

Appendix D

Coastal Zone Consistency Determination

NEW YORK CITY AND NEW YORK STATE COASTAL ZONE MANAGEMENT PROGRAM CONSISTENCY DETERMINATION

Project: South Shore of Staten Island Coastal Storm Risk Management Project (Project). For a complete Project history and description refer to Chapters 1 and 2 of the Environmental Impact Statement (EIS).

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

Applicable Policies: Based on a review of the Coastal Management Program policies for New York, 20 state policies and 9 New York City policies were found to be potentially applicable to the proposed Project. These policies are listed below.

Consistency Determination: All of the applicable policies were evaluated with respect to the Project's consistency with their stated goals. The Project has been found to be consistent with each policy.

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

Also applicable: **NYC Policy 1** -- Support and facilitate commercial and residential redevelopment in areas well-suited to such development; and

NYC Policy 2 – Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.

Determination – Construction of the NED Plan would contribute to the revitalization of the waterfront area associated with the Project area. The Project would provide coastal risk management of the south shore of Staten Island (from Fort Wadsworth to Oakwood Beach), protecting life, property and existing infrastructure from storm damage and erosive forces from coastal storm events. The physical integrity of the south shore of Staten Island's coastline must be maintained to protect these uses. Therefore, the District has determined that the proposed NED Plan would be consistent with this policy.

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

Determination – The area/land on which the Project's line of protection (LOP) is being built is publicly owned, and supports a variety of public recreational 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 activities. The District has determined that the NED Plan would be consistent with, and would advance, this policy.



State 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 NED Plan would insure that historic recreational use of the south shore of Staten Island beaches would be enhanced and preserved. The NED Plan would stabilize the shoreline and manage the risk from coastal storm damage to the surrounding area, thus enabling continued recreational enjoyment. Therefore, the District has determined that the NED Plan would be consistent with this policy.

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

Determination – The NED Plan would manage the risk of coastal storm damage to existing infrastructure along the south shore of Staten 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, the District has determined that the NED Plan would be consistent with this policy.

State Policy 7 – Significant coastal fish and wildlife habitats would be protected, preserved, and where practical, restored so as to maintain their viability as habitats.

Also applicable: **NYC Policy 4** – Protect and restore the quality and function of ecological systems within the New York City coastal area.

NYC Policy 5 – Protect and improve water quality in the New York City coastal area.

Determination – The District calculated that the NED Plan would reduce freshwater wetland acreage by approximately 10.9 acres and would result in the construction of approximately 46 acres of tidal wetlands. Overall, the NED Plan would improve wetland quality and enhance wetlands by increasing diversity with expanded open water (low-flow channels and ponds) and permanent pool (emergent wetlands) habitats. The NED Plan is also expected to result in improved water quality in the watershed. Proposed ponds function as wetlands that provide physical, chemical, and biological treatment of pollutants contained within runoff; flow rates into wetlands are attenuated, allowing sediment and organic debris to settle. During this process, nutrients undergo both chemical and biological transformation. Nitrogen can be naturally altered into forms that are more favorable to uptake by wetland plants and phosphorus is readily precipitated out of water in many of its chemical forms, depending on the pH of the water and is also utilized by plants. Proposed ponds can also reduce fecal coliform concentrations by detaining water, allowing for die-off of microorganisms. Beneficial impacts to aquatic ecosystem would occur through improved habitats. To achieve the goal of habitat enhancements, natural features have been designed into the Project for the purposes of providing ecological diversity in addition to (and in support of) the functions of stormwater management and flood control. The objective of these diverse design elements is to enhance the overall habitat complexity and



ecological values in the Project area. Accordingly, the District has determined that the NED Plan would be consistent with this policy.

State 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 sublethal or lethal effect on those resources.

Also applicable: **NYC Policy 7** – Minimize environmental degradation from solid waste and hazardous substances.

