July 29, 2022

New York State Department of State Office of Coastal, Local Government and Community Sustainability
One Commerce Plaza
99 Washington Avenue, Suite 1010
Albany, New York 12231-0001

Subject: Request for Coastal Consistency Review – Living Shoreline Proposed Changes to Pier A Inlet of South Battery Park, Manhattan

Dear Sir/Madam:

AECOM, on behalf of the Battery Park City Authority (BPCA), has prepared New York State Department Of State Coastal Management Program Coastal Assessment Form (CAF) for proposed changes to Pier A Inlet, which includes placement of a living shoreline. Pier A Inlet is a narrow body of tidally influenced water between Wagner Park and Pier A in southern Lower Manhattan. The proposed activities are being undertaken as part of a larger-scale South Battery Park City Resiliency (SBPCR) Project, currently being developed near Pier A Inlet.

Attached please find the CAF and the supporting documentation for the federal and state permit application, dated April 2022. Also, as an attachment, please find a memorandum submitted to the US Army Corps of Engineers and New York State Department of Environmental Conservation, dated July 2022, that identifies updated project designs. The designs featured additional ecological enhancements which would increase the total net fill below mean high water a total of 21.9 cubic yards and the fill between mean high water and mean high water spring by 7.6 cubic yards.

We have also provided a copy of this information to the New York City Department of City Planning through the submission of a New York City Waterfront Revitalization Program - Consistency Assessment Form.

Should you have any questions, please do not hesitate to contact me at the address below or at John.Rollino@aecom.com or 212.377.8734.

Sincerely,

John Rollino
AECOM Environment
NEW YORK STATE DEPARTMENT OF STATE
COASTAL MANAGEMENT PROGRAM

Federal Consistency Assessment Form

An applicant, seeking a permit, license, waiver, certification or similar type of approval from a federal agency which is subject to the New York State Coastal Management Program (CMP), shall complete this assessment form for any proposed activity that will occur within and/or directly affect the State's Coastal Area. This form is intended to assist an applicant in certifying that the proposed activity is consistent with New York State's CMP as required by U.S. Department of Commerce regulations (15 CFR 930.57). It should be completed at the time when the federal application is prepared. The Department of State will use the completed form and accompanying information in its review of the applicant's certification of consistency.

A. APPLICANT (please print)

1. Name: Battery Park City Authority
2. Address: 200 Liberty Street, 24th Floor, New York, NY 10281
3. Telephone: Area Code (212) 417-2000

B. PROPOSED ACTIVITY:

1. Brief description of activity:

During Superstorm Sandy in 2012, coastal surge inundated Lower Manhattan on its western side through low elevation points near Pier A and in or adjacent to other parts of Battery Park City, damaging, destroying and/or negatively

2. Purpose of activity:

During Superstorm Sandy in 2012, storm and coastal surge inundated portions of Lower Manhattan on its western side through areas in or adjacent to northern

3. Location of activity:

<table>
<thead>
<tr>
<th>New York County</th>
<th>Lower Manhattan City, Town, or Village</th>
<th>Battery Park Street or Site Description</th>
</tr>
</thead>
</table>

4. Type of federal permit/license required: USACE Section 404/Section 10 Permit

5. Federal application number, if known: 

6. If a state permit/license was issued or is required for the proposed activity, identify the state agency and provide the application or permit number, if known:

NYSDEC Tidal Wetlands, Protection of Waters - will be part of a NYSDEC/USAC
C. COASTAL ASSESSMENT Check either "YES" or "NO" for each of these questions. The numbers following each question refer to the policies described in the CMP document (see footnote on page 2) which may be affected by the proposed activity.

1. Will the proposed activity result in any of the following:  
   a. Large physical change to a site within the coastal area which will require the preparation of an environmental impact statement? (11, 22, 25, 32, 37, 38, 41, 43)  
   b. Physical alteration of more than two acres of land along the shoreline, land under water or coastal waters? (2, 11, 12, 20, 28, 35, 44)  
   c. Revitalization/ redevelopment of a deteriorated or underutilized waterfront site? (1)  
   d. Reduction of existing or potential public access to or along coastal waters? (19, 20)  
   e. Adverse effect upon the commercial or recreational use of coastal fish resources? (9, 10)  
   f. Siting of a facility essential to the exploration, development and production of energy resources in coastal waters or on the Outer Continental Shelf? (29)  
   g. Siting of a facility essential to the generation or transmission of energy? (27)  
   h. Mining, excavation, or dredging activities, or the placement of dredged or fill material in coastal waters? (15, 35)  
   i. Discharge of toxics, hazardous substances or other pollutants into coastal waters? (8, 15, 35)  
   j. Draining of stormwater runoff or sewer overflows into coastal waters? (33)  
   k. Transport, storage, treatment, or disposal of solid wastes or hazardous materials? (36, 39)  
   l. Adverse effect upon land or water uses within the State's small harbors? (4)  

2. Will the proposed activity affect or be located in, on, or adjacent to any of the following:  
   a. State designated freshwater or tidal wetland? (44)  
   b. Federally designated flood and/or state designated erosion hazard area? (11, 12, 17)  
   c. State designated significant fish and/or wildlife habitat? (7)  
   d. State designated significant scenic resource or area? (24)  
   e. State designated important agricultural lands? (26)  
   f. Beach, dune or Barrier Island? (12)  
   g. Major ports of Albany, Buffalo, Ogdensburg, Oswego or New York? (3)  
   h. State, county, or local park? (19, 20)  
   i. Historic resource listed on the National or State Register of Historic Places? (23)  

3. Will the proposed activity require any of the following:  
   a. Waterfront site? (2, 21, 22)  
   b. Provision of new public services or infrastructure in undeveloped or sparsely populated sections of the coastal area? (5)  
   c. Construction or reconstruction of a flood or erosion control structure? (13, 14, 16)  
   d. State water quality permit or certification? (30, 38, 40)  
   e. State air quality permit or certification? (41, 43)  

4. Will the proposed activity occur within and or affect an area covered by a State-approved local waterfront revitalization program, or State-approved regional coastal management program? (see policies in program document*)
D. ADDITIONAL STEPS

1. If all of the questions in Section C are answered "NO", then the applicant or agency shall complete Section E and submit the documentation required by Section F.

2. If any of the questions in Section C are answered "YES", then the applicant or agent is advised to consult the CMP, or where appropriate, the local waterfront revitalization program document*. The proposed activity must be analyzed in more detail with respect to the applicable state or local coastal policies. On a separate page(s), the applicant or agent shall: (a) identify, by their policy numbers, which coastal policies are affected by the activity, (b) briefly assess the effects of the activity upon the policy; and, (c) state how the activity is consistent with each policy. Following the completion of this written assessment, the applicant or agency shall complete Section E and submit the documentation required by Section F.

E. CERTIFICATION

The applicant or agent must certify that the proposed activity is consistent with the State's CMP or the approved local waterfront revitalization program, as appropriate. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program, or with the applicable approved local waterfront revitalization program, and will be conducted in a manner consistent with such program."

Battery Park City Authority, Gwen Dawson, Vice President of Real Property

Applicant/Agent's Name:

Address:

Battery Park City Authority, 200 Liberty Street, 24th Floor. New York, NY 10281

Telephone: Area Code (212-417-2000)

F. SUBMISSION REQUIREMENTS

1. The applicant or agent shall submit the following documents to the New York State Department of State, Office of Planning and Development, Attn: Consistency Review Unit, One Commerce Plaza-Suite 1010, 99 Washington Avenue, Albany, New York 12231.

   a. Copy of original signed form.
   b. Copy of the completed federal agency application.
   c. Other available information which would support the certification of consistency.

2. The applicant or agent shall also submit a copy of this completed form along with his/her application to the federal agency.

3. If there are any questions regarding the submission of this form, contact the Department of State at (518) 474-6000.

*These state and local documents are available for inspection at the offices of many federal agencies, Department of Environmental Conservation and Department of State regional offices, and the appropriate regional and county planning agencies. Local program documents are also available for inspection at the offices of the appropriate local government.
The Federal Consistency Assessment Form (FCAF) completed in support of the permit application for the South Battery Park City Resiliency (SBPCR) Project (Proposed Action) identified several policies that required further explanation for consistency with the policies within the NYS Coastal Management Program (CMP). This document provides explanations of why the proposed activities are consistent with the coastal zone policies.

Figure 1 below identifies the Project location within the New York State Coastal Zone Management Boundary.
B1. Brief Description of Activity

During Superstorm Sandy in 2012, coastal surge inundated Lower Manhattan on its western side through low elevation points near Pier A and in or adjacent to other parts of Battery Park City, damaging, destroying and/or negatively impacting significant components of Lower Manhattan’s critical and civic infrastructure. In response to the devastating impact of Superstorm Sandy in Lower Manhattan and in anticipation of future severe storm activity related to global climate change, the SBPCR Project has been developed by the BPCA as an integrated coastal flood risk management project in Lower Manhattan. The SBPCR Project represents one of several projects within the overall Lower Manhattan Coastal Resiliency (LMCR) Master Plan.

The SBPCR Project Area (Project Area), the area of direct physical disturbance, extends from 1st Place and the Museum of Jewish Heritage, through Robert F. Wagner Park (Wagner Park or the Park), across Pier A Plaza, and then along the north side of the Battery Bikeway in The Battery to higher ground near the intersection of Battery Place and State Street. The SBPCR Study Area (Study Area), which extends beyond the Project Area, varies by resource but is generally defined as the area within 400 feet of the SBPCR Project improvements.

The SBPCR Project is being designed to provide flood risk reduction within the Project Area for the current 100-year flood, inclusive of increased intensity and frequency of rainfall, coastal surge, and predicted sea level rise. It is one of three (3) resiliency projects being undertaken by BPCA to address flood risk reduction throughout Battery Park City’s ninety-two (92) acres. The other two projects are the Battery Park City Ball Fields and Community Center Resiliency Project, and the North/West BPC Resiliency Project. The SBPCR Project is also being designed with adaptability for the 2050 100-year storm event at such time as the North/West BPC Resiliency Project is completed and a tie-in between the two (2) projects is created.

The flood alignment is composed of multiple different integrated features such as flip-up deployable gates (flip-up deployables), glass-topped floodwalls, buried floodwalls underneath terraced slopes, exposed floodwalls, and bermed floodwalls. The term “flood alignment” is used to differentiate the combination of flood control measures represented by the SBPCR Project from a traditional freestanding flood wall for risk reduction. In addition, interior drainage improvements are proposed for the SBPCR Project, including the isolation of the existing underground sewer manholes and connected chambers.

B2. Purpose of Activity

During Superstorm Sandy in 2012, storm and coastal surge inundated portions of Lower Manhattan on its western side through areas in or adjacent to northern Battery Park City and Pier A Plaza south of Wagner Park. Water also found its way onto One World Trade Center and the Hugh L. Carey Tunnel (formerly known as the Brooklyn-Battery Tunnel) and impacted much of Lower Manhattan’s critical infrastructure.

The SBPCR Project’s primary goal is risk reduction in the southern extremes of Battery Park City. This would be accomplished through implementation of integrated flood risk measures, while meeting the
design criteria for a 100-year storm event, inclusive of increased intensity and frequency of rainfall, coastal surge and predicted sea level rise. While the SBPCR Project would provide immediate risk reduction for the 100-year storm, it would also provide ready adaptability to the DFE for the 2050 100-year storm at such time as the North/West BPC Resiliency Project is constructed and a tie-in between the systems is created. The SBPCR Project is expected to be accredited by the Federal Emergency Management Agency (FEMA). Accreditation requires a FEMA review of as-built plans and verification that the flood system meets all pertinent requirements and achieves acceptable risk reduction in practice.

The purpose of the SBPCR Project is to:

- Provide a reliable coastal flood control system to provide risk reduction to property, residents and assets within the vicinity of South Battery Park City in response to the design storm event;
- Protect and preserve to the maximum extent practicable, open space resources and opportunities to view and interact with the Manhattan waterfront, particularly in Wagner Park, Pier A Plaza and The Battery; and,
- Avoid or minimize disruption to existing below and above-ground infrastructure (i.e., water and sewer infrastructure, subways, tunnels, utilities, etc.) from flood events.

Specific objectives of the SBPCR Project are to:

- Provide a reliable coastal flood control system that minimizes risk and the need for operational interventions by relying primarily on passive flood control technology as opposed to mechanical "deployable" flood control technology;
- Construct and operate the project in an environmentally responsible manner;
- Preserve to the greatest extent practicable the character and design aesthetic of the community and its interface with the BPC waterfront and access to coastal viewsheds, particularly views of the harbor and Statue of Liberty; and
- Utilize cost-effective solutions to maximize capital investment over the lifespan of the SBPCR Project.
Compliance with NYSDOS Coastal Management Policies

Review of the FCAF forms indicates Questions 1a, b, h, 2a, b, c, g, h, i, and 3a, c, and d were identified necessitating an evaluation of policies: 2, 3, 7, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 25, 28, 30, 32, 35, 37, 38, 40, 41, 43, and 44. Responses to the policies are provided below.

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

The Proposed Action will not reduce or adversely affect the area currently or recently devoted to any water dependent use and public access to the waterfront will be maintained. Following construction, the SBPCR Project will maintain public access to the Battery Park City Esplanade around Wagner Park, Pier A Plaza, and The Battery. Additionally, the Pier A Inlet area does not currently have direct public access from the Wagner Park side of the inlet. The proposed Living Shoreline design creates a new viewing platform that would enhance the public connection to the waterfront. As such, the project complies with this policy.

Policy 3: Further develop the State’s major ports as centers of commerce and industry, and encourage the siting, in these port areas, including those under the jurisdiction of State public authorities, of land use and development which is essential to, or in support of, the waterborne transportation of cargo and people.

The SBPCR Project has been developed as an integrated coastal flood risk management project in Lower Manhattan and promotes resiliency in the Project Area, which supports commerce and industry in the general port area. As such, the project complies with this policy.

Policy 7: Significant Coastal Fish and Wildlife Habitats (SCFWH) will be protected, preserved, and where practical, restored so as to maintain their viability as habitats.

The waters adjacent to the Project Area are designated as Lower Hudson Reach Significant Coastal Fish and Wildlife Habitat (SCFWH) (Figure 2). The Lower Hudson Reach SCFWH is identified as one of only a few large tidal river mouth systems in the northeastern United States, providing a unique range of salinity and other estuarine features. Numerous estuarine and marine species occur regularly in the harbor, along with various anadromous and catadromous fish species. This habitat sustains a diverse community of benthic, planktonic, and pelagic species. The river provides important wintering habitat for large numbers of striped bass (Morone saxatilis). Significant numbers of yearling winter flounder (Pseudopleuronectes americanus) also occupy this stretch of the river in winter months. Surveys have also found summer flounder (Paralichthys dentatus), white perch (Morone americana), Atlantic tomcod (Microgadus tomcod), Atlantic silversides (Menidia menidia), bay anchovy (Anchoa mitchilli), hogchokers (Trinectes maculatus) and American eel (Anguilla rostrata) in significant numbers. This area of the river is also utilized by bluefish (Pomatomus saltatrix) and weakfish (Cynoscion regalis) young of year and both Atlantic sturgeon
(Acipenser oxyrinchus oxyrinchus) and shortnose (adult only) sturgeon (Acipenser brevirostrum). American shad (Alosa sapidissima) and blue crabs (Callinectes sapidus) also contribute to the fishery. Animals of lower trophic levels are also present in substantial numbers providing an important food source. These include planktonic forms such as copepods, rotifers, mysid shrimp; and, benthic forms such as nematodes, oligochaetes, polychaetes, and amphipods. Additionally, the Lower Hudson Reach also provides habitat for several species of wintering waterfowl.

The only disturbance to the SCFWH would be a disturbance to 435 sq ft of intertidal habitat associated with the implementation of a Living Shoreline in Pier A Inlet. The Living Shoreline, once completed would provided an positive effect on the SCFWH. During construction, impacts to the SFFWH are anticipated to be minimal, if any. A silt curtain will be placed landward of the lowtide line and hay bales and other containment devices would be placed along the limit of upland disturbance to prevent sedimentation.

The Proposed Action would provide a positive ecological benefit to the SCFWH. The project complies with this policy.
Figure 2 Significant Coastal Fish and Wildlife Habitat
Policy 11: Buildings and other structures will be sited in the coastal area so as to minimize damage to property and the endangering of human lives caused by flooding and erosion.

The SBPCR Project is an integrated coastal flood risk management project in Lower Manhattan and promotes resiliency in the Project Area. As part of the project, a new Pavilion will be constructed in Wagner Park. This building will be sited on the newly elevated Wagner Park, above the design flood elevation. The purpose of the project is to limit and minimize damage to property caused by flooding and erosion. As a result, the project complies 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.

The SBPCR Project consists of coastal flood protection structures to promote public safety and will be constructed on previously disturbed land in an urban environment lacking natural protective features. The SBPCR Project has been designed to reduce damage from sea level rise and coastal flooding from storm events.

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 and construction standards and/or assured maintenance or replacement programs.

Policy 13 is not applicable to the Proposed Action.
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.

The SBPCR Project has been designed to protect from erosion and flooding within the protected area and prevent any increased potential for erosion or flooding. The project complies with 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.

The SBPCR Project would remove a net total 1.2 cubic yards below Mean High Water (MHW). Also, between the spring high tide line (SHTL) and 10 ft in elevation, the Project would result in the net removal of 555 cubic yards of material. Between the MHW and SHTL the Project would increase the net fill by 3.3 cubic yards within the approximate 0.15-acre Living Shoreline. The SBPCR Project would not significantly interfere with the natural coastal process and would not cause an increase in erosion. The SBPCR Project will obtain all necessary permits associated with dredging or filling activities prior to commencement of work. As a result, the SBPCR Project complies 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.

The SBPCR Project is publicly funded and has been designed to protect human life and property within the protected area against the 100-year storm event, inclusive of increased intensity and frequency of rainfall, coastal surge, and predicted sea level rise. It has also been designed to allow for a higher level of protection once the North/West BPC Resiliency Project is constructed. Therefore, it complies 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.

The SBPCR Project has been designed to reduce damage from sea level rise and coastal flooding from storm events. Flood protection has been arranged as a layered, multi-elevational system extending back from the water's edge into the park. On the waterside of the flood protection system, there is an existing pedestrian esplanade situated over an existing relieving platform. Along the interior edge of the relieving platform, light-weight flood control features including walkways lined by curbs and seat walls create terraced
planting areas with vegetatively stabilized slopes. Therefore, the SBPCR Project complies with this policy.

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

During construction, to protect the safety of the public, access will be restricted around active construction locations. Following construction, the SBPCR Project will maintain public access to the Battery Park City Esplanade around Wagner Park, Pier A Plaza, and The Battery. The Pier A Inlet area does not have direct public access from the Wagner Park side of the inlet. The proposed Living Shoreline design creates a new viewing platform that would enhance the public connection to the waterfront and the public would be able to view the Living Shoreline from Wagner Park. Therefore, the SBPCR Project complies with this policy.

Policy 20: Access to the 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.

See response to Policy 19.

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.

The SBPCR Project will not affect current or future development for water-related recreation. The Project will maintain public access to the Battery Park City Esplanade around Wagner Park, Pier A Plaza, and The Battery, and is designed to protect views of scenic resources such as the Hudson River, the Statue of Liberty, and Ellis Island. Additionally, the proposed Living Shoreline design creates a new viewing platform that would enhance the public connection to the waterfront. Therefore, the SBPCR Project complies with 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.

See response to Policy 21.

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

As part of the review for the Environmental Impact Statement, the impacts of the Proposed Action were analyzed in accordance with Section 14.09 on the 28 historic architectural resources in the Historic Architectural Area of Potential Effect (APE).
The Proposed Action would have an Adverse Impact on one resource: Wagner Park. With respect to the remaining 27 resources, the project would result in No Adverse Impact on nine resources, and No Impact on 18 resources. Avoidance, mitigation, and minimization measures are described below.

The Proposed Action would result in No Adverse Impact on two of the nine resources for which avoidance measures are recommended – Pier A and Castle Clinton. With respect to Pier A, it is located less than 90 feet from the Proposed Action, and as a result, it is recommended that a Construction Protection Plan (CPP) be prepared in accordance with Department of Buildings (DOB) and Landmarks Preservation Commission (LPC) guidelines. Regarding Castle Clinton, it is situated within The Battery adjacent to, and approximately 200 feet southeast of the Proposed Action in Pier A Plaza. The CPP recommended for Castle Clinton would ensure that all measures are being undertaken to protect this National Monument from construction that would occur on an adjacent lot.

In addition, the Proposed Action would result in an Adverse Impact on Wagner Park. Section 14.09 requires that adverse impacts to National Register-listed and/or eligible resources caused by implementation of the undertaking be resolved through mitigation. Therefore, it is anticipated that a Letter of Resolution (LOR) would be drafted and executed between BPCA, SHPO, and other consulting parties to mitigate the Adverse Effect. Potential mitigation could possibly include, but not be limited to:

- Historic American Landscape Survey (HALS) Documentation of Wagner Park prior to construction. Documentation would include a physical description, historic overview, statement of significance, project information, high-quality digital or large-format photographs, and reproduction of select original plans and historic photographs.

- Interpretive panels installed at the new Wagner Park; panels could describe the original park, and the reasons why it was deemed an exceptionally significant National Register-eligible resource.

- Website publicized on-site or QR codes that could be activated on-site, and direct user to a history of Wagner Park, and the reasons why it was deemed an exceptionally significant National Register-eligible resource; the content could be similar to the panels.

Additionally in Pier A Plaza, the location of the historic waters’ edge will be indicated by medallion insets that replace the existing linear stone bands that trace the location of the old waters’ edge, thereby maintaining this educational feature.

Ultimately, mitigation recommendations that are agreeable to all parties would be incorporated into the LOR as stipulations.

A Phase IA Archaeological Documentary Study is currently being prepared in compliance with SEQR and CEQR guidelines, pursuant to requests for such a survey by SHPO and LPC. The Phase IA
AECOM

A documentary study has concluded that there are two discrete areas of low to moderate and moderate potential archaeological sensitivity across portions of the APE that may be impacted by the completion of the SBPCR Project. As the SBPCR Project lies within highly utilized public spaces, in order to minimize traffic disruptions and closures of public space, preparation of a Phase 1B Archaeological Monitoring Plan in consultation with BPCA, SHPO and LPC, is recommended.

With this mitigation and archaeological monitoring plan, the Proposed Action would be consistent with this policy.

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.

The SBPCR Project maintains the visual quality of the New York Coastal area, by maintaining views to the waterfront and improving access to the open space and the waterfront. This is accomplished through a variety of context-sensitive design measures throughout the project design, including minimizing fixed walls, providing universal access, maintaining views of New York Harbor and the Statue of Liberty from the new Pavilion. These design elements have been coordinated with the New York City Public Design Commission. Therefore, the Proposed Action would be consistent with this policy.

Policy 28: Ice management practices shall not interfere with the production of hydroelectric power, damage significant fish and wildlife and their habitats, or increase shoreline erosion or flooding.

Policy 28 is not applicable to the Proposed Action.

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.

Policy 30 is not applicable to the Proposed Action.

Policy 32: Encourage the use of alternative or innovative sanitary waste systems in small communities where the costs of conventional facilities are unreasonably high, given the size of the existing tax base of these communities.

Policy 32 is not applicable to the Proposed Action.

Policy 35: Dredging and filling in coastal waters and disposal of dredged material 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.
During construction, dredging and/or filling in coastal waters is necessary in limited areas due to construction of the living shoreline along the Pier A Inlet. The SBPCR Project will comply with all applicable federal and state laws and regulations regarding water quality, fish and wildlife habitats, wetlands, scenic resources, natural protective features, important agricultural lands, and important coastal resources in order to avoid or minimize potential affects to these resources by the SBPCR Project. The SBPCR Project will obtain all necessary permits associated with dredging or filling activities prior to commencement of work.

The removal of the existing riprap along the shoreline would be conducted by land-based equipment. For the construction of the Living Shoreline, a silt curtain would be placed at or above the elevation of Mean Low Water prior to the start of the construction and would remain in place throughout the shoreline construction period. Therefore, the SBPCR Project complies with this policy.

**Policy 37: Best management practices will be utilized to minimize the non-point discharge of excess nutrients, organics, and eroded soils into coastal waters.**

Erosion and sediment controls will be installed during construction in accordance with the appropriate approved Stormwater Pollution Prevention Plan. Therefore, the SBPCR Project complies 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 38 is not applicable to the Proposed Action.

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

Implementation of the Proposed Action would not increase or cause a redistribution of traffic once the Proposed Action is constructed, nor add new uses near mobile sources. It would not create new mobile sources of pollutants or introduce new uses near existing or planned stationary sources.

The Proposed Action consists of several flood alignment elements: flip-up deployables, glass-topped floodwalls, buried floodwalls, exposed floodwalls, and bermed floodwalls. The flip-up deployables would be powered by the New York City electrical grid system during an emergency as well as for routine maintenance. A series of mobile emergency generators would be brought to the site for backup power in case of grid power failure at the time of deployment. These mobile emergency generators would be tested off site during routine maintenance resulting in no adverse air quality impacts.
The new pavilion building is also considered a stationary source of emissions as it must be climate controlled through HVAC systems. The proposed pavilion design is anticipated to result in a 38 percent Energy Use Intensity (EUI) reduction over a similar baseline building and would include an energy efficient geothermal system. In addition, given the size of the structure, it would not have potential impacts to the nearest residential buildings.

During construction, the SBPCR Project will utilize best available technology (BAT). Since any potential exceedances of the NYC annual PM$_{1.0}$ de minimis criterion would be temporary and predicted to occur at multiple ground floor receptors only during the first 12-month rolling period, the potential air quality impacts would not be significant.

Therefore, the SBPCR Project would result in no significant adverse impacts to air quality and complies with this policy.

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

Chemical precursors to acid rain include emissions of sulfur dioxide (SO$_2$) and nitrogen oxides (NO$_x$) resulting from fossil fuel combustion for which the EIS discussed or quantified for the proposed action. Given the small amount of NO$_x$ emissions generated and the local law requirement of using ultra low sulfur fuel, the SBPCR Project would be in compliance with this policy.

Policy 44: Preserve and protect tidal and freshwater wetlands and preserve the benefits derived from these areas. Tidal wetlands include coastal fresh marsh; intertidal marsh; coastal shoals, bars and flats; littoral zone; high marsh or salt meadow; and formerly connected tidal wetlands as delineated on NYSDEC’s Tidal Wetlands Inventory Map.

A Wetland Delineation identified that all wetlands onsite are tidal wetlands. There are no vegetated wetlands within and/or immediately adjacent to the Project.

