



**U.S. Department of Housing and Urban
Development**

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Washington, DC 20410
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Environmental Assessment

Determinations and Compliance Findings for HUD-assisted Projects

24 CFR Part 58

Project Information

Project Name: CDBG-DR Resilient Communities Program (RCP): Penhorn Creek Pump Station

Responsible Entity: New Jersey Department of Community Affairs (DCA)

Grant Recipient (if different than Responsible Entity): County of Hudson

State/Local Identifier: New Jersey

Preparer: Michael Baker International Inc.

Certifying Officer Name and Title: Samuel Viavattine, Deputy Commissioner

Grant Recipient (if different than Responsible Entity): County of Hudson

Consultant (if applicable): Michael Baker International Inc.

Direct Comments to: Samuel Viavattine, Deputy Commissioner
Department of Community Affairs
PO Box 823
Trenton, NJ 08625-0800

Project Location

The proposed project is located in Jersey City in Hudson County, New Jersey (Center Coordinates: 40°45'08.2"N 74°04'32.5"W). See **Figure 1** and **2** in **Attachment A** for the Project Location and USGS 7.5-Minute Topography maps.

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]

The County of Hudson, with funding from the Department of Housing and Urban Development (HUD), proposes to replace the Penhorn Creek Pump Station to mitigate flooding in Jersey City, Hudson County, New Jersey. The project would involve demolishing the existing stormwater pump station and constructing a new elevated facility with an access stairway and an emergency standby generator. Additional work would include replacing the existing bulkhead and installing two 30-inch culvert drains with tide valves.

The current pump station houses two 12-inch solids-handling pumps, which would be replaced with two 16-inch axial pumps mounted on an elevated platform built to FEMA flood elevation standards. The new pumps would maintain the same capacity as the existing units. A temporary easement would provide Hudson County access during construction and convert to a permanent easement for ongoing maintenance and operations.

The new bulkhead would be installed by driving Z-section steel sheet piles in front of the existing ones, followed by replacement of two new 30-inch culvert pipes with tide valves on the Hackensack River side to prevent backflow. The space between bulkheads would be backfilled, and new tiebacks would anchor the structure.

As part of the project, a 250 kW diesel emergency generator with a 1,075-gallon belly tank would be installed. The generator would be located on the new elevated platform and operate during power outages and run weekly for maintenance.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]

The purpose of the proposed project is to improve the reliability and capacity of the Penhorn Creek Pump Station to reduce frequent flooding in Jersey City, Secaucus, and surrounding communities. Flooding along Secaucus Road and adjacent areas threatens public safety, property, and critical infrastructure, causing roadway closures, congestion, and economic disruption. The project is needed to ensure consistent stormwater conveyance to the Hackensack River, enhance resiliency, protect low- to moderate-income neighborhoods, and align with state climate adaptation goals. These improvements would reduce long-term maintenance costs, preserve essential transportation routes, and support sustainable stormwater management through nature-based solutions.

Existing Conditions and Trends [24 CFR 58.40(a)]

The Penhorn Creek Pump Station currently provides stormwater conveyance for Secaucus, Jersey City, and North Bergen; however, its aging infrastructure and limited capacity result in frequent flooding during wet weather events. These flood events impact critical transportation corridors,

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particularly Secaucus Road, which crosses Penhorn Creek at Swamibapa Road and serves as a key connector between Secaucus, Jersey City, and North Bergen. Road closures along Secaucus Road during storms force commuters to reroute to Route 3 or County Road, adding congestion to already overburdened roadways and disrupting regional mobility.

The project impact area includes residential neighborhoods and commercial hubs that rely on Secaucus Road for access to employment, recreation, and essential services. Major destinations include Secaucus Junction, Croxton Intermodal Terminal, Meadowlands Exposition Center, the Mall at Mill Creek, Secaucus Outlets, and numerous industrial facilities. Flooding in these areas places residents—particularly those in low- to moderate-income Census tracts—at risk of property damage and economic hardship. Businesses and critical infrastructure also face long-term maintenance challenges due to inadequate stormwater management.

Secaucus is especially vulnerable to flooding because of its location along the Hackensack River and the presence of Penhorn Creek and Mill Creek. Even moderate storms have historically caused roadway closures and property damage, without requiring extreme events like Hurricane Sandy. Climate change and sea-level rise further exacerbate these risks. According to the New Jersey Climate Change Resilience Strategy (2021), the state is among the most vulnerable in the nation to impacts from sea-level rise, storm surge, and more frequent and intense precipitation. These trends indicate that flooding will continue to increase in severity and frequency without intervention.

The acquisition by the New Jersey Department of Environmental Protection (NJDEP) of adjacent greenway property highlights a regional commitment to resilience and nature-based solutions. This property will support stormwater absorption and filtration, complementing infrastructure upgrades. The proposed improvements to the Penhorn Creek Pump Station align with state and local goals to reduce vulnerability, preserve critical transportation routes, and enhance community resilience. Without these upgrades, the area will remain susceptible to roadway closures, economic disruption, and escalating maintenance costs as climate impacts intensify.

Funding Information

Grant Number	HUD Program	Funding Amount
B-21-DF-34-0001	CDBG-DR	\$5,000,000.00

Estimated Total HUD Funded Amount:

\$5,000,000.00

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]:

\$5,365,250.00

Additional project costs would be funded by the County of Hudson.

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.6		
Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
<p>Airport Hazards</p> <p>24 CFR Part 51 Subpart D</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The proposed project is not located within HUD established buffers, therefore compliance with HUD airport policy is not required. HUD guidance establishes a buffer of 15,000 feet from a military airport and 2,500 feet from a civilian airport. Based on the New Jersey Airports Map (updated June 2024 by the NJ Department of Transportation, Division of Information Technology), the proposed project is not located within these distances. Accordingly, no additional review or compliance measures are required.</p> <p>See Figure 3 in Attachment A for airport hazards map. See Attachment C for Airport Hazards Worksheet.</p>
<p>Coastal Barrier Resources</p> <p>Coastal Barrier Resources Act (CBRA), as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The proposed project is not located within a USFWS designated Coastal Barrier Resources System (CBRS), therefore compliance with CBRA is not required. The USFWS CBRS online mapping tool confirms that the project site is not located within a CBRS unit or buffer zone. Accordingly, no additional review or compliance measures are required.</p> <p>See Figure 4 in Attachment A for coastal barrier resources map. See Attachment C for Coastal Barrier Resources Worksheet.</p>
<p>Flood Insurance</p> <p>Flood Disaster Protection Act of 1973 and National Flood Insurance</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>Certain types of federal financial assistance may not be used in floodplains unless the community participates in the National Flood Insurance Program (NFIP) and flood insurance is obtained and maintained. The proposed project meets this requirement because it involves an eligible activity located within the floodplain, as shown on FEMA Flood Insurance Rate Map (FIRM)</p>

