NEW YORK CITY WATERFRONT REVITALIZATION PROGRAM (WRP)
CONSISTENCY ASSESSMENT FORM - WRP POLICY QUESTIONS – RESPONSES

For those policies checked Promote or Hinder, on the Consistency Assessment Form, responses are provided below.

WRP POLICY QUESTIONS – RESPONSES

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

The project will create long-term benefits that will improve the area's aesthetics, recreation, and public access with the creation of new natural habitat and public access points; therefore, the project is consistent with this policy.

WRP Policy 3.1: *Support and encourage in-water recreational activities in suitable locations.*

Two (2) public access points are proposed along the northeast bank of the river; therefore, the project is consistent with this policy.

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

The project goals include improving fish, shellfish and benthic habitat, sediment/nutrient load reduction, and habitat connectivity. Therefore, the project is consistent with this policy.

WRP Policy 4.4: *Identify, remediate, and restore ecological functions within the Recognized Ecological Complexes.*

The Bronx Zoo and Dam fish ladder is a critical component of fish passage projects along the Bronx River that will complement upstream fish ladder projects to expand fish passage and provide additional upstream habitat for anadromous fish and restore ecological function of the river; therefore, the project is consistent with this policy.

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

The project includes the creation of 0.54 acres of emergent wetlands along both banks upstream of the dams, and along the west bank downstream of the dam. Created wetlands will provide beneficial wildlife habitat and increase native biodiversity in the area; therefore, the project is consistent with this policy.

WRP 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 Bronx Zoo and Dam site is extremely disturbed by anthropogenic impacts with limited or disturbed natural areas. The site is generally flat and impacted by roadways, parking lots, and other facilities associated with the Bronx Zoo. The river is impeded by a dam system. Upstream of the dam, wetlands are very limited and consist of small discontinuous pockets. Upstream of the dam, the uplands consist of lawns and a thin wooded strip along the shoreline. Overall, the project site has low ecological value and provides limited habitat for fish and wildlife. The proposed restoration measures include invasive species and debris removal, wetland creation, sediment load reduction, fish ladder installation and installation of public access points. The Evaluation of Planned Wetlands assessment method was used to characterize the functional capacity of the project site. The assessment results estimated the current resource value and the potential increase in resource value for each alternative restoration plan proposed. Current

vegetative communities, tidal patterns, and human use patterns were observed, documented, and incorporated into an analysis of the existing site and in the selection for the most economically and ecological beneficial design plan. The project is consistent with this policy.

WRP 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.*

All appropriate federal and state agencies were consulted regarding the documentation of rare, threatened, and endangered species in the project area. Restoration plans have been carefully mapped to avoid areas where listed species were found during previous surveys. A final survey of the restoration site will be performed to ensure that damage to rare plants will be avoided. If protected species are found on site, further protective measures will be considered including but not limited to protection from construction by fencing, or transplanting if the plants are in an unavoidable impact area. Handling of protected species will be coordinated with the New York Natural Heritage Program and New York State Department of Environmental Conservation. Avian species are not expected to be impacted due to their mobile nature. It is expected that listed bird species will fly to another nearby site to forage during construction and planting. Restoration activities in the long term will benefit threatened and endangered species by producing localized environmental enhancements, including improving water quality and creating and restoring habitat, which support an increase in local and regional biodiversity; therefore, the project is consistent with this policy.

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

With the installation of a fish ladder, the project will improve fish connectivity and increase access for anadromous fish species up the Bronx River. Wetland creation, debris removal and native plantings will also provide shade and shallow water habitat for aquatic resources; therefore, the project is consistent with this policy.

WRP Policy 5: *Protect and improve water quality in the New York City coastal area.*

To minimize impacts to surface water and water quality during construction, erosion and sediment control measure will be employed. These may include temporary construction of a cofferdam, employing silt curtains, and re-stabilization soils. These best management practices (BMPs) for soil and sediment control will be prepared before any construction commences. With wetland creation and habitat enhancement, restored vegetative communities will provide a reduction in nutrient inputs into surface water bodies. Restoration work proposed would result in fewer low dissolved oxygen events, increased water transparency, and a reduction in frequency and duration of algal blooms. Therefore, the project is consistent with this policy.

WRP Policy 5.1: *Manage direct or indirect discharges to waterbodies.*

See Policy 5 above.

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

Standard construction stormwater BMPs will be implemented to protect water quality of surrounding water resources. The following BMPs will be used:

- Minimize area of ground disturbance and vegetation clearing.
- Use the site's natural contours to minimize run-off and erosion.
- Do not expose the entire site at one time; avoid bare soils during rainy months.
- Stabilize erodible surfaces with mulch, compost, seeding, or sod.
- Use features such as silt fences, gravel filter berms, silt dikes, check dams, and gravel bags for interception and dissipation of turbid runoff water.

- Use silt or turbidity curtains during in-water construction to contain and control dissolved sediments.
- Use wetland mats for construction access within wetland areas to prevent soil compaction.
- Use vehicles with high flotation tires within wetland areas to prevent rutting and soil compaction.
- Complete in-water work during periods of low tide.
- Install cofferdams or stream diversions to isolate in-water construction areas.
- Use stabilized construction entrances for all ingress and egress points.

The project is consistent with this policy.

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

The project will carefully evaluate construction to prevent or minimize adverse impacts such as soil erosion and sediment alteration. For example, work can be accomplished during low tidal periods or in areas temporarily disconnected from tidal waters. In addition, all appropriate BMPs for soil erosion and sediment control, including use of an environmental bucket to perform mechanical dredging, silt fencing, turbidity curtains, and hay bales, will be used. The project is consistent with this policy.