Determination – The NED Plan would involve the disturbance of soil and groundwater in areas where prior uses, regulatory database searches, and testing have indicated a potential for the presence of hazardous materials in the soil and/or groundwater. Under the NED Plan, these locations would be tested in accordance with NYCDEP protocols prior to construction. If contaminated materials are found, they would be removed and disposed of in accordance with all City, State, and Federal regulations. In addition, the NED Plan would handle contaminated groundwater in accordance with all regulations. If hazardous materials are encountered, the NED Plan could provide beneficial impacts associated with the cleanup of such hazardous materials. Accordingly, the District has determined that NED Plan would be consistent with this policy.

State Policy 12 – Activities or development in the coastal area would 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.

Also applicable: **NYC Policy 6** – Minimize loss of life, structures and natural resources caused by flooding and erosion.

Determination – The primary goal of the Project is to manage the risk of damages from hurricane and storm surge flooding along the south shore of Staten Island. The NED Plan involves the construction of a LOP consisting of a buried seawall/armored levee along a majority of the reach (approximately 80%) serving as the first line of defense against severe coastal surge flooding and wave forces. The remainder of the LOP would consist of a T-Type vertical floodwall, and earthen levee. The crest elevation of the LOP would be 18 feet NGVD29 to 20.5 feet NGVD29. The LOP would also include a closure structure at Hylan Boulevard, drainage control structures for existing storm water outfalls, tide gate structures, vehicle and pedestrian access structures, and demolition of the existing boardwalk. The NED Plan also involves excavation of interior areas to augment/create 10 ponds that would alleviate flooding that may subsequently occur from interior runoff.

The NED Plan represents the type of infrastructure design and investment for the City that would be responsive to climate change. The NED Plan design crest is only predicted to be overtopped by surge during the most restrictive combination of storm event and sea level change studied. Only the 500-year + the “high” rate of sea level change would overtop the minimum design crest elevation of 18 feet NGVD29. The NED Plan would also meet the overtopping requirements in the event of a 100-year storm in year 2069 for the low, intermediate, and high predictions of sea



level change. Beyond the 50-year period-of-analysis, the robust design of the NED Plan may support the added loads of structural expansion or adaptation to meet the needs of future sea level change. Additionally, the proposed ponds are designed to maximize stormwater management effectiveness in an existing low-lying developed coastal area where the street and property grades are essentially fixed and cannot be modified. In sum, the NED Plan would manage flood levels during storm events and operation of the proposed ponds would not be impacted by sea level rise. Therefore, the District has determined that the NED Plan would be consistent with this policy.

State 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 30 years as demonstrated in design and construction standards and/or assured maintenance or replacement programs.

Determination – The construction and maintenance of the LOP would provide coastal storm risk management for a minimum of 50 years after initial construction (note: 50 years was the minimum life of the Project analyzed by the District). Therefore, the District has determined that the NED Plan would be consistent with this policy.

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

Determination – The primary goal of the Project is to manage the risk of damages from hurricane and storm surge flooding along the south shore of Staten Island. The LOP and interior ponds would alleviate flooding and reduce interior runoff by reducing water surface elevations. Therefore, the District has determined that the NED Plan would be consistent with this policy.

State 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 without Project alternative would result in increased flood risks and associated negative consequences to life, property and the environment. Coastal storm risk management provides significant public benefits. The District has weighed the public costs of the Project against the benefits and has determined that the public benefits outweigh the public costs because beach protection would provide a significant reduction in damages to housing, infrastructure, and the environment. Additionally, the Project would improve water quality in the Project area, which would also be positive for recreation. Therefore, the District has determined that the NED Plan would be consistent with this policy.

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



Determination – The NED Plan utilizes both structural and non-structural measures to minimize damage to natural resources and property from flooding and erosion. Non-structural measures alone would not provide the required coastal storm risk management. The policy explanation states that consistency with this policy requires the use of such non-structural measures when they are appropriate and available. Given the need to provide coastal storm risk management to the Project area, structural measures are required. Therefore, the District has determined that the NED Plan would be consistent with and would advance this policy.

State Policy 18 – To safeguard the vital economic, social and environmental interests of the state and of its citizens, proposed major action 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 area on which the LOP would be constructed is publicly owned and supports a variety of public recreational 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 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 NED Plan would be consistent with this policy.

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

Also applicable: **NYC Policy 8** – Provide public access to and along New York City's coastal waters.