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<p>Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]</p>		<p>No. 34003C0264J (Preliminary, dated August 29, 2014), which indicates the project area lies entirely within the 1% annual chance floodplain. The City of Jersey City participates in the NFIP. To ensure compliance with 24 CFR 58.6, the following conditions apply (see also Mitigation Measures and Compliance section, below):</p> <ul style="list-style-type: none"> • Properties located in or partially within the 100-year floodplain must maintain flood insurance coverage, including upon transfer of ownership [24 CFR 58.6(a)(1)]. • No assistance will be provided to any person who previously received federal flood disaster assistance conditioned on maintaining flood insurance but failed to do so [24 CFR 58.6(b)]. <p>See Figure 5 in Attachment A for FEMA FIRM map. See Attachment C for Flood Insurance Worksheet and Attachment D for flood insurance certificate.</p>
<p>Clean Air</p> <p>Clean Air Act (CAA), as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>The proposed project constitutes new construction and is in a nonattainment area, therefore compliance with the CAA is required. According to the U.S. Environmental Protection Agency (EPA) Green Book on Nonattainment Areas for Criteria Pollutants, the area is designated as nonattainment for the 2015 8-hour ozone standard (classification: Serious) and maintenance for carbon monoxide (1971 standard, classification: Moderate >12.7 ppm) and PM2.5 (2006 standard, classification: Former Subpart 1).</p> <p>Because of the project's scope and the air quality status of the county, compliance with the State Implementation Plan (SIP) is required. On May 15, 2025, the NJDEP Division of Air Quality and Radiation Protection determined that the project's anticipated emissions would fall below the General Conformity de minimis thresholds (40 CFR 93.153). Therefore, in accordance with EPA's General Conformity regulations, the project is considered to conform to the New Jersey SIP. As potential adverse impacts are negligible, no mitigation measures are required.</p> <p>See Figure 6 in Attachment A for air quality map. See Attachment C for Clean Air Worksheet and Attachment D for NJDEP correspondence.</p>
<p>Coastal Zone Management</p> <p>Coastal Zone Management Act</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>The NJDEP regulates New Jersey's coastal zone through the Coastal Zone Management (CZM) Rules. The coastal zone includes Coastal Area Facility Review Act (CAFRA) boundary, coastal waters (extending seaward from the mean high water line (MHWL) three miles offshore), tidal wetlands, the New Jersey Sports and Exposition Authority (NJSEA) District (formerly</p>

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<p>(CZMA), sections 307(c) & (d)</p>		<p>the Hackensack Meadowlands District), and up to 500-feet landward of the MHWL.</p> <p>The proposed project activities would occur below the MHWL of Penhorn Creek and inside the NJSEA District. On May 6, 2025, the NJDEP Division of Land Resource Protection (DLRP) determined that a Waterfront Development Permit would be required due to work proposed below the MHWL. Accordingly, a state approval and a coastal zone consistency determination must be obtained prior to any construction. It is the responsibility of the County of Hudson as the grantee to obtain all necessary local, state and federal permits (see Mitigation Measures and Conditions section, below).</p> <p>See Figure 7 in Attachment A for Coastal Zone Management map. See Attachment C for Coastal Zone Management Act Worksheet and Attachment D for NJDEP correspondence.</p>
<p>Contamination and Toxic Substances</p> <p>24 CFR Part 50.3(i) & 58.5(i)(2)</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>HUD policy requires that all proposed properties are free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of the occupants or conflict with the intended utilization of the property. A Phase I Environmental Site Assessment (ESA) was prepared to evaluate site contamination. Based on historical database information, interviews, and site reconnaissance, no recognized environmental conditions were identified as a result of the Phase I ESA. Three business environmental risks (BERs) were identified: contaminated sediment in Hackensack River, asbestos-containing material, and mold. To avoid potential risks to worker safety, conditions related to these BERs are included (see Mitigation Measures and Conditions section, below). Due to the lack of RECs identified and with the inclusion of mitigation measures to avoid potential impacts from the BERs, the project is in compliance with this HUD policy.</p> <p>See Attachment C for Site Contamination Worksheet and Attachment E for Phase I ESA report.</p>
<p>Endangered Species, Migratory Birds, and Bald and Golden Eagles</p> <p>Endangered Species Act (ESA) of 1973, particularly section 7; 50 CFR Part 402;</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>Section 7 of the Endangered Species Act (ESA) requires consultation with the U.S. Fish and Wildlife Service (USFWS) and/or National Marine Fisheries Service (NMFS) for projects that may affect listed species. The USFWS Information for Planning and Consultation (IPaC) tool identifies federally threatened, endangered, proposed, and candidate species that may occur in the study area or be affected by the proposed project. According to the IPaC report (last updated January 28, 2026), records indicate the presence of the monarch butterfly</p>

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<p>Migratory Bird Treaty Act (MBTA) of 1918 and Bald and Golden Eagle Protection Act of 1940.</p>	<p>(<i>Danaus plexippus</i>, federally proposed threatened) and the tricolored bat (<i>Perimyotis subflavus</i>, proposed endangered). Informal consultation with the NJFO USFWS was completed on June 6, 2025. It was determined that this project is not likely to jeopardize the continued existence of these species; therefore, ESA Section 7(a)(4) conference is not required. Once a final rule to list the monarch butterfly or tricolored bat is published and goes into effect (typically 30–60 days after publication), Section 7(a)(2) requirements for consultation and Section 9 prohibitions against unpermitted ‘take’ of the species will apply. If the proposed project is not completed prior to the effective date of a final rule to list the monarch butterfly or tricolored bat, the DCA must assess the project’s potential impacts to monarch butterflies or tricolored bats and reinitiate consultation with the Service if remaining project activities ‘may affect’ either species. The DCA has preliminarily determined that the project may affect the tricolored bat. The Service’s recommended conservation measures for the project include: 1) avoid drilling and/or blasting activities during May 15 through July 31 annually (i.e., the pup season for the tricolored bat in New Jersey), and 2) avoid tree cutting/trimming/removal from May 15 through July 31 annually. With these conservation measures incorporated into the project scope, adverse effects to the tricolored bat will be extremely unlikely to occur (see Mitigation Measures and Conditions section, below).</p> <p>The NMFS Section 7 Mapper was used to assess potential habitat for species under NOAA jurisdiction. The Hackensack River provides habitat for Atlantic sturgeon (<i>Acipenser oxyrinchus oxyrinchus</i>) (adult and subadult life stages; migrating and foraging) and shortnose sturgeon (<i>Acipenser brevirostrum</i>) (adult life stage; migrating and foraging). The New Jersey Department of Community Affairs (DCA) determined that while these species may be present, any effect would be so minor as to be insignificant. On July 24, 2025, NMFS concurred with DCA’s finding that the proposed project is not likely to adversely affect any ESA-listed species or designated critical habitat. ESA consultation is therefore complete. No time-of-year restrictions or other conservation recommendations were provided by the NMFS. Several BMPs to be implemented during project construction were included in the request for concurrence and would be included as avoidance and minimization measures (see Mitigation Measures and Conditions section, below).</p> <p>Additionally, IPaC identified several migratory bird species in the vicinity of the project area protected under the Migratory Bird Treaty Act of 1918 and the Bald and Golden Eagle Protection Act</p>
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		<p>of 1940. Because avian species are highly mobile and ample foraging habitat remains available during construction, therefore, adverse impacts are not anticipated.</p> <p>See Figure 8 in Attachment A for map of threatened and endangered species. See Attachment C for Endangered Species Worksheet and Appendix D for IPaC Report, NJFO USFWS Section 7 consultation email correspondence and NMFS Section 7 concurrence letter.</p>
<p>Essential Fish Habitat</p> <p>Magnuson-Stevens Fishery Conservation and Management Act, particularly section 50 CFR Part 600.905</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>The NOAA NMFS Essential Fish Habitat (EFH) mapper was utilized to determine the extent of EFH within or adjacent to the study area. According to the EFH mapper, the study area has been designated EFH for numerous species. The DCA has determined that the adverse effects on EFH will not be substantial. As such, the DCA requested an abbreviated EFH consultation with NOAA regarding impacts to EFH in accordance with the Magnuson-Stevens Fishery Conservation and Management Act. On February 19, 2026, the NMFS provided concurrence and indicated that no additional conservation measures were warranted.</p> <p>See Attachment D for NMFS EFH concurrence letter.</p>
<p>Explosive and Flammable Hazards</p> <p>24 CFR Part 51 Subpart C</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>HUD Explosive and Flammable Hazards policy require projects to meet Acceptable Separation Distance (ASD) to protect from explosive and flammable hazards. The scope and nature of the proposed project does not include activities that would require further evaluation under this section. The project itself is not one that involves the development of a hazardous facility nor does it include development, construction or rehabilitation that would increase residential densities. Therefore, the project complies with HUD explosive and flammable hazard policies and ASD is not required.</p> <p>See Attachment C for Explosive and Flammable Hazards Worksheet.</p>
<p>Farmlands Protection</p> <p>Farmland Protection Policy Act (FPPA) of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The FPPA discourages federal actions that would convert farmland to nonagricultural uses. The proposed project does not involve any activities—such as new construction, acquisition of undeveloped land, or land use conversion—that could result in such impacts. Based on land use mapping, no farmland is located within or near the project area. Therefore, there is no potential for agricultural land to be converted to nonagricultural use as a result of this project, and the project complies with the FPPA.</p>

