NJ TRANSITGRID TRACTION POWER SYSTEM

Record of Decision

PREPARED BY: FEDERAL TRANSIT ADMINISTRATION and NEW JERSEY TRANSIT CORPORATION

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NJ TRANSITGRID TRACTION POWER SYSTEM RECORD OF DECISION

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Chapter 2

Record of Decision

2.1 DECISION

The Federal Transit Administration (FTA) has determined, pursuant to 23 United States Code (USC) § 139(n) and 23 Code of Federal Regulations (CFR) Part 771 and 40 CFR Parts 1500 – 1508, that the requirements of the National Environmental Policy Act (NEPA) of 1969 have been satisfied for the NJ TRANSITGRID TRACTION POWER SYSTEM (the Project). FTA, as the lead federal agency, and New Jersey Transit Corporation (NJ TRANSIT) as the Project sponsor, conducted the environmental review process. The U.S. Environmental Protection Agency (USEPA) and U.S. Army Corps of Engineers (USACE) are serving as Cooperating Agencies. The U.S. Department of Energy (USDOE), Federal Railroad Administration (FRA), Federal Emergency Management Agency (FEMA), U.S. Department of Housing and Urban Development (HUD), Amtrak, N.J. Department of Environmental Protection (NJDEP), N.J. Board of Public Utilities (NJBPU), N.J. Department of Transportation (NJDOT), N.J. Office of Emergency Management (NJOEM), N.J. Office of Homeland Security and Preparedness (NJOHSP), N.J. Sports and Exposition Authority (NJSEA), Hudson County Improvement Authority (HCIA), Hudson County Planning (HCP), and Hudson County Soil Conservation District (HCSCD) are serving as Participating Agencies for this Project.

NJ TRANSIT proposes to design and construct the Project, a first-of-its-kind "microgrid" designed to provide highly reliable power to support limited service in a core segment of NJ TRANSIT's and Amtrak's critical service territory. As defined by the USDOE, a microgrid is a local energy grid with "control capability," which means it can disconnect from the commercial power grid and operate autonomously¹. The microgrid would be resilient, making the transportation system substantially less vulnerable to power outages, and thereby able to provide reliable and safe service to customers.

This Record of Decision (ROD) applies to the NEPA Preferred Alternative which is described in detail in the Final Environmental Impact Statement (FEIS) for the Project. The combined FEIS/ROD was made publicly available by the USEPA and a Notice of Availability will be published in the Federal Register. In accordance with 23 United States Code (USC) § 139(n), and 23 CFR § 771.124, FTA is issuing a single document that consists of the combined FEIS/ROD as it has been determined that circumstances, such as changes to the proposed action, anticipated impacts, or other new information, do not preclude issuance of such a combined document.

This ROD provides background on the Project's development; describes the alternatives FTA considered; discusses the public opportunity for comment on the Draft Environmental Impact Statement (DEIS); explains the basis for FTA's decision; documents compliance with applicable federal environmental laws, regulations, and executive orders; and sets forth the mitigation measures required as part of the decision. This ROD, the DEIS (published in May 2019), the FEIS constitute the FTA environmental record for the Project and are incorporated herein by reference. The brief descriptions included in this ROD provide a summary of the basis for the decision which the environmental record fully substantiates.

¹ U.S. Department of Energy (DOE) web page "How Microgrids Work" <u>https://www.energy.gov/articles/how-microgrids-work</u>, accessed in July 2016.

2.2 BASIS FOR THE DECISION

2.2.1 Planning and Project Development Process

Between 2011 and 2012, New Jersey experienced three major weather events that had direct impacts on the state's existing commercial power grid. In August 2011, Hurricane Irene brought devastating rains, winds, and flooding that resulted in more than 2.2 million people throughout New Jersey left without power for up to eight days. Later in October 2011, a large early snowstorm disrupted power to more than one million people for up to seven days. Lastly and most notably, Superstorm Sandy caused widespread damage in New Jersey and New York in the fall of 2012.