The Project will impact a small portion (435 sq ft) of Littoral Zone tidal wetlands regulated by NYSDEC due to shallow depths. The proposed Living Shoreline design at Pier A Inlet would modify the existing shoreline and improve the area and quality of the tidal wetlands. These habitat enhancements proposed at Pier A Inlet would provide an increase ecological diversity. When completed, the living shoreline would provide an oasis of vegetated and shallow water habitat that is currently devoid on the southern tip of Manhattan. As part of the planned design, within an approximate 180-ft length of area occupied by riprap, the riprap material would be removed and replaced with vegetative plantings and tide pools (Figure 3). Also, within an approximate 1,746 sq ft area, the existing decking, soil and other fill materials would be removed down to the relieving platform and/or pier bents. These surfaces would be covered with an eco-concrete substance to mimic a rocky shoreline and enhance fauna and
flora usage. As an added benefit, approximately 165 sq ft of water would be exposed to direct sunlight, and another 282 sq ft of habitat would be 50 percent daylighted by a metal grated viewing platform.

Photo 1  Looking west at the Pier A inlet - note the unvegetated riprap shoreline of Wagner Park on the right side of the photograph.
Legend

- Project Area Sites
- NYDEC Tidal Wetlands
- Littoral Zone
- NWI Wetlands
- ETUWL - Estuarine and Marine Deepwater

* - No Check Zones located within map extents

Map Source:
USFWS NWI Surface Water and Wetlands.

South Battery Park City Resiliency Project

Figure 3 Mapped Wetlands
Figure 4 Proposed Shoreline Enhancement
Attachment A
Habitat Impairment Test
Lower Hudson Reach Significant Coastal Fish and Wildlife Habitat

1 Introduction
The SBPCR Project is located within the Lower Hudson Reach Significant Coastal Fish and Wildlife Habitat (SCFWH). The Lower Hudson Reach SCFWH includes the portion of the Hudson River starting from Battery Park at the tip of Manhattan and extending north to Yonkers in the vicinity of Glenwood. This area runs for 19 River miles and includes deepwater, shallows, piers and interpier basins. As per the New York State Department of State’s Coastal Fish & Wildlife Habitat Rating Form, the notable ecological and conditions in the SCFWH are the following:

- The entire lower portion of the Hudson River estuary may provide an important habitat in the life history of striped bass by providing a sheltered environment with abundant food sources that are associated with the winter position of the River’s salt front.
- Significant numbers of other finfish species such as yearling winter flounder, summer flounder, white perch, Atlantic tomcod, Atlantic silversides, bay anchovy, hogchokers and American eel occupy this stretch of the River.
- Animals of lower trophic levels such as copepods, rotifers, mysid shrimp and benthic forms such as nematodes, oligochaetes, polychaetes, and amphipods are also present in substantial numbers and provide an important food source.
- The Lower Hudson Reach also provides habitat for several species of wintering waterfowl.

2 Habitat Impairment Test
A habitat impairment test must be met for any activity that is subject to consistency review under Federal and State laws, or under applicable local laws contained in an approved local waterfront revitalization program. If the proposed action is subject to consistency review, then the habitat protection policy applies, whether the proposed action is to occur within or outside the designated area. The specific habitat impairment test that must be met is as follows. In order to protect and preserve a significant habitat, land and water uses or development shall not be undertaken if such actions would:

- **Destroy the habitat** - Habitat destruction is defined as the loss of fish or wildlife use through direct physical alteration, disturbance, or pollution of a designated area or through the indirect effects of these actions on a designated area. Habitat destruction may be indicated by changes in vegetation, substrate, or hydrology, or increases in runoff, erosion, sedimentation, or pollutants; or,
• **Significantly impair the viability of a habitat** - Significant impairment is defined as reduction in vital resources (e.g., food, shelter, living space) or change in environmental conditions (e.g., temperature, substrate, salinity) beyond the tolerance range of an organism. Indicators of a significantly impaired habitat focus on ecological alterations and may include but are not limited to reduced carrying capacity, changes in community structure (food chain relationships, species diversity), reduced productivity and/or increased incidence of disease and mortality.

2.1 Impact Assessment

As per the NYSDOS' *Coastal Fish & Wildlife Habitat Rating Form* for the Lower Hudson Reach SCFWH, examples of generic activities and impacts which could destroy or significantly impair the habitat are listed below to assist in applying the habitat impairment test to a proposed activity.

1. Any activity that would degrade water quality in the Lower Hudson Reach and would adversely affect habitat values for fish and wildlife using the area. Many species of fish and wildlife would be adversely affected by water pollution through chemical or toxic contamination (including food chain effects), oil spills, excessive turbidity or sedimentation, and waste disposal.

2. Transient habitat disturbances, such as those resulting from dredging or in-River construction activities, could result in significant impairment of the habitat value for striped bass, particularly as an overwintering area between mid-November and mid-April. Dredging can only be conducted during the identified overwintering period under the following circumstances. Documentation must be provided which demonstrates that the dredging can only be scheduled during the overwintering period. Documentation should include an analysis of alternatives that could allow dredging to occur during less sensitive periods. In cases where alternatives to dredging during the overwintering period are not available, both spatial and temporal methods aimed at reducing potential impacts shall be used and cumulative impacts should be evaluated.

3. Large scale non-consumptive use of water may disrupt salinity gradients both by removing significant quantities of freshwater from the Hudson or its watershed and, following use of the water, discharging it in a higher salinity environment. Adverse impacts on the River's resources from large scale non-consumptive uses would be greatest during summer drought conditions.

4. Installation and operation of water intakes could also have significant impacts on fish populations in the area through impingement of juveniles and adults, or entrainment of eggs and larval stages.

5. Continued efforts should be made to improve water quality in the Lower Hudson Reach and include upgrading and control of sewage discharges, other point sources, and nonpoint source pollution.

6. Major structural alteration to the habitat through dredging, filling or platforming on dense piles could cause significant impairment of the habitat. Recent research suggests that little difference exists in habitat values or use between underpier areas and interpier basins. No information exists, however, that adequately demonstrates the relationship among the River's physical environment, existing shoreline and inwater structures, seasonal salinity regimes, and the resultant habitat values. Absent
an adequate understanding of the function of this habitat, significant impairment of the habitat could result if major structural alterations occur.

Many of the actions identified above would not apply as the SBPCR Project does not include large scale water use, surface water intakes, activities that would impact salinity, or major structural habitat alterations. Although located within SCFWH, the in-water work would only impact 432 square feet (0.011 acres) of habitat below MHW, is temporary (12 to 14 months), would extend no further than the low tide line, and would be constructed in an area protected by silt curtains. The removal of the relieving platform will be conducted concurrently with the removal of the riprap from the shoreline using land-based equipment. The material removed will be placed into dump trucks and taken to a suitable upland location. The SBPCR Project would result in a net increase in habitat as a total of 340 cubic yards of material would be removed from below the MHW and intertidal habitats will be converted to more ecologically productive habitats (e.g., salt marsh plantings, etc.). The new viewing platform would be placed on existing piers and bents so there will be no need to drive additional piles and the concrete eco fascia would be secured to the existing piers and bents using clips and bolts.

2.2 Striped Bass and other Finfish Species

As only 435 sq ft of low quality intertidal habitat of steeply sloped riprap will be affected and most of the work performed in the upper half of the tidal range, the Project would have no effect on habitat, species, or their prey. Additionally, during construction, a silt curtain will be placed landward of the low tide line and hay bales and other containment devices would be placed along the limit of disturbance to prevent sedimentation. The riprap slope is of limited biological productivity and the placement of a Living Shoreline would result in net ecological benefit for these fish species.

2.3 Aquatic Invertebrates

Aquatic invertebrates would benefit from the shoreline restoration. As part of the planned restoration, intertidal and supratidal vegetative plantings would be placed in the area of existing riprap and tide pools would be constructed, enhancing the habitat quality of the area. Any temporary habitat disturbances and minor losses of benthic habitat would be offset with the positive long-term habitat improvements in the Project Area.

2.4 Overwintering Waterfowl

The enhancement of the shoreline will create more higher quality, more productive habitat that wintering waterfowl may use for swimming, foraging, and loafing. As such, the SBPCR Project will have ecological benefits for overwintering waterfowl.
3 Conclusions

The activities associated with the SBPCR Project would not result in habitat destruction or significantly reduce the viability of the SCFWH. The limited and temporary disturbance associated with the in-water construction activities would represent a de minimis level of disruption to the fauna within the Lower Hudson River and result in long-term ecological benefits. Finally, the entire southern shoreline of Manhattan is bulkheaded. The placement of the Living Shoreline would be an benefit both to wildlife and the SCFWH.
April 12, 2022

US Army Corps of Engineers
New York District
Regulatory Branch, Room 1937
ATTN: Ronald Pinzon
26 Federal Plaza
New York, NY 10278-0090.

Re: Permit Application for Proposed Changes to Pier A Inlet of South Battery Park, Manhattan

AECOM, on behalf of the Battery Park City Authority (BPCA), has prepared the attached permit application for proposed changes to Pier A Inlet, which includes placement of a living shoreline. Pier A Inlet is a narrow body of tidally influenced water between Wagner Park and Pier A in southern Manhattan. The proposed activities are being undertaken as part of a larger-scale South Battery Park City Resiliency (SBPCR) Project, currently being developed near Pier A Inlet.

Please find the enclosed permit application containing the following materials:

- Joint Permit Application Form
- Environmental Questionnaire
- Project Drawings
- New York State Environmental Assessment Form (Long Form)
- Pre-Construction Notice (Eng Form 6082) & Engineering Form 4345
- Permit Information Packet (Project description, synopsis of findings, wetland delineation, etc.)
- Essential Fish Habitat Worksheet
- Protected Species Evaluation
- Structural Archaeological Assessment Form (SAAF)
- New York City Coastal Consistency Application & Federal Consistency Assessment Form
- New York State Office of General Services Consultation

It is requested that should USACE personnel wish to visit the site, please contact Claudia Filomena, BPCA Director of Capital Projects at 212-417-2384 or Claudia.filomena@b pca.ny.gov to obtain site access.

Should you have any questions, please do not hesitate to contact me at the address below or at 212-377-8734.

Sincerely,

John Rollino
AECOM
125 Broad Street
New York, NY 10004
# JOINT APPLICATION FORM

For Permits for activities affecting streams, waterways, waterbodies, wetlands, coastal areas, sources of water, and endangered and threatened species.

You must separately apply for and obtain Permits from each involved agency before starting work. Please read all instructions.

## 1. Applications To:

**>NYS Department of Environmental Conservation**

Check all permits that apply:
- [ ] Stream Disturbance
- [X] Excavation and Fill in Navigable Waters
- [X] Docks, Moorings or Platforms

Check here to confirm you sent this form to NYSDEC.
- [X] Dams and Impoundment Structures
- [X] 401 Water Quality Certification
- [X] Freshwater Wetlands
- [X] Tidal Wetlands
- [ ] Water Withdrawal
- [ ] Wild, Scenic and Recreational Rivers
- [ ] Coastal Erosion Management
- [ ] Incidental Take of Endangered / Threatened Species

**>US Army Corps of Engineers**

Check here to confirm you sent this form to USACE.
- [X] Section 404 Clean Water Act
- [X] Section 10 Rivers and Harbors Act

Is the project Federally funded?  
- [ ] Yes  
- [X] No

If yes, name of Federal Agency:

General Permit Type(s), if known:  
NWP #54 Living Shoreline

Preconstruction Notification:
- [X] Yes  
- [ ] No

**>NYS Office of General Services**

Check here to confirm you sent this form to NYSOGS.
- [ ] State Owned Lands Under Water  
- [ ] Utility Easement (pipelines, conduits, cables, etc.)

**>NYS Department of State**

Check if this applies:  
- [X] Coastal Consistency Concurrence

## 2. Name of Applicant

<table>
<thead>
<tr>
<th>Battery Park City Authority</th>
<th>Taxpayer ID (if applicant is NOT an individual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mailing Address</td>
<td>Post Office / City</td>
</tr>
<tr>
<td>Gwen Dawson, Vice President of Real Property</td>
<td>New York</td>
</tr>
<tr>
<td>200 Liberty Street, 24th Floor</td>
<td>NY 10281</td>
</tr>
<tr>
<td>Telephone (212) 417-2000</td>
<td>Email <a href="mailto:GwenDawson@bpca.ny.gov">GwenDawson@bpca.ny.gov</a></td>
</tr>
</tbody>
</table>

Applicant Must be (check all that apply):  
- [X] Owner  
- [ ] Operator  
- [ ] Lessee

## 3. Name of Property Owner (if different than Applicant)

<table>
<thead>
<tr>
<th>City of New York</th>
<th>Post Office / City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mailing Address</td>
<td>State Zip</td>
</tr>
<tr>
<td>One Liberty Plaza, 11th Floor</td>
<td>New York NY 10006</td>
</tr>
<tr>
<td>Telephone (212) 513-6300</td>
<td>Email</td>
</tr>
</tbody>
</table>

For Agency Use Only  
Agency Application Number:  

**J O I N T  A P P L I C A T I O N  F O R M  08/16**
5. Project / Facility Name

Pier A Inlet

Project Street Address, if applicable
Southern portion of the Battery Park City Esplanade

Provide directions and distances to roads, intersections, bridges and bodies of water
Battery Place south of the intersection with Little West Street: south of Robert F. Wagner Park on the Hudson River and north of Pier A

Project Location Coordinates: Enter Latitude and Longitude in degrees, minutes, seconds:
Latitude: 40° 42' 16" Longitude: 74° 01' 05"

6. Project Description: Provide the following information about your project. Continue each response and provide any additional information on other pages. Attach plans on separate pages.

a. Purpose of the proposed project:
The project purpose is to enhance Wagner Park's programmatic diversity and provide an opportunity for a new waterfront marine habitat educational area along the Pier A Inlet. See Permit information Packet (PIP) for more information.

b. Description of current site conditions:
Pier A inlet, the body of water between Pier A and the southeast border of Wagner Park, retains the industrial feel of mid-20th century construction with shorelines consisting of rip rap and/or vertical concrete faced bulkheads. See PIP for more information.

c. Proposed site changes:
The BPCA proposes to convert the northern shoreline of Pier A Inlet into a living shoreline with intertidal and supratidal habitat with wetland and upland plantings, tide pools, daylighting formerly closed structure, and creating a light penetrable deck for wildlife viewing and educational purposes. When completed, the living shoreline will provide vegetated and shallow water habitat. See PIP for more information.

d. Type of structures and fill materials to be installed, and quantity of materials to be used (e.g., square feet of coverage, cubic yards of fill material, structures below ordinary/mean high water, etc.):
Below Mean High Water (MHW), the proposed site changes would result in the net removal of -1.2 cubic yards of fill material. Between MHW and Spring High Tide Line (SHTL), the project would add 3.3 cu yds of fill through creation of habitats. Between SHTL and 10' in elevation, the project would remove -554.9 cu yds of rip rap and materials associated with the platform. See PIP for more information.

e. Area of excavation or dredging, volume of material to be removed, location of dredged material placement:
All work would occur at elevations above Mean Low Water. There would be a net negative reduction of fill below MHW and a slight increase of fill (3.3 cu yds) between MHW and SHTL. The material removed will largely be large rocks (riprap) and concrete and replaced with planting shelves, tidepools. All removed material will be placed in a suitable upland offsite location. See PIP for more information.

f. Is tree cutting or clearing proposed? Yes If Yes, explain below. No
Timing of the proposed cutting or clearing (month/year): Nov-March
Number of trees to be cut 6 Acreage of trees to be cleared: <0.01
Land-based equipment on the north shore of the inlet will be used for construction and excavation and includes backhoe, front-end loader, and dump trucks. Excavated material will be directly placed in dump trucks for disposal offsite at a suitable upland location. A silt curtain will also be employed.

### h. Describe the planned sequence of activities:

1. Modification of the existing Wagner Park relieving platform
2. Installation of a new metal platform over Pier A
3. Modification of existing riprap to include the addition of "ECOncrete", tide pools and bank restoration plantings.
4. Planting of vegetation on the four levels of the living shoreline

### i. Pollutioin control methods and other actions proposed to mitigate environmental impacts:

Excavated material will be loaded directly into dump trucks for disposal offsite at a suitable upland location.

### j. Erosion and silt control methods that will be used to prevent water quality impacts:

Erosion controls (e.g., straw bales) will be placed around the dump trucks as they are loaded with sediment and rock removed from existing riprap shoreline in Pier A Inlet. Within Pier A Inlet, a silt curtain will be placed just landward of the low tide line.

### k. Alternatives considered to avoid regulated areas. If no feasible alternatives exist, explain how the project will minimize impacts:

The riprap in Pier A Inlet is predominately above the elevation of Spring High Water. To improve the habitat quality of the inlet and facilitate intertidal and supratidal plantings, it is necessary to remove riprap and base material to create habitat benches at the elevation of 0', 3', 5' and higher.

### l. Proposed use:  
- [ ] Private  
- [✓] Public  
- [ ] Commercial

### m. Proposed Start Date:  [Summer 2022]  
Estimated Completion Date:  [Spring 2024]

### n. Has work begun on project?

- [ ] Yes  
- [✓] No

### o. Will project occupy Federal, State, or Municipal Land?

- [✓] Yes  
- [ ] No

Project is located at Pier A Inlet leased/controlled by the Battery Park City Authority. A portion of the underwater lands, located in Block 16/Lot 1, is owned by the City of New York (confirmed with NYC Office of General Services). See PIP for more information.

### p. List any previous DEC, USACE, OGS or DOS Permit / Application numbers for activities at this location:

None

### q. Will this project require additional Federal, State, or Local authorizations, including zoning changes?

- [✓] Yes  
- [ ] No

New York City Department of City Planning Waterfront Revitalization Program Consistency Determination, SBS Waterfront Works Permit.
7. Signatures.
Applicant and Owner (If different) must sign the application.
Append additional pages of this Signature section if there are multiple Applicants, Owners or Contact/Agents.
I hereby affirm that information provided on this form and all attachments submitted herewith is true to the best of my knowledge and belief.

Permission to Inspect - I hereby consent to Agency inspection of the project site and adjacent property areas. Agency staff may enter the property without notice between 7:00 am and 7:00 pm, Monday - Friday. Inspection may occur without the owner, applicant or agent present. If the property is posted with "keep out" signs or fenced with an unlocked gate, Agency staff may still enter the property. Agency staff may take measurements, analyze site physical characteristics, take soil and vegetation samples, sketch and photograph the site. I understand that failure to give this consent may result in denial of the permit(s) sought by this application.

False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the NYS Penal Law. Further, the applicant accepts full responsibility for all damage, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and agrees to indemnify and save harmless the State from suits, actions, damages and costs of every name and description resulting from said project. In addition, Federal Law, 18 U.S.C., Section 1001 provides for a fine of not more than $10,000 or imprisonment for not more than 5 years, or both where an applicant knowingly and willingly falsifies, conceals, or covers up a material fact; or knowingly makes or uses a false, fictitious or fraudulent statement.

<table>
<thead>
<tr>
<th>Signature of Applicant</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gwen Dawson</td>
<td>3/31/2022</td>
</tr>
</tbody>
</table>

Applicant Must be (check all that apply):  

<table>
<thead>
<tr>
<th>Owner</th>
<th>Operator</th>
<th>Lessee</th>
</tr>
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</table>

Printed Name: Gwen Dawson  
Title: Vice President of Real Property

<table>
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<tr>
<th>Signature of Owner (if different than Applicant)</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Andrew Schwartz</td>
<td>03/29/22</td>
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</table>

Printed Name: Andrew Schwartz  
Title: Deputy Commissioner

<table>
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<tr>
<th>Signature of Contact / Agent</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Rollino</td>
<td>4/12/22</td>
</tr>
</tbody>
</table>

Printed Name: John Rollino  
Title: Consultant

For Agency Use Only

DETERMINATION OF NO PERMIT REQUIRED

Agency Application Number: 

(Agency Name) has determined that No Permit is required from this Agency for the project described in this application.

Agency Representative:
Printed Name:  
Signature:  
Title:  
Date:  

Joint Application Form 08/16  
Page 4 of 4
U.S. Army Corps of Engineers (USACE)
NATIONWIDE PERMIT PRE-CONSTRUCTION NOTIFICATION (PCN)
33 CFR 330. The proponent agency is CECD-CO-R.

DATA REQUIRED BY THE PRIVACY ACT OF 1974
Authority Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Regulatory Program of the Corps of Engineers (Corps); Final Rule 33 CFR 320-332.
Principal Purpose Information provided on this form will be used in evaluating the nationwide permit pre-construction notification.
Routine Uses This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of the agency coordination process.
Disclosure Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued.

The public reporting burden for this collection of information, 0710-0003, is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at wns.mc-atex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

PLEASE DO NOT RETURN YOUR RESPONSE TO THE ABOVE EMAIL.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the district engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

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<tr>
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<th>2. FIELD OFFICE CODE</th>
<th>3. DATE RECEIVED</th>
<th>4. DATE APPLICATION COMPLETE</th>
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(ITEMS BELOW TO BE FILLED BY APPLICANT)

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<tr>
<th>5. APPLICANT'S NAME</th>
<th>6. APPLICANT'S ADDRESS</th>
<th>7. APPLICANT'S PHONE NOs. with AREA CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle -</td>
<td>City - New York</td>
<td>212.417.2000</td>
</tr>
<tr>
<td>Last - Dawson</td>
<td>State - NY</td>
<td></td>
</tr>
<tr>
<td>Company - Battery Park City Authority</td>
<td>Zip - 10281</td>
<td></td>
</tr>
<tr>
<td>Company Title - Vice President of Real Property</td>
<td>Country - USA</td>
<td></td>
</tr>
<tr>
<td>E-mail Address - <a href="mailto:Gwen.Dawson@bpca.ny.gov">Gwen.Dawson@bpca.ny.gov</a></td>
<td></td>
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<table>
<thead>
<tr>
<th>8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required)</th>
<th>9. AGENT'S ADDRESS</th>
<th>10. AGENT'S PHONE NOs. with AREA CODE</th>
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<tbody>
<tr>
<td>First -</td>
<td>Address-</td>
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</tr>
<tr>
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<td></td>
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<tr>
<td>Company -</td>
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<td></td>
</tr>
<tr>
<td>E-mail Address -</td>
<td>Country -</td>
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</tr>
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STATEMENT OF AUTHORIZATION

I hereby authorize [Signature] to act in my behalf as my agent in the processing of this nationwide permit pre-construction notification and to furnish, upon request, supplemental information in support of this nationwide permit pre-construction notification.

SIGNATURE OF APPLICANT DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME or TITLE (see instructions)
Pier A Inlet Living Shoreline
**Name, Location, and Description of Project or Activity**

<table>
<thead>
<tr>
<th>13. Name of Waterbody, if Known (if applicable)</th>
<th>Pier A Inlet adjacent to the Hudson River</th>
</tr>
</thead>
</table>

| 15. Location of Proposed Activity (see instructions) | Battery Place south of the intersection with Little West Street |
| --- Long latitude, "N" | 40° 42' 16" |
| --- Long longitude, "W" | 74° 01' 16" |

| 16. Other Location Descriptions, if Known (see instructions) |  |
| --- State Tax Parcel ID | Manhattan, Block 16, Lot 1 |
| --- Town | Manhattan |

### 17. Directions to the Site

Battery Place south to its intersection with Little West Street, on the right side of road is Pier A. Just north of Pier A is the inlet. The inlet is south of Robert F. Wagner Park on the Hudson River.

### 18. Identify the Specific Nationwide Permit(s) You Propose to Use

Nationwide Permit #54 - Living Shoreline

### 19. Description of Proposed Nationwide Permit Activity (see instructions)

See Permit Information Packet (PIP) and Drawing Set

### 20. Description of Proposed Mitigation Measures (see instructions)

The proposed activities associated with the creation of the Living Shoreline would not result in the loss of greater than 1/10 acre of wetlands.

### 21. Purpose of Nationwide Permit Activity (Describe the reason or purpose of the project, see instructions)

The BPCA proposes to convert the northern shoreline of Pier A into a living shoreline with intertidal, supratidal, and upland plantings, tidal pools, and creating a light penetrable deck for wildlife viewing and educational purposes. When completed, the living shoreline would provide rocky shoreline, vegetated intertidal and high marsh habitats that are currently devoid on the southern tip of Manhattan. The proposed work is anticipated to start in Summer 2022 and be completed Summer 2024.

### 22. Quantity of Wetlands, Streams, or Other Types of Waters Directly Affected by Proposed Nationwide Permit Activity (see instructions)

<table>
<thead>
<tr>
<th>Acres</th>
<th>Cubic Yards Dredged or Discharged</th>
<th>See attached PIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>~0.04 acre of waters of the U.S.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site.

### 23. List any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. (see instructions)

No other USACE permits are required for the construction of the Living Shoreline at the Pier A inlet.

### 24. If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and requires pre-construction notification, explain how the compensatory mitigation requirement in paragraph (c) of general condition 23 will be satisfied, or explain why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required for the proposed activity.

The proposed construction of the Living Shoreline will disturb less than 0.1 acre of waters of the U.S. The proposed Living Shoreline would provide approximately 2,327 sq ft of additional vegetation on the ledges where there was no vegetation before. The new Pier A Inlet deck would allow viewing of the eco-enhanced shoreline edge, intertidal habitats, and in-water eco-restoration features.
25. Is any portion of the nationwide permit activity already complete? [ ] Yes [ ] No [ ] If Yes, describe the completed work:

26. List the name(s) of any species listed as endangered or threatened under the Endangered Species Act that might be affected by the proposed NWP activity or utilize the designated critical habitat that might be affected by the proposed NWP activity. (see instructions)

Protected species under the Endangered Species Act that could occur in the vicinity of the project include the Atlantic sturgeon, shortnose sturgeon and 4 species of sea turtles (see Biological Evaluation). The project area is located at the end of a narrow inlet and disturbances would be limited to about 435 sq ft of intertidal rip rap engineered slope. No known occurrences of these species in the Pier A Inlet have been noted. This project would have no adverse impact to these species.

27. List any historic properties that have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic property or properties. (see instructions)

The EIS for the SBPCR Project will address the potential cultural resources impact. The current analyses indicate that the Pier A Inlet would have no adverse effect on cultural resources.

28. For a proposed NWP activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, identify the Wild and Scenic River or the "study river":

There are no Wild and Scenic Rivers or "study river" in the vicinity of the Pier A Inlet.

29. If the proposed NWP activity also requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, have you submitted a written request for section 408 permission from the Corps district having jurisdiction over that project? [ ] Yes [ ] No

If "yes", please provide the date your request was submitted to the Corps district:

30. If the terms of the NWP(s) you want to use require additional information to be included in the PCN, please include that information in this space or provide it on an additional sheet of paper marked Block 30. (see instructions)

Additional project information is provided in the PIP.