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		See Figure 9 in Attachment A for land use map. See Attachment C for Farmlands Protection Worksheet.
<p>Floodplain Management</p> <p>Executive Order (EO) 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>EO 11988 requires federal actions to avoid adverse impacts to floodplains and to minimize direct or indirect support of floodplain development to the extent practicable. HUD implementing regulations establish procedures for compliance with this requirement. The proposed project is subject to these regulations because it does not qualify for an exemption and is located within the floodplain. FEMA Flood Insurance Rate Map (FIRM) data were reviewed to determine floodplain location. According to Preliminary FEMA FIRM Map No. 34003C0264J (dated August 29, 2014), the project area lies entirely within Flood Zone AE (Base Flood Elevation: 9 feet).</p> <p>In accordance with HUD procedures for making determinations on floodplain management and protection of wetlands (24 CFR 55 Subpart C) an eight-step process was followed. As part of the Eight-Step Floodplain and Wetland Review process, an “Early Notice and Public Review of a Proposed Activity in a 100-Year/500-Year Floodplain and Wetland” was published on May 13, 2025, on the NJ DCA website in English and Spanish. No public comments were received during the 15-day comment period. As a result of the eight-step process, it was determined that there is no practicable alternative which avoided impacts to floodplains.</p> <p>Mitigation measures to preserve floodplain values would be incorporated into the design – including elevating the pump station. Soil and erosion BMPs would minimize impacts from the proposed project on the adjacent floodplain. In addition, the project would require compliance with the Flood Hazard Area Control Act (FHACA) Rules (N.J.A.C. 7:13). As the project is located within the NJSEA District, compliance with the FHACA Rules would require a Flood Hazard Area permit. It is the responsibility of the County of Hudson as the subrecipient to obtain all necessary local, state and federal permits (see Mitigation Measures and Conditions section, below).</p> <p>See Figure 5 in Attachment A for FEMA FIRM map. See Attachment C for Floodplain Management Worksheet. See Attachment F for 8-step documentation.</p>
<p>Historic Preservation</p> <p>National Historic Preservation Act</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>Section 106 of the NHPA requires consultation with the SHPO for federal actions that have the potential to affect historic properties. It was determined that the proposed project had the potential to affect historic properties and the Section 106 process was initiated. An SOI-qualified architectural historian</p>

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<p>(NHPA) of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>		<p>identified no historic properties in the APE and an SOI-qualified archaeologist determined that there is low potential for encountering archaeological sites or deposits within the APE. Therefore, per 36 CFR 800.4(d)(1), the DCA determined that there would be no historic properties affected because of the undertaking. On May 15, 2025, consultation with the SHPO was initiated and invitations to consult were sent to the identified consulting parties. On June 11, 2025, the SHPO concurred with the findings, and no mitigation was required. No responses were received from consulting parties.</p> <p>See Figure 11 in Attachment A for historic resources map. See Attachment C for Historic Preservation Worksheet and Attachment D for SHPO consultation letter, consulting party invitation letters, and concurrence letter.</p>
<p>Noise Abatement and Control</p> <p>Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>HUD policies require protection for residential properties from excessive noise exposure and encourage mitigation as appropriate. The proposed project does not include activities that would require further evaluation under HUD's noise regulations and compliance or mitigation is not required.</p> <p>See Attachment C for Noise Worksheet.</p>
<p>Sole Source Aquifers</p> <p>Safe Drinking Water Act (SDWA) of 1974, as amended, particularly section 1424(e); 40 CFR Part 149</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The SDWA protects drinking water systems which are the sole or principal drinking water source for an area and which, if contaminated, would create a significant hazard to public health. The proposed project is not within a sole-source aquifer and compliance with the SDWA is not required.</p> <p>See Figure 12 in Attachment A for sole source aquifer map. See Attachment C for Sole Source Aquifer Worksheet.</p>
<p>Wetlands Protection</p> <p>Executive Order 11990, particularly sections 2 and 5</p>	<p>Yes No</p> <p><input checked="" type="checkbox"/> <input type="checkbox"/></p>	<p>EO 11990 discourages the direct or indirect support of new construction impacting wetlands wherever there is a practicable alternative. A desktop analysis of the NJDEP 2020 Land Use/Land Cover Freshwater Wetlands (FWW) and the USFWS National Wetlands Inventory (NWI) were reviewed to identify potential wetlands within the study area. The NJDEP 2020 FWW mapping did not identify any freshwater wetlands within or in the immediate vicinity of the project site. NWI mapping identified riverine and estuarine wetlands associated with Penhorn Creek and the Hackensack River within the proposed project area. On</p>

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		<p>June 27, 2023, a site reconnaissance of the proposed project area was performed and identified a tidal marsh wetland within project limits.</p> <p>In accordance with HUD procedures for making determinations on floodplain management and protection of wetlands (24 CFR 55 Subpart C) an eight-step process was followed. As part of the Eight-Step Floodplain and Wetland Review process, an “Early Notice and Public Review of a Proposed Activity in a 100-Year/500-Year Floodplain and Wetland” was published on May 13, 2025, on the NJ DCA website in English and Spanish. No public comments were received during the 15-day comment period. As a result of the eight-step process, it was determined that there is no practicable alternative which avoided impacts to wetlands.</p> <p>Mitigation measures to protect existing wetland values would be incorporated into the proposed project. The proposed project would require compliance with Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act administered by the USACE. It is the responsibility of the County of Hudson as the subrecipient to obtain all necessary local, state and federal permits (see Mitigation Measures and Conditions section, below).</p> <p>See Figure 13 and 14 in Attachment A for NJDEP FWW and NWI maps. See Attachment C for Wetlands Protection Worksheet and Attachment F for 8-step Documentation.</p>
<p>Wild and Scenic Rivers</p> <p>Wild and Scenic Rivers Act (WSRA) of 1968, particularly section 7(b) and (c)</p>	<p>Yes No</p> <p><input type="checkbox"/> <input checked="" type="checkbox"/></p>	<p>The WSRA provides federal protection for certain free-flowing, wild, scenic and recreational rivers designated as components or potential components of the National Wild and Scenic Rivers System (NWSRS). Based on a review of the National Park Service NWSRS mapping, the project area is not located within or in proximity of any Wild or Scenic Rivers or Study Rivers. Compliance with the WSRA is not required.</p> <p>See Figure 15 in Attachment A for Wild and Scenic Rivers map. See Attachment C for Wild and Scenic Rivers Worksheet.</p>

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27]

Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

- (1) Minor beneficial impact
- (2) No impact anticipated
- (3) Minor Adverse Impact – May require mitigation
- (4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

LAND DEVELOPMENT		
Environmental Assessment Factor	Impact Code	Impact Evaluation
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	1	According to the land use map presented in the Jersey City Climate and Energy Action Plan (2021), the project area is located within industrial and vacant land use. The proposed pump station replacement would improve stormwater management by reducing flooding in vulnerable areas that rely on Penhorn Creek to capture excess rainfall, thus reducing road closures and alleviating roadway congestion during wet weather events. This includes roadways within Priority Area C which was identified as a particular flooding vulnerable area in the 2017 City of Jersey City Resiliency Master Plan. The proposed project conforms with the stormwater management goals outlined in the City of Jersey City Resiliency Master Plan and The Town of Secaucus Reexamination of the Master Plan (2019) as well by providing safer roadway conditions conforms with the goals of the City of Jersey City Vision Zero Action Plan. Therefore, the proposed project would have a minor beneficial impact on this assessment factor.