The public transportation infrastructure connecting Manhattan with northern New Jersey via the Hudson River Tunnels, which is critical for security and economic development, was severely weakened in this two-year period. Public transportation service was disrupted for an unanticipated length of time after the storms, especially Superstorm Sandy. Power was restored to NJ TRANSIT's Hudson-Bergen Light Rail (HBLR) (which serves approximately 52,000 riders daily) three days after Superstorm Sandy, but full service on the Morris & Essex Line wasn't restored until 34 days after the storm. 143,000 commuters from New Jersey to New York use public transportation and an interruption in service can cause debilitating delays for hundreds of thousands of customers as well as significant economic losses to the region.

In response to the damages caused by Superstorm Sandy, the Disaster Relief Appropriations Act (Pub L. 113-2) provided \$10.9 billion in funding for FTA's Emergency Relief Recovery Program. Through a competitive process, the Project was one of 40 projects selected for funding with a 75 percent federal and 25 percent local sponsor cost share. A Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) and announcement of the availability of the Draft Scoping Document was published in the Federal Register on January 7, 2016. A public scoping meeting was held on February 3, 2016 in Jersey City, NJ. Comments received were incorporated into the *Final Scoping Document*, which was released in May 2016 and is available on the project website (https://njtransitresilienceprogram.com/documents/).

2.2.2 Purpose and Need

The purpose of the proposed Project is to enhance the resiliency of the electricity supply to NJ TRANSIT and Amtrak infrastructure that serves key commuter markets in the New York and New Jersey metropolitan region to minimize public transportation service disruptions and facilitate emergency transportation. The need for the proposed Project is based, in part, on the vulnerability of the commercial electric power grid that serves NJ TRANSIT and Amtrak's Northeast Corridor rail service. The region's public transportation infrastructure is vulnerable to power outages due to the nature of the existing centralized power distribution system and the intensity and frequency of severe weather events.

The Project would be designed to generate enough electrical power to maintain limited operation of commuter and passenger rail service on key segments of the Amtrak Northeast Corridor (up to 60 megawatts [MW]), NJ TRANSIT Morris & Essex Line (15 to 30MW), and the NJ TRANSIT HBLR system (up to 20MW) indefinitely and without requiring electrical power from the commercial electrical grid or its suppliers. Under emergency conditions (e.g., a PJM system blackout), NJ TRANSITGRID will operate in

island mode and provide up to 140MW to meet NJ TRANSIT's demand for parts of the Northeast Corridor, parts of NJ TRANSIT's Morris & Essex and HBLR loads, and assist Amtrak by moving its Northeast Corridor trains to nearby stations. Specifically, the proposed Project is intended to produce and distribute enough electricity to provide traction (i.e., train locomotive) power to the following service territories:

- Amtrak's Northeast Corridor between New York Penn Station and County Yard/Jersey Avenue Station in New Brunswick, NJ (approximately 32.8 rail miles);
- NJ TRANSIT's commuter rail service between Hoboken Terminal and Maplewood Station in Maplewood, NJ on the Morris & Essex Line (approximately 15.2 rail miles); and
- NJ TRANSIT's HBLR (approximately 16.6 rail miles).

The proposed Project would also be designed to support non-traction functions (i.e., NJ TRANSIT signal power, switches, tunnel ventilation, pumping, station and lighting loads) in the above rail segments and the signal system on a portion of the NJ TRANSIT Main Line from the intersection with the Morris & Essex Line to the Upper Hack Lift Bridge (approximately 2.5 rail miles) so that diesel trains can operate on that non-electrified segment during power outages.

The Main Facility, transmissions lines, and distribution lines will be rated for 90 mph sustained winds and gusts up to 120 mph. This is consistent with requirements for Risk Category IV structures (essential facilities). This corresponds to winds with an annual chance of occurrence of 0.0588 percent (i.e., 1,700-year event).