31. Pre-construction notification is hereby made for one or more nationwide permit(s) to authorize the work described in this notification. I certify that the information in this pre-construction notification is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

[Signature]

SIGNATURE OF APPLICANT [ ] DATE [ ] SIGNATURE OF AGENT [ ] DATE

The pre-construction notification must be signed by the person who desires to undertake the proposed activity (applicant) and, if the statement in Block 11 has been filled out and signed, the authorized agent.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.
Instructions for Preparing a
Department of the Army
Nationwide Permit (NWP) Pre-Construction Notification (PCN)

Blocks 1 through 4. To be completed by the Corps of Engineers.

Block 5. Applicant’s Name. Enter the name and the e-mail address of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the name of the organization and responsible officer and title. If more than one party is associated with the preconstruction notification, please attach a sheet of paper with the necessary information marked Block 5.

Block 6. Address of Applicant. Please provide the full address of the party or parties responsible for the PCN. If more space is needed, attach an extra sheet of paper marked Block 6.

Block 7. Applicant’s Telephone Number(s). Please provide the telephone number where you can usually be reached during normal business hours.

Blocks 8 through 11. To be completed, if you choose to have an agent.

Block 8. Authorized Agent’s Name and Title. Indicate name of individual or agency designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer, consultant, or any other person or organization. Note: An agent is not required.

Blocks 9 and 10. Agent’s Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where he/she can be reached during normal business hours.

Block 11. Statement of Authorization. To be completed by the applicant if an agent is to be employed.

Block 12. Proposed Nationwide Permit Activity Name or Title. Please provide a name identifying the proposed NWP activity, e.g., Windward Marina, Rolling Hills Subdivision, or Smith Commercial Center.

Block 13. Name of Waterbody. Please provide the name (if it has a name) of any stream, lake, marsh, or other waterway to be directly impacted by the NWP activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 14. Proposed Activity Street Address. If the proposed NWP activity is located at a site having a street address (not a box number), please enter it in Block 14.

Block 15. Location of Proposed Activity. Enter the latitude and longitude of where the proposed NWP activity is located. Indicate whether the project location provided is the center of the project or whether the project location is provided as the latitude and longitude for each of the “corners” of the project area requiring evaluation. If there are multiple sites, please list the latitude and longitude of each site (center or corners) on a separate sheet of paper and mark as Block 15.

Block 16. Other Location Descriptions. If available, provide the Tax Parcel Identification number of the site, Section, Township, and Range of the site (if known), and/or local municipality where the site is located.

Block 17. Directions to the Site. Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site. You may also provide a description of the location of the proposed NWP activity, such as lot numbers, tract numbers, or you may choose to locate the proposed NWP activity site from a known point (such as the right descending bank of Smith Creek, one mile downstream from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed NWP activity site if known. If there are multiple locations, please indicate directions to each location on a separate sheet of paper and mark as Block 17.

Block 18. Identify the Specific Nationwide Permit(s) You Propose to Use. List the number(s) of the Nationwide Permit(s) you want to use to authorize the proposed activity (e.g., NWP 29).

Block 19. Description of the Proposed Nationwide Permit Activity. Describe the proposed NWP activity, including the direct and indirect adverse environmental effects the activity would cause. The description of the proposed activity should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal. Identify the materials to be used in construction, as well as the methods by which the work is to be done.

Provide sketches when necessary to show that the proposed NWP activity complies with the terms of the applicable NWP(s). Sketches usually clarify the activity and result in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed NWP activity (e.g., a conceptual plan), but do not need to be detailed engineering plans.

The written descriptions and illustrations are an important part of the application. Please describe in detail what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 19.
### Block 20. Description of Proposed Mitigation Measures

Describe any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed NWP activity. The description of any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or additional mitigation measures.

### Block 21. Purpose of Nationwide Permit Activity

Describe the purpose and need for the proposed NWP activity. What will it be used for and why? Also include a brief description of any related activities associated with the proposed project. Provide the approximate dates you plan to begin and complete all work.

### Block 22. Quantity of Wetlands, Streams, or Other Types of Waters Directly Affected by the Proposed Nationwide Permit Activity

For discharges of dredged or fill material into waters of the United States, provide the amount of wetlands, streams, or other types of waters filled, flooded, excavated, or drained by the proposed NWP activity. For structures or work in navigable waters of the United States subject to Section 10 of the Rivers and Harbors Act of 1899, provide the amount of navigable waters filled, dredged, or occupied by one or more structures (e.g., aids to navigation, mooring buoys) by the proposed NWP activity.

For multiple NWPs, or for separate and distant crossings of waters of the United States authorized by NWPs 12 or 14, attach an extra sheet of paper marked Block 21 to provide the quantities of wetlands, streams, or other types of waters filled, flooded, excavated, or drained (or dredged or occupied by structures, if in waters subject to Section 10 of the Rivers and Harbors Act of 1899) for each NWP. For NWPs 12 and 14, include the amount of wetlands, streams, or other types of waters filled, flooded, excavated, or drained for each separate and distant crossing of waters or wetlands. If more space is needed, attach an extra sheet of paper marked Block 22.

### Block 23. Identify Any Other Nationwide Permit(s), Regional General Permit(s), or Individual Permit(s) Used to Authorize Any Part of Proposed Activity or Any Related Activity

List any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. For linear projects, list separate and distant crossings of waters and wetlands authorized by NWPs 12 or 14 that do not require PCNs. If more space is needed, attach an extra sheet of paper marked Block 23.

### Block 24. Compensatory Mitigation Statement for Losses of Greater Than 1/10 Acre of Wetlands When Pre - Construction Notification is Required

Paragraph (c) of NWP general condition 23 requires compensatory mitigation at a minimum one - for - one replacement ratio will be required for all wetland losses that exceed 1/10 acre and require pre - construction notification. Unless the district engineer determines in writing that either some other form of mitigation is more environmentally appropriate or the adverse environmental effects of the proposed NWP activity are no more than minimal without compensatory mitigation, and provides an activity - specific waiver of this requirement. Describe the proposed compensatory mitigation for wetland losses greater than 1/10 acre, or provide an explanation of why the district engineer should not require wetland compensatory mitigation for the proposed NWP activity. If more space is needed, attach an extra sheet of paper marked Block 24.

### Block 25. Is Any Portion of the Nationwide Permit Activity Already Complete?

Describe any work that has already been completed for the NWP activity.

### Block 26. List the Name(s) of Any Species Listed As Endangered or Threatened under the Endangered Species Act that Might Be Affected by the Nationwide Permit Activity

If you are not a federal agency, and if any listed species or designated critical habitat might be affected or in the vicinity of the proposed NWP activity, or if the proposed NWP activity is located in designated critical habitat, list the name(s) of those endangered or threatened species that might be affected by the proposed NWP activity or utilize the designated critical habitat that might be affected by the proposed NWP activity. If you are a Federal agency and the proposed NWP activity requires a PCN, you must provide documentation demonstrating compliance with Section 7 of the Endangered Species Act.

### Block 27. List Any Historic Properties That Have the Potential to be Affected by the Nationwide Permit Activity

If you are not a Federal agency, and if any historic properties have the potential to be affected by the proposed NWP activity, list the name(s) of those historic properties that have the potential to be affected by the proposed NWP activity. If you are a Federal agency, and the proposed NWP activity requires a PCN, you must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

### Block 28. List the Wild and Scenic River or Congressionally Designated Study River if the Nationwide Permit Activity Would Occur in such a River

If the proposed NWP activity will occur in a river in the National Wild and Scenic River System or in a river officially designated by Congress as a "study river" under the Wild and Scenic Rivers Act, provide the name of the river. For a list of Wild and Scenic Rivers and study rivers, please visit http://www.rivers.gov.

### Block 29. Nationwide Permit Activities that also Require Permission from the Corps Under 33 U.S.C. 408

If the proposed NWP activity also requires permission from the Corps under 33 U.S.C. 408 because it will temporarily or permanently alter, occupy, or use a Corps federal authorized civil works project, indicate whether you have submitted a written request for section 408 permission from the Corps district having jurisdiction over that project.
Block 30. Other Information Required For Nationwide Permit Pre-Construction Notifications. The terms of some of the Nationwide Permits include additional information requirements for preconstruction notifications:

- NWP 3. Maintenance — information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals.
- NWP 31. Maintenance of Existing Flood Control Facilities — a description of the maintenance baseline and the dredged material disposal site.
- NWP 33. Temporary Construction, Access, and Dewatering — a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions.
- NWP 44. Mining Activities — if reclamation is required by other statutes, then a copy of the final reclamation plan must be submitted with the pre-construction notification.
- NWP 45. Repair of Uplands Damaged by Discrete Events — documentation, such as a recent topographic survey or photographs, to justify the extent of the proposed restoration.
- NWP 46. Commercial Shellfish Aquaculture Activities — (1) a map showing the boundaries of the project area, with latitude and longitude coordinates for each corner of the project area, (2) the name(s) of the species that will be cultivated during the period this NWP is in effect, (3) whether canopy predator nets will be used, (4) whether suspended cultivation techniques will be used, and (5) general water depths in the project area (a detailed survey is not required).
- NWP 47. Coal Remining Activities — a document describing how the overall mining plan will result in a net increase in aquatic resource functions must be submitted to the district engineer and receive written authorization prior to commencing the activity.
- NWP 50. Underground Coal Mining Activities — if reclamation is required by other statutes, then a copy of the reclamation plan must be submitted with the pre-construction notification.

If more space is needed, attach an extra sheet of paper marked Block 30.

Block 31. Signature of Applicant or Agent. The PCN must be signed by the person proposing to undertake the NWP activity, and if applicable, the authorized party (agent) that prepared the PCN. The signature of the person proposing to undertake the NWP activity shall be an affirmation that the party submitting the PCN possesses the requisite property rights to undertake the NWP activity (including compliance with special conditions, mitigation, etc.).

DELINEATION OF WETLANDS, OTHER SPECIAL AQUATIC SITES, AND OTHER WATERS

Each PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current wetland delineation manual and regional supplement published by the Corps. If the Corps requests that the applicant prepare the wetland delineation, the Corps must provide the Pars and conditions.

DRAWINGS AND ILLUSTRATIONS

General Information.

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a Vicinity Map, a Plan View or a Typical Cross-Section Map. Identify each illustration with a figure or attachment number. For linear projects (e.g., roads, subsurface utility lines, etc.) gradient drawings should also be included. Please submit one original or good quality copy of all drawings on 8½ x 11 inch plain white paper (electronic media may be substituted). Use the fewest number of sheets necessary for your drawings or illustrations. Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross-section). While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate, and contain all necessary information.

ADDITIONAL INFORMATION AND REQUIREMENTS

For proposed NWP activities that involve discharges into waters of the United States, water quality certification from the State, Tribe, or EPA must be obtained or waived (see NWP general condition 25). Some States, Tribes, or EPA have issued water quality certification for one or more NWPs. Please check the appropriate Corps district web site to see if water quality certification has already been issued for the NWP(s) you wish to use. For proposed NWP activities in coastal states, state Coastal Zone Management Act consistency concurrence must be obtained; a presumption of concurrence must occur (see NWP general condition 26). Some States have issued Coastal Zone Management Act consistency concurrences for one or more NWPs. Please check the appropriate Corps district web site to see if Coastal Zone Management Act consistency concurrence has already been issued for the NWP(s) you wish to use.
ENVIRONMENTAL QUESTIONNAIRE

This is intended to supplement ENG Form 4345, Application for Department of the Army Permit, or the Joint Application for Permit used in the State of New York. Please provide complete answers to all questions below which are relevant to your project. Any answers may be continued on separate sheet(s) of paper to be attached to this form.

PRIVACY ACT STATEMENT

The purpose of this form is to provide the Corps of Engineers with basic information regarding your project. This information will be used to facilitate evaluation of your permit application and for public dissemination as required by regulation. Failure to provide complete information may result in your application being declared incomplete for processing, thereby delaying processing of your application.

GENERAL--APPLICABLE TO ALL PROJECTS

1. Explain the need for, and purpose of, the proposed work.

The proposed habitat enhancements would increase species diversity and provide ecological diversity in the Pier A Inlet and New York Harbor. When completed, the living shoreline would provide vegetated and shallow water habitat that does not currently exist on the southern tip of Manhattan.

See attached Permit Information Packet (PIP) for more information.

2. Provide the names and addresses of property owners adjacent to your work site (if not shown on the application form or project drawings).

Project is located at Pier A Inlet leased/controlled by the Battery Park City Authority. A portion of the underwater lands, located in Block 16/Lot 1, is owned by the City of New York (confirmed with NYC Office of General Services). See attached PIP for more information.

3. Photographs of the project site should be submitted. For projects in tidal areas, photographs of the waterway vicinity should be taken at low tide. Using a separate copy of your plan view, indicate the location and direction of each photograph as well as the date and time at which the photograph was taken. Provide a sufficient number of photographs so as to provide a clear understanding of conditions on and proximate to your project site.

Photographs are included in the attached PIP.

4. Provide a copy of any environmental impact statement, or any other environmental report which was prepared for your project.
The DEIS for the SBPCR Project, including the proposed shoreline improvements, is anticipated to be published in Spring 2022. A copy will be provided once available.

5. Provide a thorough discussion of alternatives to your proposal. This discussion should include, but not necessarily be limited to, the "no action" alternative and alternative(s) resulting in less disturbance to waters of the United States. For filling projects in waters of the United States, including wetlands, your alternatives discussion should demonstrate that there are no practicable alternatives to your proposed filling and that your project meets with current mitigation policy (i.e. avoidance, minimization and compensation).

Alternative 1: No Action

The inlet would remain in its existing condition, providing limited ecological value.

Alternative 2: Construction of Additional Platform

The original design for the Pier A inlet proposed a large, cantilevered metal platform over the water. A ramp down and a lower observation platform was designed to bring users closer to the water, while incorporating bench seating on the bulkhead. This initial design, as shown in Figure 1 was presented to the NYSDEC on April 30, 2020. NYSDEC’s primary comment was a request for BPCA to revisit the design and downsize the platform.

![Figure 1: Pier A Inlet – Previous Design](image-url)
Alternative 3: Living Shoreline

In response to NYSDEC feedback, the design team downsized the metal platform focusing on a smaller area where fill from the relieving platform could be removed and replaced with a metal grate so as to daylight the shoreline below the existing structure (see Figure 2). Along the current rip-rap slope, the design team proposed a series of terraces to be activated by flood surges and tidal action throughout the life of the Proposed Inlet Work. Three distinct levels were proposed consisting of: tidal pools and habitat shelves made from an eco-enhanced concrete; a grass planting bed 5 feet above the water line and designed around flood inundation; and a shrub and tree planting bed adjacent to the new esplanade to provide shade and frame views of the area and adjacent sites.

The Proposed Inlet Work has been designed to impact less than 0.10 acres of existing intertidal wetlands. The Proposed Inlet Work would result in a net removal of fill below Mean high Water (MHW) and would fill only 3.3 cubic yards between MHW and Spring High Tide Line. The Proposed Inlet Work would also remove 555 cu yds of materials (e.g., rip rap, structural components of the relieving platform) below the flood elevation height. All work would occur landward of the Low Tide Line (LTL).

Figure 2 Pier A Inlet –Proposed Design

DREDGING PROJECTS

Answer the following if your project involves dredging.

1. Indicate the estimated volume of material to be dredged and the depth (below mean low water) to which dredging would occur. Would there be overdepth dredging?
The project will require the excavation of 317.1 cubic yards of material below the Spring High Tide Line (SHTL). Excavation of all materials would be accomplished by land-based equipment.

2. You can apply for a ten-year permit for maintenance dredging. If you wish to apply for a ten-year permit, please provide the number of additional dredging events during the ten-year life of the permit and the amount of material to be removed during future events.

N/A

3. Indicate of your drawings the dewatering area (if applicable) and disposal site for the dredged material (except landfill sites). Submit a sufficient number of photographs of the dewatering and disposal sites as applicable so as to provide a clear indication of existing conditions. For ten-year maintenance dredging permits, indicate the dewatering/disposal sites for future dredging events, if known.

See attached PIP for more information.

4. Describe the method of dredging (i.e. clamshell, dragline, etc.) and the expected duration of dredging.

Any onsite excavation would be accomplished by hand or a backhoe. As an added measure of security, a silt curtain would be placed landward of the LTL.

5. Indicate the physical nature of the material to be dredged (i.e. sand, silt, clay, etc.) and provide estimated percentages of the various constituents if available. For beach nourishment projects, grain size analysis data is required.

Excavated material would largely consist of concrete and rock.

6. Describe the method of dredged material containment (i.e. hay bales, embankment, bulkhead, etc.) and whether return flow from the dewatering/disposal site would reenter any waterway. Also indicate if there would be any barge overflow.

The selected contractor would be responsible to ensure the excavated material removal and disposal would be handled properly. As mentioned previously, a silt curtain would be placed landward of the LTL and hay bales and other containment devices would be placed along the limit of disturbance.

**MOORING FACILITIES**

N/A

Answer the following if your project includes the construction or rehabilitation of recreational mooring facilities. N/A
1. It is generally recommended that any fixed piers and walk ramps be limited to four feet in width, and that floats be limited to eight feet in width and rest at least two feet above the waterway bottom at mean low water. Terminal floats at private, noncommercial facilities should be limited to 20 feet in length. If you do not believe your proposal can meet with these recommendations, please provide the reason(s). N/A

2. Using your plan view, show to scale the location(s), position(s) and size(s) (including length, beam and draft) of vessel(s) to be moored at the proposed facility, including those of transient vessel(s) if known. N/A

3. For commercial mooring sites such as marinas, indicate the capacity of the facility and indicate on the plan view the location(s) of any proposed fueling and/or sewage pumpout facilities. If pumpout facilities are not planned, please discuss the rationale below and indicate the distance to the nearest available pumpout station. N/A

4. Indicate on your plan view the distance to adjacent marine structures, if any are proximate and show the locations and dimensions of such structures. N/A

5. Discuss the need for wave protection at the proposed facility. Please be advised that if a permit is issued, you would be required to recognize that the mooring facility may be subject to wave action from wakes of passing vessels, whose operations would not be required to be modified. Issuance of a permit would not relieve you of ensuring the integrity of the authorized structure(s) and the United States would not be held responsible for damages to the structure(s) and vessel(s) moored thereto from wakes from passing vessels. N/A

BULKHEADING/BANK STABILIZATION/FILLING ACTIVITIES

Answer the following if your project includes construction of bulkheading (also retaining walls and seawalls) with backfill, filling of waters/wetlands, or any other bank stabilization fills such as riprap, revetments, gabions, etc.

1. Indicate the total volume of fill (including backfill behind a structure such as a bulkhead) as well as the volume of fill to be placed into waters of the United States. The amount of fill in waters of the United States can be determined by calculating the amount of fill to be placed below the plane of spring high tide in tidal areas and below ordinary high water in non-tidal areas.
Cognizant of regulatory concerns regarding the placement of fill material in the tidal waters, as well as the projected increase in sea level rise, the proposed shoreline improvements were designed to reduce the amount of fill within Pier A Inlet. The Proposed Inlet Work would remove a net total 1.2 cubic yards below Mean High Water (MHW). Between the MHW and SHTL, the Project would increase the net fill by 3.3 cubic yards within the approximate 0.15-acre Project Area. As such, the net total amount of fill in waters of the United States below the SHTL is equal 2.1 cubic yards.

Table 1 identifies the net placement and removal of fill for the Proposed Inlet Work. For purposes of this table, the project area is divided into two separate work areas:

- The Platform (the elevated portion of the project area east of the riprap shoreline); and
- the Shoreline, the rip rap which will be modified into a planting benches.

<table>
<thead>
<tr>
<th>Table 1 - Cut and Fill Calculations Proposed Inlet Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLATFORM STRUCTURE</td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td>Between SHTL and MHW</td>
</tr>
<tr>
<td>Below MHW (EL +1.96’ NAVD 88)</td>
</tr>
<tr>
<td>SHORELINE</td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td>Between SHTL and MHW</td>
</tr>
<tr>
<td>Below MHW (EL +1.96’ NAVD 88)</td>
</tr>
<tr>
<td>TOTAL</td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td>Between SHTL and MHW</td>
</tr>
<tr>
<td>Below MHW (EL +1.96’ NAVD 88)</td>
</tr>
</tbody>
</table>

2. Indicate the source(s) and type(s) of fill material.

Fill materials will consist of concrete, rock and sand from clean upland sources. The three-dimensional terracing would be formed by precast concrete gravity structures clad with ECONcrete with micro-surfacing textures that mimic natural rock/coral features and enhance biological recruitment by modifying small scale hydrodynamics and creating additional habitat complexity.

3. Indicate the method of fill placement (i.e. by hand, bulldozer, crane, etc.). Would any temporary fills be required in waterways or wetlands to provide access for construction equipment? If so, please indicate the area of such waters and/or wetlands to be filled, and show on the plan and sectional views.

Fill material will be delivered to the site by truck and placed into the restoration area from land by backhoes and loaders. Benches would be installed at different elevations to allow plantings and
species usage to change with the anticipated sea level rise in the future. ECOveneer would encapsulate the relieving platform pile's bent structures between elevation -1 and 2.5ft.

A silt curtain would be placed just landward of the low-tide line, all work would be conducted within the confines of the curtain and no liquids (poured concrete) would come into contact with sea water. No other temporary fills would be required.

The foregoing requests basic information on the most common types of projects requiring Department of the Army permits. It is intended to obviate or reduce the need for requesting additional information; however, additional information may be requested above and beyond what is requested in this form.

Please feel free to add any additional information regarding your project which you believe may facilitate our review.

The project would also increase flood storage capacity in future storm events. Between the spring high tide line (SHTL) and 10 ft in elevation, the Project would result in the net removal of ~555 cubic yards of material comprised of rip-rap and structural components of the relieving platform. These items are identified in Table 2.

Table 2 Material Removed and Placed Above the Spring High Tide Line

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Platform Structure</td>
<td>Between EL +10' and SHTL (+2.44')</td>
<td>641</td>
<td>115</td>
<td>-525.7</td>
</tr>
<tr>
<td>Rip Rap Shoreline</td>
<td>Between EL +10' and SHTL (+2.44')</td>
<td>277</td>
<td>248</td>
<td>-29.2</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>918.5</td>
<td>363.6</td>
<td>-554.9</td>
</tr>
</tbody>
</table>
Attachment A

B. Government Approvals, Funding or Sponsorship ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Implementation of the Proposed Action would require federal, state, and local approvals involving the following agencies:

FEDERAL

- U.S. Army Corps of Engineers (USACE) – Permits or authorizations for activities in Waters of the United States (Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act).
- U.S. Environmental Protection Agency (USEPA), U.S. Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) – Advisory agencies to the federal permitting process focusing on activities affecting wetlands, water quality, protected plant and wildlife species, and essential fish habitat.
- U.S. Coast Guard (USCG) – Coordination and authorization regarding placement of construction barges.

STATE OF NEW YORK

- Department of Environmental Conservation (NYSDEC) – Permits related to activities in tidal wetlands or adjacent areas (Article 25) or protection of waters (Article 15), Water Quality Certification (Section 401); permits related to the State Pollutant Discharge Elimination System (SPDES) program; and approvals related to the import of fill material requiring Beneficial Use Determination.
- Department of State (NYSDOS) – Coastal Zone Consistency Determination.
- Office of Parks, Recreation and Historic Preservation (OPRHP) – State Historic Preservation Office (SHPO) leading federal review process pursuant to Section 106 of the National Historic Preservation Act (NHPA) with respect to designated and protected properties on the State and National Registers of Historic Places and properties determined eligible for such listing.
- Department of Transportation (NYSDOT) – Design coordination as needed and construction permits for work within the right-of-way.

CITY OF NEW YORK

- Department of Parks & Recreation (NYCDPR) – Forestry Permits for tree removals and restitution and Capital Construction Permit for bikeway/Battery elements.
- Department of Environmental Protection (NYCDEP) – Review of design for project elements related to stormwater management, water and sewer infrastructure, and natural resources, as well as air quality and noise/vibration analysis.
- Department of Transportation (NYCDOT) – Coordination/review for bike lane, lighting, and other work in NYCDOT ROW.
- Department of City Planning (DCP) – Consistency determination under the Local Waterfront Revitalization Program.
- Small Business Services (NYCSBS) – Coordination and approval for activities on SBS owned property.
- Landmarks Preservation Commission (NYCLPC) – Advisory agency for activities on or near sites of historic or archaeological value.
- New York City Transit Authority (NYCTA) – Coordinate if any permanent or temporary impacts to bus routes/stops on Battery Place.
- New York City Police Department (NYPD) – Obtain approval for bollard and security design.
- New York City Fire Department (FDNY) – Coordinate access requirements and impact to FDNY facilities and conduits within the right-of-way.
- MTA - Triborough Bridge and Tunnel Authority (TBTA) – Obtain approval for alignment crossing over Brooklyn-Battery Tunnel.

D.2 Project Operations Supplemental Responses

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction?

   iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Response: The majority of the “wet” side area in Wagner Park and adjacent to the Museum of Jewish Heritage will drain to an infiltration gallery and the remainder will drain to a dedicated storm drain that will connect to the NYCDEP MS4 dedicated storm drain in 1st Place. A portion of the “dry” side area at Wagner Park will drain to a water reuse cistern and the remainder of the “dry” side area at Wagner Park and adjacent to the Museum of Jewish Heritage will be collected and drain to the NYCDEP MS4 dedicated storm drain in Battery Place. The overflow from the water reuse cistern will also drain to the NYCDEP MS4 dedicated storm drain in Battery Place. The “wet” side area at Pier A will drain to the CSO outfall pipe by Pier A and the “dry” side area will drain to the NYCDEP MS4 dedicated storm drain in Battery Place. The “wet” side and “dry” side areas at The Battery will drain to the NYCDEP combined sewer except during events with the flood alignment engaged, when the “wet” side area at The Battery will overflow to the CSO outfall pipe by Pier A.

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both?

   i. Provide details including sources, time of day and duration.

Response: Construction noise associated with the proposed action is expected to be similar to noise generated by other construction projects in the city. Increased noise levels can be expected during excavation and demolition phases of construction, as well as during the installation of secant piles and sheet piles, all of which would be of relatively short duration. Construction will occur during weekdays from 7:00 am to 4:00 pm and last for approximately 26 months.

n. Will the proposed action have outdoor lighting?

   i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Lampposts are currently present along the paths in the project area typical of those used by NYC Parks. New 11-foot lampposts following the same standards as existing light poles will be installed along new paths throughout the project area, near the Pavilion, and near the Museum of Jewish Heritage. New 14-
foot lampposts will be installed near Pier A, around the Wagner Park Pavilion, and the open space area between Wagner Park and the Museum of Jewish Heritage. In addition, 35-foot high-mast lampposts will be installed on Pier A and the open space in front of the Wagner Park Pavilion.
Full Environmental Assessment Form

Part 3 - Evaluation of the Magnitude and Importance of Project Impacts

and

Determination of Significance

The environmental review for the South Battery Park City Resiliency (SBPCR) Project is being prepared in accordance with state and local regulations. The Battery Park City Authority (BPCA) is the lead agency under the New York State Quality Review (SEQRA) and the New York City Environmental Quality Review (CEQR). The Proposed Action is subject to SEQRA, as mandated in 6 NYCRR Part 617, and will follow the technical guidelines outlined in the 2020 CEQR Technical Manual.