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<p>Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff</p>	<p>2</p>	<p>According to the USDA Web Soil Survey, the project limits are underlain by water and Secaucus artifactual fine sandy loam, 0-3% slopes (SecA). Per the HUD Slope Suitability for Urban development chart (adapted from: Keifer, Ralph W. "Terrain Analysis for Metropolitan Fringe Area Planning") a slope of 0-3% in an industrial area would possess a Satisfactory to Optimum Suitability rating. See Figure 10 in Attachment A for a map of soils.</p> <p>Construction activities must comply with the New Jersey Standards for Soil Erosion and Sediment Control. Soil erosion would be minimized and controlled through implementation of a certified soil erosion and sediment control plan.</p> <p>The contractor would be responsible for securing a Soil Erosion and Sediment Control Plan Certification from the Hudson Essex Passaic Soil Conservation District. The Contractor would install and maintain erosion and sedimentation control measures and appropriate best management practices prior to and throughout construction, and in compliance with the certified soil erosion and sedimentation control plan. Therefore, the proposed project would have no anticipated impact on this environmental assessment factor.</p>
<p>Hazards and Nuisances including Site Safety and Noise</p>	<p>2</p>	<p>According to the Phase I Environmental Site Assessment (ESA) for the proposed Penhorn Creek pump Station project there are no recognized environmental conditions (RECs) on site. FEMA Seismic Risk maps and FIRM data were reviewed to determine if the project area is located within an area that could be affected by natural hazards. The project area is located in area designated with a seismic design category (SDC) B (could experience shaking of moderate intensity) and within the 1% annual chance floodplain (see compliance section above for compliance with flood insurance). The pump station is surrounded by vacant land, Penhorn Creek, the Hackensack River and industrial land. As such man-made hazards are sparse at the project site. Similarly, while there will be temporary noise generated during construction, there are no noise sensitive areas nearby. Therefore, the proposed project would have no anticipated impact on this environmental assessment factor.</p>

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SOCIOECONOMIC		
Environmental Assessment Factor	Impact Code	Impact Evaluation
Employment and Income Patterns	1	<p>The proposed project would involve temporary construction during the rehabilitation of the existing facility, which would last approximately 18 months. The proposed project is of such limited nature and scope that it would not be expected to impact local or regional employment or income patterns through significant increases in job availability or job displacement.</p> <p>However, the positive effects of flooding reduction would extend throughout a larger area. Key employment and commercial centers within the project impact area include Secaucus Junction, Croxton Intermodal Terminal, Meadowlands Exposition Center, the Mall at Mill Creek, Secaucus Outlets, numerous factories and businesses, a variety of parks, and a number of residential complexes. The proposed project would directly reduce flooding in the project area and the project impact area, thereby improving quality of life for the low- to moderate-income communities located within the affected Census tracts. In addition, the project would reduce long-term risk of damage to and loss of property, including personal residences, businesses, and critical public infrastructure.</p> <p>Therefore, the proposed project would have a minor beneficial impact on this environmental assessment factor as it would minimize an existing burden on existing employment centers.</p>
Demographic Character Changes, Displacement	1	<p>Due to the nature and limited scope of the proposed project, there would be no adverse impact on population or demographic characteristics of the local area. The project would not induce population growth or result in any displacements.</p> <p>However, the positive effects of flooding reduction would extend throughout a larger area. Key employment and commercial centers within the project impact area include Secaucus Junction, Croxton Intermodal Terminal, Meadowlands Exposition Center, the Mall at Mill Creek, Secaucus Outlets, numerous factories and businesses, a variety of parks, and a number of residential complexes. The proposed project would directly reduce flooding in the project area and the project impact area, thereby improving quality of life for the low- to moderate-income communities located within the affected Census tracts. In addition, the project would reduce long-term</p>

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	<p>risk of damage to and loss of property, including personal residences, businesses, and critical public infrastructure.</p> <p>Therefore, there would be a minor beneficial impact from the project for this environmental assessment factor due to the mitigation of an existing burden on the existing community.</p>
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COMMUNITY FACILITIES AND SERVICES		
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Environmental Assessment Factor	Impact Code	Impact Evaluation
Educational and Cultural Facilities	1	<p>The reconstruction of the existing pump station facility would have no adverse impact on educational or cultural facilities due to the limited nature and scope of the proposed reconstruction work.</p> <p>However, the positive effects of flooding reduction would extend throughout a larger area. Key employment and commercial centers within the project impact area include Secaucus Junction, Croxton Intermodal Terminal, Meadowlands Exposition Center, the Mall at Mill Creek, Secaucus Outlets, numerous factories and businesses, a variety of parks, and a number of residential complexes. The proposed project would directly reduce flooding in the project area and the project impact area, thereby improving quality of life for the low- to moderate-income communities located within the affected Census tracts. In addition, the project would reduce long-term risk of damage to and loss of property, including personal residences, businesses, and critical public infrastructure.</p> <p>Therefore, due to the overall positive impact of the proposed project throughout the impact area, there would be a minor beneficial impact for this environmental assessment factor due to the mitigation of an existing burden on the community's access to existing resources/facilities.</p>
Commercial Facilities	1	<p>There are several commercial facilities within two (2) miles of the project site. However, project reconstruction activities would be limited to the immediate project site. Therefore, project activities would have no adverse impact on commercial facilities and land use would not be altered.</p> <p>However, the positive effects of flooding reduction would extend throughout a larger area. Key employment and commercial centers within the project impact area include Secaucus Junction, Croxton Intermodal Terminal, Meadowlands</p>

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		<p>Exposition Center, the Mall at Mill Creek, Secaucus Outlets, numerous factories and businesses, a variety of parks, and a number of residential complexes. The proposed project would directly reduce flooding in the project area and the project impact area, thereby improving quality of life for the low- to moderate-income communities located within the affected Census tracts. In addition, the project would reduce long-term risk of damage to and loss of property, including personal residences, businesses, and critical public infrastructure.</p> <p>Therefore, the proposed project would have minor beneficial impacts on this environmental assessment factor due to the mitigation of an existing burden on the existing commercial facilities within the greater community.</p>
<p>Health Care and Social Services</p>	<p>1</p>	<p>The land use within the immediate vicinity of the proposed project is comprised of industrial and vacant land. Thus, there are no health care or social services directly affected by the proposed project.</p> <p>However, the positive effects of flooding reduction would extend throughout a larger area. Key employment and commercial centers within the project impact area include Secaucus Junction, Croxton Intermodal Terminal, Meadowlands Exposition Center, the Mall at Mill Creek, Secaucus Outlets, numerous factories and businesses, a variety of parks, and a number of residential complexes. The proposed project would directly reduce flooding in the project area and the project impact area, thereby improving quality of life for the low- to moderate-income communities located within the affected Census tracts. In addition, the project would reduce long-term risk of damage to and loss of property, including personal residences, businesses, and critical public infrastructure. Additionally, the proposed improvements may provide safer and more efficient transportation for those seeking medical attention and could be considered a minor positive impact.</p> <p>Therefore, the proposed project would have a minor beneficial impact on this environmental assessment factor due to the removal of an existing burden on the existing health care and social services that serve the community.</p>
<p>Solid Waste Disposal / Recycling</p>	<p>2</p>	<p>The proposed project would result in generation of waste from construction debris resulting from the demolition of the existing pump station. The disposal of solid waste/recycling would be the responsibility of the contractor for the project. The amount of solid waste created would be minimal and would not be anticipated to exceed the capacity of the local construction</p>