2.2.3 Preferred Alternative Project Site Selection

The initial (2015) siting analysis evaluated 21 sites on the Kearny Peninsula based on siting criteria that considered land availability and how well each site would facilitate the ability of the Preferred Alternative to meet the objectives of the Project. In response to comments received during the Project's scoping phase, an expanded siting analysis was performed to optimize the location of the Main Facility. Three additional areas of investigation were identified outside of Kearny, NJ for an expanded siting analysis based on the presence of vacant or underutilized parcels that could be combined to provide the 20-acre site that is needed for the Main Facility. The site located in the central portion of a HCIA-owned property, commonly knowns as the Koppers Koke Site, which lies within the Koppers Coke Redevelopment Area (Redevelopment Area) was ultimately selected as the preferred site over other locations, both within and outside of Kearny. The selected site was the most suitable location for the construction of the Main Facility due to its proximity to the major substations that it would power, the proximity to multiple available sources of high-quality natural gas, and property acquisition considerations.

The equipment for the Preferred Alternative was specified by considering several factors related to the goals and objectives identified for the Project. Use of black start engines and gas turbines in a combined-cycle plant was evaluated. The Preferred Alternative includes seven contiguous-linked project components – Project Component A through Project Component G. Together, the seven segmented Project Components comprise the single Preferred Alternative. The Preferred Alternative includes the following components (described in detail in Section 2.3):

- Project Component A Main Facility
- Project Component B Natural Gas Pipeline Connection
- Project Component C Electrical Lines to Mason Substation
- Project Component D Electrical Lines and New Kearny Substation
- Project Component E Electrical Lines and New NJ TRANSITGRID East Hoboken Substation
- Project Component F Connection to HBLR South
- Project Component G HBLR Connectivity

2.2.4 Alternatives Considered

The DEIS retained the No Action Alternative and the Preferred Alternative for further study. Other alternatives that were reviewed during scoping or in response to public comments and eliminated are discussed in FEIS Appendix D. As discussed in the DEIS, under the No Action Alternative, the property acquisition of the 20-acre parcel and the six-acre parcel would proceed as agreed to by NJ TRANSIT and HCIA under a Settlement Term Sheet. This property acquisition was completed in July 2019.

The preferred equipment configuration is a combined-cycle technology resulting in power generation capacity of 104 megawatts (MW) to 140MW that combines five natural gas turbines and one steam turbine.

For the electrical transmission lines, multiple installation options were considered in areas where rightsof-way were congested or sensitive resources (e.g., historic resources) were present. For all electrical transmission alignments, three installation options were evaluated. These included the installation of new monopoles for an aerial routing, installation of duct banks for an underground routing, and a combination of the two techniques. A combination of the two techniques was preferred due to various site-specific factors, such as access, site constraints, localized geology, areas of known contamination and documentation/survey of existing utilities (both overhead and underground).

The preferred electrical line alignment for Project Component D would depart from the Morris & Essex Line east of the Mason Substation and travel south around the Meadowlands Maintenance Complex (MMC) buildings and west along the MMC access rail toward Cedar Creek Marsh South for a total of 1.47 miles. This would avoid existing utilities and be less impactful to the historic district.

For Project Component E, several options for crossing the Hackensack River were evaluated. The preferred option would construct two monopoles up to 220 feet tall on either side of the Hackensack River approximately 50 feet north of the Lower Hack Drawbridge. Based on the current level of engineering, this aerial option has been deemed the most desirable. The other options evaluated in the DEIS included directionally drilling the cable at least two feet underneath the riverbed of the Hackensack River or laying a submarine cable within a jet-plowed trench across the riverbed of the Hackensack River.