The following information is in support of the Environmental Assessment Form, Part 3. This portion of the assessment provides the reasons in support of the determination of significance. The EAF Part 2 identified that potential moderate to large impacts may occur on the following: Land, Aesthetic, and Historic and Archeological resources. The following report will document the impact and describe its magnitude, including severity, size and extent of the impact on the three identified resources.

Impact on Land (Supplemental information supporting Question #1 of Part 2)

The flood alignment through Wagner Park would be constructed as a buried floodwall connecting to the glass-topped floodwall at the Museum of Jewish Heritage. The Design Flood Elevation (DFE) for this portion of the flood alignment is +19.8 feet, and the HOI is 7.8 to 9.8 feet. To meet projected DFEs for coastal surge, Wagner Park would be elevated 10 to 12 feet, and the buried floodwall would be constructed beneath the raised park, maximizing the amount of protected open space within the park, while maintaining views to the waterfront. The buried floodwall also allows users to fully occupy the lawn, garden, and public park, in contrast to a traditional floodwall design which would bisect the space. At the connection between Wagner Park and Pier A Plaza, the flood alignment would be resurfaced and exposed as a short segment of exposed floodwall where it would meet the flip-up deployables being used through Pier A Plaza.

The buried floodwall requires the installation of a sheet pile seepage barrier approximately 20 to 30 feet in depth. The free-standing wall at the connection from Wagner Park to Pier A Plaza would be tied into the proposed buried floodwall portion of the flood alignment within the elevated Wagner Park. This would require the installation of steel piles extending approximately 40 feet in depth.

Construction for the Proposed Action is anticipated to take 26 months. The Draft Environmental Impact Statement (DEIS) will analyze the potential environmental impacts during the construction phase and, if necessary, will identify mitigation measures to address such impacts.

Impact on Aesthetic Resources (Supplemental information supporting Question #9 of Part 2)

The Proposed Action would elevate Wagner Park 10 to 12 feet and replace the existing pavilion with a new pavilion on top of the elevated Wagner Park. The DEIS will include a detailed analysis of the Proposed Action.
Action’s impact on identified sensitive aesthetic and visual resources. Following NYSDEC guidance and the CEQR Technical Manual, an inventory of sensitive aesthetic and visual resources was prepared, and the following aesthetic and visual resources have been identified in or around the Study Area and listed in the table below.

<table>
<thead>
<tr>
<th>Number</th>
<th>Resource</th>
<th>Category</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Museum of Jewish Heritage</td>
<td>Locally Significant Resource</td>
<td>Study Area</td>
</tr>
<tr>
<td>2</td>
<td>Wagner Park</td>
<td>National Register Eligible</td>
<td>Project Area</td>
</tr>
<tr>
<td>3</td>
<td>Pier A Plaza</td>
<td>Locally Significant Resource</td>
<td>Project Area</td>
</tr>
<tr>
<td>4</td>
<td>Pier A Harbor House</td>
<td>National Register Listed/NYC Landmark</td>
<td>Study Area</td>
</tr>
<tr>
<td>5</td>
<td>The Battery</td>
<td>Locally Significant Resource</td>
<td>Project Area</td>
</tr>
<tr>
<td>6</td>
<td>Battery Bikeway</td>
<td>Locally Significant Resource</td>
<td>Project Area</td>
</tr>
<tr>
<td>7</td>
<td>Hudson River</td>
<td>Locally Significant Resource</td>
<td>Study Area</td>
</tr>
<tr>
<td>8</td>
<td>Statue of Liberty National Monument</td>
<td>National Monument/NYC Landmark</td>
<td>Outside of Study Area</td>
</tr>
</tbody>
</table>

The effect of the Proposed Action on these eight resources will be evaluated in the DEIS.

**Impact on Historic and Archeological Resources (Supplemental information supporting Question #10 of Part 2)**

**Historic Architectural Resources**

The proposed Historic Architectural Area of Potential Effect (APE) includes all areas where the action may cause changes to land or structures and their uses, including the area of ground disturbance caused by the action, and locations from which elements of the undertaking may be visible. The Project Area is characterized as modern and historic parkland with modern and historic buildings and structures, interspersed with historic infrastructure, such as a city pier. The proposed Historic Architectural APE forms a 400-foot buffer around the Project Area and project alignment and is adequate to take into account potential direct and indirect effects. The Proposed Action has 28 known historic architectural resources situated within and adjacent to the Area of Potential Effect (APE). These resources were identified through research conducted on New York State Historic Preservation Office (SHPO) Cultural Resource Information System (CRIS) website and New York City’s Landmarks Preservation Commission’s (LPC) website. One resource, Robert F. Wagner, Jr. Park (Wagner Park), was surveyed and evaluated as part of this project, and determined National Register-eligible by SHPO. The known architectural resources identified include:

1) Wagner Park – Southwest side of Battery Place (06101.021832)
2) Pier A – 22 Battery Place (90NR00767/LP-00918)
3) Castle Clinton National Monument – Battery Park (90NR00865/LP-00029)
4) Brooklyn-Battery Tunnel - (present-day Hugh L. Carey Tunnel) - 81 Washington Street (06101.018925)
5) Brooklyn-Battery Tunnel Vent/Blower Building – Battery Place (06101.001319)
6) Battery Park Control House – State Street and Battery Place (90NR00693/LP-0829)
7) Joralemon Street Tunnel - Under East River between Manhattan and Brooklyn (05NR05428)
8) US Custom House - Bowling Green (90NR00616/LP-1022)
9) Bowling Green Fence and Park - Foot of Broadway at Beaver Street (90NR00651/LP-00548)
10) International Mercantile Marine Company Building - 1 Broadway (94NR00582/LP-01926)
11) Bowling Green Offices - 11 Broadway (06101.006989/LP-01927)
12) Cunard Building - 25 Broadway (06101.015128/LP-192801929)
13) Standard Oil Building - 26 Broadway (06101.009090/LP-01930)
14) Wall Street Historic District - Bounded by Cedar Street & Maiden Lane on north; Pearl St on east; Bridge and S. William St on south; and Greenwich St & Trinity Place on west (majority within footprint) (06NR05647)
15) Lamppost 8 - Greenwich Street and Washington Street (06101.009461/LP-01961)
16) Historic Street Lampposts - Greenwich Street and Washington Street (LP-01961)
17) Whitehall Building - 17 Battery Place (06101.001318/LP-02056)
18) Downtown Athletic Club - 19 West Street (aka 18-20 West Street and 28-32 Washington Street) (LP-02075)
19) 21 West Street - 21 West Street (90NR014021/LP-1999)
20) Battery Parking Garage - 70 Greenwich Street (06101.013375)
21) 19 Rector Street - 19 Rector Street (02NR01912)
22) Former Babbitt Soap Factory - 74-80 Washington Street (06101.014511)
23) Frasch Building - 56 West Street/33 Rector Street (06101.007218)
24) Barrett Building - 40 Rector Street (06101.007219)
25) New York Evening Post Building - 75 West Street (06101.001322)
26) (Former) St. George's Syrian Roman Catholic Church - 103 Washington Street (06101.001534/LP-2167)
27) Lamppost 80 - Near 107-109 Washington Street (06101.009470/LP-01961)
28) West Street Building - 90 West Street (06NR05646/LP01984)

The effect of the Proposed Action on historic architectural resources will be evaluated in the DEIS.

**Historic Archaeological Resources**

The Proposed Action includes alterations to First Place, Museum of Jewish Heritage, Wagner Park, Pier A Plaza, and the area traversed by the Battery Bikeway in the northern portion of The Battery, namely through installation of flood control measures, utility relocations, drainage improvements and site enhancements. These actions would create varying levels of ground disturbance, each of which could directly impact potential archaeological resources. The Archaeology Area of Potential Effect (APE) includes two components: the horizontal APE, which is the footprint of proposed ground disturbance; and the vertical APE, which is considered as the depth to which the proposed ground disturbance is anticipated to extend.

The SBPCR Project Area includes modern landfill, historic landfill, historic shoreline and a small portion of fast land at its extreme inland end. Battery Park City and Wagner Park are located on modern landfill and
are of no archaeological interest. However, the Project Areas of Pier A Plaza and the northern portion of The Battery adjacent to Battery Place are composed of historic landfill sequences and associated bulkheads that extended the Manhattan shoreline westward into the Hudson River, the former shoreline and its military defenses (Battery grounds and walls), and a portion of fast land at State Street. While extensive disturbance within the APE portion of The Battery has occurred due to transportation infrastructure improvements across the area (Battery Park Underpass, Brooklyn-Battery Tunnel, IRT Subway Lines), the tenacity of archaeological resources has been demonstrated in recent years with the documentation of intact sections of the 18th-Century battery walls during archaeological excavations for the South Ferry Subway Project.

While the Archaeology APE for the current project is the footprint of the entire Project Area, it is anticipated that only those portions of the Project Area that lie within Pier A Plaza and the northern portion of The Battery adjacent to Battery Place, possess archaeological potential.

The Archaeology APE was researched in SHPO’s CRIS in compliance with Section 106, SEQRA, and CEQR. The search area for historic archaeological resources was a 0.25-mile-radius, surrounding the Project Area, and the search area for prehistoric archaeological resources was a 0.5-mile-radius surrounding the Project Area. A total of 15 historic archaeological resources lie within a 0.25-mile-radius of the SBPCR Project Area. The identified resources include:

1) Pier 7 Complex - South end of West Thames Park, north of West Thames Street (06101.08120/NYSM 12322)
2) Federal Hall Archaeological Site – 26 Wall Street (06101.013876)
3) Stadt Huys Site – Now 85 Broad Street (NYSM #554)
4) 7 Hanover Square Site - Now 7 Hanover Square (NYSM #624)
5) 64 Pearl Street Site - 64 Pearl Street (06101.001272)
6) Broad Financial Center (Ronson Project Site 33 Whitehall) – Bounded by Pearl, Whitehall and Bridge Streets (06101.001282)
7) 18th Century Battery Wall – South Ferry Corridor in Battery Park (06101.015768)
8) Municipal Ferry Pier/Battery Maritime Building Site – Bounded by Water, Broad, South and Whitehall Streets (06101.000491)
9) Whitehall Slip Site – Foot of Whitehall Street at shoreline (06101.015598)
10) Whitehall Ferry – off Whitehall Street (06101.013334)
11) Log Cribbing & Fill – Battery Park near South Ferry Terminal (06101.016196)
12) Form Missing possibly Castle Clinton – In Battery Park adjacent to Castle Clinton (06101.000490)
13) The Battery Playscape - Southeast portion of Battery Park, west of Peter Minuit Place (No Number)
14) Liberty Street Pilings Site - At the median of the intersection of Liberty and West (Route 9A) Streets (06101.018121 NYSM# 12321)
15) WTC Ship - Bounded by Liberty, West (Route 9A), Cedar, Washington, Albany, and Greenwich Streets (06101.018000)

The effect of the Proposed Action on historic archaeological resources will be evaluated in the DEIS.
Permit Information Packet

South Battery Park City Resiliency Project - Pier A Proposed Inlet Work
Joint Permit Application

Battery Park City Authority

March, 2022
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Attachment B - Essential Fish Habitat Documentation
Attachment C - Endangered Species Evaluation
Attachment D - Structural Archaeological Assessment Form
Attachment E - Coastal Consistency Forms
Attachment F - New York State Office of General Services Consultation
1 Project Description

1.1 Introduction

In conjunction with an integrated coastal flood risk project, the Battery Park City Authority (BPCA) proposes to provide ecological enhancement to the Pier A inlet shoreline, which are the activities to be authorized under this permit application. The components of these enhancements (i.e. living shoreline) are discussed in Section 1.2.

The South Battery Park City Resiliency (SBPCR) Project is proposing an integrated coastal flood risk management system from the Museum of Jewish Heritage, through Wagner Park, across Pier A Plaza, and along the northern border of the Historic Battery. Battery Park City Authority (BPCA), the lead agency for the SBPCR Project, is preparing a Draft Environmental Impact Statement (DEIS) for this proposed resiliency project located in the Battery Park City neighborhood of Lower Manhattan (Figure 1).

During Superstorm Sandy in 2012, coastal surge inundated Lower Manhattan on its western side through low elevation points near Pier A and in other parts of Battery Park City, damaging, destroying and/or negatively impacting significant components of Lower Manhattan’s critical and civic infrastructure. In response to the devastating impact of Superstorm Sandy in Lower Manhattan and in anticipation of future severe storm activity related to global climate change, the SBPCR Project has been developed by BPCA as an integrated coastal flood risk management project in Lower Manhattan. The SBPCR Project represents one of several projects within the overall Lower Manhattan Coastal Resiliency (LMCR) Master Plan.

The SBPCR Project is being designed to provide flood risk reduction within the Project Area for the current 100-year flood, inclusive of increased intensity and frequency of rainfall, coastal surge, and predicted sea level rise. It is one of three (3) resiliency projects being undertaken by BPCA to address flood risk reduction throughout Battery Park City’s ninety-two (92) acres. The flood alignment is composed of many different integrated features such as flip-up deployable gates (flip-up deployables), glass-topped floodwalls, buried floodwalls underneath terraced slopes, exposed floodwalls, and bermed floodwalls. The SBPCR project area, the area of direct physical disturbance, extends from 1st Place and the Museum of Jewish Heritage, through Robert F. Wagner Park (Wagner Park), across Pier A Plaza, and then along the north side of the Battery Bikeway in The Battery to higher ground near the intersection of Battery Place and State Street (Figure 2).
Figure 1  Project Location
South Battery Park City Resiliency Project

Figure 2  South Battery Park City Resiliency Project Area
1.2 Proposed Inlet Work

For purposes of this application, the term Proposed Inlet Work refers to design and construction of the proposed enhancements to the Pier A Inlet. The Project Area refers to the physical areas of disturbance associated with the Proposed Inlet Work.

The BPCA owns/controls numerous green spaces and publicly accessible amenities (e.g., Wagner Park, etc.) in Lower Manhattan. Many of the greenspaces have been planted for recreational and natural enhancement, including shade trees, pollinator species for bees and butterflies, and other ecological amenities. However, the Pier A Inlet, the body of water between Pier A and the southeast border of Wagner Park, retains the industrial feel of mid-20th century construction with shorelines consisting of riprap and/or vertical concrete faced bulkheads (Photo 1). Additionally, the Pier A Inlet area currently does not have direct public access from the Wagner Park side of the inlet.

Cognizant of the growing movement around New York City to convert former industrial shorelines into living shorelines (e.g., Pier 26, Brooklyn Bridge Park, etc.), the BPCA desires to convert the shoreline of Pier A Inlet into a living shoreline. The proposed living shoreline design would modify the concrete relieving platform and riprap edge to a terraced structure. The reconstruction of the existing riprap slope would: establish a series of ledges at four distinct elevations; increase the physical complexity of the site; improve the public connection to the water by way of a viewing platform; provide additional intertidal habitat; and provide increased environmental education opportunities within the Park. Table 1 identifies the habitat types, square footage, and elevations of the four ledges.

- Intertidal Shelf Zone (at elevation 1'-2.5' just above mean sea level up to mean high water zone) with ECOncrete textured blocks and slow draining tidal pools to accommodate shellfish, crabs, birds, and intertidal flora. ECOveneer panels will be placed on the pile bents.
- Intertidal Marsh (at elevation 3' just above the mean high water zone) with stabilized grass plantings tolerant of salt spray and daily saltwater inundation along the middle terraces.
- Coastal High Marsh Shrub Plantings (at elevation 6') with mixed plantings line tolerant of salt spray, storm surge regular wave overtopping.
- Coastal Upland (at elevation 9' just below the esplanade) with mixed planting along the esplanade railing line tolerant of salt spray as well as storm surge wave overtopping and saltwater inundation.

The proposed shoreline improvements would only impact 432 square feet (0.011 acres) of habitat below mean high water.
Project Information Packet
SBPCR Project - Pier A Proposed Inlet Work

Photo 1  Looking west at the Pier A Inlet - the unvegetated riprap shoreline of Wagner Park is on the right side of the photograph.

Table 1  Created Habitats

<table>
<thead>
<tr>
<th>Habitat Type</th>
<th>Size Sq Ft</th>
<th>Elevation* (Ft)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rocky Intertidal / Rocky Shoreline</td>
<td>1,150</td>
<td>-1 to 2.5+*</td>
<td>ECOcrete textured blocks and slow draining tidal pools to accommodate shellfish, crabs, and intertidal flora. ECOcrete micro-surfacing textures mimics natural rock features and enhances biological recruitment by modifying small scale hydrodynamics, creating additional habitat complexity. ECOVeneer would encapsulate the relieving platform piles' bent structures.</td>
</tr>
<tr>
<td>Intertidal Marsh</td>
<td>890</td>
<td>3</td>
<td>Stabilized grass plantings (<em>Spartina patens; Distichlis spicata.</em>) tolerant of salt spray and daily saltwater inundation at high tide.</td>
</tr>
<tr>
<td>Coastal High Marsh Shrub Plantings</td>
<td>737</td>
<td>5</td>
<td>Mixed planting along the esplanade railing that are tolerant of salt spray (e.g., <em>Iva frutescens</em>) and storm inundation.</td>
</tr>
<tr>
<td>Coastal Upland Plantings</td>
<td>700</td>
<td>7-8</td>
<td>Trees, shrubs and vegetation for pollinator species found along the shoreline of New York Harbor</td>
</tr>
</tbody>
</table>

*Notes: ECOVeneer to occur on some vertical fascia above 2.5 ft in elevation

The three-dimensional terracing would be formed by precast concrete gravity structures clad with ECOcrete with micro-surfacing textures that mimic natural rock/coral features and enhance biological recruitment by modifying small scale hydrodynamics and creating additional habitat complexity.
Moreover, the living shoreline design with innovative terraces or benches at different elevations would allow plantings and species usage to change with the anticipated sea level rise in the future. The addition of the ledges would slow down water movement along the shoreline, reduce turbulence, allow for warming and trap sediment that in turn would harbor invertebrate fauna as a food source for marine life. The varying structure elevations with their textured structure surfaces would enhance recruitment of sessile marine organisms (e.g., mussels) and flora. Together, these enhancements would increase species diversity and provide a net ecological enhancement to the Pier A Inlet.

The planned design includes:

- Removal of an approximate 180-ft length of area occupied by riprap and replacement with vegetative plantings and tide pools (Figure 3); and

- Removal of approximately 1,746 sq ft area of existing decking, soil and other fill materials down to the relieving platform and/or pier bents. These surfaces would be covered with an eco-concrete substance to mimic a rocky shoreline and enhance fauna and flora usage. Approximately 165 sq ft of water would be exposed to direct sunlight, and another 282 sq ft of open water would be 50 percent daylighted by a metal grated viewing platform. ECOveneer panels would be placed on the Pile’s relieving bents.

The proposed habitat enhancements would increase species diversity and provide ecological diversity in the Pier A Inlet. When completed, the living shoreline would provide vegetated and shallow water habitat that is limited on the Manhattan shoreline.

These enhancements (e.g., daylighting of waters, habitat creation, plantings, etc.) are designed to conform with the Waterfront Edge Design Guidelines (WEDG). As a credit-based rating system, WEDG establishes a process and threshold for certification of a project’s performance relative to resilience, access, and ecology (Waterfront Alliance, 2020). The proposed design creates a new viewing platform that would enhance the public connection to the waterfront. In addition, portions of the existing concrete relieving platform and riprap slope would be modified to increase intertidal habitat and provide environmental education opportunities within the Park.
Figure 3 Renderings of the Proposed Shoreline Enhancements, East and West Views
1.3 Placement and Removal of Fill Material

Cognizant of regulatory concerns regarding the placement of fill material in the tidal waters, as well as the projected increase in sea level rise, the proposed shoreline improvements were designed to reduce the amount of fill placed within Pier A Inlet. The Proposed Inlet work would remove a net total 1.2 cubic yards below Mean High Water (MHW). Between the MHW and SHTL, the Project would increase the net fill by 3.3 cubic yards within the approximate 0.15-acre Project Area. Also, as an added benefit, to increase storage capacity in future flood events, the project would remove ~555 cubic yards of material between the spring high tide line (SHTL) and 10 ft in elevation.

1.4 Construction Sequence

Construction of the Proposed Inlet work would commence shortly after the federal and state permits are issued and the contractors for construction are selected. The construction would take 12 to 14 months. The land-based equipment to be used during construction would include backhoe fitted with thumbs or clamshell, regular mobile crane, demolition equipment for relieving platform, and jackhammers. For the construction of the terrace system, the following equipment would include a steel framing use crane and compaction equipment.

The removal of the existing riprap along the shoreline would be conducted by land-based equipment. The various levels of the living shoreline would be constructed as presented in Drawing PP002 and the Section Drawings in PP003. A silt curtain would be placed at or above the elevation of Mean Low Water prior to the start of the construction and would remain in place throughout the shoreline construction period.

The seaward limits of construction would not extend further than the low tide line. The majority of construction would occur at elevations above the high water mark and liquid concrete would only be poured within precast concrete walled forms. As such, there would be no impacts to the water column from sedimentation or fluid release during construction.

The planting of vegetation on the benches would be conducted in the Spring or Fall after the construction of the living shoreline is completed.

The removal of the relieving platform would be conducted concurrently with the removal of the riprap from the shoreline. For the platform, the soil and vegetation from an area of about 3,000 sq ft would be removed by land-based equipment. The material removed would be placed into dump trucks and taken to a suitable upland location. An additional 283 sq ft of adjacent relieving platform would be removed to facilitate the construction of a platform with a grate to allow the viewing of the shoreline and waters below the platform. About 165 sq ft of adjacent relieving platform would be totally removed to allow the viewing of open waters from the platform. The viewing platform would be placed on existing piers and bents so there would be no need to drive additional piles and the concrete eco fascia would be secured to the existing pier bents using clips and bolts.
1.5 Operations and Maintenance Requirements

BPCA Parks Operations would be responsible for the management and cost of day-to-day maintenance of enhanced Pier A Inlet shoreline. To ensure long-term performance of the enhanced Pier A Inlet shoreline, the following maintenance activities would be conducted:

- Weekly removal of waterborne debris from terrace areas,
- Management of planting beds including planting soils,
- Seasonal management of terrace area trees, shrubs, and plants,
- Seasonal removal of floating debris within inlet water area, and
- As-needed replacement of terrace area plantings.

Third Party Monitoring: A New York State Registered Professional Engineering firm would be contracted to perform inspections of the Pier A Inlet area elements including the encapsulated relieving platform structures, and the planting and habitat terraces.
2 Natural Resources

This section summarizes the natural environment of Pier A and the findings of the Wetland Delineation, Essential Fish Habitat Analysis, and Biological Evaluation of Protected Species.

2.1 Pier A Inlet Description

The waters adjacent to the Project Area form the southern endmouth of the Hudson River, River Mile (RM) zero, close to its confluence with the East River and upper New York Bay. New York Bay is a 25-square mile waterbody at the mouth of the Hudson River where it joins the Atlantic Ocean near the Verrazzano-Narrows Bridge. Despite the urban character of New York City, the harbor is home to numerous fish species and habitats.

Due to the previous filling activities associated with the growth of southern Manhattan, the waters near the Project Area are approximately 25 feet deep at the shoreline and drop in depths over 60 feet less than 400 feet from the shoreline (Figure 4). The Inlet measures approximately 52 feet wide by 174 feet long and varies in depth from zero to 14 feet. Along the inlet’s northern shoreline, the western half of the shoreline consists of the Wagner Park relieving platform while the eastern half of the shoreline is stabilized with rip-rap. The subtidal portion of this rocky shoreline provides some habitat to estuarine communities that can develop between the rocks and may attract some motile estuarine species (e.g., crabs). The intertidal portion of the riprap slope is devoid of marine vegetation and small in size due to steeply sided slopes. The eastern edge of the inlet is bulkheaded and the southern boundary is formed by Pier A.

The terrestrial area adjacent to the Pier A inlet within the project area, has six planted trees, which would need to be removed to accomplish the proposed enhancements to the Pier A Inlet.

2.2 Wetlands

A Wetland Delineation (Attachment A) identified that all wetlands onsite are tidal wetlands. There are no vegetated wetlands within and/or immediately adjacent to the Pier A Inlet. Wetlands onsite correspond to the following elevations:

- Below the MHW of 1.96 ft (NAVD 88) for Section 10 regulations;
- Below the Spring High Water Line (SHWL) of 2.44 (NAVD88) for Section 404; and,
- NYSDEC Littoral Zone tidal wetlands – elevations less than 6 feet deep at mean lower low water.

Tidal elevations for the site are based on the NOAA Battery NY Station (Station ID8518750).
Legend

- Project Area Sites
- Landward Elevation Contours**
- Bathymetry (Depth)**

** Elevations and bathymetric depths are displayed in NAVD 88 feet

Map Source:
NYSDOT Topography/Bathymetry Contours
ESRI Base Orthomosaic

Pier A Bathymetry Depth

- Over 50 Feet
- 40-49 Feet
- 30-39 Feet
- 20-29 Feet
- 10-19 Feet
- 0-9 Feet

South Battery Park City Resiliency Project

Figure 4 Bathymetry of Pier A
2.3 Essential Fish Habitat

The Mid-Atlantic Fisheries Management Council (MAFMC), which manages the lower Hudson River (including the Project Area) has designated Essential Fish Habitat (EFH) in the lower portion of the Hudson River. Review of NOAA's Essential Fish Habitat Mapper for the Project Area indicates that up to 11 federally managed species may utilize the Upper Bay of the New York Harbor at the mouth of the Hudson River for part or all of their life history, as summarized in Table 2.

### Table 2 Summary of Essential Fish Habitat (EFH) Designations

<table>
<thead>
<tr>
<th>Species</th>
<th>Eggs</th>
<th>Larvae</th>
<th>Juveniles</th>
<th>Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlantic butterfish (Pseudichthys triacanthus)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atlantic sea herring (Clupea harengus)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Bluefish (Pomatomus saltatrix)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clearmose skate (Raja eglantaria)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Little skate (Leucoraja erinacea)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longfin inshore squid (Doryuethis pealeii)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red hake (Urophycis chuss)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Summer flounder (Paralichthys dentatus)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windowpane flounder (Scopthalmus aquosus)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Winter flounder (Pseudopleuronectes americanus)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Winter skate (Leucoraja ocellata)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: NOAA, 2021

A NOAA Fisheries Greater Atlantic Regional Fisheries Office Essential Fish Habitat Assessment & Fish and Wildlife Coordination Act (FWCA) Worksheet was prepared for this Project and provided in Attachment B. The results of the analysis indicate the proposed Project would have No Adverse Effect on EFH as the Project would not reduce the quality and/or quantity of EFH. In fact, the Project would actually result in an increase in EFH as a total of 340 cubic yards of material would be removed from below the MHW and intertidal habitats would be converted to more ecologically productive habitats (e.g., salt marsh plantings, etc.). Moreover, the construction would have no direct impact to EFH or species. A silt curtain would be placed just landward of the low-tide line, all work would be conducted within the confines of the curtain and no liquids (poured concrete) would come into contact with sea water.