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		<p>material recycling facilities or salvage yards. This generation of solid waste would be temporary during the construction period for the new pump station facility. Management, removal and recycling of solid wastes generated or resulting from construction activities (e.g. waste concrete, asphalt, brick, etc.) will comply with applicable regulations of the NJDEP at N.J.A.C. 7:26 and 7:26A.</p> <p>Therefore, the proposed project would have no anticipated impact on this environmental assessment factor.</p>
Waste Water / Sanitary Sewers	2	<p>The proposed project does not involve a new development. Additionally, the pump house facility does not require wastewater or sanitary sewer systems. Portable toilets would be used as needed during reconstruction of the pump station and bulkhead. Therefore, the type of project does not involve wastewater or sanitary sewers and would have no impact on this assessment factor. The proposed project would not impact the capacity of existing wastewater infrastructure. Therefore, the proposed project would have no anticipated impact on this environmental assessment factor.</p>
Water Supply	2	<p>Adequate water supply refers to the delivery of sufficient quantities of potable water under adequate pressure at affordable costs to the project site. Due to the nature of the type of facility, it is not one which requires water supply. There is no existing or proposed potable water supply to the existing facility. The proposed project would not impact the capacity of existing public water infrastructure and would not have a significant effect on water supplies. Therefore, the proposed project would have no anticipated impact on this environmental assessment factor.</p>
Public Safety, Police, Fire and Emergency Medical	1	<p>The proposed project is not one which would result in the growth of the local community. Therefore, the proposed project would have no anticipated adverse impact on this assessment factor as it would not affect the demand for police, fire or EMS services.</p> <p>However, the positive effects of flooding reduction would extend throughout a larger area. Key employment and commercial centers within the project impact area include Secaucus Junction, Croxton Intermodal Terminal, Meadowlands Exposition Center, the Mall at Mill Creek, Secaucus Outlets, numerous factories and businesses, a variety of parks, and a number of residential complexes. The proposed project would directly reduce flooding in the project area and the project impact area, thereby improving quality of life for the low- to</p>

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		<p>moderate-income communities located within the affected Census tracts. In addition, the project would reduce long-term risk of damage to and loss of property, including personal residences, businesses, and critical public infrastructure.</p> <p>Therefore, the proposed project would have minor beneficial impacts on this environmental assessment factor due to the mitigation of an existing burden on public safety services such as police, fire and emergency medical responders.</p>
<p>Parks, Open Space and Recreation</p>	<p>1</p>	<p>According to available NJDEP State, Local and Nonprofit Open Space of New Jersey geospatial Data, the project area is within the Green Acres Encumbered property, Jersey Greenway, within Secaucus (Block: 4, Lot: 1) and Jersey City (Block: 3101, Lots: 27 & 28). The proposed project does not involve residential development. It would not have any impact on existing cultural resources, passive or active recreational activities, including impacting existing communities access to these resources or by increasing a community’s need for these resources. Therefore, due to the nature and scope of the proposed project, there would be no anticipated adverse impact on this assessment factor.</p> <p>However, the positive effects of flooding reduction would extend throughout a larger area. Key employment and commercial centers within the project impact area include Secaucus Junction, Croxton Intermodal Terminal, Meadowlands Exposition Center, the Mall at Mill Creek, Secaucus Outlets, numerous factories and businesses, a variety of parks, and a number of residential complexes. The proposed project would directly reduce flooding in the project area and the project impact area, thereby improving quality of life for the low- to moderate-income communities located within the affected Census tracts. In addition, the project would reduce long-term risk of damage to and loss of property, including personal residences, businesses, and critical public infrastructure. Due to the mitigation of flooding impacts on community access to parks, open space, and recreation, the proposed project would have a minor benefit to the community’s ability to access these resources.</p> <p>Additionally, the improved performance of the pump station aligns with the overarching goals of the NJDEP, which recently acquired the former railroad property surrounding the pump station. This property comprises the greenway, which the County will utilize for the proposed project to create a natural area with the capacity to absorb and filter rainwater into the ground in order to mitigate flooding in the project area. Such</p>

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		<p>efforts directly align with the New Jersey Climate Change Resilience Strategy, which outlines the state-wide goal of decreasing vulnerability of existing infrastructure and development and deploying nature-based solutions for resilience.</p> <p>Therefore, the proposed project would have a minor beneficial impact on this environmental assessment factor due to the mitigation of an existing burden on the existing community's access to existing parks, open space and recreation areas.</p>
Transportation and Accessibility	1	<p>The project is rehabilitation of an existing pump station facility. The proposed project does not involve the need for increased transportation and accessibility to the site. The need for accessibility to the site is limited to monthly tests of the pump and generator and for general maintenance. There is a small dirt parking area at the site and no impervious pavement; no changes to the parking area are needed or proposed for the reconstruction project.</p> <p>Furthermore, the proposed pump station improvements will alleviate the current flooding issues along Secaucus Road. Flood events along this roadway impact individuals from all of the surrounding communities who travel along the corridor and all surrounding corridors. Therefore, the proposed project would have a minor beneficial impact on this environmental assessment factor.</p>

NATURAL FEATURES		
Environmental Assessment Factor	Impact Code	Impact Evaluation
Unique Natural Features, Water Resources	3	<p>The project plans were reviewed to determine its proximity to any unique natural features. According to the NPS Wild and Scenic Rivers System, there are no Wild and Scenic Rivers in the vicinity of the project site. Additionally, in correspondence dated April 8, 2025, the NJDEP Natural Heritage Program did not identify records of occurrence for any vernal habitat within one mile of the project site. Additionally, USGS topographic maps and surface bedrock geology maps did not indicate unique natural features in the project area. The project site containing the existing pump station is a mix of urban land, forested land, and water and current land use will not change.</p> <p>The proposed project would not use a septic system and does not require sanitary systems or water systems. The project</p>

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		<p>involves reconstruction of an existing facility; therefore, it would not increase impervious surfaces or water resources including riparian zone vegetation. The project would not involve the discharge of non-sewage pollutants. The project would not limit the access to or quality of water for downstream communities. The proposed project is not one which would involve activities which may affect groundwater or surface water resources.</p> <p>Minor, temporary water quality impacts would be anticipated due to the installation of steel sheet piles for the replacement of the deteriorated bulkhead at the project site. Installation of piles typically results in temporary increases in total suspended sediments (TSS) during pile driving activities. The suspended sediment would be expected to settle out after a period of time but would temporarily result in turbidity above baseline conditions. Therefore, the proposed project would have minor adverse impacts on surface water. The project proposes the use of a temporary turbidity curtain to minimize the extent of the turbidity plume which would result from installation of steel sheet piles below the mean high water line of Penhorn Creek.</p>
Vegetation, Wildlife	3	<p>A New Jersey Natural Heritage Data search (received April 8, 2025) checked habitat mapping for occurrences of rare wildlife species or habitat, rare plant species or ecological communities at and near the project site. No rare plant species or ecological communities were identified at or near the project site. Several species of state concern were identified – including sturgeon, several avian species and the northern diamond-backed terrapin. Impacts to sturgeon, which are both state and federally endangered, were discussed above in the Section 7 ESA consultation. Review by the NJ Fish and Wildlife would occur during project permitting, which would provide mitigation measures which may be necessary to avoid or minimize impacts to additional state-protected species.</p> <p>The current site is almost entirely developed and lacks significant vegetation, with only a small patch of low-quality wetland plants and minor common reed (<i>Phragmites australis</i>) present (an invasive species). Construction will not disturb any rare, protected, or sensitive plant communities, and no trees occur within the footprint. The project will not introduce invasive species or require pesticide or fertilizer use.</p> <p>See Figure 8 in Appendix A for a map of threatened and endangered species. See Appendix D for Natural Heritage Data search results.</p>

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ENERGY		
Environmental Assessment Factor	Impact Code	Impact Evaluation
Energy Efficiency	1	<p>The proposed project will improve the stormwater management system and alleviate recurrent street flooding. The proposed improvements will help mitigate potential outages and energy failures due to flooding impacts.</p> <p>The proposed project would involve the upgrading of antiquated existing pumps and fossil fuel technology to electric pumps. The upgrading of the pump technology would be more efficient and use less energy. Therefore, there would be a minor beneficial impact from the proposed project.</p>

Additional Studies Performed:

N/A

Field Inspection (Date and completed by):

A field inspection was completed on December 4, 2024, by Michael Baker International, Inc. and DCA. Please see **Attachment G** for field report and photos.

