



**US Army Corps
of Engineers®**
New York District

Passaic River, New Jersey
Passaic River Tidal General Reevaluation Report
Lower Passaic River, New Jersey

Appendix A
Federal Consistency Assessment

January 2019

APPENDIX A

New Jersey Coastal Zone Management Evaluation

1. INTRODUCTION

1.1 Authority and Purpose of New Jersey Coastal Zone Management

The Coastal Zone Management Act (CZMA) of 1972 (16 U.S.C. §§1451-1464) was enacted by Congress in an effort to balance the often competing demands of growth and development with the protection of coastal resources. Its stated purpose is to "...preserve, protect, and develop where possible, to restore or enhance the resources of the nation's coastal zone..." The Act established the framework for achieving this balance by encouraging the states to develop coastal zone management programs, consistent with minimum federal standards, designed to regulate land use activities that could impact coastal resources. The Coastal Zone Act Reauthorization Act Amendments of 1990 further strengthened the act by requiring the state programs to focus more on controlling land use activities and the cumulative effects of activities within designated coastal zones.

The State of New Jersey administers its federally approved coastal zone program through the Department of Environmental Protection (NJDEP), Division of Coastal Resources (NJDCR). Pursuant to the federal CZMA, New Jersey has defined its coastal zone boundaries and developed policies to be utilized to evaluate projects within the designated coastal zone, as set forth in New Jersey's Coastal Zone Management Rules (last amended on July 17, 2017). These rules provide the authority for issuance of permits under the three components of New Jersey's coastal zone as defined in the Waterfront Development Law (N.J.S.A. 12:5-3), Tidal Wetland Act of 1970 (N.J.S.A. 13:9A), and the Coastal Area Facility Review Act or CAFRA (N.J.S.A. 13:19). Regulated areas include tidal waterways and adjoining uplands, tidal wetlands and defined coastal communities. With a few exceptions, all construction, excavation and grading within the coastal zone requires a permit from the NJDEP. New Jersey's Coastal Zone Management Rules are employed by the State's Land Use Regulation Program in the review of permit applications and coastal decision making. They define policies that address issues of location, use, and resources and provide for a balance between economic development and coastal resource protection, recognizing that coastal management involves explicit consideration of a broad range of concerns, in contrast to other resource management programs that have a more limited scope of concern.

New Jersey's coastal policies designate Special Areas, or types of coastal areas that merit focused attention and special management rules, to regulate the use of and development in the coastal zone. Additionally, the Coastal Zone Management (CZM) rules regulate beach and dune activities, intertidal and subtidal shallows mitigation, standards for conducting and reporting Endangered or threatened species and/or habitat assessments, general water areas, impervious and vegetative cover in waterfront development areas, and other land and natural resource uses within the coastal zone.

1.2 Project Description

The Recommended Plan would be designed to perform to an elevation of 14 feet NAVD88. The seven segments total a length of approximately 4,850 linear feet (lf) and includes eight closure gates and three 36-inch culverts:

Segment 1: 170 linear feet (LF) of floodwall with one closure gate: a 140 LF gate across the intersection of Frelinghuysen Avenue and East Peddie Street. The gate would be approximately 4.0 feet high above ground. The floodwall height above ground would range from approximately 2.6 to 4.0 feet and tie into the adjacent railroad embankment.

Segment 2:

Segment 2a (western part of Segment 2): 1,990 LF of floodwall located between the main rail line to Newark Penn Station and the southern tie-off of the alignment. Segment 2A ties into the railroad embankments on each end of the wall. The Segment 2A alignment accommodates the proposed PATH railway extension from Newark Penn Station to the Newark Liberty Airport transit hub. Relocation of the Poinier Street ramp to McCarter Highway is planned to accommodate the PATH extension.

Segment 2B (eastern part of Segment 2): 1,450 LF of floodwall from the tie-in at the NJ Transit/Amtrak railroad to the southern alignment tie-in. This segment includes a gate at New Jersey Railroad (NJRR) Avenue and the southern rail line, and an additional gate north of the rail line for stormwater drainage during extreme rainfall events. Floodwall and gate height above ground along this segment would vary from 4.8 to 8.2 feet.

Segment 3: 135 LF of levee with three 36-inch culverts, headwalls, sluice gates, and backflow prevention devices. The levee crosses an unnamed tidal drainage ditch just east of the New Jersey Turnpike. The levee height above ground of this segment will

be a maximum of approximately 9.4 feet.

Segment 4: 190 LF of floodwall across Delancy Street just east of the New Jersey Turnpike. The closure gate across Delancy Street would be approximately 70 LF and the floodwall height would range from approximately 4.1 to 4.8 feet. This segment ties into the New Jersey Turnpike.

Segment 5: 240 LF of floodwall across Wilson Avenue just east of the New Jersey Turnpike. The closure gate across Wilson Avenue would be approximately 85 LF and the floodwall height would range from approximately 3.1 to 3.2 feet above ground. This segment ties into the New Jersey Turnpike.

Segment 6: 330 LF of floodwall along Edison Place and NJRR Avenue, and crossing NJRR Avenue to tie into the railroad embankment. The closure gate across NJRR Avenue would be approximately 30 LF. A closure gate was proposed along Edison Place at the Edison ParkFast. The height of the floodwall would range from approximately 0.9 to 3.1 feet above ground.

Segment 8: 150 LF of floodwall along the side of the off ramp from Raymond Boulevard to Jackson Street. This segment borders the sidewalk adjacent to Riverfront Park and would have a height ranging from approximately 1.3 to 3.4 feet above ground.

Features incorporated by NJDEP into the design of the newly created Joseph G. Minish Passaic River Waterfront Park would complete the level of protection afforded by the Proposed Action. The features in the park consist of a short length of floodwall along Raymond Boulevard, west of Jackson Street with heights ranging from approximately 1.3 to 3.4 feet, and regraded berms to an elevation of 14 feet NAVD. These park features are separate and complimentary actions and are not considered part of the Proposed Action. Had it not been included in the separate NJDEP project this feature would have been Segment 7.