2.4 Biological Evaluation of Protected Species

2.4.1 Federally Listed Species

An online data request has been made via the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) website and the National Oceanic and Atmospheric Administration's...
National Marine Fisheries Service (NOAA NMFS) Endangered Species mapper. No Federally-listed species were identified in the IPaC results. The NMFS Mapper identified:

- Leatherback turtle (*Dermochelys coriacea*) (endangered).
- Loggerhead turtle (*Caretta caretta*) (threatened).
- Kemp’s ridley turtle (*Lepidochelys kempii*) (endangered).
- Green turtle (*Chelonia mydas*) (threatened).
- Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*).
- Shortnose sturgeon (*Acipenser brevirostrum*).

2.4.2 New York Natural Heritage Program

In an April 29, 2021, correspondence with the New York Natural Heritage Program, three species were identified in proximity to the site:

- Peregrine Falcon, *Falco peregrinus* (state endangered).
- Shortnose Sturgeon, *Acipenser brevirostrum* (state endangered), and

2.4.3 Biological Evaluation

A Biological Evaluation (Attachment C) was prepared for this Project. The proposed upland and in-water construction work would have no effect any of the species.

Sturgeons

Regarding the sturgeons, the seasonal distributions of both sturgeon species are well documented. The mouth of the Hudson river is neither a wintering area, spawning area or other area important to any one life stage. Moreover, sturgeon use the mouth of the Hudson River as a transit location going upstream to spawn or downstream to travel out to sea. The sturgeon would use the deeper water of the River to swim and it is high unlikely the fish would swim in the shallow waters of the Pier A Inlet. Finally, there are no wintering areas, spawning areas or other areas important to any one life stage of the sturgeons in the Pier A Inlet.

Only a fraction of the Project would occur within the intertidal region, and that area would be cordoned off from the sturgeon by the placement of a silt curtain above the low tide line. There would be limited, if any, in-water construction work generating noise to affect the sturgeons. No in-water construction work would occur below MLW; thus, the Project would have no effect on the sturgeon species.

Sea Turtles

Sea turtles are uncommon visitors to the waters of the Hudson River; even if they are present, they would be unaffected by the Project, as the minor amount of work that occurs below the high tide line would be constructed in an area protected by silt curtains.
Peregrine Falcons
Although the falcon may fly past the site on occasion, the construction activities would not result in a measurable loss of prey or serve as an impediment to the falcon's ability to hunt. Construction noise on land would not affect falcon nesting, which occurs on highpoints of buildings and bridges. There are no known nest locations in the project area. The nearest known nest location is documented on a high-rise building at 55 Water Street located 0.46 miles away.

3 Compliance with State and Federal Historic Preservation Act
Because the Pier A Proposed Inlet Work requires permits from the USACE and NYSDEC, the cultural resources evaluation has also been prepared in compliance with Section 106 of the National Historic Preservation Act (NHPA) and Section 14.09 of the New York State Historic Preservation Act (SHPA). While the USACE would consider the potential effect of the permitted activities on cultural resources pursuant to Section 106, BPCA and other involved state agencies would need to consider the impacts of the entire SBPCR Project, including the Proposed Inlet Work, under Section 14.09. A summary of key findings regarding the Proposed Inlet Work provided below. A detailed assessment of the potential impacts of the SBPCR Project, including the Proposed Inlet Work, will be provided in the forthcoming Draft Environmental Impact Statement (DEIS).

3.1 Cultural Resources
3.1.1 Archaeological Resources
AECOM, on behalf of BPCA, prepared a letter and information package to initiate consultation for the SBPCR Project. The consultation package was sent to the New York State Office of Parks, Recreation and Historic Preservation (SHPO) and the New York City Landmarks Preservation Commission (LPC) in spring 2020 for their review and guidance on next steps in the consultation process.

AECOM opined that the ground disturbing actions associated with Battery Park City, The Museum of Jewish Heritage and Wagner Park would have no effect on archaeological resources because they were constructed on 20th Century landfill with no archaeological potential. AECOM also opined that Pier A Plaza, The Battery, and the interior drainage improvement locations along the Hudson River Greenway/West Street may possess archaeological potential for encountering historic period resources. In spring 2020, both review agencies concurred with the opinion that the three above mentioned portions of the SBPCR Project Area may possess archaeological potential and requested that a Phase IA archaeological documentary study be prepared to further research the three locations and develop a sensitivity assessment.

Archaeological Area of Potential Effect
In compliance with AECOM's initial recommendations and SHPO and LPC concurrence, the Archaeological Area of Potential Effect (APE) for the Phase IA survey was defined as the footprint of the flood alignment elements and associated project actions that would create subsurface disturbance across areas that have the potential to contain archaeological resources. The archaeology APE has been divided into three
sections: Pier A Plaza; the northern portion of The Battery adjacent to Battery Place; and the proposed near surface isolation (NSI) interior drainage improvements locations above Battery Place.

The Archaeological APE is subject to direct effects to potential archaeological resources in previously undisturbed or minimally disturbed areas where subsurface disturbance is anticipated to occur because of project actions. The APE is composed of two parts: the horizontal APE, which is the footprint of proposed subsurface disturbance, and the vertical APE, which is the depth to which subsurface disturbance is expected to occur. The proposed depths of disturbance, or vertical APE for the flood alignment and its associated project actions vary across the APE, which is a critical factor in the development of the sensitivity assessment. Documented prior subsurface disturbance is also a critical factor, as archaeological resources that have been directly impacted by prior actions are not expected to be intact, or retain stratigraphic integrity, or meet the eligibility criteria for listing in the National Register of Historic Places.

The Pier A Inlet is not included in the Archaeological APE because it does not possess potential to contain archaeological resources. The inlet was constructed in 20th Century landfill when BPC was created. The living shoreline improvements that are the subject of this joint application will have no effect on archaeological resources.

Phase IA Documentary Survey Results
The flood alignment and related project actions across each Archaeological APE section have been assessed for archaeological potential and the results are presented by APE section in the technical report. However, as stated above, the Pier A Inlet is not of archaeological concern because it was constructed in landfill when BPC was created.

3.1.2 Historic Architectural Resources
Twenty-eight historic architectural resources were identified in the Historic Architectural APE in the DEIS, including the National Register-listed and NYC Landmark-designated Pier A. SHPO and LPC concurred with the Historic Architectural APE, and requested that Wagner Park be surveyed and evaluated in the spring of 2020. In 2021, SHPO determined that Wagner Park is National Register-eligible, and indicated that the Proposed Action associated with the SBPCR Project would have an Adverse Impact on the park. Therefore, a Letter of Resolution (LOR) will be drafted in accordance with Section 14.09 between BPCA, SHPO, and other consulting parties to mitigate the impact.

With respect to the remaining 27 resources, the Proposed Action would result in No Adverse Impact on nine resources, including Pier A, and No Impact on 18 resources. These finding recommendations will be provided to SHPO for review and concurrence.

The section below presents a Section 106 effects analysis of the Proposed Inlet Work on National Register-listed/NYC Landmark-designated Pier A.
Pier A
Pier A was constructed by the City of New York in 1886 and is equipped with a two-to-three story fireproof building embellished with a blind arcade along the building’s central portion, sheathed in galvanized iron. The building also features a four-story clock tower. Pier A is significant in areas of architecture and commerce between 1800-1899 (Beebe, June 10, 1975). Between 2011-2014, the pier was converted into a restaurant. The National Register boundary and the NYC Landmark boundary of Pier A are the same and surround the rectangular-shaped building. However, the National Register boundary extends north along the east side of the Pier A Inlet, beyond the footprint of Pier A, Pier A retains integrity of location, design, setting, materials, workmanship, feeling, and association.

The Proposed Inlet Work would occur within Pier A Inlet, north of Pier A. As indicated in Section 1 – Project Description, the Proposed Inlet Work design would modify the concrete relieving platform and riprap edge on the north side of the inlet, and transform it into a terraced structure. The reconstruction of the existing riprap slope would: establish a series of ledges at four distinct elevations; increase the physical complexity of the site; improve the public connection to the water; provide additional intertidal habitat; and provide increased environmental education opportunities within the Wagner Park. Figure 3 illustrates the proposed concept design.

The Proposed Inlet Work is situated over 60 feet north of Pier A, outside the National Register and NYC Landmark boundaries, as indicated in Figure 5. This action would indirectly affect the historic structure because the north side of the inlet would be reconstructed to accommodate the enhanced shoreline. Over the course of its existence, Pier A has had a dynamic relationship with structures on the north side of the pier. When Pier A was initially constructed in the 1880s, a series of piers that extended into the Hudson River west of West Street were located to the north. Between the 1960s to 1970s, the Hudson River piers were removed, and landfill was deposited to create the 92-acre Battery Park City neighborhood north of the pier. It was at this time that the Pier A Inlet was created, and by 1996, Wagner Park was completed, north of the inlet. Pier A is historically significant for its relationship to the waterfront. Although the inlet would be reconstructed in close proximity to the pier, no construction activity would occur within the National Register and NYC Landmark boundaries of Pier A. The key historic character-defining feature of Pier A, the pier building, would remain intact, and the primary water-based views from the pier toward New York Harbor for which the pier is most closely associated would remain unobstructed.

Although physical changes would be made within and immediately adjacent to National Register and NYC Landmark boundaries, the Proposed Inlet Work would result in No Adverse Effect. Pier A has changed over time, and implementation of the inlet project is not anticipated to diminish the historic integrity of this waterfront structure, or the alter the significant qualities for which it was listed in the National Register and designated a NYC Landmark. However, because the Proposed Inlet Work, coupled with the Proposed Action in the DEIS, would occur within 90 feet of Pier A, a Construction Protection Plan (CPP) would be prepared in accordance with the New York City Department of Buildings (DOB) “Technical Policy and Procedure Notice 10/88: Procedures for the Avoidance of Damage to Historic Structures Resulting from Adjacent Construction When Subject to Controlled Inspection by Subsection 27-724 and for Any Existing Structure Designated by the Commissioner.” This notice defines adjacent historic structures as
resources that are located contiguous to or within a lateral distance of 90 feet from a lot under development or alteration (Polsky, June 6, 1988), and construction activities slated near the Pier A building meets this definition. The CPP would also follow the guidance included in "New York City Landmarks Preservation Commission Guidelines for Construction Adjacent to a Historic Landmark," and "Protection Programs for Landmark Buildings" (both on file with LPC). The CPP would be implemented by a professional engineer before excavation and construction activities take place.
Figure 5  SBPCR Proposed Action Near National Register-Listed/NYC Landmark Pier A and Location of Proposed Inlet Work
4 SAAF Form

A New York State Structural Archaeological Assessment Form (SAAF) has been included as a supplement to the Joint Application Form (Attachment D). As discussed in Section 3 above, as part of the DEIS prepared for the SBPCR Project, consultation has been initiated and is ongoing with the SHPO and LPC regarding resources that have been identified as potentially affected by the greater SBPCR Project and determining appropriate mitigation for those effects. However, as discussed above, the Proposed Inlet work would result in No Adverse Effect to cultural resources.

5 Coastal Zone Consistency

For this project a New York City Waterfront Revitalization Program Consistency Assessment Form and a New York State Department of State Coastal Management Program, Federal Consistency Assessment Form have been prepared. Both of these forms are included in Attachment E. The Project was consistent with all City, State and Federal policies.

6 New York Offices of General Services

On February 1, 2021 AECOM requested information from the New York State Office of General Services regarding ownership of the Project Area by the State of New York. Per a February 12, 2021 correspondence, the NYSOGS identified that the Project Area was conveyed in 1871 to the City of New York (Attachment F).
ATTACHMENT A

WETLAND DELINEATION

March 2022
WETLAND DELINEATION

PIER A INLET – SOUTH BATTERY PARK CITY

Introduction

A wetland delineation was performed along the shoreline of the Pier A Inlet in South Battery Park, Manhattan (Figure A-1) in support of the Proposed Inlet Work, which includes a future living shoreline restoration and permit applications. The Pier A Inlet is an approximate 330-ft long waterbody that varies in width from 25 to 50 feet. The northern and eastern boundaries are formed by bulkheads and riprap associated with South Battery Park City. The southern boundary is formed by Pier A, and the western boundary of the inlet is its confluence with Upper New York Harbor (Figure A-2). Water depth in the Inlet varies from 0 to 25+ feet. For approximately 180 feet, the eastern half of the northern shoreline is comprised of riprap stone. The rest of the northern and eastern shoreline is comprised of vertical bulkheads. There are no vegetated wetlands or submerged aquatic vegetation beds within the Pier A Inlet or along its shoreline (Photo 1).

Federal and State Regulatory Jurisdiction and Mapping

In tidal areas, the US Army Corps of Engineers (USACE) takes jurisdiction up to the spring high water (SHW) elevation as "waters of the United States". The waters of the United States include wetlands, streams, mudflats and sandflats, ponds and other surface waterbodies, tidal and otherwise. The SHW elevation usually corresponds with the wetland/upland line but in some cases, may exhibit more upland characteristics than wetland. The waterway surrounding the study area is regulated under Section 404 of the Clean Water Act (CWA) as a Water of the United States. Section 404 authorizes the USACE to regulate certain activities occurring below the SHW line within the waters of the United States, such as permanent or temporary discharge of dredge or fill materials. The waters surrounding the study area are also regulated under Section 10 of the Rivers and Harbors Act of 1899. The upland limit of Section 10 regulation is to the mean high water (MHW) elevation. Under Section 10, a permit or approval is required from the USACE prior to the accomplishment of any work (such as placement of pilings, piers, or bridge abutments) in or over navigable waters of the United States, or which affects the course, location, condition or capacity of such waters.

The state of New York regulates tidal wetlands up to the spring high tide line and an adjacent area that may extend up to 150 ft inland in New York City; however, the inland jurisdiction may stop before 150 ft once the 10 ft elevation line is met or there is a roadway, serviceable bulkhead, rail bed or other substantially fabricated structure built before August 20, 1977. The fill that comprised Battery Park was completed in 1976¹, as such, the regulated adjacent area ends at the face of the bulkhead.

¹ As built drawings dated are not available. The date of 1976 based on written sources (New York Times, 1976; Eagle Transfer.com, 2022). Figure A-3 shows the Pier A Inlet completed in 1977.
Figure A-1  Project Location

Figure A-2  Pier A Inlet

Photo 1  Looking west at the Pier A Inlet
Figure A-3 Photo 1977. The red arrow shows the completed Pier A Inlet Structure.
Source: Northern Architecture.Com 2022

The USFWS has mapped wetland cover types throughout the United States and documented these wetlands on the National Wetland Inventory (NWI) Maps. The NWI mapping classifies the portions of the Hudson River and the East River within the study area as Estuarine Subtidal Unconsolidated Bottom Subtidal Wetlands (E1UBL) (Figure 3), with a broader wetland type category of estuarine and marine deep-water wetland. Subtidal estuarine wetlands are continuously submerged areas with low wave action and variable salinity, influenced and often enclosed by land. Unconsolidated bottoms have at least 25 percent cover of particles smaller than 6 or 7 cm, and less than 30 percent vegetative cover. There are no freshwater wetlands in the Two Bridges, Financial District and Battery Park City subareas.

Review of the New York State Department of Environmental Conservation (NYSDEC) Tidal Wetland maps indicates the waters adjacent to Pier A are mapped as Littoral Zone (LZ) (Figure A-4). Littoral zone wetlands are defined as the tidal wetland zone that includes all lands under tidal waters that are not included in any other category, and occupy water depths of 1 foot or greater, to a maximum of 6 feet, at mean low water.
Findings

There are no vegetated wetlands within and/or immediately adjacent to the Pier A Inlet. Wetlands on site correspond to elevations below the MHW of 1.96 ft (NAVD 88) for Section 10 regulations; the Spring High Water Line of 2.44 NAVD88 for Section 404; and, NYSDEC Littoral Zone tidal wetlands where the water is less than 6 feet deep. Tidal Elevations for the site are based on the NOAA Battery NY Station (Station ID8518750). See tidal elevations on enclosed permit drawings.

References:


Legend

- Project Area Sites

NYSDEC Tidal Wetlands

- Littoral Zone

NM Wetlands

- ETUWL - Estuary and Marine Deepwater

- No Check Zones located within map extents

Map Source
USFWS NWI Surface Water and Wetlands

South Battery Park City Resiliency Project

Figure A-4  USFWS and NYSDEC Mapped Wetlands
ATTACHMENT B

ESSENTIAL FISH HABITAT DOCUMENTATION
April 29, 2021

John Rollino
AECOM
125 Broad Street, 15th Floor
New York, NY 10004

Re: South Battery Park Resiliency Project
County: New York    Town/City: New York City

Dear John Rollino:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities that our database indicates occur within one mile of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 2 Office, Division of Environmental Permits, at dep.r2@dec.ny.gov.

Sincerely,

Heidi Krahling
Environmental Review Specialist
New York Natural Heritage Program
The following state-listed animals have been documented in the vicinity of the project site.

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern and/or that are federally listed.

For information about any permit considerations for your project, please contact the Permits staff at the NYSDEC Region 2 Office at dep.r2@dec.ny.gov, (718) 482-4997.

<table>
<thead>
<tr>
<th>COMMON NAME</th>
<th>SCIENTIFIC NAME</th>
<th>NY STATE LISTING</th>
<th>FEDERAL LISTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peregrine Falcon</td>
<td>Falco peregrinus</td>
<td>Endangered</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Breeding</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following species has been documented nesting at two locations within 1/3 mile of the project site. An additional nest has been documented within one mile.

The following species have been documented in the Lower Hudson River and so could occur at the project site.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>NY State Listing</th>
<th>Federal Listing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortnose Sturgeon</td>
<td>Acipenser brevirostrum</td>
<td>Endangered</td>
<td>Endangered</td>
</tr>
<tr>
<td>Atlantic Sturgeon</td>
<td>Acipenser oxyrinchus</td>
<td>No Open Season</td>
<td>Endangered</td>
</tr>
</tbody>
</table>

This report only includes records from the NY Natural Heritage database.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at www.dec.ny.gov/animals/7494.html.
ATTACHMENT E

NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM CONSISTENCY ASSESSMENT FORM

AND

NEW YORK STATE DEPARTMENT OF STATE COASTAL MANAGEMENT PROGRAM, FEDERAL CONSISTENCY ASSESSMENT FORM
NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM
Consistency Assessment Form

Proposed actions that are subject to CEQR, ULURP or other local, state or federal discretionary review procedures, and that are within New York City's Coastal Zone, must be reviewed and assessed for their consistency with the New York City Waterfront Revitalization Program (WRP) which has been approved as part of the State's Coastal Management Program.

This form is intended to assist an applicant in certifying that the proposed activity is consistent with the WRP. It should be completed when the local, state, or federal application is prepared. The completed form and accompanying information will be used by the New York State Department of State, the New York City Department of City Planning, or other city or state agencies in their review of the applicant's certification of consistency.

A. APPLICANT INFORMATION

Name of Applicant: Hugh L. Carey Battery Park City Authority

Name of Applicant Representative: Gwen Dawson

Address: Battery Park City Authority, 200 Liberty Street, 24th Floor, New York, NY 10281

Telephone: 212-417-2000 Email: Gwen.Dawson@bpca.ny.gov

Project site owner (if different than above): See attached Block and Lot map for full list of owners

B. PROPOSED ACTIVITY

If more space is needed, include as an attachment.

1. Brief description of activity

The South Battery Park City Resiliency (SBPCR) Project consists of a flood alignment within the Project Area boundary spanning from 1st Place and the Museum of Jewish Heritage, through Robert F. Wagner Park (Wagner Park), abutting Pier A Plaza, then running along the north side of the Battery Bikeway in The Battery to higher ground near the intersection of Battery Place and State Street. The flood alignment is composed of many different integrated features, such as flip-up deployable gates, buried floodwalls, free standing floodwalls, and terraced slopes.

A complete description is available in the attached narrative.

2. Purpose of activity

The SBPCR Project's primary goal is risk reduction in the southern extremes of Battery Park City. This would be accomplished through implementation of integrated flood risk measures, while meeting the design criteria for a 100-year storm event, inclusive of increased intensity and frequency of rainfall, coastal surge and predicted sea level rise. While the SBPCR Project would provide risk reduction for the 100-year storm, it would also provide immediate adaptability to the DFE for the 2050 100-year storm once the North/West BPC Resiliency Project is constructed and a tie-in between the systems is accomplished.

A complete description is available in the attached narrative.

NYC WRP CONSISTENCY ASSESSMENT FORM – 2016
C. PROJECT LOCATION
Borough: Manhattan  Tax Block/Lot(s): Block 16, Lot 1/Lot 3/Lot 10; Block 3, Lot 1
Street Address: 20 Battery Place, New York, NY, 10004
Name of water body (if located on the waterfront): Hudson River and Upper New York Bay

D. REQUIRED ACTIONS OR APPROVALS
Check all that apply.

City Actions/Approvals/Funding

- City Planning Commission
  - City Map Amendment: No
  - Zoning Map Amendment: No
  - Zoning Text Amendment: No
  - Site Selection – Public Facility: No
  - Housing Plan & Project: No
  - Special Permit: No
    (if appropriate, specify type: Modification Renewal Other) Expiration Date:

- Board of Standards and Appeals
  - Variance (use): No
  - Variance (bulk): No
  - Special Permit: No
    (if appropriate, specify type: Modification Renewal Other) Expiration Date:

- Other City Approvals
  - Legislation: Other, specify: Consistency Determination, NYC OMB and Comptroller approval for bond financing
  - Rulemaking: Other, specify:
  - Construction of Public Facilities: Other, specify:
  - 384 (b) (4) Approval: Other, specify:
  - Other, specify:

State Actions/Approvals/Funding

- State permit or license, specify Agency: NYSDEC NYSDOT Permit type and number: See attachment for list of permits
- Funding for Construction, specify: BPCA bonds
- Funding of a Program, specify:
- Other, specify:

Federal Actions/Approvals/Funding

- Federal permit or license, specify Agency: USACE Permit type and number: Section 404/Section 10
- Funding for Construction, specify:
- Funding of a Program, specify:
- Other, specify:

Is this being reviewed in conjunction with a Joint Application for Permits? Yes  No

NYC WRP CONSISTENCY ASSESSMENT FORM – 2016
E. LOCATION QUESTIONS

1. Does the project require a waterfront site?  
☐ Yes  ☐ No

2. Would the action result in a physical alteration to a waterfront site, including land along the shoreline, land under water or coastal waters?  
☐ Yes  ☐ No

3. Is the project located on publicly owned land or receiving public assistance?  
☐ Yes  ☐ No

4. Is the project located within a FEMA 1% annual chance floodplain? (6.2)  
☐ Yes  ☐ No

5. Is the project located within a FEMA 0.2% annual chance floodplain? (6.2)  
☐ Yes  ☐ No

6. Is the project located adjacent to or within a special area designation? See Maps – Part III of the NYC WRP. If so, check appropriate boxes below and evaluate policies noted in parentheses as part of WRP Policy Assessment (Section F).

☐ Significant Maritime and Industrial Area (SMIA) (2.1)  
☐ Special Natural Waterfront Area (SNWA) (4.1)  
☑ Priority Maritime Activity Zone (PMAZ) (3.5)  
☐ Recognized Ecological Complex (REC) (4.4)  
☐ West Shore Ecologically Sensitive Maritime and Industrial Area (ESMIA) (2.2, 4.2)

F. WRP POLICY ASSESSMENT

Review the project or action for consistency with the WRP policies. For each policy, check Promote, Hinder or Not Applicable (N/A). For more information about consistency review process and determination, see Part I of the NYC Waterfront Revitalization Program. When assessing each policy, review the full policy language, including all sub-policies, contained within Part II of the WRP. The relevance of each applicable policy may vary depending upon the project type and where it is located (i.e. if it is located within one of the special area designations).

For those policies checked Promote or Hinder, provide a written statement on a separate page that assesses the effects of the proposed activity on the relevant policies or standards. If the project or action promotes a policy, explain how the action would be consistent with the goals of the policy. If it hinders a policy, consideration should be given toward any practical means of altering or modifying the project to eliminate the hindrance. Policies that would be advanced by the project should be balanced against those that would be hindered by the project. If reasonable modifications to eliminate the hindrance are not possible, consideration should be given as to whether the hindrance is of such a degree as to be substantial, and if so, those adverse effects should be mitigated to the extent practicable.