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]

- City of Jersey City. 2021 Climate and Energy Action Plan. Accessed at https://us.ftp.opendatasoft.com/analyzejerseycity/files/Sustainability/Jersey%20City%20Climate%20Energy%20Action%20Plan_FINAL.pdf
- City of Jersey City. Resiliency Master Plan. Accessed at <https://us.ftp.opendatasoft.com/analyzejerseycity/files/Master%20Plans/resiliency-mp-adopted-061417.pdf>
- City of Jersey City. Vision Zero Action Plan. Accessed at https://cdnsm5-hosted.civiclive.com/UserFiles/Servers/Server_6189660/File/Community/Transportation/Vision%20Zero/Vision%20Zero_RP.pdf
- Endangered Species Act. Section 7. Accessed at <https://www.fws.gov/laws/endangered-species-act/section-7>.
- Federal Avian Administration (FAA). Accessed at <https://www.faa.gov/>.
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM). FEMA FIRM Panel 34003C0264J. Accessed at <https://msc.fema.gov/portal/home>.
- Google™ Earth Pro.
- National Oceanic and Atmospheric Administration (NOAA)

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- NOAA. Essential Fish Habitat Mapper. Accessed at <https://www.habitat.noaa.gov/apps/efhmapper/>
- New Jersey Department of Agriculture, Natural Resources Conservation Service (NRCS). Web Soil Survey. Accessed at <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.
- New Jersey Department of Environmental Protection (NJDEP). Flood Hazard Area Control Act (FHACA) Rules. Accessed at https://dep.nj.gov/wp-content/uploads/wlm/downloads/fha/njac7_13-1.pdf.
- NJDEP. Freshwater Wetlands Protection Act Rules. Accessed at https://dep.nj.gov/wp-content/uploads/rules/rules/njac7_7a.pdf.
- NJDEP. National Wetlands Inventory (NWI). Accessed at <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>.
- NJDEP. Natural Heritage Program (NHP).
- New Jersey Department of Transportation (NJDOT), Division of Information Technology. NJDOT Open Data. NJDOT Aeronautics Facilities. Accessed at <https://open-data-portal-njdot.hub.arcgis.com/pages/gis-web-applications>.
- New Jersey Historic Preservation Office (SHPO)
- National Wild and Scenic Rivers System. Explore Designated Rivers, New Jersey. Accessed at <http://www.rivers.gov/new-jersey.php>.
- National Oceanic and Atmospheric Administration (NOAA). Vertical Datum Transformation (VDatum). Accessed at <https://vdatum.noaa.gov/>.
- Noise Control Act of 1972. Accessed at https://dep.nj.gov/wpcontent/uploads/rules/rules/njac7_29.pdf.
- Town of Secaucus. Reexamination of the Master Plan. Accessed at <https://green.secaucusnj.gov/forms-documents/forms/stormwater/32-re-examination-report-2019/file>
- U.S. Environmental Protection Agency (USEPA). Nonattainment Areas for Criteria Pollutants (Green Book). Accessed at <https://www.epa.gov/green-book>.
- U.S. Fish and Wildlife Service (USFWS). Coastal Barrier Resources System Mapper. Accessed at <http://www.fws.gov/CBRA/Maps/Mapper.html>.
- USFWS. Information, Planning, and Conservation (IPaC) System. Accessed at <http://ecos.fws.gov/ipac/>.

List of Permits Obtained

As of this date, no permits have been obtained for the proposed project. The grantee is responsible for obtaining all applicable local, state and federal permits prior to construction. Required environmental permits/approvals would likely include:

- NJDEP Waterfront Development Permit
- NJDEP Tidelands Authorization

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- NJDEP Flood Hazard Area Permit (7:13)
- Compliance with Stormwater Management Rules (7:8)
- CZM consistency determination
- Soil Conservation District SESC plan certification
- Section 401 Water Quality Certificate
- USACE Section 10/404 Permit

Public Outreach [24 CFR 50.23 & 58.43]

The County of Hudson published the public notice on Wednesday, November 22, 2023, for a public hearing discussing the proposed project on Wednesday, November 28, 2023. The County also reached out to the Secaucus and Kearny Mayor's Offices with a letter and a recording of the public hearing to ensure the communication of all vital information for the upcoming Penhorn Creek Pump Station Improvements Project. The intention of this outreach is for all potentially impacted residents to be notified of the project and its number of benefits, as it promises to alleviate the current flooding issues along Secaucus Road. Flood events along this roadway impact individuals from all of the surrounding communities who travel along the corridor and all surrounding corridors. In addition to engaging the community with a request for feedback, the County has also been working with the NJDEP on the easements and current land ownership of a portion of the proposed project area, the greenway, which the NJDEP currently owns. This project was developed in conjunction with the NJDEP's assistance and general oversight to address the severe flooding events along Secaucus Road as a result of reduced functionality of the existing pump house. The County last met with NJDEP staff to discuss the greenway property on November 29, 2023, and they were in full support of the project. See **Attachment H** for the NJDEP pre-application meeting minutes and the public hearing documentation.

The project area falls within the regulated flood hazard area and within regulated wetlands. As such as part of the Eight Step Analysis process, early notification and final notification was published in both English and Spanish and sent to interested parties. The early notification was published on May 13, 2025, through *The New Jersey DCA Disaster Recovery and Mitigation*, and was followed by a 15-day comment period. No comments regarding the proposed project were received during this time. See **Attachment E** for the 8-step documentation.

Cumulative Impact Analysis [24 CFR 58.32]

The proposed project involves the reconstruction of an existing stormwater facility with improvements to address flooding and increase pumping capacity to minimize flooding impacts within Hudson County – primarily along Secaucus Rd. The project would therefore result in mainly temporary impacts from reconstruction but would not result in a significant increase in footprint or environmental effects of the existing facility. Temporary construction would result in temporary but de minimis increases to adverse effects on air quality (see Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities section above). The proposed project would temporarily increase turbidity and sound pressure disturbance in the water column which may temporarily impact surface waters, aquatic wildlife, including threatened or endangered species

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(see Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities section above). However, these temporary increases would be minor and not have serious adverse impacts on these resources.

Additionally, activities are proposed within identified wetlands and the flood hazard area including some in-water work. Mitigation measures to protect existing wetland and floodplain values will be incorporated into the proposed project. There is no practicable alternative to relocate the project outside of the wetland or floodplain as the project aims to mitigate flooding, and there is no potential to limit the proposed actions. See Hudson County RC 100031 8 Step Analysis (**Attachment F**). As part of the 8-step Floodplain and Wetland process, an “Early Notice and Public Review of a Proposed Activity in a 100-Year/500-year Floodplain and Wetland” was published on May 13, 2025, on the NJ DCA website in English and Spanish at: <https://www.nj.gov/dca/ddrm/resources/environmental.shtml>. No public comments were received from the newspaper public notices during the 15 day comment period.