The locations and elements associated with each segment are illustrated in the Environmental Assessment in Figure 2-1, Figure 2-2 and Figure 2-3 for Segments 1 and 2, Segments 3, 4 and 5, and Segments 6 and 8, respectively. Elements include the floodwalls, closure gates, a tide gate, a levee, and construction easements associated with the segments that make up the Proposed Action. When in the open position, the roadway closure gates would be wide enough to accommodate normal vehicular traffic as well as pedestrian passage along the sidewalks. A 15-foot wide temporary construction easement would be required around all segments. The typical ground

elevation is between 6 and 10 feet NAVD. For areas with a wall height of 6 feet or less the wall, a concrete I-wall would be constructed. This applies to Segments 1, 4, 5, 6 and 8. Segments 2 and 3 would require wall heights greater than 6 feet; a pile supported, concrete T-wall would be constructed in these locations; at Segment 3, the T-wall will be incorporated within an earthen levee. The interior drainage design is in progress; therefore, locations of structures associated with drainage, if any, have not yet been identified. The interior drainage will be designed so as not to induce fluvial flooding or interfere with sewer function.

The Proposed Action would require 47 properties totaling two acres within the City of Newark. Approximately one acre would be permanent easements and approximately one acre would be temporary easements. Additional real estate that may be required for interior drainage features, such as pump stations, will be determined as the design of that aspect of the project advances. The property class distribution and number of parcels per class is as follows: vacant land (2); public property (4); other exempt properties (8); commercial (6); industrial (3); class I railroad (16); class II railroad (8).

1.2.1 Background/Project History

A study of water resource issues in the Passaic River watershed was first authorized by the Flood Control Act of 1936. Reports recommending plans of action were issued in 1939, 1948, 1962, 1969, 1972, and 1973. In October 1976, Congress authorized the Passaic River Basin Study. After a series of investigations, a General Design Memorandum (GDM) was finalized in 1987. It recommended a plan that included a tunnel diversion; channel modification of the Passaic River; and tidal levees/floodwalls in Newark, Kearney and Harrison, New Jersey (Figure 1).

Construction for the Passaic Main Stem Project was authorized by the Water Resources Development Act (WRDA) of 1990. A 1995 GDM recommended modifications to the authorized project due to a change in study area conditions. Soon after, the State of New Jersey withdrew support for the project due to objections over the tunnel feature.

Renewed interest in the project was given by the newly-formed New Jersey State Passaic River Basin Flood Advisory Commission in February 2010. The commission recommended reevaluation of the study in March 2011. In June 2012, a feasibility cost sharing agreement was executed between the U.S. Army Corps of Engineers (USACE) and NJDEP for a reinvestigation of the project.

The study was underway when Hurricane Sandy severely inundated the region in

October 2012. The “Tidal Protection Area” of the original Passaic Main Stem Project – this current study – was include in the Second Interim Report to Congress in response to P.L. 113-2, listing it as eligible to be managed as its own separate project.

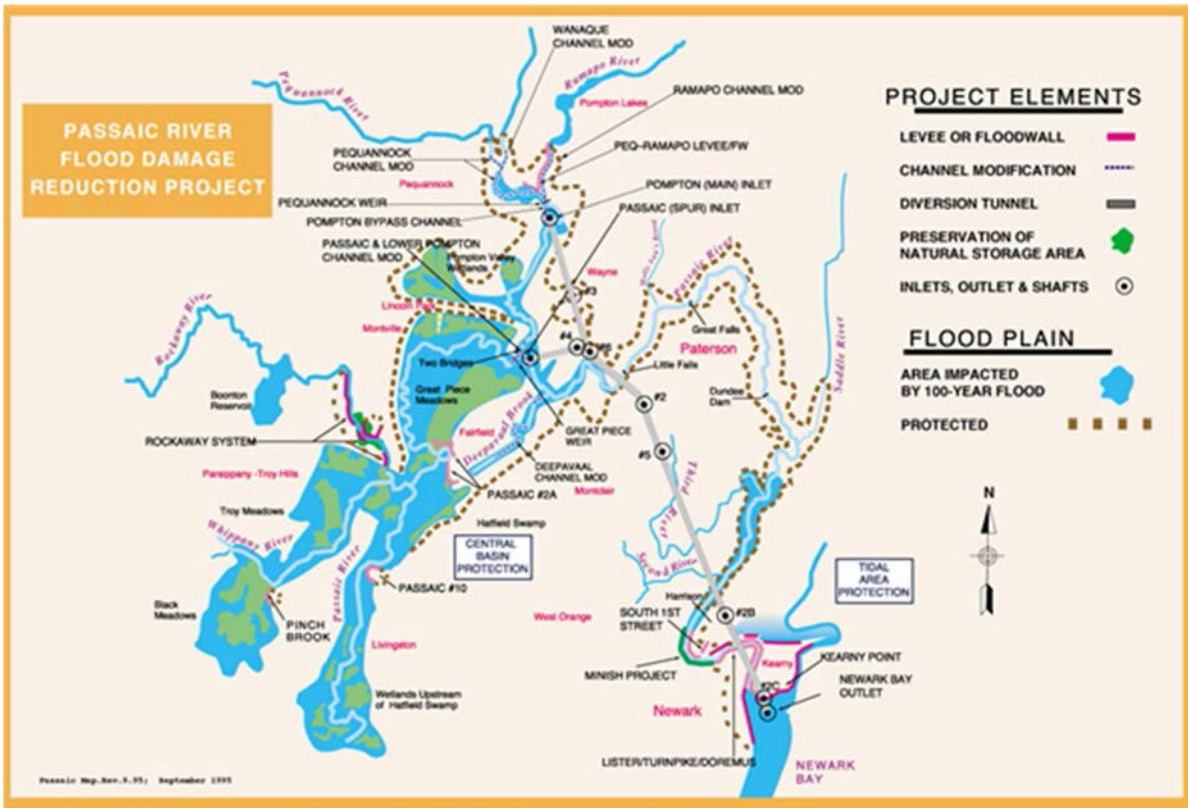


Figure 1: Authorized Passaic Main Stem project.

