach areas that could be used for breeding and nesting by shorebirds. The bayside material placement CPFs would simulate breaching and overwashing and create habitat for sensitive species.

There is an overriding need to maintain the physical character of the barrier island and its associated natural protective characteristics, as well as the natural resource values of these characteristics. An EIS has been prepared for the Project which details the potential impacts to natural and cultural resources. In addition, all required permits, such as a NYSDEC Tidal

Wetlands Permit, Section 401 Water Quality Certificate, Clean Water Act Section 404 permit, will be acquired and all permit conditions will be complied with.

Consultation and coordination with State and Federal resource agencies (US Fish &Wildlife Service, NOAA Fisheries, National Park Service and State Natural Resource agencies) will be conducted and species specific seasonal restrictions and mitigation measures will be put in place and will include monitoring and adaptive management. The proposed activities will be conducted in a manner consistent with this policy.

Policy 38 The quality and quantity of surface water and groundwater supplies will be conserved and protected, particularly where such waters constitute the primary or sole source of water supply.

Policy 38A Maintain water resources as near to their natural condition of purity as reasonably possible to safeguard public health.

Determination – The Project will not affect water supply sources. Temporary increases in turbidity may occur during dredging and sand placement activities; however, these will be limited to construction periods and will be limited in spatial extent and duration. Best management practices will be implemented to minimize impacts. The Project is consistent with this policy.

Policy 41 Land use or development in the coastal area will not cause national or State air quality standards to be violated.

Determination – The Project will result in mobile air emissions sources during construction only. No stationary sources are proposed. A conformity analysis is being conducted for the Project and any required mitigation measures to offset temporary emissions increases will be implemented. A detailed air impact analysis is included with the EIS prepared for the FIMP Reformulation Project. The Project is consistent with this policy.

Policy 43 Land use or development in the coastal area must not cause the generation of significant amounts of the acid rain precursors: nitrates and sulfates.

Determination – Refer to the response to Policy 41; the Project is consistent with this policy.

Policy 44 Preserve and protect tidal and freshwater wetlands and preserve the benefits derived from these areas.

Determination – As demonstrated above in the Policy 35 analysis, the proposed activities would take place in and adjacent to the Atlantic Ocean and bayside littoral zone and unvegetated intertidal wetland areas. Material would not be placed in vegetated tidal wetlands. No wetlands within the Town of East Hampton would be directly affected by the Project. The proposed activities are compatible uses according to the tidal wetlands land use regulations in 6 NYCRR Part 661. The proposed activities include one of the preferred non-structural erosion control measures identified in the State erosion hazard area regulations, the Coastal Policies contained in the State's Coastal Management Program document, the State

tidal wetlands land use regulations, and Article 42 of the Executive Law and its implementing regulations in 19 NYCRR Part 600. The beach nourishment activities will result in physical changes to the intertidal area that will adversely affect some invertebrates at the site of the beach nourishment activities while the Project is being undertaken (see Policy 35 analysis). However, these adverse effects would not be significant, would be temporary, and would not result in significant adverse effects nor significantly impair the benefits derived from the tidal wetland areas. The proposed activities would be undertaken in a manner consistent with this policy.

References

East Hampton 1999 — East Hampton Town Board. "Town of East Hampton Local Waterfront Revitalization Program." December 3, 1999.

JMA 2000 — John Milner Associates, Inc. (JMA). 2000. Cultural Resources Baseline Study Fire Island Inlet to Montauk Point. Suffolk County, New York Reformulation Study. Prepared for The Greeley-Polhemus Group and the U.S. Army Corps of Engineers New York District.

NYSDOS 2010 — New York State Department of State (NYSDOS), Division of Coastal Resources. "East Hampton Scenic Areas of Statewide Significance." January 2010.