2.3 PREFERRED ALTERNATIVE PROJECT DESCRIPTION

2.3.1 Preferred Alternative Project Overview

NJ TRANSIT identified one Preferred Alternative, which would include a Main Facility in Kearny, NJ with a potential power output between 104MW to 140MW, the installation of up to 19.6 miles of new electrical lines, the construction of two new electrical substations in Kearny and Jersey City, NJ, and the installation of emergency generators (the "nanogrid"²) at HBLR Headquarters in Jersey City, NJ. The primary fixed facilities (including Project Components A and B) would be built within the Redevelopment Area on a 20-acre footprint (for the Main Facility) and a separate 6-acre area (for new metering stations and pipeline connections). All construction activities would take place within existing transportation rights-of-way or within existing easements. Electrical line installation within these rights-of-way would be in Kearny, Jersey City, Hoboken, Bayonne, Weehawken, Union City, and North Bergen, NJ. Project Components A through G (described in more detail below) are integrated and cannot operate independently of each other without compromising the overall microgrid's purpose and need in servicing the daily commuter ridership.

2.3.2 Project Component A: Main Facility

The Main Facility would occupy approximately 20 acres within the Koppers Koke Site and would consist primarily of a power plant with five natural gas turbines, two of which will be connected to heat recovery systems to power a steam-driven turbine. It would also include the Main Facility building, which would include a maintenance shop, locker rooms, control room, process equipment, office facilities, and other general-use spaces (approximately 32,000 square feet of working and office space), as well as a parking lot for employees, a stormwater detention pond, and a four-acre solar panel farm. An electrical yard would house project substations, transformers, and frequency converters to accommodate the different power needs of Amtrak's Northeast Corridor and NJ TRANSIT's commuter and light rail services. Other major on-site facility components would include cooling towers, tanks and equipment for aqueous ammonia (used for emissions controls), two black start reciprocating engines, and service and fire water. Security fencing and other security measures would be installed at the site.

2.3.3 Project Component B: Natural Gas Pipeline Connection

The six-acre parcel that would be used for the gas connection to the commercial natural gas supply lines is located to the south of the Morris & Essex Line within the Redevelopment Area. A new gas metering station would be installed to access natural gas from existing pipelines that cross the parcel. The total length of the pipeline from the meter to the Main Facility would be approximately one-half mile. The pipeline would be buried at least four feet below ground surface to provide additional protection. The gas

² The nanogrid consists of two natural gas-fired emergency generators capable of producing the necessary power (approximately 2MW each) for the southern segment of the HBLR, which is in addition to the 104MW to 140MW that would be produced by the microgrid. It would include some measure of stored energy in the form of batteries or flywheels to smooth the instantaneous load profile of the HBLR traction loads. The term "nanogrid" refers to small microgrids that typically serve a single building or a single load. For the proposed Project, during commercial power outages, the nanogrid would serve the southern segment of the HBLR from Essex Street Station in Jersey City to 8th Street Station in Bayonne. The West Side Avenue segment in Jersey City will also be powered by the nanogrid when the commercial power grid is down.

metering station would be enclosed in a small structure, and security fencing, and other security measures would be installed on the six-acre parcel.

2.3.4 Project Component C: Electrical Lines to Mason Substation

Preferred Alternative Project Component C would comprise electrical lines (230 kilovolts [kV], doublecircuit, 60 hertz [Hz]) along railroad rights-of-way between the Main Facility site and Mason Substation to supply power to the Morris & Essex Line. It would extend approximately 0.7 miles in length. The preferred option for installation of these electrical lines is a combination of new monopoles (maximum height of 220 feet where required for adequate clearance from other infrastructure) and underground duct banks.

2.3.5 Project Component D: Electrical Lines and New Kearny Substation

A new traction power substation (referred to hereafter as the new Kearny Substation) would be built to replace the functions of the existing Amtrak Substation No. 41 and accommodate the new connections to the Main Facility to support Northeast Corridor service. The new Kearny Substation would be located within Amtrak property adjacent to the existing Substation No. 41. The new Kearny Substation would require the construction of an elevated platform on concrete piers to support the new equipment. While the existing lattice structure at Substation No. 41 would remain in place, the equipment at Substation No. 41 would be decommissioned and removed. The electrical line from the Main Facility to the new Kearny Substation (138kV, single phase, 25Hz) would be routed through the existing rail line and through the rail yard in the area of the MMC and the Morris & Essex Line. The preferred option for installation of these electrical lines is a combination of new monopoles (maximum height of 220 feet where required for adequate clearance from other infrastructure) and underground duct banks.