1.2.2 Passaic Tidal Project Description

The Proposed Action consists of the construction and operation of a series of floodwalls and closure gates with integrated drainage systems and pump stations, to provide coastal storm flood risk management. The Project is located along the tidally-influenced and surge-prone areas of the lower Passaic River and Newark Bay. All seven segments of the Proposed Action would be constructed within low lying areas of the City of Newark and would reduce the risk of flooding in flood prone areas of the Newark portion of the Study Area. The Proposed Action is located within the coastal zone of New Jersey, specifically the upland Waterfront Development regulated area.

The Proposed Action would be consistent with all CZM standards and policies. Specifically, placement of the floodwalls in the Passaic River Tidal Project Area would provide coastal storm flood risk management to protect the adjacent land from flooding

during severe storm events. All unavoidable adverse impacts to tidal waters, wetlands, wetland buffers, and riparian zones in the Project Area, as a result of the Proposed Action, would be mitigated.

The following section identifies the New Jersey CZM policies that are applicable to the Proposed Action, and provides a discussion of project issues and compliance relevant to each. The document is organized by the subchapters as found in the CZM regulation (Rules on Coastal Zone Management, N.J.A.C. 7:7).

2 DISCUSSION OF POLICIES APPLICABLE TO THE PROPOSED ACTION

2.1 Subchapter 9 – Special Areas

7:7-9.2 Shellfish Habitat

This policy generally limits disturbance of shellfish habitat.

There are no commercial shellfish populations located in the Passaic River, Hackensack River or Newark Bay. The nearest area designated for shellfish harvest by the NJDEP is located approximately 20 miles to the south at the mouth of the Raritan River in Raritan Bay and has been mapped as “prohibited for shellfish harvesting” (NJDEP, 2014). Soft-shell clams (*Mya arenaria*) and blue mussels (*Mytilus edulis*) were reported in small numbers during a USACE benthic community survey that took place in Newark Bay in 2005 and 2013 (USACE 2014). Blue crabs were collected during USACE fish surveys in nearby Newark Bay near the confluence of the Passaic River (USACE, 2011, 2015). Construction of the Proposed Action would have no direct impacts on shellfish species within the Project Area because there will be no in-water construction activities in the Passaic River or Newark Bay. The only in-water construction activity is the installation of a tide gate in a small unnamed creek that is tributary to Jasper Creek, which is part of a network of constructed drainage features that drain to Newark Bay (Segment 3). Shellfish resources are unlikely to occur in this tributary for the following reasons: 1) the presence of multiple culverts between Segment 3 and Newark Bay which limit shellfish movement; 2) presence of a tide gate at the mouth of Jasper Creek at Newark Bay; 3) an overall lack of shellfish found in Newark Bay and 4) the distance of Segment 3 to the Bay, which is approximately 1.4 miles. As such, no adverse impacts to shellfish resources are expected as a result of the construction of the Segment 3. Implementation of erosion and sediment control measures would be implemented during construction to further minimize any potential sedimentation or burial impacts to aquatic resources downstream of the new tide gate. No long-term adverse impacts to the shellfish are expected as a result of the



construction of the structural elements associated with the project (USACE, 1989).

7:7-9.3 Surf Clam Areas

This policy prohibits development that would destroy or contaminate surf clam areas.

The Proposed Action is not located in a surf clam area; therefore, this policy is not applicable.

7:7-9.4 Prime Fishing Areas

This policy identifies prime fishing areas and guidelines for permissible and prohibited uses in these areas.

There are no prime fishing areas in the Study Area; therefore, this policy is not applicable.

7:7-9.5 Finfish Migratory Pathways

This policy defines finfish migratory pathways and species of concern, and prohibits development such as dams, dikes, spillways, channelization, tide gates, and intake pipes that would create physical barriers to migratory fish, unless such impacts are mitigated. Development that would lower water quality so as to interfere with fish movement is also prohibited. The Hackensack and Passaic Rivers, as well as Newark Bay, function as finfish migratory pathways for a variety of estuarine/marine and freshwater and anadromous fish. Details on the species that may be found in these waters is provided in the Environmental Assessment (EA). Newark Bay provides Essential Fish Habitat (EFH) for multiple managed fish species. An EFH Assessment has also been completed for this project. The EFH Assessment is summarized in the EA and is also available as an appendix to the EA.

No in-water construction is proposed in the Passaic River or Newark Bay. The only in-water construction activity is the installation of floodwall/levee with a tide gate in a small creek that is tributary to Jasper Creek (Segment 3). Potential impacts during construction of the tide gate include indirect impacts resulting from temporary changes in water quality, which could result in indirect impacts to fishes. These potential impacts are further discussed in the EA. Any temporary impacts to water quality would be minimized by the use of best management practices such as erosion and sediment control measures during construction activities.

No permanent indirect impacts resulting from changes in water quality related to stormwater discharge following project construction are anticipated. Pump station discharge velocities would be controlled through energy dissipaters or stilling basins to avoid resuspension of river sediments. In addition, stormwater discharge will meet NJ Stormwater Management Rules for water quality; therefore, no permanent changes to water quality which could affect fish migration are anticipated.

The Proposed Action would not result in direct impacts to fish migration; any indirect impacts would be minor and temporary; therefore the Proposed Action is consistent with this coastal policy.

7:7-9.6 Submerged Vegetation Habitat

This policy prohibits or restricts permanent significant impacts to submerged vegetation habitats unless compensatory mitigation efforts are enacted.

There are no areas of submerged vegetation habitat located in the Study Area; therefore, this policy is not applicable.

7:7-9.7 Navigation Routes

This policy prohibits construction that would extend into a navigation channel that would result in the loss of navigability.