Determination – The NED Plan would result in positive impacts on recreation as a result of improved water quality and better coastal storm risk management in the Project area. The without Project alternative would result in increased flood risks, increased erosion, and decreased water quality, thereby decreasing recreational potential in the area. The NED Plan would preserve existing open space, including wetlands and buffer areas, for habitats and stormwater management. The proposed LOP and all ponds would be compatible with adjacent land uses and activities. Implementation of the Project would provide a stormwater management plan for the Project area and would enhance natural resources through habitat restoration and protection. (See State Policy 20, below, regarding public access). Consequently, the District has determined that the NED Plan would be consistent with this policy.

State 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 – The NED Plan would not adversely affect public access along the south shore of Staten Island. Fourteen (14) earthen ramps are proposed between Oakwood Beach and South Beach. These ramps would be designed for both pedestrian and vehicular access and meet the 1:12 maximum slope required by ADA guidelines. The ramps would be strategically



located to provide beach access from existing roads and access paths. Pedestrian access points, spaced approximately every 500 feet, would be located along the Buried Seawall between Midland Beach and South Beach. There would be a total of 27 access points for pedestrians along the promenade. Because the Project would be compatible with adjoining uses and provides adequate public access, the District has determined that the NED Plan would be consistent with this policy.

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

Determination – The NED Plan would result in positive impacts on recreation as a result of improved water quality and better coastal storm risk management in the Project area. The without Project alternative would result in increased flood risks, increased erosion, and decreased water quality, thereby decreasing recreational potential in the area. Consequently, the District has determined that the NED Plan would be consistent with the policy to encourage and enhance water-dependent and water-enhanced recreation.

State Policy 22 – Development when located adjacent to the shore would 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 NED Plan would result in positive impacts on recreation as a result of improved water quality and better coastal storm risk management in the Project area. The without Project alternative would result in increased flood risks, increased erosion, and decreased water quality, thereby decreasing recreational potential in the area. Consequently, the District has determined that the NED Plan would be consistent with this policy.

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

Also applicable: **NYC Policy 10** – Protect, preserve and enhance resources significant to the historical, archaeological, and cultural legacy of the New York City coastal area.

Determination – The NED Plan would provide coastal storm risk management to the south shore of Staten Island. No New York City designated landmarks are present in the area. The alignment passes adjacent to, and at times crosses into, the Miller Army Airfield Historic District which is a National Register of Historic Places listed property. The NED Plan would impact Miller Field; however the District is working with the National Park Service and the New York State Historic Preservation office on a Programmatic Agreement to mitigate any impacts. The NED Plan would protect the structures within the historic district from further flood damage. The NED Plan would also reduce risk identified in Policy 23; therefore, the District has determined that the NED Plan would be consistent with this policy.

State Policy 24 – Prevent impairment of scenic resources of statewide significance.



Also applicable: **NYC Policy 9** – Protect scenic resources that contribute to the visual quality of the New York City coastal area.

Determination – The NED Plan would help manage the risk of flood damages in the area, would enhance water quality, and would create more and improved wetland habitats. No known scenic resources of statewide significance exist in the immediate Project area, therefore, the District has determined that the proposed NED Plan would be consistent with this policy.

State 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 – The NED Plan would help manage the risk of flood damages in the area, would enhance water quality, and would create more and improved wetland habitats. The District is working closely with NYC Parks to avoid or minimize potential impacts to recreational impacts. The revitalized and protected beach would enhance the scenic quality of the coastal area, therefore, the District has determined that the NED Plan would be consistent with this policy.