2.3.6 Project Component E: Electrical Lines and New NJ TRANSITGRID East Hoboken Substation

Preferred Alternative Project Component E includes an electrical line that extends from the Main Facility eastward to Henderson Street Substation. A new NJ TRANSIT substation (referred to as the NJ TRANSITGRID East Hoboken Substation) will be constructed on NJ TRANSIT property between the Morris & Essex Line, HBLR, and Jersey Avenue to serve the Henderson Street Substation and for HBLR resiliency. This approximately 3-mile electrical line will remain within the Morris & Essex Line's right-ofway and will support HBLR service and Hoboken Terminal and Yard. Preferred Alternative Project Component E electrical lines include 27kV 60 Hz medium voltage feeders to the new NJ TRANSITGRID East Hoboken Substation and 13kV voltage feeders for 0.28 miles to the new Henderson Street Substation. The electrical line would cross the Hackensack River, proceed through a 0.8-mile tunnel (the southern tube of the existing Bergen Tunnels, which is part of the Morris & Essex Line), and connect the new NJ TRANSITGRID East Hoboken Substation to the Henderson Street Substation. The preferred option is for the electrical line to be run aerially across the Hackensack River, which would require two monopoles (maximum height of 220 feet) on either side of the Hackensack River (i.e., one in Kearny and one in Jersey City), approximately 50 feet north of the Lower Hack Bridge. From the NJ TRANSITGRID East Hoboken Substation, the circuit would be divided with a feeder headed north on the HBLR easement to feed the HBLR north substations, and a feeder headed east connecting to the Henderson Street Substation to feed Hoboken Terminal and Yard and some HBLR substations. The preferred option for installation of these

electrical lines is a combination of new monopoles and underground duct banks. Monopoles would be a maximum height of 220 feet west of the Hackensack River and up to 65 feet tall east of the Hackensack River where required for adequate clearance from other infrastructure (with one monopole on the east bank of the Hackensack River up to 220 feet tall to facilitate the aerial crossing) of the river.

2.3.7 Project Component F: Connection to HBLR South

Connectivity to the southern portion of HBLR consists of a smaller "nanogrid" that would be installed on NJ TRANSIT-owned property at the HBLR Headquarters on Caven Point Avenue in Jersey City. The nanogrid would consist of two approximately 2MW generators driven by natural gas reciprocating engines. It will supply power to the southern half of the HBLR (approximately 8.66 rail miles) during emergencies. The emergency generators would be air cooled and would be housed within noise attenuating enclosures installed in a parking lot next to an existing emergency generator. A combination of aerial and underground electrical lines on new monopoles less than 40 feet tall or duct banks within the NJ TRANSIT-owned property would connect the emergency generators to the HBLR.

2.3.8 Project Component G: HBLR Connectivity

To provide service along NJ TRANSIT'S HBLR, power would be distributed to the individual traction power substations along the HBLR right-of-way. Preferred Alternative Project Component G is approximately 14.4 miles in length and extends from Tonnelle Avenue in North Bergen to 8th Street in Bayonne, including one spur through the West Bergen section of Jersey City to the West Side Avenue Station. From the NJ TRANSITGRID East Hoboken Substation to the HBLR, power would be conveyed through electrical lines. The preferred option for installation of the electrical lines along HBLR would be on new utility poles (maximum height of 39 feet), within duct banks and attached to elevated HBLR structures. The nanogrid for Project Component F would allow for Project Component G to bypass and avoid the need to install monopoles in a historically significant 1.6-mile segment of the HBLR in Jersey City, while still providing power to the entire HBLR Line.