Most of the lower Passaic River in the Study Area has been deepened as a result of various navigation improvement projects for the purpose of commerce and industry (USACE 2010). The navigation channels of the Passaic River and the Hackensack Rivers connect communities, supporting both commercial and recreational boating. However, there would be no impact on the navigation channels in the Passaic and Hackensack Rivers in the Study Area, as construction would not occur within the navigation channels. The Proposed Action is therefore consistent with this coastal policy.

7:7-9.8 Canals

This policy prohibits actions that would interfere with boat traffic in canals used for navigation.

There are no canals in the Study Area; therefore, this policy is not applicable.

7:7-9.9 Inlets

This policy prohibits filling and discourages submerged infrastructure in coastal inlets.

The Study Area is not located in an inlet as defined by the NJDEP; therefore, this policy is not applicable.

7:7-9.10 Marina Moorings

This policy prohibits non-water dependent development in marina mooring areas.

The Proposed Action would not involve development in any marina mooring areas; therefore, this policy is not applicable.

7:7-9.11 Ports

This policy prohibits actions that would interfere with port uses.

Port Newark, a major commercial shipping port, is located south of the Study Area. No in-water construction activities are proposed in Newark Bay or the Passaic River. Therefore, the Proposed Action is consistent with this policy.

7:7-9.12 Submerged Infrastructure Routes

This policy prohibits any activity that would increase the likelihood of submerged infrastructure damage, or interfere with maintenance operations.

No in-water construction activities are proposed in Newark Bay or the Passaic River. The Proposed Action will not disturb or interfere with submerged infrastructure and therefore is consistent with this policy.

7:7-9.13 Shipwrecks and Artificial Reefs

This policy restricts the use of special areas with shipwrecks and artificial reefs that would adversely affect the usefulness of the area as a fisheries resource and addresses the creation of new artificial reefs.

The Project Area does not contain any known shipwrecks or artificial reefs, and new reefs will not be constructed; therefore, this policy is not applicable.

7:7-9.14 Wet Borrow Pits

This policy restricts the use and filling of wet borrow pits.

The Project Area does not contain any known wet borrow pits; therefore, this policy is not applicable.

7:7-9.15 Intertidal and Subtidal Shallows

This policy discourages disturbance of shallow water areas (*i.e.*, daily permanently or twice submerged areas from the spring high tide to a depth of four feet below mean low water).

The majority of the project structures are located on land; no in-water construction will occur in Newark Bay or the Passaic River. The only in-water construction activity is the installation of a tide gate in a small creek that is tributary to Jasper Creek which drains to Newark Bay (Segment 3). A tide gate at the mouth of Jasper Creek currently prevents regular tidal flow in these tributaries. The Proposed Action would not permanently disturb intertidal or subtidal shallows. The Proposed Action is consistent with this coastal policy.

7:7-9.16 Dunes

This policy restricts development on dunes.

The Study Area does not contain dunes; therefore, this policy is not applicable.

7:7-9.17 Overwash Areas

This policy restricts development on overwash areas.

The Study Area does not contain overwash areas; therefore, this policy is not applicable.

7:7-9.18 Coastal High Hazard Areas

This policy restricts development in coastal high hazard areas.

The Study Area is located in a coastal high hazard area; therefore, this policy is applicable. The shorelines in the Project Area are ranked "VE Zones", which means



“areas subject to inundation by the 1-percent-annual-chance flood event with additional hazards due to storm-induced velocity wave action”. The proposed structural elements and limited floodwalls will mitigate against this inundation hazard and be designed to withstand the wave velocities from this type of flood event; therefore, the Proposed Action is consistent with this policy.

7:7-9.19 Erosion Hazard Areas

This policy restricts development in erosion hazard areas.

The majority of shorelines in the Study Area are hardened and protected from erosion forces. Accordingly, the proposed Study Area is not located in an erosion hazard area; therefore, this policy is not applicable.

7:7-9.20 Barrier Island Corridor

This policy restricts new development on barrier islands.

The Study Area is not located on a barrier island; therefore, this policy is not applicable.

7:7-9.21 Bay Islands

This policy restricts development on bay islands.

The Study Area is not located on a bay island; therefore, this policy is not applicable.

7:7-9.22 Beaches

This policy restricts development on beach areas.

The Study Area does not contain any beaches; therefore, this policy is not applicable.

7:7-9.23 Filled Water's Edge

This policy seeks to promote water dependent uses at areas along the waterfront that have been previously filled.

Extensive residential, commercial, and industrial development has encroached into the former wetlands and natural floodplain that once existed along the Passaic River, Hackensack River and Newark Bay. The waterfront is a filled water's edge that is

mostly developed for industrial uses including shipping (oil and gas, containers/consumer goods) and wastewater treatment. Related rail, barge, truck, and storage infrastructure line the waterfront.

The Proposed Action is not a water dependent use and no in-water work is proposed in or along the filled shorelines of the Passaic River or Newark Bay. Therefore the Proposed Action is consistent with this policy.

7:7-9.24 Existing Lagoon Edges

This policy restricts development at lagoon edges because of potential water quality problems.

The Study Area does not include any lagoon edges; therefore, this policy is not applicable.

7:7-9.25 Flood Hazard Areas

This policy is designed to restrict development in flood hazard areas and ensure that the waterfront is not pre-empted by uses that could function equally well at inland locations. The goal of this rule is to reduce losses of life and property resulting from unwise development of flood hazard areas, and allow uses compatible with periodic flooding.

The Proposed Action would involve construction of flood risk management measures, thereby protecting life and property in the Study Area. In addition to local ordinances, the State of New Jersey regulates activity in floodplains under the NJ Flood Hazard Area Control Act (NJ FHACA) and implementing regulations (N.J.A.C. 7:13). The Proposed Action would be designed in accordance with applicable requirements of these regulations and a Flood Hazard Area permit would be obtained from NJDEP prior to project construction; this would demonstrate project compliance with New Jersey's floodplain management regulations, and would also address compliance with State Stormwater Management Rules and Standards for Soil Erosion and Sediment Control. The Proposed Action would be compliant with applicable NJ FHACA regulations and would be consistent with this policy.