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

Determination – Proposed tidal gates associated with the LOP would remain open during normal tidal elevations to allow passage of saline tidewater into marsh areas and drainage of rainfall runoff. Consequently, no salinity effects are expected. The NED Plan is expected to result in improved water quality in the watershed compared to the No-Action (without-project) Alternative. Without the NED Plan, runoff would not be collected and directed to the proposed ponds. In contrast, proposed ponds function as wetlands that provide physical, chemical, and biological treatment of pollutants contained within runoff; flow rates into wetlands are attenuated, allowing sediment and organic debris to settle. During this process, nutrients undergo both chemical and biological transformation in a wetland. Nitrogen can be naturally altered into forms that are more favorable to uptake by wetland plants and phosphorus is readily precipitated out of water in many of its chemical forms, depending on the pH of the water and is also utilized by plants. Proposed ponds can also reduce fecal coliform concentrations by detaining water, allowing for die-off of microorganisms. The interior drainage features of the NED Plan would also improve wetland quality and enhance wetlands by increasing diversity with expanded open water (low-flow channels and ponds) and permanent pool (emergent wetlands) habitats. The District calculated that the NED Plan would reduce freshwater wetland acreage by approximately 10.9 acres and would result in the construction of approximately 46 acres of tidal wetlands. Consequently, the District has determined that the NED Plan would be consistent with this policy.



REFERENCES

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

NYC Department of City Planning (NYCDCP), New York City Comprehensive Waterfront Plan: Vision 2020. 2011.



Date Received: _____

DOS no.

Proposed Activity Cont'd

4. If a federal or state permit or license was issued or is required for the proposed activity, identify the permit type(s), the authorizing agency and provide the application or permit number(s), if known:
5. Is federal or state funding being used to finance the project? If so, please identify the funding source(s).
6. Will the proposed project require the preparation of an environmental impact statement?
Yes _____ No _____ If yes, identify Lead Agency:
7. Identify **city** discretionary actions, such as a zoning amendment or adoption of an urban renewal plan, required for the proposed project.

C. COASTAL ASSESSMENT

Location Questions:

Yes**No**

1. Is the project site on the waterfront or at the water's edge?

2. Does the proposed project require a waterfront site?

3. Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land underwater, or coastal waters?

Policy Questions

Yes**No**

The following questions represent, in a broad sense, the policies of the WRP. Numbers in parentheses after each question indicate the policy or policies addressed by the question. The new Waterfront Revitalization Program offers detailed explanations of the policies, including criteria for consistency determinations.

Check either "Yes" or "No" for each of the following questions. For all "yes" responses, provide an attachment assessing the effects of the proposed activity on the relevant policies or standards. Explain how the action would be consistent with the goals of those policies and standards.

4. Will the proposed project result in revitalization or redevelopment of a deteriorated or under-used waterfront site? (1)

5. Is the project site appropriate for residential or commercial redevelopment? (1.1)

6. Will the action result in a change in scale or character of a neighborhood? (1.2)

Policy Questions cont'd
Yes No

7. Will the proposed activity require provision of new public services or infrastructure in undeveloped or sparsely populated sections of the coastal area? (1.3)

8. Is the action located in one of the designated Significant Maritime and Industrial Areas (SMIA): South Bronx, Newtown Creek, Brooklyn Navy Yard, Red Hook, Sunset Park, or Staten Island? (2)

9. Are there any waterfront structures, such as piers, docks, bulkheads or wharves, located on the project sites? (2)

10. Would the action involve the siting or construction of a facility essential to the generation or transmission of energy, or a natural gas facility, or would it develop new energy resources? (2.1)

11. Does the action involve the siting of a working waterfront use outside of a SMIA? (2.2)

12. Does the proposed project involve infrastructure improvement, such as construction or repair of piers, docks, or bulkheads? (2.3, 3.2)

13. Would the action involve mining, dredging, or dredge disposal, or placement of dredged or fill materials in coastal waters? (2.3, 3.1, 4, 5.3, 6.3)

14. Would the action be located in a commercial or recreational boating center, such as City Island, Sheepshead Bay or Great Kills or an area devoted to water-dependent transportation? (3)

15. Would the proposed project have an adverse effect upon the land or water uses within a commercial or recreation boating center or water-dependent transportation center? (3.1)

16. Would the proposed project create any conflicts between commercial and recreational boating? (3.2)

17. Does the proposed project involve any boating activity that would have an impact on the aquatic environment or surrounding land and water uses? (3.3)

18. Is the action located in one of the designated Special Natural Waterfront Areas (SNWA): Long Island Sound- East River, Jamaica Bay, or Northwest Staten Island? (4 and 9.2)