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

As stated in Policy 5.2, BMPs for soil erosion and sediment control will be implemented at the site to protect water quality; therefore, the project is consistent with this policy.

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

Multiple restoration alternatives were proposed for the project site and then evaluated through a Cost Effectiveness Analysis/Incremental Cost Analysis. The alternative selected will include the most cost-effective and ecologically effective restoration option for the site. Restoration measures at the site, including wetland creation, will contribute to the overall resolution of water resource problems within the area; therefore, the project is consistent with this policy.

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.*

The creation of wetlands on the project site can function as retention basins acting as flood prevention measures; therefore, the project is consistent with this policy.

WRP 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.*

As stated in Policy 6, the project includes the creation of wetlands, which function as retention basins and act as flood protection measures; therefore, the project is consistent with this policy.

WRP 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.*

Consistent with United States Army Corps of Engineers (USACE) guidance, as alternatives are refined, and a particular alternative is identified, the selection of the preferred plan will consider the sensitivity of the alternative plan to varying projections of sea level rise (SLR). Consideration will also be given to alternatives that perform well and are adaptable to a range of SLR projections. The 2015 report prepared by the New York City Panel on Climate Change presents SLR projections that take into account the

predicted ranges of both global climate change and local land subsidence. The central ranges of these projections are sea level increases in New York City of four (4) to eight (8) inches by the 2020s, 11 to 21 inches by the 2050s, and 18 to 39 inches by the 2080s.

Results from implementing the tentatively selected plan at this site involve the restoration of terrestrial habitat and creation of aquatic plant communities, which will promote primary productivity and increase removal of carbon dioxide from the atmosphere. The project will also result in improved water quality and clarity, which will promote increased photosynthesis and carbon capture from aquatic vascular plants and phytoplankton. The creation and restoration of terrestrial habitat could also lead to minor alterations in microclimates. Biological and physical processes such as transpiration, evaporation, convection, and shading will mediate temperature and humidity within these microhabitats. Therefore, the project is 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.*

The Bronx River watershed has been impacted by commercial, industrial and residential activities so the potential for existing environmental contamination on the site exists. Prior to construction, testing will be conducted to determine any contamination on site. It is expected that testing will define areas that may include contaminated soils or solid wastes that would need to be excavated and transported to an existing upland facility for processing. It will also verify soils that can be reused on site for landscaping and possible capping of contaminated areas and solid wastes that do not need to be removed. Overall, the proposed project is expected to result in a positive impact, in that it will effectively remove or cap contaminated soils. It is therefore determined that the project is consistent with this policy.

WRP Policy 7.1: *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.*

As stated in Policy 7, testing will be conducted prior to construction to determine the presence of contamination at the site and the nature of the soil/sediment removal and placement. If the nature of the removed material is non-hazardous, it can be retained on site. If the nature of the excavated material is found to be hazardous, the material will be treated and disposed of at a facility approved to accept hazardous material. The project is consistent with this policy.

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

Bronx River Park offers recreational opportunities including walking, viewing opportunities, and recreational boating. The park is best known as the home of the Bronx Zoo and New York Botanical Gardens. Bronx Park has many recreational areas including playgrounds, bicycle paths, baseball diamonds, tennis and basketball courts, and football and soccer fields. During construction, viewsheds and recreational access may be temporarily restricted. However, the proposed action will have positive impacts to the recreational and educational features of this site by creating a much more diverse landscape with enhanced wildlife habitat and viewing opportunities and improvement of public access to natural resources. Restoration activities will not modify public access and any trails that were temporarily disturbed will be reestablished after construction. Therefore, the project is consistent with this policy.

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

See Policy 8 above.

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

Two (2) public access points will be installed on the northeast bank of the river. The location of these public access points will be easily accessible from the parking area to the east. The project is consistent with this policy.

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

See Policy 8 above.

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

One of the planning goals for this project includes "improving public education opportunities through the watershed to promote public ownership of restoration"; therefore, the project is consistent with this policy.

WRP Policy 8.6: *Design waterfront public spaces to encourage the waterfront's identify and encourage stewardship.*

See Policy 8 above.

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

During construction there will be temporary adverse impacts to aesthetics, recreation, and public access. Example of impacts include viewsheds under construction and temporary restrictions to recreational areas. However, in the long-term, beneficial impacts to aesthetics, recreation and public access are anticipated from restoration measures. The project will create new natural habitat or enhance existing habitat, and this will enhance the aesthetic of the project sight. Implementation of public access to natural resources will allow for increased recreational opportunities including fishing, boating, and hiking. Therefore, the project is consistent with and furthers the goals of this policy.

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

See Policy 9 above.

WRP Policy 9.2: *Protect and enhance scenic values associated with natural resources.*

See Policy 9 above.

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

A Cultural Resources Baseline Study has been completed to identify potentially significant cultural resources in the project area. The restoration area will not affect any known prehistoric sites. Twenty-four (24) historic resources have been identified within one (1) mile of the project area. Further testing will be conducted in the Plans and Specifications Phase of the project and will be completed prior to construction. The USACE will consult with the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) to develop plans to complete identification and evaluation of historic resources found within the project area. Appropriate treatment plans for historic resources that may be affected will be developed with input from the NYSOPRHP. Therefore, the project is consistent with this policy.

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

See Policy 10 above.

WRP Policy 10.2: *Protect and preserve archaeological resources and artifacts.*

See Policy 10 above.