The impacts associated with the project are mostly temporary and minor and the geographic area has a high degree of similar disturbance/impact due to the population density and development of Hudson County. When considering the direct and indirect impacts that would result from the proposed activity, in relation to the overall direct and indirect impacts from past, present, and reasonably foreseeable future activities, the incremental contribution of the proposed activity to cumulative impacts in Hudson County are not significant. Mitigation measures (see Mitigation Measures and Conditions [40 CFR 1505.2(c)] section below) will be enforced offset the impacts of the proposed activity to eliminate or minimize its incremental contribution to cumulative effects within Hudson County.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

Alternative 1: Decommission Pump Station

Alternative Number 1 consisted of removing the pump station facility in its entirety and allowing the Penhorn Creek to naturally flow through the existing culvert drains running through the existing facility’s bulkhead. Because this alternative did not provide a mechanical means [pumping] for conveying the creeks natural flow and any stormwater flow over the bulkhead during high tide conditions, this alternative was determined to be infeasible given the conveyance requirements necessary for the Penhorn Creek.

Alternative 2: Rehabilitate Existing Pump Station

Alternative Number 2 consisted of rehabilitating the existing pump station building and internal components to re-establish a functioning pump station. A hydraulic capacity analysis, as well as a hydrology analysis was conducted to determine the potential for stormwater flow and the capacity of the existing high-pressure [solids handling] pumps.

The natural discharge of the creek during a rainfall event was determined to far exceed the pumping capacity of the existing high-pressure [solids handling] pumps. Furthermore, it was determined that, in a severe-enough rainfall event, there was potential for the Penhorn Creek to overtop the existing bulkhead structure and inundate the pump station building, flooding the existing facility.

After performing further evaluation on-site to determine the potential for station rehabilitation (and waterproofing of the existing facility), a final determination was made that rehabilitation of the station and surrounding facilities would not prevent future flooding, and that waterproofing the existing facility was not guaranteed to protect the existing electrical panels located within the building. Alternative 2 is anticipated to have an adverse environmental effect by increasing flood risk in an area already highly susceptible to flooding. As the goal of the project is flood mitigation, this alternative is considered neither feasible nor prudent.

Alternative 3: Relocate Pump Station

Alternative Number 3 consisted of relocating the existing pump station from its original location and placing it in a new location along the Penhorn Creek. It was quickly determined, however, that the relocation of the pump station would not be feasible in any way. The existing pump station is located on the bulkhead at the confluence of the Penhorn Creek and the Hackensack River. Relocating the pump station would immediately affect the existing pumps and the proposed pump configuration.

The existing pumps require vacuum-assisted priming in order to prime the suction piping and the pump volute. By moving the pump station to an upstream location and using these types of self-priming pumps, there would be a large increase in demand on the vacuum-priming system, and after a certain point, the priming system would no longer work.

Furthermore, changing the location of the pump station would also require the extension of all proposed pump discharge piping, regardless of the type of pumps chosen. This would increase the pumping demand required for the new pumps and would subsequently increase the size of the pumps. By increasing the size of the pumps, the electrical demand is increased, and so is the emergency power requirement. In turn, the emergency standby generator and the associated sub-base fuel tank would all increase in size. The further the pump station moves from the bulkhead, the more these items will increase in size and demand.

Locations along the Penhorn Creek are also identified as wetlands, and it was determined after the NJDEP pre-application meeting that modifying the existing station to raise its elevation and keep the location the same would be more logistically sound and cost effective than moving the entire pump station along the associated wetlands. Because the Penhorn Creek pump station is an existing facility, maintaining its current location is the more environmentally viable option, as relocation would necessitate disturbance of previously unaffected wetlands and floodplains.

No Action Alternative [24 CFR 58.40(e)]:

A no-action alternative was determined to be infeasible for the Penhorn Creek Pump Station. In its current condition, the pump station is incapable of conveying stormwater flow over the bulkhead as the pumps are not functioning correctly, if at all. In its current state, the Penhorn Creek Pump Station utilizes a trailer-mounted diesel-fueled pump to convey stream flow over the bulkhead. Therefore, the pump station cannot operate above approximately 35% of its normal operating capacity.

The existing pump station building is deteriorating, as well as the internal components, including electrical panels, existing pumps, and the CMU structure itself. The existing bulkhead is

deteriorating at a faster rate than the existing building due to its exposure to brackish water from the Hackensack tidal influence. If allowed to continue to operate, the pump station will become completely obsolete and will not function anymore. This will likely increase flooding and will not serve the purpose of the proposed project, which is to provide flood mitigation.

Summary of Findings and Conclusions

The proposed project (the preferred alternative) would meet all technical feasibility requirements, costs, and logistics requirements as well as meet the purpose and need. As described in the above Environmental Assessment, the proposed project would have no significant effects on the human environment and would have minor beneficial impacts as a result of the reduction in flooding. The no action alternative, two on-site alternatives and one off-site alternative were explored. The no action alternative would result in continued flooding in the City of Secaucus. The two on-site alternatives – decommissioning the pump house or rehabilitating the pump house – would not meet the project purpose of mitigating flooding; therefore, these alternatives are dismissed. The off-site alternative would involve greater environmental impact as it would involve new impact to previously undisturbed areas. Therefore, the preferred action alternative is the environmentally preferred alternative.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan. Please see the table below for a summary of anticipated mitigation measures.

General Project Conditions

1. The grantee shall obtain all required federal, state, and local permits prior to construction and comply with all permit conditions.
2. If the scope of work of the proposed project changes, the application for funding must be revised and resubmitted for reevaluation under NEPA.

Historic Preservation

3. If project activities uncover archaeological deposits, including any Native American pottery, stone tools, bones, or human remains, the project shall be halted, and the applicant shall immediately stop work in the vicinity of the discovery and take reasonable measures to avoid or minimize harm to the finds. All archeological findings will be secured and access to the sensitive area restricted. The applicant will inform DCA and DCA will consult with the State Historic Preservation Office (SHPO) or Tribal Historic Preservation Office (THPO) and Tribes. Work in sensitive areas cannot resume until consultation is completed and appropriate measures have been taken to ensure that the project is in compliance with the National Historic Preservation Act (NHPA).

Flood Insurance

4. Properties in, or partially in, the 100-year floodplain shown on the effective FEMA FIRM, must be covered by flood insurance and the flood insurance must be maintained when ownership transfers [24 CFR 58.6(a)(1)]. No funding will be provided to any person who previously received federal flood disaster assistance conditioned on obtaining and maintaining flood insurance but failed to obtain and maintain insurance [24 CFR 58.6(b)].

Coastal Zone Management Act

5. The project shall comply with the New Jersey Coastal Zone Management Rules (N.J.A.C. 7:7) and will be reviewed for federal consistency under the Coastal Zone Management Act. All in-water and waterfront activities shall be conducted in accordance with NJDEP approvals to ensure full consistency with the State's federally approved Coastal Management Program.

Endangered Species and Essential Fish Habitat

6. The monarch butterfly (*Danaus plexippus*, proposed threatened) and the tricolored bat (*Perimyotis subflavus*, proposed endangered) may occur within the project area. If the project is not completed prior to the effective date of a final rule listing either species, the grantee shall contact the DCA to reassess potential impacts to the monarch butterfly and/or

tricolored bat. DCA shall reinitiate consultation with USFWS if any remaining project activities may affect either species.