19. Is the project site in or adjacent to a Significant Coastal Fish and Wildlife Habitat? (4.1)

20. Is the site located within or adjacent to a Recognized Ecological Complex: South Shore of Staten Island or Riverdale Natural Area District? (4.1and 9.2)

21. Would the action involve any activity in or near a tidal or freshwater wetland? (4.2)

22. Does the project site contain a rare ecological community or would the proposed project affect a vulnerable plant, fish, or wildlife species? (4.3)

23. Would the action have any effects on commercial or recreational use of fish resources? (4.4)

24. Would the proposed project in any way affect the water quality classification of nearby waters or be unable to be consistent with that classification? (5)

25. Would the action result in any direct or indirect discharges, including toxins, hazardous substances, or other pollutants, effluent, or waste, into any waterbody? (5.1)

26. Would the action result in the draining of stormwater runoff or sewer overflows into coastal waters? (5.1)

27. Will any activity associated with the project generate nonpoint source pollution? (5.2)

28. Would the action cause violations of the National or State air quality standards? (5.2)

Policy Questions cont'd**Yes No**

29. Would the action result in significant amounts of acid rain precursors (nitrates and sulfates)? (5.2C)

30. Will the project involve the excavation or placing of fill in or near navigable waters, marshes, estuaries, tidal marshes or other wetlands? (5.3)

31. Would the proposed action have any effects on surface or ground water supplies? (5.4)

32. Would the action result in any activities within a federally designated flood hazard area or state-designated erosion hazards area? (6)

33. Would the action result in any construction activities that would lead to erosion? (6)

34. Would the action involve construction or reconstruction of a flood or erosion control structure? (6.1)

35. Would the action involve any new or increased activity on or near any beach, dune, barrier island, or bluff? (6.1)

36. Does the proposed project involve use of public funds for flood prevention or erosion control? (6.2)

37. Would the proposed project affect a non-renewable source of sand ? (6.3)

38. Would the action result in shipping, handling, or storing of solid wastes, hazardous materials, or other pollutants? (7)

39. Would the action affect any sites that have been used as landfills? (7.1)

40. Would the action result in development of a site that may contain contamination or that has a history of underground fuel tanks, oil spills, or other form or petroleum product use or storage? (7.2)

41. Will the proposed activity result in any transport, storage, treatment, or disposal of solid wastes or hazardous materials, or the siting of a solid or hazardous waste facility? (7.3)

42. Would the action result in a reduction of existing or required access to or along coastal waters, public access areas, or public parks or open spaces? (8)

43. Will the proposed project affect or be located in, on, or adjacent to any federal, state, or city park or other land in public ownership protected for open space preservation? (8)

44. Would the action result in the provision of open space without provision for its maintenance? (8.1)

45. Would the action result in any development along the shoreline but NOT include new water-enhanced or water-dependent recreational space? (8.2)

46. Will the proposed project impede visual access to coastal lands, waters and open space? (8.3)

47. Does the proposed project involve publicly owned or acquired land that could accommodate waterfront open space or recreation? (8.4)

48. Does the project site involve lands or waters held in public trust by the state or city? (8.5)

49. Would the action affect natural or built resources that contribute to the scenic quality of a coastal area? (9)

50. Does the site currently include elements that degrade the area's scenic quality or block views to the water? (9.1)

Policy Questions cont'd**Yes No**

51. Would the proposed action have a significant adverse impact on historic, archeological, or cultural resources? (10)

52. Will the proposed activity affect or be located in, on, or adjacent to an historic resource listed on the National or State Register of Historic Places, or designated as a landmark by the City of New York? (10)

D. CERTIFICATION

The applicant or agent must certify that the proposed activity is consistent with New York City's Waterfront Revitalization Program, pursuant to the New York State Coastal Management Program. If this certification cannot be made, the proposed activity shall not be undertaken. If the certification can be made, complete this section.

"The proposed activity complies with New York State's Coastal Management Program as expressed in New York City's approved Local Waterfront Revitalization Program, pursuant to New York State's Coastal Management Program, and will be conducted in a manner consistent with such program."

Applicant/Agent Name: _____

Address: _____

_____ Telephone _____

Applicant/Agent Signature: _____ Date: _____