2.3.9 Effects of the NEPA Preferred Alternative

The effects of the Preferred Alternative and the cumulative effects of each Project Component on the full range of social, economic, and environmental impacts are presented in FEIS Table 2. While the Preferred Alternative would not result in significant adverse effects on social, economic or environmental conditions in the study area that could not be mitigated, there would be some non-significant impacts alleviated by proposed, suitable and commensurate mitigation to the following evaluated environmental categories: Air Quality, Greenhouse Gas (GHG) Emissions, Historic Resources, Traffic, Navigation and Public Transportation, Natural Resources, and Utilities. Additionally, temporary construction impacts were evaluated in the DEIS and would be reduced with provided mitigation measures and best management practices (BMPs). As designed, the Preferred Alternative is not anticipated to pose any state or federal regulatory permitting compliance issues.

The environmental analyses considered the potential effects in study areas that were defined for each specific environmental topic area. Effects on Air Quality, GHG Emissions, Visual, Historic Resources, and

Utilities may differ based on the final Main Facility configuration and connectivity options chosen; however, the analysis in the DEIS considered a reasonable worst-case scenario. The analysis presented described the effects of normal operating conditions. If the potential effects under emergency operating conditions differ from those of normal operating conditions, those effects were described separately in the appropriate resource chapters.

2.4 SUMMARY OF REQUIRED PERMITS AND MITIGATION COMMITMENTS

Table ROD-1 includes a summary of all applicable permits, certifications and agreements for the construction and operation of the proposed Project, including anticipated special conditions, commitments and/or mitigation measures to which NJ TRANSIT will adhere. NJ TRANSIT is prepared to comply with all federal, state and local regulations during the design and construction phase of the proposed Project. As a condition of its decision FTA is imposing mitigation requirements that will avoid or minimize the environmental impacts of the Project. These mitigations measures and conditions include those listed in Table ROD-1. All feasible and prudent means to avoid and minimize environmental harm from the FEIS Preferred Alternative have been adopted. With these conditions, FTA has determined that all practicable means to avoid or minimize environmental harm from the Project have been adopted.

FTA will require in any funding agreement on the Project, and as a condition of any grant for the Project, that committed mitigation be implemented in accordance with the FEIS/ROD. As a condition of funding, FTA will require the grant recipient to periodically submit written reports on its progress in implementing the mitigation commitments. FTA will monitor this progress through quarterly reviews of the Project's progress.

Permits/ Certifications/ Agreements	Regulations	Regulatory Agency/ Jurisdiction	Federal/ State/ Local	Activity	Special Conditions, Commitments and Mitigation Measures ³
			Historic Res	ources & Section 4(f) Properties	
Section 106 - Programmatic Agreement	Section 106 of the National Historic Preservation Act of 1966 (33 CFR Part 800)	FTA, NJ TRANSIT and NJ HPO	Federal/State	Project has been found to potentially adversely affect historic resources. Pursuant to 36 CFR § 800.14 (b), FTA, NJ TRANSIT and NJ HPO have executed a Programmatic Agreement (PA), signed January 16, 2020.	The PA summarizes all Section 106 consultations and establishes stipulations and agreed upon mitigation measures to be implemented during the project's design and construction, to avoid, minimize, or mitigate adverse effects of the Project on historic and archaeological resources. Refer to FEIS Appendix B – Section 106 Programmatic Agreement for details on agreed upon mitigation measures. Measures include survey and photographic recordation of nearby historic resources and monitoring of excavations for unanticipated disturbance of archaeological disturbances. Should unanticipated archaeological resources be discovered, they will be treated in accordance with regulations set forth at 36 CFR § 800.11 and CFR § 800.13. In the event Native American archaeological resources are discovered during construction, construction will cease in the area, and FTA will notify all Tribal representatives. Construction will not resume until such time as the significance, treatment, and disposition of said discoveries can be determined in consultation with consulting parties.
Section 4(f)	Section 4(f) of the Department of Transportation	U.S. Department of the Interior	Federal	Evaluation to determine no prudent and feasible alternative exists to avoid use of a Section 4(f) property. Evaluation describes all possible	Refer to FEIS Appendix A – Section 4(f) Evaluation and mitigation measures are set forth in the executed Section 106 PA, found in FEIS Appendix B – Programmatic Agreement.