7. To avoid and minimize potential impacts to proposed endangered tricolored bat, the grantee shall: 1) avoid drilling and/or blasting activities during May 15 through July 31 annually (i.e., the pup season for the tricolored bat in New Jersey), and 2) avoid tree cutting/trimming/removal from May 15 through July 31 annually.
8. To avoid and minimize impacts to Atlantic sturgeon, shortnose sturgeon and essential fish habitat, the grantee shall ensure the following:
 - a. All in-water work would be scheduled during low tide.
 - b. Culvert pipe replacement would occur one drain at a time using cofferdams, allowing one culvert to remain operational while the other is replaced.
 - c. After completing the first culvert, cofferdams would be relocated to the second drainpipe area.
 - d. A turbidity curtain would be installed on the downstream side to limit sediment disturbance to the immediate project vicinity.
 - e. Any groundwater encountered during construction may be treated using frac tanks to settle solids before discharge, provided discharge does not exceed 100,000 gallons per day.
 - f. Steel sheet piles would be installed using a resonance-free vibratory hammer, minimizing vibrations during start-up and shut-down.

Wetlands and Waters Protection

9. The proposed action shall comply with all applicable federal and state regulations governing wetlands and regulated waters, including Section 404 of the Clean Water Act and USACE regulations (33 CFR Parts 320–332), as well as the New Jersey Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A). All required federal and state permits for activities affecting wetlands, transition areas, or regulated waters shall be obtained prior to construction. The project shall avoid and minimize impacts to wetlands and regulated waters to the maximum extent practicable, with mitigation provided as required by the permitting agencies.

Floodplain Management

10. The proposed action shall comply with Executive Order 11988 (Floodplain Management), HUD regulations at 24 CFR Part 55, and the New Jersey Flood Hazard Area Control Act Rules (N.J.A.C. 7:13). Project activities within the floodplain shall avoid and minimize impacts to flood storage, conveyance, and ecological function to the maximum extent practicable, in accordance with EO 11988, 24 CFR 55.20, and N.J.A.C. 7:13. To ensure compliance, the grantee and their construction contractors shall implement the following measures throughout design and construction:
 - a. Elevate or flood-proof project components, as required by N.J.A.C. 7:13, to ensure compliance with flood-resistant construction standards.

- b. Limit temporary disturbance within the floodplain and restore all disturbed areas to pre-construction conditions or better using native vegetation and appropriate stabilization measures.
- c. Maintain floodplain conveyance by prohibiting the placement of stockpiled materials, equipment, or fill within areas subject to flooding, unless otherwise approved under NJDEP permitting.
- d. Implement best management practices (BMPs)—such as erosion and sediment controls, turbidity controls during in-channel work, and measures preventing downstream sedimentation—during any activity near regulated waters or outfalls.
- e. Protect adjacent properties and infrastructure by ensuring no net increase in flood elevations or obstruction of flood flows.
- f. Comply with all conditions established in the state permit(s) and any local floodplain ordinances applicable to the project area.
- g. All floodplain-related requirements and permit conditions shall be incorporated into construction documents and enforced throughout the duration of work.

Stormwater Management and Soil Erosion and Sediment Control Compliance

11. The project shall comply with the New Jersey Stormwater Management Rules (N.J.A.C. 7:8) and the New Jersey Soil Erosion and Sediment Control Act and implementing rules (N.J.A.C. 2:90). Prior to and during construction, the applicant shall prepare and implement a stormwater management and soil erosion and sediment control plan consistent with these regulations and with the New Jersey Standards for Soil Erosion and Sediment Control. The plan shall include appropriate best management practices (BMPs) to control runoff, prevent erosion and sedimentation, and protect water quality. All stormwater and erosion control measures shall be installed, maintained, and monitored for the duration of construction and site stabilization. All requirements of the Stormwater Management Rules and Soil Erosion and Sediment Control Rules shall be incorporated into project construction documents and enforced throughout the project.

Site Contamination

12. Prior to any demolition or disturbance of the existing pump house, the County shall retain a New Jersey-licensed asbestos inspector to perform an asbestos survey in accordance with N.J.A.C. 5:23-8 (NJ Uniform Construction Code – Asbestos Abatement Subcode). If ACM is identified, removal, handling, and disposal shall be conducted by a NJ-licensed Asbestos Abatement Contractor in compliance with N.J.A.C. 12:120 (PEOSH Asbestos Standard), N.J.A.C. 8:60 (NJDOH Asbestos Rules), and all notification requirements under N.J.A.C. 5:23-8.10. All abatement must be completed prior to demolition activities.
13. Before demolition or interior work begins within the existing pump house, the County shall perform a mold assessment and, if identified, remediate mold in accordance with New Jersey Department of Health (NJDOH) Indoor Mold Guidance and worker-protection requirements under N.J.A.C. 12:100-13 (PEOSH Indoor Air Quality Standard). Remediation shall occur prior to any construction activities that would expose workers to mold-impacted building materials.

14. Because the project is located adjacent to the Lower Hackensack River Superfund Site, where contaminated sediments are documented, the following conditions apply:
 - a. Prior to bulkhead replacement, excavation, or installation of new 30-inch culverts, the County shall evaluate sediments and upland soils consistent with NJDEP requirements under the Site Remediation Reform Act (SRRA) and N.J.A.C. 7:26E (Technical Requirements for Site Remediation) if contaminated historic tidal sediments are encountered.
 - b. If contaminated sediments or soils are identified during construction, they shall be managed and disposed of in accordance with N.J.A.C. 7:26 (Solid Waste), N.J.A.C. 7:26E, and all applicable NJDEP soil disposal guidance. Material may not be reused on site unless it meets NJDEP residential soil remediation standards or a remedial action permit allows its use.
 - c. All sheet pile installation, bulkhead replacement, work within or adjacent to tidal waters, and disturbance of riverbanks shall comply with NJDEP Flood Hazard Area Control Act Rules (N.J.A.C. 7:13) and Coastal Zone Management Rules (N.J.A.C. 7:7). Erosion, sediment, and turbidity controls must be maintained throughout construction to prevent the mobilization of contaminated sediments into the Hackensack River.

Construction Best Management Practices

15. During construction, standard noise and air quality best management practices shall be implemented, including the use of functional mufflers on all equipment, compliance with applicable local noise ordinances, and minimization of noise impacts to nearby receptors. The project shall control dust through water or approved suppressants, cover trucks hauling loose materials, and prevent off-site dust or emissions in accordance with N.J.A.C. 7:27-5. The grantee and their construction crew shall comply with New Jersey idling limits at N.J.A.C. 7:27-14 and 7:27-15, use ultra-low sulfur diesel fuel, and obtain any required NJDEP air permits for applicable stationary equipment under N.J.A.C. 7:27-8. All reasonable measures shall be taken to minimize construction-related air emissions and noise throughout the duration of work.

Solid Waste Management

16. All solid waste, construction debris, and recyclable materials generated by the project shall be managed in accordance with the New Jersey Solid Waste Management Rules (N.J.A.C. 7:26) and the Recycling Rules (N.J.A.C. 7:26A). The contractor shall ensure proper handling, storage, transport, recycling, and disposal of all materials at facilities authorized to accept such waste. Hazardous or contaminated materials, if encountered, shall be managed in compliance with all applicable federal and state requirements. The applicant shall implement waste reduction and recycling practices to the maximum extent practicable and maintain documentation of proper waste disposal for the duration of construction. All solid-waste-related requirements shall be incorporated into project construction documents and enforced throughout the project.

Environmental Assessment
Hudson County RC 100031 Penhorn Creek Pump Station

Determination:

Finding of No Significant Impact [24 CFR 58.40(g)(1); 40 CFR 1508.27]

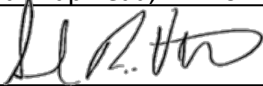
The project will not result in a significant impact on the quality of the human environment.

Finding of Significant Impact [24 CFR 58.40(g)(2); 40 CFR 1508.27]

The project may significantly affect the quality of the human environment.

Preparer Signature: Kendall Papineau Date: 03/20/2026

Name/Title/Organization: Kendall Papineau, Environmental Specialist, Michael Baker International

Certifying Officer Signature:  Date: 03/27/2026

Name/Title: Samuel Viavattine, Deputy Commissioner

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).