<table>
<thead>
<tr>
<th>1</th>
<th>Support and facilitate commercial and residential redevelopment in areas well-suited to such development.</th>
</tr>
</thead>
</table>
| 1.1 | Encourage commercial and residential redevelopment in appropriate Coastal Zone areas.  
☐ Yes  ☐ No  ☐ N/A |
| 1.2 | Encourage non-industrial development with uses and design features that enliven the waterfront and attract the public.  
☐ Yes  ☐ No  ☐ N/A |
| 1.3 | Encourage redevelopment in the Coastal Zone where public facilities and infrastructure are adequate or will be developed.  
☐ Yes  ☐ No  ☐ N/A |
| 1.4 | In areas adjacent to SMIAs, ensure new residential development maximizes compatibility with existing adjacent maritime and industrial uses.  
☐ Yes  ☐ No  ☐ N/A |
| 1.5 | Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.  
☐ Yes  ☐ No  ☐ N/A |

NYC WRP CONSISTENCY ASSESSMENT FORM – 2016
<table>
<thead>
<tr>
<th>2</th>
<th>Support water-dependent and industrial uses in New York City coastal areas that are well-suited to their continued operation.</th>
</tr>
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<tbody>
<tr>
<td>2.1</td>
<td>Promote water-dependent and industrial uses in Significant Maritime and Industrial Areas.</td>
</tr>
<tr>
<td>2.2</td>
<td>Encourage a compatible relationship between working waterfront uses, upland development and natural resources within the Ecologically Sensitive Maritime and Industrial Area.</td>
</tr>
<tr>
<td>2.3</td>
<td>Encourage working waterfront uses at appropriate sites outside the Significant Maritime and Industrial Areas or Ecologically Sensitive Maritime Industrial Area.</td>
</tr>
<tr>
<td>2.4</td>
<td>Provide infrastructure improvements necessary to support working waterfront uses.</td>
</tr>
<tr>
<td>2.5</td>
<td>Incorporate consideration of climate change and sea level rise into the planning and design of waterfront industrial development and infrastructure, pursuant to WRP Policy 6.2.</td>
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<thead>
<tr>
<th>3</th>
<th>Promote use of New York City's waterways for commercial and recreational boating and water-dependent transportation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Support and encourage in-water recreational activities in suitable locations.</td>
</tr>
<tr>
<td>3.2</td>
<td>Support and encourage recreational, educational and commercial boating in New York City's maritime centers.</td>
</tr>
<tr>
<td>3.3</td>
<td>Minimize conflicts between recreational boating and commercial ship operations.</td>
</tr>
<tr>
<td>3.4</td>
<td>Minimize impact of commercial and recreational boating activities on the aquatic environment and surrounding land and water uses.</td>
</tr>
<tr>
<td>3.5</td>
<td>In Priority Marine Activity Zones, support the ongoing maintenance of maritime infrastructure for water-dependent uses.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4</th>
<th>Protect and restore the quality and function of ecological systems within the New York City coastal area.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Protect and restore the ecological quality and component habitats and resources within the Special Natural Waterfront Areas.</td>
</tr>
<tr>
<td>4.2</td>
<td>Protect and restore the ecological quality and component habitats and resources within the Ecologically Sensitive Maritime and Industrial Area.</td>
</tr>
<tr>
<td>4.3</td>
<td>Protect designated Significant Coastal Fish and Wildlife Habitats.</td>
</tr>
<tr>
<td>4.4</td>
<td>Identify, remediate and restore ecological functions within Recognized Ecological Complexes.</td>
</tr>
<tr>
<td>4.5</td>
<td>Protect and restore tidal and freshwater wetlands.</td>
</tr>
<tr>
<td>4.6</td>
<td>In addition to wetlands, seek opportunities to create a mosaic of habitats with high ecological value and function that provide environmental and societal benefits. Restoration should strive to incorporate multiple habitat characteristics to achieve the greatest ecological benefit at a single location.</td>
</tr>
<tr>
<td>4.7</td>
<td>Protect vulnerable plant, fish and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.</td>
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<td>4.8</td>
<td>Maintain and protect living aquatic resources.</td>
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<tr>
<td>5</td>
<td>Protect and improve water quality in the New York City coastal area.</td>
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<tr>
<td>5.1</td>
<td>Manage direct or indirect discharges to waterbodies.</td>
</tr>
<tr>
<td>5.2</td>
<td>Protect the quality of New York City's waters by managing activities that generate nonpoint source pollution.</td>
</tr>
<tr>
<td>5.3</td>
<td>Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.</td>
</tr>
<tr>
<td>5.4</td>
<td>Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands.</td>
</tr>
<tr>
<td>5.5</td>
<td>Protect and improve water quality through cost-effective grey-infrastructure and in-water ecological strategies.</td>
</tr>
<tr>
<td>6</td>
<td>Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.</td>
</tr>
<tr>
<td>6.1</td>
<td>Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.</td>
</tr>
<tr>
<td>6.2</td>
<td>Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in <em>New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms</em>) into the planning and design of projects in the city’s Coastal Zone.</td>
</tr>
<tr>
<td>6.3</td>
<td>Direct public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit.</td>
</tr>
<tr>
<td>6.4</td>
<td>Protect and preserve non-renewable sources of sand for beach nourishment.</td>
</tr>
<tr>
<td>7</td>
<td>Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to the environment and public health and safety.</td>
</tr>
<tr>
<td>7.1</td>
<td>Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the unenclosed storage of industrial materials to protect public health, control pollution and prevent degradation of coastal ecosystems.</td>
</tr>
<tr>
<td>7.2</td>
<td>Prevent and remediate discharge of petroleum products.</td>
</tr>
<tr>
<td>7.3</td>
<td>Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.</td>
</tr>
<tr>
<td>8</td>
<td>Provide public access to, from, and along New York City’s coastal waters.</td>
</tr>
<tr>
<td>8.1</td>
<td>Preserve, protect, maintain, and enhance physical, visual and recreational access to the waterfront.</td>
</tr>
<tr>
<td>8.2</td>
<td>Incorporate public access into new public and private development where compatible with proposed land use and coastal location.</td>
</tr>
<tr>
<td>8.3</td>
<td>Provide visual access to the waterfront where physically practical.</td>
</tr>
<tr>
<td>8.4</td>
<td>Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.</td>
</tr>
<tr>
<td>Section</td>
<td>Description</td>
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<td>---------</td>
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</tr>
<tr>
<td>8.5</td>
<td>Preserve the public interest in and use of lands and waters held in public trust by the State and City.</td>
</tr>
<tr>
<td>8.6</td>
<td>Design waterfront public spaces to encourage the waterfront's identity and encourage stewardship.</td>
</tr>
<tr>
<td>9</td>
<td>Protect scenic resources that contribute to the visual quality of the New York City coastal area.</td>
</tr>
<tr>
<td>9.1</td>
<td>Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.</td>
</tr>
<tr>
<td>9.2</td>
<td>Protect and enhance scenic values associated with natural resources.</td>
</tr>
<tr>
<td>10</td>
<td>Protect, preserve, and enhance resources significant to the historical, archaeological, architectural, and cultural legacy of the New York City coastal area.</td>
</tr>
<tr>
<td>10.1</td>
<td>Retain and preserve historic resources, and enhance resources significant to the coastal culture of New York City.</td>
</tr>
<tr>
<td>10.2</td>
<td>Protect and preserve archaeological resources and artifacts.</td>
</tr>
</tbody>
</table>

**G. CERTIFICATION**

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

"The proposed activity complies with New York State's approved 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's Name: Battery Park City Authority, Gwen Dawson, Vice President of Real Property

Address: 200 Liberty Street, 24th Floor

Telephone: (212) 417-2000   Email: GwenDawson@b pca.ny.gov

Applicant/Agent's Signature: [Signature]

Date: 4/12/21
Submission Requirements

For all actions requiring City Planning Commission approval, materials should be submitted to the Department of City Planning.

For local actions not requiring City Planning Commission review, the applicant or agent shall submit materials to the Lead Agency responsible for environmental review. A copy should also be sent to the Department of City Planning.

For State actions or funding, the Lead Agency responsible for environmental review should transmit its WRP consistency assessment to the Department of City Planning.

For Federal direct actions, funding, or permits applications, including Joint Applicants for Permits, the applicant or agent shall also submit a copy of this completed form along with his/her application to the NYS Department of State Office of Planning and Development and other relevant state and federal agencies. A copy of the application should be provided to the NYC Department of City Planning.

The Department of City Planning is also available for consultation and advisement regarding WRP consistency procedural matters.

New York City Department of City Planning
Waterfront and Open Space Division
120 Broadway, 31st Floor
New York, New York 10271
212-720-3696
wrp@planning.nyc.gov
www.nyc.gov/wrp

New York State Department of State
Office of Planning and Development
Suite 1010
One Commerce Place, 99 Washington Avenue
Albany, New York 12231-0001
518-474-6000
www.dos.ny.gov/opd/programs/consistency

Applicant Checklist

☐ Copy of original signed NYC Consistency Assessment Form

☑ Attachment with consistency assessment statements for all relevant policies

☐ For Joint Applications for Permits, one (1) copy of the complete application package

☑ Environmental Review documents

☑ Drawings (plans, sections, elevations), surveys, photographs, maps, or other information or materials which would support the certification of consistency and are not included in other documents submitted. All drawings should be clearly labeled and at a scale that is legible.

☑ Policy 6.2 Flood Elevation worksheet, if applicable. For guidance on applicability, refer to the WRP Policy 6.2 Guidance document available at www.nyc.gov/wrp
NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM (WRP) CONSISTENCY ASSESSMENT FORM - WRP POLICY QUESTIONS - RESPONSES

The project site is located within New York City’s designated coastal zone and as a result the Proposed Action is subject to review for its consistency with the City’s Waterfront Revitalization Program.

Consistency of the Proposed Project with the Waterfront Revitalization Program Policies

The City’s WRP is comprised of ten principal policies designed to maximize the benefits derived from economic development, environmental preservation, and public use of the waterfront, while minimizing the conflicts among those objectives.

As summarized below, the Proposed Action is consistent with Policy Nos. 1, 4, 5, 6, 7, 8, 9, and 10 while Policy No. 2 and 3 are not applicable.

B1. Brief Description of Activity

During Superstorm Sandy in 2012, coastal surge inundated Lower Manhattan on its western side through low elevation points near Pier A and in or adjacent to other parts of Battery Park City, damaging, destroying and/or negatively impacting significant components of Lower Manhattan’s critical and civic infrastructure. In response to the devastating impact of Superstorm Sandy in Lower Manhattan and in anticipation of future severe storm activity related to global climate change, the SBPCR Project has been developed by the BPCA as an integrated coastal flood risk management project in Lower Manhattan. The SBPCR Project represents one of several projects within the overall Lower Manhattan Coastal Resiliency (LMCR) Master Plan.

The SBPCR Project Area (Project Area), the area of direct physical disturbance, extends from 1st Place and the Museum of Jewish Heritage, through Robert F. Wagner Park (Wagner Park or the Park), across Pier A Plaza, and then along the north side of the Battery Bikeway in The Battery to higher ground near the intersection of Battery Place and State Street. The SBPCR Study Area (Study Area), which extends beyond the Project Area, varies by resource but is generally defined as the area within 400 feet of the SBPCR Project improvements (see Exhibit 1).

The SBPCR Project is being designed to provide flood risk reduction within the Project Area for the current 100-year flood, inclusive of increased intensity and frequency of rainfall, coastal surge, and predicted sea level rise. It is one of three (3) resiliency projects being undertaken by BPCA to address flood risk reduction throughout Battery Park City’s ninety-two (92) acres. The other two projects are the Battery Park City Ball Fields and Community Center Resiliency Project, and the North/West BPC Resiliency Project. The SBPCR Project is also being designed with adaptability for the 2050 100-year storm event at such time as the North/West BPC Resiliency Project is completed and a tie-in between the two (2) projects is created.

The flood alignment is composed of multiple different integrated features such as flip-up deployable gates (flip-up deployables), glass-topped floodwalls, buried floodwalls underneath terraced slopes, exposed floodwalls, and bermed floodwalls. The term “flood alignment” is used to differentiate the combination
of flood control measures represented by the SBPCR Project from a traditional freestanding flood wall for risk reduction. In addition, interior drainage improvements are proposed for the SBPCR Project, including the isolation of the existing underground sewer manholes and connected chambers (see Exhibit 2).

B2. Purpose of Activity

During Superstorm Sandy in 2012, storm and coastal surge inundated portions of Lower Manhattan on its western side through areas in or adjacent to northern Battery Park City and Pier A Plaza south of Wagner Park. Water also found its way onto One World Trade Center and the Hugh L. Carey Tunnel (formerly known as the Brooklyn-Battery Tunnel) and impacted much of Lower Manhattan’s critical infrastructure.

The SBPCR Project’s primary goal is risk reduction in the southern extremes of Battery Park City. This would be accomplished through implementation of integrated flood risk measures, while meeting the design criteria for a 100-year storm event, inclusive of increased intensity and frequency of rainfall, coastal surge and predicted sea level rise. While the SBPCR Project would provide immediate risk reduction for the 100-year storm, it would also provide ready adaptability to the DFE for the 2050 100-year storm at such time as the North/West BPC Resiliency Project is constructed and a tie-in between the systems is created. The SBPCR Project is expected to be accredited by the Federal Emergency Management Agency (FEMA). Accreditation requires a FEMA review of as-built plans and verification that the flood system meets all pertinent requirements and achieves acceptable risk reduction in practice.

The purpose of the SBPCR Project is to:

- Provide a reliable coastal flood control system to provide risk reduction to property, residents and assets within the vicinity of South Battery Park City in response to the design storm event;
- Protect and preserve to the maximum extent practicable, open space resources and opportunities to view and interact with the Manhattan waterfront, particularly in Wagner Park, Pier A Plaza and The Battery; and,
- Avoid or minimize disruption to existing below and above-ground infrastructure (i.e., water and sewer infrastructure, subways, tunnels, utilities, etc.) from flood events.

Specific objectives of the SBPCR Project are to:

- Provide a reliable coastal flood control system that minimizes risk and the need for operational interventions by relying primarily on passive flood control technology as opposed to mechanical “deployable” flood control technology;
- Construct and operate the project in an environmentally responsible manner;
- Preserve to the greatest extent practicable the character and design aesthetic of the community and its interface with the BPC waterfront and access to coastal viewsheds, particularly views of the harbor and Statue of Liberty; and
- Utilize cost-effective solutions to maximize capital investment over the lifespan of the SBPCR Project.

D. Required Actions or Approvals
Federal

- U.S. Army Corps of Engineers (USACE) – Permits or authorizations for activities in Waters of the United States (Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act).
- U.S. Environmental Protection Agency (USEPA), U.S. Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration’s (NOAA) National Marine Fisheries Service (NMFS) – Advisory agencies to the federal permitting process focusing on activities that affect wetlands, water quality, protected plant and wildlife species, and essential fish habitat.

State of New York

- Department of Environmental Conservation (NYSDEC) – Permits related to activities in tidal wetlands or adjacent areas (Article 25) or protection of waters (Article 15), Water Quality Certification (Section 401); permits related to the State Pollutant Discharge Elimination System (SPDES) program; and approvals related to the import of fill material requiring Beneficial Use Determination.
- Department of State (NYSDOS) – Coastal Zone Consistency Determination.
- Office of Parks, Recreation and Historic Preservation (OPRHP) – State Historic Preservation Office (SHPO) leading the federal review process pursuant to Section 106 of the National Historic Preservation Act (NHPA) and Section 14.09 of the New York State Historic Preservation Act with respect to designated and protected properties on the State and National Registers of Historic Places and properties determined eligible for such listing.
- Department of Transportation (NYSDOT) – Design coordination as needed and construction permits for work within the right-of-way.
- New York City Transit Authority (NYCTA) – Coordination regarding impacts to bus routes/stops on Battery Place.
- MTA - Triborough Bridge and Tunnel Authority (TBTA) – Approval of alignment crossing over Brooklyn-Battery Tunnel.

City of New York

- Department of Parks & Recreation (NYC Parks) - Forestry Permits for tree removals and restitution and Capital Construction Permit for bikeway/Battery elements. Revocable consent would be required for construction on NYC Parks owned property.
- Department of Environmental Protection (NYCDEP) – Design approval of project elements related to stormwater management, water and sewer infrastructure, coordination with respect to potential hazardous materials and natural resources impacts, as well as air quality and noise/vibration analyses.
- Department of Transportation (NYCDOT) – Design approval of bike lane, lighting, and other work in NYCDOT ROW, as well as coordination/review of transportation analyses. Revocable consent would be required for construction in the ROW.
- Department of City Planning (DCP) – Consistency determination under the Local Waterfront Revitalization Program.
- Small Business Services (NYCSBS) – Coordination and approval for activities on SBS owned property. Revocable consent would be required for construction on SBS owned property.
- Landmarks Preservation Commission (NYCLPC) – Advisory agency for activities on or near sites of historic or archaeological value.
- New York City Police Department (NYPD) – Approval for bollard and security design.
- New York City Fire Department (FDNY) – Coordination of access requirements and impact to FDNY facilities and conduits within the right-of-way.
- Public Design Commission – Design approval for permanent structures, landscape architecture, and art proposed on City-owned property.
WRP Policy 1: Support and facilitate commercial and residential redevelopment in areas well-suited to such development.

Policy 1.5: Integrate consideration of climate change and sea level rise into the planning and design of waterfront residential and commercial development, pursuant to WRP Policy 6.2.

The SBPCR Project seeks to protect the southern extremes of Battery Park City from flood risk and sea level rise through the installation of a flood control system comprised of a combination of flip-up deployables, glass-topped floodwalls, buried floodwalls underneath terraced slopes, exposed floodwalls, and bermed floodwalls. The flood control system would protect this southern portion of Battery Park City from the 100-year storm, it would also provide immediate adaptability to the Design Flood Elevation (DFE) for the 2050 100-year storm once the North/West BPC Resiliency Project is constructed and a tie-in between the systems is accomplished. The SBPCR Project is expected to be accredited by the Federal Emergency Management Agency (FEMA). Accreditation requires a FEMA review of as-built plans and verification that the flood system meets all pertinent requirements and achieves acceptable risk reduction in practice.

The design relies on sea level rise estimates provided in the New York City Panel on Climate Change 2015 Report. See below for an analysis of this project’s consistency with WRP Policy 6.2.

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

Policy 2 is not applicable to the Proposed Action.

WRP Policy 3: Promote use of New York City’s waterways for commercial and recreational boating and water-dependent transportation.

Policy 3.5: In Priority Marine Activity Zones, support the ongoing maintenance of maritime infrastructure for water-dependent uses.

While a portion of the Proposed Action is within the Priority Marine Activity Zones along the Battery (see Exhibit 4), this project will not affect that area of shoreline or the ongoing maintenance of maritime infrastructure. Therefore, Policy 3 is not applicable to the Proposed Action.

WRP Policy 4: Protect and restore the quality and function of ecological systems within the New York coastal area.

The parallel goals of this policy are to avoid or minimize any adverse primary or secondary impacts to the coastal ecosystem and to restore ecological systems and habitat where practicable. The SBPCR Project would promote the quality and function of ecological system.

Policy 4.3: Protect designated Significant Coastal Fish and Wildlife Habitats
The waters adjacent to the Project Area form the southern endmouth of the Hudson River, River Mile (RM) zero, close to its confluence with the East River and upper New York Bay. New York Bay is a 25-square mile waterbody at the mouth of the Hudson River where it joins the Atlantic Ocean near the Verrazano-Narrows Bridge. Despite the urban character of New York City, the harbor is home to numerous fish species and habitats.

The waters adjacent to the Project Area are designated as Lower Hudson Reach Significant Coastal Fish and Wildlife Habitat (SCFWH). The Lower Hudson Reach SCFWH is identified as one of only a few large tidal river mouth systems in the northeastern United States, providing a unique range of salinity and other estuarine features. Numerous estuarine and marine species occur regularly in the harbor, along with various anadromous and catadromous fish species.

The SBPCR Project would provide an opportunity for a new waterfront marine habitat educational area along the Pier A inlet. The Pier A inlet design converts a concrete relieving platform and riprap edge to a terraced condition that improves habitat opportunities. The construction would include removal of a portion of the relieving platform and replace it with a metal grate platform, which would allow 50 percent of available light to pass through.

The Proposed Action within the Pier A inlet would result in improvements to the aquatic ecosystem. The removal of existing relieving platform would provide opportunities for intertidal and supratidal vegetative plantings, as well as provide sunlight to a currently completely shaded aquatic environment. Therefore the Proposed Action would be consistent with this policy.

**Policy 4.5: Protect and restore tidal and freshwater wetlands**

Review of the U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) and New York State freshwater and tidal wetland maps indicated that no mapped vegetated wetlands are located within the Project Area above the high tide line. The NWI mapper indicates that the Hudson River Estuary adjacent to the Project Area is classified as an estuarine and marine deepwater environment (E1UBL: Estuarine, Subtidal Unconsolidated). The New York State Tidal Wetland Maps indicate the Pier A inlet is mapped as Littoral Zone (LZ). The LZ tidal wetland category includes all tidal waters that are not included in any other category that are less than six feet deep at mean low water (MLW) (see Exhibit 5).

Observations on site confirmed that there are no vegetated wetlands within and/or immediately adjacent to the Pier A Inlet, nor are there any Submerged Aquatic Vegetation (SAV) beds present within the Pier A Inlet. Despite the lack of vegetation, disturbances within the Pier A inlet and immediate adjacent areas would trigger federal and state permitting.

The SBPCR Project would provide an opportunity for a new waterfront marine habitat educational area along the Pier A Inlet. The Pier A Inlet design converts a concrete relieving platform and riprap edge to a terraced condition that improves habitat opportunities.
Potential indirect impacts to tidal wetlands would be minimized per Policies 5 as described below. Therefore, the Proposed Action would not affect State or federally-regulated tidal wetlands and would be consistent with this policy.

**Policy 4.6: In addition to wetlands, seek opportunities to create a mosaic of habitats with high ecological value and function that provide environmental and societal benefits. Restoration should strive to incorporate multiple habitat characteristics to achieve the greatest ecological benefit at a single location.**

The SBPCR Project would enhance Wagner Park’s programmatic diversity and provide an opportunity for a new waterfront marine habitat educational area along the Pier A inlet. As described in Policy 4.3, the Pier A inlet design converts a concrete relieving platform and rip-rap edge to a terraced condition that improves habitat opportunities. The construction would include removal of a portion of the relieving platform and replace it with a metal grate platform, which would allow 50 percent of available light to pass through.

The Proposed Action within the Pier A inlet would result in improvements to the aquatic ecosystem. The removal of existing relieving platform would provide opportunities for intertidal and supratidal vegetative plantings, as well as provide sunlight to a currently completely shaded aquatic environment.

The existing piles supporting the decking would be left in place and coated with ECONcrete as well as other subtidal surfaces to further encourage colonization of aquatic organisms. Moreover, as part of the planned restoration, intertidal and supratidal vegetative plantings would be placed in the area of existing rip rap and tide pools would be constructed, further enhancing the habitat quality of the area. The vegetative plantings would consist of salt marsh grasses in the intertidal zone and salt tolerant vegetation above the high tide line to simulate shoreline habitats. Any temporary habitat disturbances and minor losses of benthic habitat would be offset by the positive long-term habitat improvements in the Project Area. The Proposed Action would increase the value of the habitat through increased sunlight, as well as the placement of intertidal and supratidal plantings to a habitat currently devoid of plants. Therefore, the Proposed Action would be consistent with this policy.

**Policy 4.7: Protect vulnerable plant, fish and wildlife species, and rare ecological communities. Design and develop land and water uses to maximize their integration or compatibility with the identified ecological community.**

Please see responses to Policy 4.3 and 4.6.

**Policy 4.8: Maintain and protect living aquatic resources.**

Please see responses to Policy 4.3 and 4.6.
WRP Policy 5: Protect and improve water quality in the New York City coastal area.

Policy 5.1: Manage direct or indirect discharges to waterbodies.

The SBPCR Project is generally located along the southern end of Battery Park City and Battery Place between Pier A Plaza and State Street in Lower Manhattan. It is situated within low-lying coastal areas along the Hudson River and New York Harbor. This Study Area is served by public potable water transmission, distribution mains and public sewers that mainly consist of combined sewers, regulators, interceptors and combined sewer overflows (CSO). These components are part of the combined sewer system (CSS) that serves the portion of the Study Area outside BPCA jurisdiction. The CSS conveys only sanitary sewer flow during dry weather, but during wet weather, carries both stormwater and sewer flows to a wastewater treatment plant (WWTP). In the Study Area, during and directly following large wet weather events, stormwater flows at the maximum capacity of the system with excess combined sewage overflowing into the Hudson River. NYCDEP estimates and reports annual volumes of CSO under federal, state and local regulatory requirements and CSO abatement programs. The flows conveyed by the CSS up to its capacity, ultimately discharge to the East River and Newtown Creek, after they are pumped via the Manhattan Pumping Station (MPS) and treated at NYCDEP’s Newtown Creek WWTP in Brooklyn. The WWTP has an existing SPDES permit that regulates the volumes and content of treated discharge and sets monitoring and treatment requirements for the discharge to Newtown Creek and the East River.

The Study Area within BPCA jurisdiction is served by a separated sewer system, with sanitary flows conveyed to the south interceptor connected to the MPS. Stormwater runoff discharges to the Hudson River through MS4 outfalls, other stormwater separated outfalls as well as some direct drainage along the areas closer to the shoreline.

The construction of the proposed flood control system would require modifications to the existing CSS and MS4 system in order to: 1) ensure that the existing infrastructure does not allow storm surge to migrate to the protected (dry-side) of the alignment; and 2) manage any water that enters the proposed flip-up deployable sections either from runoff or regular maintenance. As such, the following discussion is broken down to define proposed changes to water, sewer, and stormwater infrastructure as well as to discuss the findings of the modelling and analyses used to evaluate the SBPCR Project.

Stormwater infrastructure running beneath the coastal barrier alignment from the “wet-side” of the alignment to the “dry-side” during a storm surge would create a failure condition by conveying stormwater to the dry-side of the alignment. In order to avoid such conditions during storm surge, tidegates would be installed at two existing separate MS4 outfalls – one at 1st Place and the second at Rector Place. A third tidegate would be installed on the combined sewer overflow outfall at Pier A Plaza southeast of Pier A.
These modifications would not impact the stormwater drainage systems' capacity under coastal and non-coastal surge conditions. Tidegates open whenever there is a positive head differential between the water level in the outfalls upstream of the tidegates and the Hudson River. The proposed tidegates would not introduce flow area restrictions and therefore would not impact the MS4 system's discharge capacity under either scenario.

Two isolation valves would be installed in The Battery. One valve would be installed at the 12-inch diameter storm drain that collects runoff from The Battery, approximately 50-feet east of the Battery Park Underpass alignment. A sanitary sewer isolation valve would be installed just north of The Battery comfort station. The valves would remain in the open position during non-coastal storm events. In advance of a major coastal storm event, the valves would be closed to prevent coastal waters from surging through the storm water drain and the sanitary lines connected to the comfort station.

The sewer interceptor line branches would be isolated with a NSI system. The NSI system would consist of the installation of a gate within the existing regulator structures, M9, M8, and M7. During coastal surge events, these three regulator structures would be closed to prevent the storm surge rising through the interceptor line from reaching the street level. The regulator chambers' access points at street level would be retrofitted with pressure tight covers. A sanitary overflow chamber on West Thames Street would be subject to the pressure-proofing improvements. Additionally, four interceptor manholes along West Street between Battery Place and Albany Street would be pressure-proofed and retrofitted with a cover that can be sealed shut and locked during a flood event. In coordination with NYCDEP, model evaluations were conducted to confirm that there would be no significant adverse flooding impacts to adjacent unprotected areas served by the interceptor sewer as a result of the implementation of the NSI system within the Study Area.

The Proposed Action is located in an area entirely connected to sewer and water infrastructure and would not create any type of new development that would be associated with additional permanent water or sanitary sewer demands beyond those expected from the reconstruction of the Wagner Park pavilion, which, because it would only be slightly larger, would be negligible.

The Proposed Action would not create new outfalls nor result in increased impervious surfaces that would increase stormwater runoff.