7:7-9.26 Riparian Zones

This policy restricts development in the riparian zone, which consists of land and vegetation within regulated waters and within between 50 and 300 feet of each regulated water to protect surface water quality. A 50-foot wide riparian zone applies in the Study

Area.

The NJDEP regulated riparian zone extends 50 feet from each riverbank and regulated water within the Study Area. Vegetated areas within the riparian zone would require mitigation for permanent and temporary impacts to vegetation. Mitigation is discussed in further detail in Section 4.2 of the EA. No work is proposed in the riparian zone along Newark Bay. Riparian zone vegetation along the unnamed creek crossed by Segment 3 would be temporarily and permanently disturbed by construction of the floodwall and tide gate. In addition, a portion of Segment 8 is within the riparian zone of the Passaic River. Based on aerial photography, the riparian zone vegetation at Segment 3 consists of common reed (*Phragmites australis*) and vegetation at Segment 8 consists of maintained lawn with perhaps a few landscape plantings of trees or shrubs. There are no forested riparian zones in the Project Area.

With mitigation for impacts to riparian zone vegetation consistent with requirements of NJDEP Flood Hazard Area Control Act Rules, the Proposed Action would be consistent with this policy.

7:7-9.27 Wetlands

This policy restricts disturbance in wetland areas and requires mitigation if wetlands are destroyed or disturbed.

All wetlands in the Study Area are regulated by NJDEP under the New Jersey Freshwater Wetlands Protection Act. In addition, tidal wetlands are under the jurisdiction of USACE under Section 404 of The Clean Water Act. The USACE may also assert jurisdiction over non-tidal wetlands within 1,000 feet of MHW, as well as wetlands further landward impacted by the project, if any.

NJDEP mapped wetlands are found in the southeast and southwest portions of the Study Area. Impacts to wetlands have been avoided and minimized to the extent practicable. The Proposed Action was aligned such that the floodwalls, a levee, closure gates, and pump stations and interior drainage structures would avoid or minimize impacts to wetland areas. Additional refinement and avoidance of wetlands will be conducted during the detailed design phase; however, it may not be possible to avoid all wetland impacts due to engineering and/or feasibility constraints. Prior to project construction, appropriate permits would be obtained to authorize any unavoidable wetland impacts. The Proposed Action would impact wetlands at Segment 3. Based on NJDEP and NWI wetland mapping, construction of these

segments would temporarily disturb approximately 0.08 acre of wetlands and permanently disturb approximately 0.18 acre. Wetland impact areas would be refined based on field delineation in advance of permit application submittals. Impacts to regulated wetlands would be mitigated as appropriate and in accordance with applicable regulations and permit requirements.

Therefore, the Proposed Action is consistent with this policy.

7:7-9.28 Wetland Buffers

This policy restricts development in wetland buffer areas in order to protect wetlands.

Depending on the wetland resource value classification, construction of the Proposed Action may or may not impact wetland buffer areas. However, construction activities would comply with all applicable permit requirements, including any required post-construction monitoring/mitigation. Therefore, the Proposed Action would be consistent with this policy.

7:7-9.29 Coastal Bluffs

This policy restricts development on coastal bluffs.

The Proposed Action would not impact any coastal bluffs; therefore, this policy is not applicable.

7:7-9.30 Intermittent Stream Corridors

This policy restricts actions in intermittent stream corridors.

The Proposed Action would not directly impact any intermittent stream corridors; therefore, this policy is not applicable.

7:7-9.31 Farmland Conservation Areas

This policy seeks to preserve large parcels of land used for farming.

There are no farmland conservation areas located within the Study Area; therefore, this policy is not applicable.

7:7-9.32 Steep Slopes

This policy seeks to preserve steep slopes by restricting development in such areas.

There are no steep slopes in the Study Area; therefore, this policy is not applicable.

7:7 -9.33 Dry Borrow Pits

This policy regulates sand or sediment extraction areas that do not extend below groundwater level.

There are no dry borrow pits in the Study Area; therefore, this policy is not applicable.

7:7-9.34 Historic and Archaeological Resources

This policy protects the value of historic and archaeological resources and may require cultural resource surveys and other protective measures.

The Proposed Action is taking protective measures to identify historical and archeological resources. If such resources are present, appropriate preservation or mitigation measures would be implemented, in coordination with the NJ Historic Preservation Office; therefore, the Project would be consistent with this policy.

7:7-9.35 Specimen Trees

This policy seeks to protect specimen trees.

The Proposed Action will not impact any specimen trees; therefore, this policy is not applicable.

7:7-9.36 Endangered or Threatened Wildlife or Vegetation Species Habitats

This policy restricts development in endangered or threatened wildlife or vegetation species habitat areas.

The presence of federally or state listed threatened, endangered and special concern species were evaluated within the Study Area using the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) system and the NJDEP Division of Fish and Wildlife Landscape Project (Version 3.1).

Under Section 7(a)(2) of the Federal Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) all Federally-listed rare, threatened, and endangered

species are legally protected (USFWS, 1999). Based on IPaC review, no federally endangered or threatened wildlife species have been identified within the boundaries of the Study Area. Additionally, no Federally-listed threatened or endangered species are documented as occurring within the Study Area, per the NJDEP's Landscape Project.

Based on the evaluation, five State protected species were identified. The Species of Special Concern potentially present in the Study Area are Glossy ibis (*Plegadis falcinellus*), Snowy egret (*Egretta thula*) and little blue heron (*Egretta caerulea*). Black crowned night-heron (*Nycticorax nycticorax*), a State threatened species, and peregrine falcon (*Falco peregrinus*), a State endangered species, are also present in the Study Area.

Most of the species listed are wading birds that forage in tidal shallows and ponds. The peregrine falcon nests in urban structures and may forage within the Study Area.