Furthermore, the design of Wagner Park has been developed to comply with the Waterfront Edge Design Guidelines (WEDG) through innovative and integrated landscape, architectural, and engineering site planning. WEDG is a rating system and set of guidelines to create resilient, ecological, and accessible waterfronts. The plantings on the water side of the Wagner Park flood alignment would tolerate salt spray and temporary inundation, reduce maintenance costs and provide ecological benefits. Planting designs in some of the terraced planters that transition down to the esplanade would serve as rain gardens for capturing and filtering precipitation. Stormwater
from planters and hardscape would be routed to an infiltration gallery located underneath the Esplanade, to reduce the point source discharge of stormwater to the Hudson River. The layout reduces risk of coastal flood hazards while enhancing waterfront access and providing a newly continuous waterfront walkway experience that improves Battery Park City’s connection to the Pier A Plaza and The Battery. On the “dry” side of the flood alignment, a reuse cistern would capture stormwater generated during rain events. Reuse measures include site washdown, drip irrigation, and pavilion flush fixtures. Water captured by the cistern would be treated via a proprietary treatment system and distributed throughout the park.

Wagner Park’s carefully designed planting plan is organized around four regional plant communities including tidal estuary, maritime meadow, maritime forest, and upland woodland. The landscape’s design use of native plants reduces water consumption and reduces maintenance labor while significantly boosting local biodiversity and habitat support. The SBPCR Project’s turfgrass areas make use of subsurface irrigation to reduce water consumption by more than 30 percent.

In consideration of the results of the planning and coordination with agencies, significant adverse impacts to sewer and water infrastructure or the treatment and demand for these resources would not be expected as a result of the SBPCR Project. Therefore, the Proposed Action would be consistent with these policies.

**Policy 5.2: Protect the quality of New York City’s waters by managing activities that generate nonpoint source pollution.**

Please see response to Policy 5.1 above.

**Policy 5.3: Protect water quality when excavating or placing fill in navigable waters and in or near marshes, estuaries, tidal marshes, and wetlands.**

Please see response to Policy 5.1 above.

**Policy 5.4: Protect the quality and quantity of groundwater, streams, and the sources of water for wetlands**

Please see response to Policy 5.1 above.

**Policy 5.5: Protect and improve water quality through cost-effective grey-infrastructure and in-water ecological strategies.**

Please see response to Policy 5.1 above.

**WRP Policy 6: Minimize loss of life, structures, infrastructure, and natural resources caused by flooding and erosion, and increase resilience to future conditions created by climate change.**
Policy 6.1: Minimize losses from flooding and erosion by employing non-structural and structural management measures appropriate to the site, the use of the property to be protected, and the surrounding area.

The SBPCR Project proposes structural flood protection measures that include a combination of flip-up deployables, glass-topped floodwalls, buried floodwalls underneath terraced slopes, exposed floodwalls, and bermed floodwalls to protect the surrounding Battery Park City neighborhood from the 100-year storm. The shoreline within the project area is a hardened shoreline consisting of bulkheads and a relieving platform under Wagner Park. As result, the Proposed Action is consistent with this policy.

Policy 6.2: Integrate consideration of the latest New York City projections of climate change and sea level rise (as published in New York City Panel on Climate Change 2015 Report, Chapter 2: Sea Level Rise and Coastal Storms) into the planning and design of projects in the city's Coastal Zone.

In order to determine the Proposed Action's consistency with WRP Policy 6.2, the General Assessment Methodology was utilized. Please see the attached Policy 6.2 Supplemental Information.

Policy 6.3: Direct public funding for flood prevention or erosion control measures to those locations where the investment will yield significant public benefit

The Proposed Action will direct public funding for a critical flood protection project. The investment in this flood protection project will yield a significant public benefit by protecting the southern portion of Battery Park City and surrounding areas from the 100-year storm, it would also provide immediate adaptability to the Design Flood Elevation (DFE) for the 2050 100-year storm once the North/West BPC Resiliency Project is constructed and a tie-in between the systems is accomplished. Therefore, the Proposed Action would be consistent with this policy.

WRP Policy 7: Minimize environmental degradation and negative impacts on public health from solid waste, toxic pollutants, hazardous materials, and industrial materials that may pose risks to environment and public health and safety.

7.1 Manage solid waste material, hazardous wastes, toxic pollutants, substances hazardous to the environment, and the enclosed storage of industrial materials to protect public health, control pollution and prevent degradation of coastal ecosystems.

Any demolition or soil disturbance that is required for the Proposed Action would be undertaken in accordance with a Remedial Action Plan and Construction Health and Safety Plan, and in compliance with applicable local and state regulations pertaining to handling solid waste, hazardous wastes, toxic pollutants or other substances hazardous to the environment. Therefore, the Proposed Action would promote these policies.
7.2 Prevent and remediate discharge of petroleum products.

Policy 7.2 is not applicable to the Proposed Action.

7.3 Transport solid waste and hazardous materials and site solid and hazardous waste facilities in a manner that minimizes potential degradation of coastal resources.

Please see response to Policy 7.1.

WRP Policy 8: Provide public access to, from, and along New York City's coastal waters.

Policy 8.1: Preserve, protect, maintain, and enhance physical, visual and recreational access to the waterfront.

The purpose of the SBPCR Project is to:

- Provide a reliable coastal flood control system to provide risk reduction to property, residents and assets within the vicinity of South Battery Park City in response to the design storm event;
- Protect and preserve to the maximum extent practicable, open space resources and opportunities to view and interact with the Manhattan waterfront, particularly in Wagner Park, Pier A Plaza and The Battery; and,
- Avoid or minimize disruption to existing below and above-ground infrastructure (i.e., water and sewer infrastructure, subways, tunnels, utilities, etc.) from flood events.

Wagner Park would be elevated 10 to 12 feet from its existing grade for the construction of a buried floodwall crossing Wagner Park from the Museum of Jewish Heritage and Pier A Plaza. The Proposed Action was determined as the only reasonable alternative to fulfill the SBPCR Project purpose and need and maintain existing park programming and use in Wagner Park. The Proposed Action would reconstruct a new pavilion at the plateau of Wagner Park slightly east of the location of the existing pavilion, improving the entrances into Wagner Park by reconstructing the north and south allées, adding wayfinding within Wagner Park, and enhancing the walkway along Battery Place. Between Battery Place and the Battery Park City Esplanade along the Hudson River Waterfront, the Proposed Action would construct new open lawns connected by pedestrian walkways with tiered seating areas and sloped walkways descending from the proposed pavilion to the Esplanade.

Although the Proposed Action would have a significant adverse impact on views of the Hudson River Waterfront and the Statue of Liberty from Battery Place (in only two locations) due to the elevation of Wagner Park and the removal of the existing pavilion, the new Pavilion has been designed to maintain that view within the new elevated Wagner Park.

The views of the Hudson River Waterfront, Statue of Liberty, and New York Harbor from the elevated Wagner Park would be improved due to the ability to see further from an unobstructed
and higher elevation. In addition, views of surrounding aesthetic and visual resources, primarily the Museum of Jewish Heritage and the Pier A would improve because of the higher viewpoints.

Because the Proposed Action would elevate Wagner Park, access from the Battery Place walkway to Wagner Park would be limited to the entrances to the north and south allées. To improve the pedestrian experience along the Battery Place walkway, the proposed allées would be designed for universal access with widened 40-foot walkways, trees lining both sides, and a gentle eight percent slope to the Wagner Park pavilion. Along each allée, there would be new seating and plateaus along the walkway providing pedestrians opportunities to stop and rest. In addition, the existing rectangular cobblestone walkway would be removed, and the entire sidewalk would be paved with hexagonal asphalt pavers. The Proposed Action would add landscaping, including a variety of perennials for every season of the year, along the bermed wall on the western side of the Battery Place sidewalk to enhance the visual experience of pedestrians.

Therefore, the proposed would promote these policies.

Policy 8.3: Provide visual access to the waterfront where physically practical.

Please see response to Policy 8.1 above.

Policy 8.4: Preserve and develop waterfront open space and recreation on publicly owned land at suitable locations.

Please see response to Policy 8.1 above.

Policy 8.5: Preserve the public interest in and use of lands and waters held in public trust by the State and City

Please see response to Policy 8.1 above.

Policy 8.6: Design waterfront public spaces to encourage the waterfront's identity and encourage stewardship.

Please see response to Policy 8.1 above.

WRP Policy 9: Protect scenic resources that contribute to the visual quality of the New York City coastal area.

Policy 9.1: Protect and improve visual quality associated with New York City's urban context and the historic and working waterfront.

The SBPCR Project maintains the visual quality of the New York Coastal area, by maintaining views to the waterfront and improving access to the open space and the waterfront. This is accomplished through a variety of context-sensitive design measures throughout the project design, including minimizing fixed walls, providing universal access, maintaining views of New
York Harbor and the Statue of Liberty from the new Pavilion. These design elements have been coordinated with the New York City Public Design Commission. Therefore, the Proposed Action would be consistent with this policy.

**Policy 9.2: Preserve, protect, maintain, and enhance physical, visual and recreational access to the waterfront.**

Please see response to Policy 9.1.

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

**Policy 10.1: Retain and preserve historic resources, and enhance resources significant to the coastal culture of New York City.**

As part of the review for the Environmental Impact Statement, the impacts of the Proposed Action were analyzed in accordance with Section 14.09 on the 28 historic architectural resources in the Historic Architectural Area of Potential Effect (APE).

The Proposed Action would have an Adverse Impact on one resource: Wagner Park. With respect to the remaining 27 resources, the project would result in No Adverse Impact on nine resources, and No Impact on 18 resources. Avoidance, mitigation, and minimization measures are described below.

The Proposed Action would result in No Adverse Impact on two of the nine resources for which avoidance measures are recommended – Pier A and Castle Clinton. With respect to Pier A, it is located less than 90 feet from the Proposed Action, and as a result, it is recommended that a Construction Protection Plan (CPP) be prepared in accordance with Department of Buildings (DOB) and Landmarks Preservation Commission (LPC) guidelines. Regarding Castle Clinton, it is situated within The Battery adjacent to, and approximately 200 feet southeast of the Proposed Action in Pier A Plaza. The CPP recommended for Castle Clinton would ensure that all measures are being undertaken to protect this National Monument from construction that would occur on an adjacent lot.

In addition, the Proposed Action would result in an Adverse Impact on Wagner Park. Section 14.09 requires that adverse impacts to National Register-listed and/or eligible resources caused by implementation of the undertaking be resolved through mitigation. Therefore, it is anticipated that a Letter of Resolution (LOR) would be drafted and executed between BPCA, SHPO, and other consulting parties to mitigate the Adverse Effect. Potential mitigation could possibly include, but not be limited to:

- Historic American Landscape Survey (HALS) Documentation of Wagner Park prior to construction. Documentation would include a physical description, historic overview,
statement of significance, project information, high-quality digital or large-format photographs, and reproduction of select original plans and historic photographs.

- Interpretive panels installed at the new Wagner Park; panels could describe the original park and the reasons why it was deemed an exceptionally significant National Register-eligible resource.
- Website publicized on-site or QR codes that could be activated on-site, and direct user to a history of Wagner Park, and the reasons why it was deemed an exceptionally significant National Register-eligible resource; the content could be similar to the panels.

Additionally in Pier A Plaza, the location of the historic waters' edge will be indicated by medallion insets that replace the existing linear stone bands that trace the location of the old waters' edge, thereby maintaining this educational feature.

Ultimately, mitigation recommendations that are agreeable to all parties would be incorporated into the LOR as stipulations. With this mitigation, the Proposed Action would be consistent with this policy.

Policy 10.2: Protect and preserve archaeological resources and artifacts.

A Phase IA Archaeological Documentary Study is currently being prepared in compliance with SEQR and CEQR guidelines, pursuant to requests for such a survey by SHPO and LPC. The Phase IA documentary study has concluded that there are two discrete areas of low to moderate and moderate potential archaeological sensitivity across portions of the APE that may be impacted by the completion of the SBPCR Project. As the SBPCR Project lies within highly utilized public spaces, in order to minimize traffic disruptions and closures of public space, preparation of a Phase IB Archaeological Monitoring Plan (Plan) in consultation with BPCA, SHPO and LPC, is recommended. With the implementation of this Plan, the Proposed Action would be consistent with this policy.
Policy 6.2 Supplemental Information

The New York City (NYC) Department of City Planning (DCP) Climate Change Adaption Guidance (NYC DCP, November 2018) outlines a detailed methodology for site-specific actions to determine a project’s consistency with Policy 6.2. There are three basic steps to assessing an action’s consistency with Policy 6.2 of the WRP.

1. Identify Vulnerabilities and Consequences

Assess the project’s vulnerabilities to future coastal hazards and what the potential consequences may be.

(a) Assess the project area’s exposure to current and future flood risk.

The Flood Evaluation Worksheet is included in the Attachments. The information in the following subsections is based on the results of the completed worksheet.

(b) Identify if the project or action would facilitate the development of any vulnerable, critical, or potentially hazardous features within areas exposed to flooding from Mean Higher High Water or 1% Annual Chance Flood by the 2050s under the 90th percentile of sea level rise projections.

The Proposed Action would not lead to any vulnerable, critical, or potentially hazardous feature within areas exposed to flooding. To the contrary, the Proposed Action is a flood protection project, designed to provide flood risk reduction within the Project Area for the current 100-year flood, inclusive of increased intensity and frequency of rainfall, coastal surge, and predicted sea level rise. It is one of three (3) resiliency projects being undertaken by BPCA to address flood risk reduction throughout Battery Park City’s ninety-two (92) acres. The other two projects are the Battery Park City Ball Fields and Community Center Resiliency Project, and the North/West BPC Resiliency Project. The SBPCR Project is also being designed with adaptability for the 2050 100-year storm event when the North/West BPC Resiliency Project is completed, and the SBPCR Project ties into it.

Based on the range of sea level rise predictions described above, MHHW at the National Oceanic and Atmospheric Administration (NOAA) Station nearest to the Study Area (currently 2.28 feet NAVD88 at The Battery #8518750) could reach up to 7.11 feet NAVD88 by the 2080s and up to 8.53 feet NAVD88 by 2100 (high projection). Given these projections, some of the flood alignment features would be below MHHW under the scenario projections. However, the Proposed Action is designed to address both storm surge from major storm events and flooding due to sea level rise.

Under FEMA’s current Flood Hazard Layer and the 2015 Preliminary FIRM, most of the project area is within Zone AE (see Exhibits 6 and 7). The SBPCR Project is designed to withstand storm
Impacts due to waves, high winds and debris. The future predicted floodplain in the Year 2050 is illustrated in Exhibit 8.

2 Identify Adaptive Strategies

Assess how the vulnerabilities and consequences identified in Step 1 are addressed through the project's design and planning.

Based on Step 1, no vulnerabilities or consequences are identified. The Proposed Action would advance Policy 6.2.

3 Assess Policy Consistency

Based on Step 1 and Step 2, no vulnerabilities or consequences are identified. The Proposed Action would advance Policy 6.2.
Exhibit 1: Project Area

Legend
- Project Area Sites
- Study Area

Project Area
South Battery Park City Resiliency Project
Exhibit 2: Proposed Action

Legend

- Project Area Sites
- Flood Alignment
- Exposed Floodwall
- Buried Floodwall
- Glass Topped Floodwall
- Flip-Up Deployable Gate
- Fixed Column
- NSI Elements
- Tidegate
- Isolation Valve

Proposed Action
South Battery Park City Resiliency Project
Exhibit 3: Coastal Zone Boundary

Legend
- Project Area Sites
- Coastal Zone Boundary

Coastal Zone Boundary
South Battery Park City Resiliency Project
Exhibit 4: Priority Marine Activity Zone

Legend

- Project Area Sites
- Priority Marine Activity Zone

FEMA National Flood Hazard Layer (NFHL)
South Battery Park City Resiliency Project
Exhibit 5: NYSDEC Tidal and NWI Wetlands

Legend

- Project Area Sites
- NYSDEC Tidal Wetlands
- Littoral Zone
- NW Wetlands
- E1UBL - Estuarine and Marine Deepwater

NYSDEC Tidal and NWI Wetlands
South Battery Park City Resiliency Project
Exhibit 6: FEMA National Flood Hazard Layer

Legend

- Project Area Sites

- Zone VE - An area inundated by 1% annual chance flooding with velocity hazard

- Zone AE - An area inundated by 1% annual chance flooding for which BFEs have been determined

- 500 Year Flood Zone - An area inundated by 0.2% annual chance flooding

FEMA National Flood Hazard Layer (NFHL)
South Battery Park City Resiliency Project
Exhibit 7: 2015 Preliminary Flood Insurance Rate Map

Legend

- Project Area Sites
- Zone VE - An area inundated by 1% annual chance flooding with velocity hazard
- Zone AE - An area inundated by 1% annual chance flooding, for which BFEs have been determined
- 500 Year Flood Zone - An area inundated by 0.2% annual chance flooding

2015 Preliminary Flood Insurance Rate Map (PFIRM)
South Battery Park City Resiliency Project
Exhibit 8: Sea Level Rise in the 2050s (100-yr Floodplain)

Legend

- Project Area Sites
- 1% Annual Chance Floodplain in the 2050s
- 0.2% Annual Chance Floodplain in the 2050s

Sea Level Rise in the 2050s (100-yr floodplain)
South Battery Park City Resiliency Project
NYC Waterfront Resilience Program - Policy 6.2 Flood Elevation Worksheet

COMPLETE INSTRUCTIONS ON HOW TO USE THIS WORKSHEET ARE PROVIDED IN THE "CLIMATE CHANGE ADAPTATION GUIDANCE" DOCUMENT AVAILABLE AT www.nyc.gov/wr.

Preliminary information about the project and site is highlighted on the following tabs: Tab 1. "Summary and Objectives," Tab 2. "Adaptation Strategies," Tab 3. "Developmental Objectives," Tab 4. "Evaluations." Questions throughout the worksheet assume a baseline flood elevation for a site to be used for the evaluation of淹没 risk in a site-specific context where available. Non-highlighted cells have been locked.

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Planned Completion Date: 2024
Expected Project Uptake

For technical assistance on using this worksheet, email wrp@planning.nyc.gov, using the message subject: "Policy 6.2 Worksheet."
Establish current tidal and flood heights.

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*The project description includes various physical features such as abutments, fenders, guardrails, reflectors, signs, and pavements, each with specific locations, elevations, columns, and values.*
Assess project vulnerability over a range of sea level rise projections.
0.2% Flood Elevation + Sea Level Rise

- Flip-up Deployable Gate, Exposed Floodwall
- Flip-up Deployable Gate
- Buried Floodwall
- Bermed Floodwall
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### MHHW+SLR (ft above NAVD88)

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*(to be used only when a site survey is unavailable)*

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* MHHW values include an addition 0.33 feet to account for changes in sea level since the 1983-2000 period.
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1 tidal epoch.
Compliance with NYSDOS Coastal Management Policies

Review of the FCAF forms indicates Questions 1a, b, h, 2a, b, c, g, h, i, and 3a, c, and d were identified necessitating an evaluation of policies: 2, 3, 7, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 25, 28, 30, 32, 35, 37, 38, 40, 41, 43, and 44. Responses to the policies are provided below.

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

The Proposed Action will not reduce or adversely affect the area currently or recently devoted to any water dependent use and public access to the waterfront will be maintained. Following construction, the SBPCR Project will maintain public access to the Battery Park City Esplanade around Wagner Park, Pier A Plaza, and The Battery. Additionally, the Pier A Inlet area does not currently have direct public access from the Wagner Park side of the inlet. The proposed Living Shoreline design creates a new viewing platform that would enhance the public connection to the waterfront. As such, the project complies with this policy.

**Policy 3: Further develop the State’s major ports as centers of commerce and industry, and encourage the siting, in these port areas, including those under the jurisdiction of State public authorities, of land use and development which is essential to, or in support of, the waterborne transportation of cargo and people.**

The SBPCR Project has been developed as an integrated coastal flood risk management project in Lower Manhattan and promotes resiliency in the Project Area, which supports commerce and industry in the general port area. As such, the project complies with this policy.

**Policy 7: Significant Coastal Fish and Wildlife Habitats (SCFWH) will be protected, preserved, and where practical, restored so as to maintain their viability as habitats.**

The waters adjacent to the Project Area are designated as Lower Hudson Reach Significant Coastal Fish and Wildlife Habitat (SCFWH) (Figure 2). The Lower Hudson Reach SCFWH is identified as one of only a few large tidal river mouth systems in the northeastern United States, providing a unique range of salinity and other estuarine features. Numerous estuarine and marine species occur regularly in the harbor, along with various anadromous and catadromous fish species. This habitat sustains a diverse community of benthic, planktonic, and pelagic species. The river provides important wintering habitat for large numbers of striped bass (Morone saxatilis). Significant numbers of yearling winter flounder (Pleuronectes americanus) also occupy this stretch of the river in winter months. Surveys have also found summer flounder (Paralichthys dentatus), white perch (Morone americana), Atlantic tomcod (Microgadus tomcod), Atlantic silversides (Menidia menidia), bay anchovy (Anchoa mitchilli), hogchokers (Tringetes maculatus) and American eel (Anguilla rostrata) in significant numbers. This area of the river is also utilized by bluefish (Pomatomus saltatrix) and weakfish (Cynoscion regalis) young of year and both Atlantic sturgeon...
(Acipenser oxyrinchus oxyrinchus) and shortnose (adult only) sturgeon (Acipenser brevirostrum). American shad (Alosa sapidissima) and blue crabs (Callinectes sapidus) also contribute to the fishery. Animals of lower trophic levels are also present in substantial numbers providing an important food source. These include planktonic forms such as copepods, rotifers, mysid shrimp; and, benthic forms such as nematodes, oligochaetes, polychaetes, and amphipods. Additionally, the Lower Hudson Reach also provides habitat for several species of wintering waterfowl.

The only disturbance to the SCFWH would be a disturbance to 435 sq ft of intertidal habitat associated with the implementation of a Living Shoreline in Pier A Inlet. The Living Shoreline, once completed would provided an positive effect on the SCFWH. During construction, impacts to the SFFWH are anticipated to be minimal, if any. A silt curtain will be placed landward of the low tide line and hay bales and other containment devices would be placed along the limit of up and disturbance to prevent sedimentation.

The Proposed Action would provide a positive ecological benefit to the SCFWH. The project complies with this policy.
Figure 2 Significant Coastal Fish and Wildlife Habitat
Policy 11: Buildings and other structures will be sited in the coastal area so as to minimize damage to property and the endangering of human lives caused by flooding and erosion.

The SBPCR Project is an integrated coastal flood risk management project in Lower Manhattan and promotes resiliency in the Project Area. As part of the project, a new Pavilion will be constructed in Wagner Park. This building will be sited on the newly elevated Wagner Park, above the design flood elevation. The purpose of the project is to limit and minimize damage to property caused by flooding and erosion. As a result, the project complies 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.

The SBPCR Project consists of coastal flood protection structures to promote public safety and will be constructed on previously disturbed land in an urban environment lacking natural protective features. The SBPCR Project has been designed to reduce damage from sea level rise and coastal flooding from storm events.

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 and construction standards and/or assured maintenance or replacement programs.

Policy 13 is not applicable to the Proposed Action.
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.

The SBPCR Project has been designed to protect from erosion and flooding within the protected area and prevent any increased potential for erosion or flooding. The project complies with 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.

The SBPCR Project would remove a net total 1.2 cubic yards below Mean High Water (MHW). Also, between the spring high tide line (SHTL) and 10 ft in elevation, the Project would result in the net removal of 555 cubic yards of material. Between the MHW and SHTL the Project would increase the net fill by 3.3 cubic yards within the approximate 0.15-acre Living Shoreline. The SBPCR Project would not significantly interfere with the natural coastal process and would not cause an increase in erosion. The SBPCR Project will obtain all necessary permits associated with dredging or filling activities prior to commencement of work. As a result, the SBPCR Project complies 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.

The SBPCR Project is publicly funded and has been designed to protect human life and property within the protected area against the 100-year storm event, inclusive of increased intensity and frequency of rainfall, coastal surge, and predicted sea level rise. It has also been designed to allow for a higher level of protection once the North/West BPC Resiliency Project is constructed. Therefore, it complies 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.

The SBPCR Project has been designed to reduce damage from sea level rise and coastal flooding from storm events. Flood protection has been arranged as a layered, multi-elevational system extending back from the water’s edge into the park. On the waterside of the flood protection system, there is an existing pedestrian esplanade situated over an existing relieving platform. Along the interior edge of the relieving platform, light-weight flood control features including walkways lined by curbs and seat walls create terraced
planting areas with vegetatively stabilized slopes. Therefore, the SBPCR Project complies with this policy.

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

During construction, to protect the safety of the public, access will be restricted around active construction locations. Following construction, the SBPCR Project will maintain public access to the Battery Park City Esplanade around Wagner Park, Pier A Plaza, and The Battery. The Pier A Inlet area does not have direct public access from the Wagner Park side of the inlet. The proposed Living Shoreline design creates a new viewing platform that would enhance the public connection to the waterfront and the public would be able to view the Living Shoreline from Wagner Park. Therefore, the SBPCR Project complies with this policy.

**Policy 20: Access to the 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.**

See response to Policy 19.

**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.**

The SBPCR Project will not affect current or future development for water-related recreation. The Project will maintain public access to the Battery Park City Esplanade around Wagner Park, Pier A Plaza, and The Battery, and is designed to protect views of scenic resources such as the Hudson River, the Statue of Liberty, and Ellis Island. Additionally, the proposed Living Shoreline design creates a new viewing platform that would enhance the public connection to the waterfront. Therefore, the SBPCR Project complies with 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.**

See response to Policy 21.

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

As part of the review for the Environmental impact Statement, the impacts of the Proposed Action were analyzed in accordance with Section 14.09 on the 28 historic architectural resources in the Historic Architectural Area of Potential Effect (APE).
The Proposed Action would have an Adverse Impact on one resource: Wagner Park. With respect to the remaining 27 resources, the project would result in No Adverse Impact on nine resources, and No Impact on 18 resources. Avoidance, mitigation, and minimization measures are described below.

The Proposed Action would result in No Adverse Impact on two of the nine resources for which avoidance measures are recommended – Pier A and Castle Clinton. With respect to Pier A, it is located less than 90 feet from the Proposed Action, and as a result, it is recommended that a Construction Protection Plan (CPP) be prepared in accordance with Department of Buildings (DOB) and Landmarks Preservation Commission (LPC) guidelines. Regarding Castle Clinton, it is situated within The Battery adjacent to, and approximately 200 feet southeast of the Proposed Action in Pier A Plaza. The CPP recommended for Castle Clinton would ensure that all measures are being undertaken to protect this National Monument from construction that would occur on an adjacent lot.

In addition, the Proposed Action would result in an Adverse Impact on Wagner Park. Section 14.09 requires that adverse impacts to National Register-listed and/or eligible resources caused by implementation of the undertaking be resolved through mitigation. Therefore, it is anticipated that a Letter of Resolution (LOR) would be drafted and executed between BPCA, SHPO, and other consulting parties to mitigate the Adverse Effect. Potential mitigation could possibly include, but not be limited to:

- Historic American Landscape Survey (HALS) Documentation of Wagner Park prior to construction. Documentation would include a physical description, historic overview, statement of significance, project information, high-quality digital or large-format photographs, and reproduction of select original plans and historic photographs.

- Interpretive panels installed at the new Wagner Park; panels could describe the original park, and the reasons why it was deemed an exceptionally significant National Register-eligible resource.

- Website publicized on-site or QR codes that could be activated on-site, and direct user to a history of Wagner Park, and the reasons why it was deemed an exceptionally significant National Register-eligible resource; the content could be similar to the panels.

Additionally in Pier A Plaza, the location of the historic waters’ edge will be indicated by medallion insets that replace the existing linear stone bands that trace the location of the old waters’ edge, thereby maintaining this educational feature.

Ultimately, mitigation recommendations that are agreeable to all parties would be incorporated into the LOR as stipulations.

A Phase IA Archaeological Documentary Study is currently being prepared in compliance with SEQR and CEQR guidelines, pursuant to requests for such a survey by SHPO and LPC. The Phase IA
AECOM

documentary study has concluded that there are two discrete areas of low to moderate and moderate potential archaeological sensitivity across portions of the APE that may be impacted by the completion of the SBPCR Project. As the SBPCR Project lies within highly utilized public spaces, in order to minimize traffic disruptions and closures of public space, preparation of a Phase IB Archaeological Monitoring Plan in consultation with BPCA, SHPO and LPC, is recommended.

With this mitigation and archaeological monitoring plan, the Proposed Action would be consistent with this policy.

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.

The SBPCR Project maintains the visual quality of the New York Coastal area, by maintaining views to the waterfront and improving access to the open space and the waterfront. This is accomplished through a variety of context-sensitive design measures throughout the project design, including minimizing fixed walls, providing universal access, maintaining views of New York Harbor and the Statue of Liberty from the new Pavilion. These design elements have been coordinated with the New York City Public Design Commission. Therefore, the Proposed Action would be consistent with this policy.

Policy 28: Ice management practices shall not interfere with the production of hydroelectric power, damage significant fish and wildlife and their habitats, or increase shoreline erosion or flooding.

Policy 28 is not applicable to the Proposed Action.

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.

Policy 30 is not applicable to the Proposed Action.

Policy 32: Encourage the use of alternative or innovative sanitary waste systems in small communities where the costs of conventional facilities are unreasonably high, given the size of the existing tax base of these communities.

Policy 32 is not applicable to the Proposed Action.

Policy 35: Dredging and filling in coastal waters and disposal of dredged material 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.
During construction, dredging and/or filling in coastal waters is necessary in limited areas due to construction of the living shoreline along the Pier A Inlet. The SBPCR Project will comply with all applicable federal and state laws and regulations regarding water quality, fish and wildlife habitats, wetlands, scenic resources, natural protective features, important agricultural lands, and important coastal resources in order to avoid or minimize potential affects to these resources by the SBPCR Project. The SBPCR Project will obtain all necessary permits associated with dredging or filling activities prior to commencement of work.

The removal of the existing riprap along the shoreline would be conducted by land-based equipment. For the construction of the Living Shoreline, a silt curtain would be placed at or above the elevation of Mean Low Water prior to the start of the construction and would remain in place throughout the shoreline construction period. Therefore, the SBPCR Project complies with this policy.

**Policy 37: Best management practices will be utilized to minimize the non-point discharge of excess nutrients, organics, and eroded soils into coastal waters.**

Erosion and sediment controls will be installed during construction in accordance with the appropriate approved Stormwater Pollution Prevention Plan. Therefore, the SBPCR Project complies 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 38 is not applicable to the Proposed Action.

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

Implementation of the Proposed Action would not increase or cause a redistribution of traffic once the Proposed Action is constructed, nor add new uses near mobile sources. It would not create new mobile sources of pollutants or introduce new uses near existing or planned stationary sources.

The Proposed Action consists of several flood alignment elements: flip-up deployables, glass-topped floodwalls, buried floodwalls, exposed floodwalls, and bermed floodwalls. The flip-up deployables would be powered by the New York City electrical grid system during an emergency as well as for routine maintenance. A series of mobile emergency generators would be brought to the site for backup power in case of grid power failure at the time of deployment. These mobile emergency generators would be tested off site during routine maintenance resulting in no adverse air quality impacts.
The new pavilion building is also considered a stationary source of emissions as it must be climate controlled through HVAC systems. The proposed pavilion design is anticipated to result in a 38 percent Energy Use Intensity (EUI) reduction over a similar baseline building and would include an energy efficient geothermal system. In addition, given the size of the structure, it would not have potential impacts to the nearest residential buildings.

During construction, the SBPCR Project will utilize best available technology (BAT). Since any potential exceedances of the NYC annual PM_{2.5} de minimis criterion would be temporary and predicted to occur at multiple ground floor receptors only during the first 12-month rolling period, the potential air quality impacts would not be significant.

Therefore, the SBPCR Project would result in no significant adverse impacts to air quality and complies with this policy.

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

Chemical precursors to acid rain include emissions of sulfur dioxide (SO2) and nitrogen oxides (NOx) resulting from fossil fuel combustion for which the EIS discussed or quantified for the proposed action. Given the small amount of NOx emissions generated and the local law requirement of using ultra low sulfur fuel, the SBPCR Project would be in compliance with this policy.

Policy 44: Preserve and protect tidal and freshwater wetlands and preserve the benefits derived from these areas. Tidal wetlands include coastal fresh marsh; intertidal marsh; coastal shoals, bars and flats; littoral zone; high marsh or salt meadow; and formerly connected tidal wetlands as delineated on NYSDEC's Tidal Wetlands Inventory Map.

A Wetland Delineation identified that all wetlands onsite are tidal wetlands. There are no vegetated wetlands within and/or immediately adjacent to the Project.

The Project will impact a small portion (435 sq ft) of Littoral Zone tidal wetlands regulated by NYSDEC due to shallow depths. The proposed Living Shoreline design at Pier A Inlet would modify the existing shoreline and improve the area and quality of the tidal wetlands. These habitat enhancements proposed at Pier A Inlet would provide an increase ecological diversity. When completed, the living shoreline would provide an oasis of vegetated and shallow water habitat that is currently devoid on the southern tip of Manhattan. As part of the planned design, within an approximate 180-ft length of area occupied by riprap, the riprap material would be removed and replaced with vegetative plantings and tide pools (Figure 3). Also, within an approximate 1,746 sq ft area, the existing decking, soil and other fill materials would be removed down to the relieving platform and/or pier bents. These surfaces would be covered with an eco-concrete substance to mimic a rocky shoreline and enhance fauna and
flora usage. As an added benefit, approximately 165 sq ft of water would be exposed to direct sunlight, and another 282 sq ft of habitat would be 50 percent daylighted by a metal grated viewing platform.

Photo 1 Looking west at the Pier A inlet - note the unvegetated riprap shoreline of Wagner Park on the right side of the photograph.
Figure 3 Mapped Wetlands
Figure 4 Proposed Shoreline Enhancement
Attachment A

Habitat Impairment Test
Lower Hudson Reach Significant Coastal Fish and Wildlife Habitat

1 Introduction

The SBPCR Project is located within the Lower Hudson Reach Significant Coastal Fish and Wildlife Habitat (SCFWH). The Lower Hudson Reach SCFWH includes the portion of the Hudson River starting from Battery Park at the tip of Manhattan and extending north to Yonkers in the vicinity of Glenwood. This area runs for 19 River miles and includes deepwater, shallows, piers and interpier basins. As per the New York State Department of State's Coastal Fish & Wildlife Habitat Rating Form, the notable ecological and conditions in the SCFWH are the following:

- The entire lower portion of the Hudson River estuary may provide an important habitat in the life history of striped bass by providing a sheltered environment with abundant food sources that are associated with the winter position of the River’s salt front.
- Significant numbers of other finfish species such as yearling winter flounder, summer flounder, white perch, Atlantic tomcod, Atlantic silversides, bay anchovy, hogchokers and American eel occupy this stretch of the River.
- Animals of lower trophic levels such as copepods, rotifers, mysid shrimp and benthic forms such as nematodes, oligochaetes, polychaetes, and amphipods are also present in substantial numbers and provide an important food source.
- The Lower Hudson Reach also provides habitat for several species of wintering waterfowl.

2 Habitat Impairment Test

A habitat impairment test must be met for any activity that is subject to consistency review under Federal and State laws, or under applicable local laws contained in an approved local waterfront revitalization program. If the proposed action is subject to consistency review, then the habitat protection policy applies, whether the proposed action is to occur within or outside the designated area. The specific habitat impairment test that must be met is as follows. In order to protect and preserve a significant habitat, land and water uses or development shall not be undertaken if such actions would:

- **Destroy the habitat** - Habitat destruction is defined as the loss of fish or wildlife use through direct physical alteration, disturbance, or pollution of a designated area or through the indirect effects of these actions on a designated area. Habitat destruction may be indicated by changes in vegetation, substrate, or hydrology, or increases in runoff, erosion, sedimentation, or pollutants; or,
- **Significantly impair the viability of a habitat** - Significant impairment is defined as reduction in vital resources (e.g., food, shelter, living space) or change in environmental conditions (e.g., temperature, substrate, salinity) beyond the tolerance range of an organism. Indicators of a significantly impaired habitat focus on ecological alterations and may include but are not limited to reduced carrying capacity, changes in community structure (food chain relationships, species diversity), reduced productivity and/or increased incidence of disease and mortality.

### 2.1 Impact Assessment

As per the NYSDOS' Coastal Fish & Wildlife Habitat Rating Form for the Lower Hudson Reach SCFWH, examples of generic activities and impacts which could destroy or significantly impair the habitat are listed below to assist in applying the habitat impairment test to a proposed activity.

1. Any activity that would degrade water quality in the Lower Hudson Reach and would adversely affect habitat values for fish and wildlife using the area. Many species of fish and wildlife would be adversely affected by water pollution through chemical or toxic contamination (including food chain effects), oil spills, excessive turbidity or sedimentation, and waste disposal.

2. Transient habitat disturbances, such as those resulting from dredging or in-River construction activities, could result in significant impairment of the habitat value for striped bass, particularly as an overwintering area between mid-November and mid-April. Dredging can only be conducted during the identified overwintering period under the following circumstances. Documentation must be provided which demonstrates that the dredging can only be scheduled during the overwintering period. Documentation should include an analysis of alternatives that could allow dredging to occur during less sensitive periods. In cases where alternatives to dredging during the overwintering period are not available, both spatial and temporal methods aimed at reducing potential impacts shall be used and cumulative impacts should be evaluated.

3. Large scale non-consumptive use of water may disrupt salinity gradients both by removing significant quantities of freshwater from the Hudson or its watershed and, following use of the water, discharging it in a higher salinity environment. Adverse impacts on the River’s resources from large scale non-consumptive uses would be greatest during summer drought conditions.

4. Installation and operation of water intakes could also have significant impacts on fish populations in the area through impingement of juveniles and adults, or entrainment of eggs and larval stages.

5. Continued efforts should be made to improve water quality in the Lower Hudson Reach and include upgrading and control of sewage discharges, other point sources, and nonpoint source pollution.

6. Major structural alteration to the habitat through dredging, filling or platforming on dense piles could cause significant impairment of the habitat. Recent research suggests that little difference exists in habitat values or use between underperier areas and interperier basins. No information exists, however, that adequately demonstrates the relationship among the River’s physical environment, existing shoreline and inwater structures, seasonal salinity regimes, and the resultant habitat values. Absent
an adequate understanding of the function of this habitat, significant impairment of the habitat could result if major structural alterations occur.

Many of the actions identified above would not apply as the SBPCR Project does not include large scale water use, surface water intakes, activities that would impact salinity, or major structural habitat alterations. Although located within SCFWH, the in-water work would only impact 432 square feet (0.011 acres) of habitat below MHW, is temporary (12 to 14 months), would extend no further than the low tide line, and would be constructed in an area protected by silt curtains. The removal of the relieving platform will be conducted concurrently with the removal of the riprap from the shoreline using land-based equipment. The material removed will be placed into dump trucks and taken to a suitable upland location. The SBPCR Project would result in a net increase in habitat as a total of 340 cubic yards of material would be removed from below the MHW and intertidal habitats will be converted to more ecologically productive habitats (e.g., salt marsh plantings, etc.). The new viewing platform would be erected on existing piers and bents so there will be no need to drive additional piles and the concrete eco fascia would be secured to the existing piers and bents using clips and bolts.

2.2 Striped Bass and other Finfish Species

As only 435 sq ft of low quality intertidal habitat of steeply sloped riprap will be affected and most of the work performed in the upper half of the tidal range, the Project would have no effect on habitat, species, or their prey. Additionally, during construction, a silt curtain will be placed landward of the low tide line and hay bales and other containment devices would be placed along the limit of disturbance to prevent sedimentation. The riprap slope is of limited biological productivity and the placement of a Living Shoreline would result in net ecological benefit for these fish species.

2.3 Aquatic Invertebrates

Aquatic invertebrates would benefit from the shoreline restoration. As part of the planned restoration, intertidal and supratidal vegetative plantings would be placed in the area of existing riprap and tide pools would be constructed, enhancing the habitat quality of the area. Any temporary habitat disturbances and minor losses of benthic habitat would be offset with the positive long-term habitat improvements in the Project Area.

2.4 Overwintering Waterfowl

The enhancement of the shoreline will create more higher quality, more productive habitat that wintering waterfowl may use for swimming, foraging, and loafing. As such, the SBPCR Project will have ecological benefits for overwintering waterfowl.
ATTACHMENT F

NEW YORK STATE OFFICE OF GENERAL SERVICES CONSULTATION
Dear Sir or Madam,

AECOM is seeking your assistance to identify the owner of undersea lands located at Pier A of Battery Park, Manhattan. The property is Block 16/Lot 1 but we are specifically interested in the inlet on the north side of the pier, and whether this underwater land is State-owned or not. Please see the pinned location on either the attached GoogleEarth kmz file or the screenshot in Word. Please contact me with any questions.

Jim Alderson
AECOM
732-573-8147

---- Original Message ----
From: Rollino, John <John.Rollino@aecom.com>
Sent: Monday, February 1, 2021 3:55 PM
To: Alderson, James <James.Alderson@aecom.com>
Subject: Google Earth Placemark: Pier A Inlet.kmz

See location, south battery park, Manhattan, Pier A

Google Earth streams the world over wired and wireless networks enabling users to virtually go anywhere on the planet and see places in photographic detail. This is not like any map you have ever seen. This is a 3D model of the real world, based on real satellite images combined with maps, guides to restaurants, hotels, entertainment, businesses and more. You can zoom from space to street level instantly and then pan or jump from place to place, city to city, even country to country.

Get Google Earth. Put the world in perspective.

(http://earth.google.com)
Hello,
It appears that the location of your request is within the 1871 lands conveyed to the City of New York.

Ralph W. Hill, PLS
Real Estate Officer 1
Office of General Services | State Asset & Land Management 39th Floor, Corning Tower, ESP, Albany, NY 12242 p. (518) 474-2195 | c. (518)-937-8497 | ralph.hill@ogs.ny.gov https://urldefense.proofpoint.com/v2/url?u=http-3A_www.ogs.ny.gov&d=DwlF3g&c=TQzoP61-bYDBLzNd0XmHnw&r=GCZXP9KoSPqRO38Ufn00E6K3ALV8tDq5vqBbWAlul&m=ssruUVdbOssbatWsvclqF2-Ueus1WFNSZUWGT_s1gIU&s=n5TjOCu0G0j5CyGqH6KsNRctTVg5ClGE-YWcz4N_8&e=

-----Original Message-----
From: Alderson, James <James.Alderson@ae.com>
Sent: Monday, February 1, 2021 4:35 PM
To: OGS.sm.Land Under Water <OGS.sm.LandUnderWater@ogs.ny.gov>
Cc: Rollino, John <John.Rollino@ae.com>
Subject: Google Earth Placemark: Pier A Inlet.kmz

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Dear Sir or Madam,

AECOM is seeking your assistance to identify the owner of undersea lands located at Pier A of Battery Park, Manhattan. The property is Block 16/Lot 1 but we are specifically interested in the inlet on the north side of the pier, and whether this underwater land is State-owned or not. Please see the pinned location on either the attached GoogleEarth kmz file or the screenshot in Word. Please contact me with any questions.

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Get Google Earth. Put the world in perspective.

(https://urldefense.proofpoint.com/v2/url?u=https-3A_protect2,fireeye.com_v1_url-3Fk-3D3D336a98c2-2D6cf1a185-2D336861f7-2D000babad9fa3f-2D3a987bac0a4df071-26q-3D1-26e-3Da20d182d-2Dd052-2D4f30-2Dbc92-2D1fccc379eace-26u-3Dhttp-253A-252F-252Fearth.google.com-252F&d=DwlF3g&c=TQzoP5L-bYDBLzNd0XmHrw&r=GC2ZXpGko5PqRO38Ufn00EWKoALy8tDgK5vqBbWAuI&m=ssruUVdb0ssbatWsylqF2-Ueus1WfN5ZUWGT_s1giU&s=Jl3vIDoIJs9jaGmbdzxDSywP0v7oITB5NXsY_zig&e=)
ATTACHMENT G

PERMISSION TO INSPECT PROPERTY FORM
By signing this permission form for submission with an application for a permit(s) to the Department of Environmental Conservation ("DEC"), the signer consents to inspection by DEC staff of the project site or facility for which a permit is sought and, to the extent necessary, areas adjacent to the project site or facility. This consent allows DEC staff to enter upon and pass through such property in order to inspect the project site or facility, without prior notice, between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday. If DEC staff should wish to conduct an inspection at any other times, DEC staff will so notify the applicant and will obtain a separate consent for such an inspection.

Inspections may take place as part of the application review prior to a decision to grant or deny the permit(s) sought. By signing this consent form, the signer agrees that this consent remains in effect as long as the application is pending, and is effective regardless of whether the signer, applicant or an agent is present at the time of the inspection. In the event that the project site or facility is posted with any form of "posted" or "keep out" notices, or fenced in with an unlocked gate, this permission authorizes DEC staff to disregard such notices or unlocked gates at the time of inspection.

The signer further agrees that during an inspection, DEC staff may, among other things, take measurements, may analyze physical characteristics of the site including, but not limited to, soils and vegetation (taking samples for analysis), and may make drawings and take photographs.

Failure to grant consent for an inspection is grounds for, and may result in, denial of the permit(s) sought by the application.

Permission is granted for inspection of property located at the following address(es):

Pier A Inlet Living Shoreline, Wagner Park, New York

By signing this form, I affirm under penalty of perjury that I am authorized to give consent to entry by DEC staff as described above. I understand that false statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.*

Gwen Dawson VP of Real Prop.                      3/30/22

Print Name and Title                                Signature                                Date

*The signer of this form must be an individual or authorized representative of a legal entity that:
- owns fee title and is in possession of the property identified above;
- maintains possessory interest in the property through a lease, rental agreement or other legally binding agreement; or
- is provided permission to act on behalf of an individual or legal entity possessing fee title or other possessory interest in the property for the purpose of consenting to inspection of such property.
July 15, 2022

New York State Department of Environmental Conservation
Attn: Lisa E. Horwitz (Permits, Region 2)
1 Hunter's Point Plaza
47-40 21st Street
Long Island City, NY 11101-5407

Re: Application ID: 2-6206-01420/00015 Notice of Incomplete Application (NOIA)
Permit Application for proposed changes to Pier A Inlet of South Battery Park, Manhattan

AECOM, on behalf of the Battery Park City Authority (BPCA), has prepared the enclosed materials in response to the NOIA received on June 6, 2022, for the application submitted for proposed changes to the Pier A Inlet, which includes placement of a living shoreline, being undertaken as part of a larger-scale South Battery Park City Resiliency (SBPCR) Project, currently being developed near Pier A Inlet.

The amount of total fill has increased due to the need for additional structural bracing and the placement of additional EcoVeneers and reconfigured tide pools and intertidal planters. The EcoVeneers are largely located along the vertical faces of planting terraces and along the bulkhead wall that forms the eastern boundary of the Pier A inlet. The additional new fill occurs throughout project 200 ft-long project area, the increase in fill would serve as an enhancement to the local ecosystem.

Please find requested information below and enclosed:

COMMENT 1:

Precast Caps:
The Terrace Sections of Sheet Number PP003 show that the intertidal marsh planting area will include 6-inch perforated precast caps.

1. Please explain the purpose and need for the caps.
2. Please provide a plan view detail of the 6-inch perforated precast caps.

RESPONSE: The purpose for the perforated precast caps on the planters is to mitigate planting soil erosion from tidal action. A plan view detail is provided on Exhibit A (PP006 Section 1 Pier A Inlet - EcoConcrete Block Plan A).

COMMENT 2:

EcoVeneers:
The project materials state that EcoVeneers would encapsulate the relieving platform pile's bent structures between elevation -1 and 2.5ft.

1. Please indicate if this EcoVeneers are included in the net fill total. If not, please revise the fill calculations accordingly.
2. Please provide detail drawings of the proposed EcoVeneers on the pile bents and fascia.
RESPONSE: Based on refined calculations of the proposed design at Pier A Inlet, there is a resulting infill equal to approximately 21.9 CY below the Mean High Water (MHW) and 7.6 CY between MHW and the Mean High Water Spring (MHWS) line (Table 1 below).

This is due to the following:

a) An additional structural strut beam as required through the design development process in the platform area;

b) Further refinements of the total sizes and quantities of the EcoConcrete/veneer elements at the platform pile caps, terraced planter units, and the eastern Pier A bulkhead wall;

c) Further refinements of the proposed concrete tide pool sizes.

Detailed drawings of the proposed EcoVeneers on the pile bents and fascia is provided on Exhibit A PP008. Table 1 identifies the total increase in net fill below MHW and between MHW and the MHWS elevation.

Table 1 – Cut and Fill Calculations Proposed Inlet Work

<table>
<thead>
<tr>
<th>ELEVATION</th>
<th>REMOVAL (cubic feet)</th>
<th>FILL (cubic feet)</th>
<th>NET DIFFERENCE (cubic yards)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between MHWS and MHW</td>
<td>1,140</td>
<td>1,344</td>
<td>7.6 CY</td>
</tr>
<tr>
<td>Below MHW (EL +1.96' NAVD 88)</td>
<td>6,965</td>
<td>7,558</td>
<td>21.9 CY</td>
</tr>
</tbody>
</table>

COMMENT 3:

More Information on Plans:
1. Please provide a proposed planting plan and/or a proposed species list for the terrace planting zones.
2. Please provide existing and proposed cross sections of the western project limits (including, but not limited to, the proposed observation platform, open water areas, and coastal upland plantings) that are comparable to the proposed Terrace Sections of Sheet Number PP003.
3. Sheet Number PP002 contains a blurry table that may be Table 1 from the Permit Information Packet. Please revise the drawing to include a clearly legible version of the table.
4. Please provide detail drawings of the tide pools.

RESPONSES:

1. Please see Exhibit A PP003 planting plan. The Living Shoreline plantings are segregated into four habitats based on elevation. These elevations correspond to the terraces to be constructed.

   - Elevation 7-8ft+ (Coastal Upland Plantings) planted with a variety of upland species.
   - Elevation 5 ft (Coastal Shoreline Plantings) generally planted with shrubs common to higher elevations of a tidal marsh (e.g., Iva frutescens, Baccharis halimifolia)
   - Elevation 3 ft – (Intertidal/High Marsh) –planted with Distichlis spicata.
- Elevation 2.5 ft – (Intertidal/Rocky Shoreline), areas of higher elevation ~2-2.5 ft are planted with *Spartina patens*.

2. Please see Exhibit A PP004 and PP005 for western relieving platform cross section.

3. Please see Exhibit A PP002 for revised table.

4. Please see Exhibit A PP006 EcoConcrete Block for tide pool details.

**COMMENT 4:**

*Permit Fee: Please provide a check or money order made out to NYSDEC in the amount of $900 in accordance with the fee schedule: https://www.dec.ny.gov/permits/65153.html. When mailing the permit fee, please be sure to reference the permit ID (i.e., include the resubmission slip) and address the mail to my attention.*

**RESPONSE:** In our April 21, 2022, submission, we enclosed payment (Valley National Bank - Check # 1517597) along with paper copies of the permit application and project drawings. We request NYSDEC reinspect the package for the check. If it is not included, we would happily include a replacement check.

**COMMENT 5:**

*SEQR/CEQR: The application package indicates that a DEIS is in the process of being prepared. Please provide the CEQR reference number and a copy of the completed DEIS that covers the proposed action.*

**RESPONSE:** The CEQR reference number for SBPCR Project is as follows: CEQR # 21BPC001M. Please see copy of the completed DEIS as Exhibit B.

Should you have any further questions, please do not hesitate to contact me at the address below or at 212-896-0210.

Sincerely,

**Kristen A. Capaldi**

Kristen A. Capaldi, P.E., PMP
AECOM
605 Third Avenue
New York, NY 10158

Enclosures:

Exhibit A Revised Permit Drawings
Exhibit B SBPCR Project DEIS
SOUTH BATTERY PARK CITY
RESILIENCY DESIGN SERVICES
HUGH L. CAREY
BATTERY PARK CITY AUTHORITY
PRELIMINARY NOT FOR CONSTRUCTION
CONTRACT 18-2586
JULY 15, 2022
PERMIT PLAN DRAWINGS
FOR PIER A INLET LIVING SHORELINE
DRAWING INDEX

PERMIT PLANS
1. PP-001 COVER SHEET, DRAWING INDEX, VICINITY MAP, AND LOCATION PLAN
2. PP-002 EXISTING CONDITIONS PLAN
3. PP-003 PROPOSED CONDITIONS PLAN
4. PP-004 PIER A PLANTING PLAN
5. PP-004 PIER A INLET TERRACE SECTIONS
6. PP-005 ELEVATION - PIER A PLATFORM VENIER
7. PP-006 DETAILS - PIER A RULLET

LOCATION PLAN
TOTAL SITE PLAN

VICINITY MAP
ORIGIN ID: JPJA
JOHN ROLLINO
AECOM
1255 BROAD ST
SUITE 201
CLIFTON, NJ 07013
UNITED STATES US

SHIP DATE: 29JUL22
ACTWTG: 3.00 LB
CAD: 252267248/INET4490

BILL SENDER

TO NYS DEPT OF STATE
OFF OF COASTAL, LOCAL GVRNMNT & COMM
ONE COMMERCE PLAZA
99 WASHINGTON AVE, STE 1010
ALBANY NY 12231

(518) 474-6000
INV: REF: 605406712B

MON - 01 AUG 4:30P
STANDARD OVERNIGHT

TRK# 7775 2319 7732

K7 ALBA
12231 NY-US ALB