The Proposed Action would comply with all applicable permit requirements and ensure that no endangered or threatened wildlife or vegetation species or habitats are permanently impacted during construction; therefore, the Proposed Action would be consistent with this policy.

7:7-9.37 Critical Wildlife Habitats

This policy discourages development that would adversely affect critical wildlife habitat.

The Proposed Action would not impact any areas of critical wildlife habitat as designated by the NJDEP or USFWS; therefore, this policy is not applicable.

7:7-9.38 Public Open Space

This policy encourages new public open spaces in suitable locations in the coastal zone and discourages development that might adversely affect existing public open space.

The City of Newark and the Towns of Kearny and Harrison maintain open spaces, town parks, and recreational areas within the Study Area. A floodwall (Segment 8) would be aligned adjacent to Minish Park, in the City of Newark. This segment borders the sidewalk between the park and the adjacent road. It would have a height ranging from approximately 1.3 to 3.4 feet and would not impact use of the park, other than



temporarily during construction. There are additional parks in the area, landward of the floodwall, which would not be directly impacted by Proposed Action and would be protected by the project. The Proposed Action would be consistent with this coastal policy.

7:7-9.39 Special Hazard Areas

This policy discourages development in hazard areas.

There are numerous hazardous waste sites, including the Lower Passaic River EPA designated Superfund site, in or in the vicinity of the Project Area. Appropriate considerations for avoidance of these areas have been factored into the location of the structural elements and design. The Proposed Action will not result in potential hazards to the public and will be designed and constructed in a manner consistent with this coastal policy.

7:7-9.40 Excluded Federal Lands

Federal lands are beyond the jurisdiction of the New Jersey Coastal Zone. New Jersey has the authority to review activities on Federal lands if impacts may occur in New Jersey's Coastal Zone.

The Proposed Action would not involve any disturbance to Federal land; therefore, this policy is not applicable.

7:7-9.41 Special Urban Areas

This policy seeks to encourage development that would help to restore the economic and social viability of certain municipalities that receive state aid which are designated as Special Urban Areas.

The following municipalities in the Study Area meet the criteria of N.J.S.A 52:27D-178 for eligibility in the Municipal Urban Aid Program for Fiscal year 2016: Kearny Town, Hudson County, and Newark City, Essex County and are therefore "Special Urban Areas". The Project would benefit the Special Urban Areas in the City of Newark by providing coastal storm risk management and thereby reducing economic losses associated with flooding from severe storm events. Therefore, the Proposed Action is consistent with this coastal policy.

7:7-9.42 Pinelands National Reserve and Pinelands Protection Area

This policy allows the Pinelands Commission to serve as the reviewing agency for actions within the Pinelands National Reserve.

The Proposed Action is not located within the Pinelands National Reserve; therefore, this policy is not applicable.

7:7-9.43 Hackensack Meadowlands District

This policy allows the Hackensack Meadowlands Development Commission to serve as the reviewing agency for actions within the Hackensack Meadowlands District.

The Proposed Action is not located within the Hackensack Meadowlands District; therefore, this policy is not applicable.

7:7-9.44 Wild and Scenic River Corridors

This policy recognizes the outstanding value of certain rivers in New Jersey by restricting development to compatible uses.

The Proposed Action would not impact a wild and scenic river corridor; therefore, this policy is not applicable.

7:7-9.45 Geodetic Control Reference Marks

This policy discourages disturbance of geodetic control reference marks.

There are numerous geodetic control reference marks in the Study Area; locations can be viewed on the National Geodetic Survey Data Explorer webpage maintained by NOAA (http://www.ngs.noaa.gov/N_GSDataExplorer/). These references will be utilized by surveyors and engineers during detailed design of the project. If any of the geodetic control reference marks need to be relocated or moved to allow Project construction, the New Jersey Geodetic Control Survey will be contacted and appropriately coordinated with to alter the position of the marker. Any repositioning will be conducted under the supervision of a licensed professional engineer or land surveyor using standard methods. With these provisions, the Proposed Action will be designed and constructed in a manner consistent with this coastal policy.

7:7-9.46 Hudson River Waterfront Area

This policy restricts development along the Hudson River Waterfront and requires development, maintenance, and management of a section of the Hudson Waterfront Walkway coincident with the shoreline of the development property.

The Proposed Action is not located within the Hudson River Waterfront Area; therefore, this policy is not applicable.

7:7-9.47 Atlantic City

Atlantic City is not within the reaches of the Proposed Action; therefore, this policy is not applicable.

7:7-9.48 Lands and Waters Subject to Public Trust Rights

Lands and waters subject to public trust rights are tidal waterways and their shores, including both lands now or formerly below the mean high water line, and shores above the mean high water line, subject to the Public Trust Doctrine and are held in trust by the State for the benefit of all the people, allowing the public to fully enjoy these lands and waters for a variety of public uses. Public trust rights include public access which is the ability of the public to pass physically and visually to, from and along the ocean shore and other waterfronts subject to public trust rights and to use these lands and waters for activities such as navigation, fishing and recreational activities including, but not limited to, swimming, sunbathing, surfing, sport diving, bird watching, walking, and boating. Public trust rights also include the right to perpendicular and linear access.

The Study Area is located along tidal waters and hence is subject to this policy. Coordination with the communities and civic groups has been conducted to minimize impact to public access to the extent feasible while still allowing for the implementation of this important storm damage reduction project which is in the public interest. The structural elements are mostly along city roads and railroad tracks and do not impede public access to public lands. The Proposed Action is consistent with this coastal policy.

7:7-9.49 Dredged material management areas

There are no dredged material management areas in the Study Area; this policy is not applicable.

2.2 Subchapter 10 – Standards for Beach and Dune Activities

There are no beaches or dunes in the Study Area, nor does the Proposed Action involve construction of these features; none of the coastal policies detailed in Subchapter 10 are applicable to the Proposed Action.

2.3 Subchapter 11 – Impact Assessment for Endangered and Threatened Wildlife Species

This section details the performance and reporting standards for impact assessments for endangered and threatened wildlife species.

No impacts to endangered and threatened wildlife species are anticipated. However, if a species is identified in the Project Area prior to implementation of the Proposed Action a habitat/impact assessment would be conducted. The assessment would conform to the performance and reporting standards identified within this policy.

2.4 Subchapter 12 – General Water Areas

This section defines the important uses of general water areas and sets conditions or standards of acceptability for certain uses. Only those policies applicable to the Proposed Action are listed:

7:7-12.18 Outfalls and Intakes

The stormwater outfalls associated with the interior drainage pump stations will be designed to comply with applicable requirements of the NJ Stormwater Management Rules, in particular as relates to water quality for the discharged stormwater. In addition, pump station discharge velocities would be moderated by adding energy dissipaters or stilling basins before the discharged water entered the river, thus avoiding resuspension of river sediments. The Proposed Action would therefore be consistent with this coastal policy.

2.5 Subchapter 13 – Requirements for Impervious Cover and Vegetative Cover for General Land Areas and Certain Special Areas

This rule defines the acceptability of development in general land areas.

The Proposed Action is considered a linear development as defined in N.J.A.C. 7:7E-1.8. The requirements of this subchapter do not apply to linear developments; therefore, this policy is not applicable.

2.6 Subchapter 14 – General Location Rules

7:7-14.1 Location of Linear Development

This rule sets conditions for acceptability of linear development (e.g., roads, walkways, pipelines).

The Proposed Action consists of seven segments that include structural elements such as floodwalls, and closure gates with integrated interior drainage systems, pump stations and one tide gate. All seven segments of the Proposed Action would be constructed within the low lying areas of the City of Newark and would reduce the risk of flooding in flood prone areas of the Newark portion of the Study Area. Construction of storm damage reduction measures would meet all conditions of this policy; it will not impact sensitive areas or marine fisheries nor incur permanent or long term loss of unique or irreplaceable areas. Mitigation will be conducted for unavoidable impacts to parks, riparian zones and wetlands, as applicable. The Proposed Action is consistent with this coastal policy.

7:7-14.2 Basic Location Rule

This rule states that the NJDEP may reject or conditionally approve a development for safety, protection of certain property, or preservation of the environment.

The Proposed Action will promote public safety and welfare and protect public and private property through the construction of a number of flood management measures. Alternatives and design analysis, in coordination with the NJDEP, have ensured that the Proposed Action would be consistent with this policy.

7:7-14.3 Secondary Impacts

This rule sets the requirements for the secondary impact analysis.

The Study Area is fully developed, additional development is not expected as a result of the proposed Project; therefore, this policy is not applicable.

2.7 Subchapter 15 – Use Rules

7:7-15.2 Housing Use

These rules set standards for housing construction in the coastal area.

The Proposed Action does not involve housing construction; therefore, this policy is not

applicable.

7:7-15.3 Resort Recreational Use

This rule sets standards for resort and recreational uses in the coastal area.

The Proposed Action does not involve resort recreational uses; therefore, this policy is not applicable.

7:7-15.4 Energy Facility

This rule sets standards for energy facilities in the coastal areas.

The Proposed Action does not involve construction of energy facilities; therefore, this policy is not applicable.

7:7-15.5 Transportation

This rule sets standards for roads, public transportation, and parking facilities in the coastal area.

The Project does not involve transportation facilities; therefore, the policy is not applicable.

7:7-15.6 Public Facility Use

This rule sets standards for public facilities (e.g., solid waste facilities) in the coastal area.

The Proposed Action does not involve construction of any public facilities; therefore, this policy is not applicable.

7:7-15.7 Industry

This rule sets standards for industrial uses in the coastal area.

The Proposed Action does not involve construction of industrial facilities; therefore, this policy is not applicable.

7:7-15.8 Mining

This rule sets standards for mining in the coastal area.

The Proposed Action does not involve mining; therefore, this policy is not applicable.

7:7-15.9 Port

This rule sets standards for port uses and port-related development.

The Proposed Action does not involve port construction or port related development; therefore, this policy is not applicable.

7:7-15.10 Commercial Facility

This rule sets standards for commercial facilities such as hotels, and other retail services in the coastal zone.

The Proposed Action does not involve construction of commercial facilities; therefore, this policy is not applicable.

7:7-15.11 Coastal Engineering

This section sets standards to protect the shoreline, maintain dunes, and provide beach nourishment. It also details a hierarchy for use of and standards relevant to non-structural, hybrid and structural shore protection and storm damage reduction measures. Non-structural and hybrid measures are not suitable for the urban location of the Proposed Action; therefore, structural measures for storm damage reduction were selected.

The Proposed Action is necessary to protect infrastructure and development from storm damage and will not alter shoreline processes or impact marine life. Therefore, the Proposed Action conforms to applicable standards

The design would comply with the conditions detailed in part (g) of this policy “Standards relevant to structural shore protection”; therefore, the Proposed Action would be consistent with this policy.

7:7-15.12 Dredged Material Placement on Land

This rule sets standards for disposal of dredged materials.

The construction of the proposed hurricane and storm damage reduction measures would not involve the disposal of dredged material; therefore, this policy is not applicable.

7:7-15.13 National Defense Use Rule

This rule sets standards for the location of defense facilities in the coastal zone.

The Proposed Action does not involve location of a defense facility; therefore, this policy is not applicable.

7:7-15.14 High Rise Structures

This rule sets standards for high rise structures in the coastal zone.

The Proposed Action does not involve construction of high rise structures; therefore, this policy is not applicable.

2.8 Subchapter 16 – Resource Rules

7:7-16.2 Marine Fish and Fisheries

This rule sets standards of acceptability so as to cause minimal feasible interference with the reproductive and migratory patterns of estuarine and marine species of finfish and shellfish.

No in water construction is proposed in the Passaic River or Newark Bay portion of the Project Area. Segment 3 crosses a small unnamed tributary to Jasper Creek, which drains to Newark Bay. These tributaries are part of a constructed drainage system and are non-tidal due to a tide gate at the mouth of Jasper Creek. The unnamed tributary provides little habitat for shellfish or finfish. Accordingly, the Proposed Action would not interfere with fish or shellfish and is therefore consistent with this coastal policy.



7:7 16.3 Water Quality

This rule sets standards for coastal development to limit effects on water quality.

The Proposed Action would comply with NJ Stormwater Rules related to water quality and would not disturb river sediments; therefore, the Proposed Action would maintain existing water quality in waters adjoining the Project Area and is consistent with this coastal policy.

7:7-16.4 Surface Water Use

This rule sets standards for coastal development so as to not exceed surface water demand.

The Proposed Action does not require use of surface water and would not alter existing surface water uses or capacity. The Project is consistent with this coastal policy.

7:7-16.5 Groundwater Use

This rule sets standards for coastal development so as to limit effects on groundwater supplies.

The Proposed Action would not impact or affect or use groundwater; therefore, this policy is not applicable.

7:7-16.6 Stormwater Management

This rule sets standards for coastal development so as to limit effects of stormwater runoff.

The Proposed Action would comply with applicable requirements of the NJ Stormwater Management Rules; specifically, runoff quality. Therefore, the proposed Project would be consistent with this policy.

7:7-16.7 Vegetation

This rule sets standards for coastal development while protecting native vegetation. The Proposed Action is located in the urban areas of the City of Newark and is aligned along roadways, transportation corridors and, industrial Vegetation permanently or temporarily disturbed by the project would consist primarily of non-



native invasive species such as common reed (*Phragmites australis*) and those found in vacant lots and maintained lawns. Where required, mitigation for these impacts would be conducted through replanting in suitable locations with appropriate native species. Unavoidable impacts to vegetation will be quantified during the design phase of the Project and mitigation requirements will be developed in cooperation with NJDEP during the permitting phase. With the implementation of appropriate mitigation and compliance with permit conditions, the Proposed Action would be consistent with this coastal policy.

7:7-16.8 Air Quality

This rule sets standards for coastal development with requirements that projects must meet applicable air quality standards.

Potential project related impacts to air quality during the construction phase are well below de minimis levels. To further minimize impacts, construction contractors will be required to use newer equipment and vehicles with emission controls. No equipment idling will be allowed at any of the segments. The proposed Project would be consistent with this policy.

7:7-16.9 Public Access

This rule requires that coastal development adjacent to the waterfront provide perpendicular and linear access to the waterfront to the extent practicable, including both visual and physical access.

The Proposed Action will maintain existing public access to the waterfront and will therefore be consistent with this coastal policy.

7:7-16.10 Scenic Resources and Design

This rule sets standards that new coastal development be visually compatible with its surroundings.

The only location where a proposed floodwall would be seen from the lower Passaic River is at Segment 8, located along the north side of Raymond Boulevard along the edge of Minish Park. The proposed floodwall at this location is less than 3.5 feet in height and would therefore maintain the viewshed of the Passaic River from the park. With incorporation of context sensitive design measures, the Proposed Action would be



consistent to the extent practicable with this coastal policy

7:7-16.11 Buffers and Compatibility of Uses

This rule sets standards for adequate buffers between compatible land uses.

The Proposed Action is compatible with adjacent land uses to the extent practicable; where feasible and to supplement compatibility, context sensitive features will be incorporated, particularly in public parks. The Proposed Action would be consistent with this policy.

7:7-16.12 Traffic

This rule sets standards that restrict coastal development that would disturb traffic systems.

There would be a potential temporary disruption of transportation systems and infrastructure along roads in the Newark portion of the Study Area during construction activities. Construction would result in temporary, localized, minor impacts on vehicular traffic flow and volume, which may include commuter bus service. An increase in large, slow-moving construction vehicles needed for project construction would decrease traffic flow and increase traffic volume in the area. Construction is expected to be completed in one year or less at each of the three areas (Segment 1 and 2; Segments 3, 4 and 5; and Segments 6 and 8). The proposed Project would make every effort possible to mitigate temporary impacts on vehicular traffic during construction activities. For safety reasons, foot traffic in the Project Area would be prohibited during construction and would be managed in accordance with a maintenance and protection of traffic (MPT) plan. The Proposed Action incorporates numerous closure gates on land, within the floodwall itself, to accommodate traffic, access and existing road and railroad crossings. Construction of floodwalls and closure gates within railroad rights of way would be coordinated with the appropriate railroad entity to minimize disruption to rail transportation. These gates will be closed only in the case of storms/flooding, yielding a benefit to transportation and traffic patterns by preventing flooding of additional roadways. The proposed gates are compatible with current vehicular traffic systems, and therefore, would be consistent with this policy.

7:7-16.13 Subsurface Sewage Disposal Systems

This rule sets standards for subsurface sewage disposal systems in the coastal zone.



The Proposed Action does not involve a subsurface sewage disposal system; therefore, this policy is not applicable.

7:7-16.14 Solid and Hazardous Waste

This rule requires development in the coastal zone to conform with all applicable State and Federal regulations, standards and guidelines for the handling and disposal of solid and hazardous wastes, including the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., the Solid Waste Management rules, N.J.A.C. 7:26, the Recycling rules, N.J.A.C. 7:26A, and the Hazardous Waste rules, N.J.A.C. 7:26G.

The Proposed Action will abide by this policy and conform with all relevant and applicable regulations, etc.; the Project is consistent with this coastal policy.

2.9 Subchapter 17 –Mitigation

7-7-3B.I Mitigation Proposal Requirements

This section of the regulations details the requirements of a wetland mitigation proposal.

Wetland mitigation required to offset any unavoidable impacts to resources from the Proposed Action would conform to the mitigation proposal requirements listed in this policy. Therefore, the Proposed Action would be consistent with this policy