Table ROD-1 Summary of Required Permits, Certifications and Agreements

³ Special Conditions, Commitments and Mitigation Measures listed in this table are those that are currently anticipated by NJ TRANSIT. During the permitting process, and as design progresses, regulatory agencies may alter the final conditions/commitments/mitigation measures. NJ TRANSIT will adhere to all requirements of all permits, certifications and agreements, as required by law.

Permits/ Certifications/ Agreements	Regulations	Regulatory Agency/ Jurisdiction	Federal/ State/ Local	Activity	Special Conditions, Commitments and Mitigation Measures ³
	Act of 1966 (23 CFR Part 774)			planning to avoid, minimize and mitigate potential project impacts on historical and cultural resources. No significant impacts on public recreation or wildlife refuges were identified.	
			USAC	E Section 10/Section 404	
Section 10 Individual	Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403)	USACE New York District	Federal	Section 10 Individual Permit required for obstruction or alteration of navigable waters by replacing or constructing structures within a navigable water, or overhead transmission lines.	Federal Public Notice period and consult between the USACE and USCG, for the to be submitted Section 10 permit, will ensure: 1. That the preferred crossing via aerial transmission over the Hackensack River has been designed to account for potential line sag and meets the minimum navigational and bridge clearances as required by the USACE and USCG under, Regional Conditions for NWP (12) Utility Lines, Condition (i), where temperature, load, wind, length of span, and type of supports are factored. 2. The preferred alternative (aerial crossing) does not propose in water activities; however, should other alternatives requiring in water work be permitted options the appropriate USCG-Regulated Navigation Area or Limited Access Area will be established in accordance with 33 CFR 165.5. The proposed crossing option(s) will be authorized under an Individual permit and will adhere to applicable regional conditions as stipulated under a Nationwide Permit (NWP) 12 Utility lines, which provides minimal clearance requirements for aerial transmission lines across navigable waters and buried cables or pipelines across "All Other" federal navigation channels.

Permits/ Certifications/ Agreements	Regulations	Regulatory Agency/ Jurisdiction	Federal/ State/ Local	Activity	Special Conditions, Commitments and Mitigation Measures ³
					Any seasonal timing restriction on work within waters to avoid negative effects on aquatic species in the Hackensack River as required by NOAA or NJDEP will be included in the permit
Section 404 Individual Permit	Section 404 of the Clean Water Act of 1977 (33 USC 1251)	USACE New York District	Federal	Section 404 Individual Permit required for placement of fill, outfall structure, utility, into "waters of the US," including the Hackensack River and Cedar Creek Marsh South. Wetland delineation data to be presented under the Section 404 submission. A separate Jurisdictional Determination will not be procured.	Mitigation under the Section 404 permit will address impacts to wetlands/waters of the U.S. to be authorized under Section 404 Individual Permit. Mitigation commitments include the purchase of state and federally approved compensatory wetland mitigation credits from a federally approved mitigation bank in accordance with mitigation hierarchy, or commensurate mitigation as deemed appropriate by the USACE and NJDEP during the permitting process. Federal Public Notice under Section 404 permit review between the USACE and USCG will ensure any required Regulated Navigation Area or Limited Access Area is established in accordance with 33 CFR 165.5. Any seasonal timing restriction on work within waters to avoid negative effects on aquatic species in the Hackensack River as required by NOAA or NJDEP will be included in the Permit.
Compensatory Mitigation for Losses of Aquatic Resources	Section 404 of the Clean Water Act (40 CFR 230)	USACE New York District	Federal	Mitigation requirements for activities authorized under Section 404 under the USACE NY District are found in Title 33 of the Code of Federal Regulations Part 332. The New York District Public Notice Announcing the Compensatory Mitigation Guidelines and Mitigation Checklists dated January 10, 2005. Mitigation will be required for filling wetlands/waters of the U.S.	To achieve a "no net loss" of wetlands/waters of the U.S., once a Section 10/404 permit is procured, NJ TRANSIT will purchase federally approved compensatory wetland mitigation credits to offset impacts to wetlands/waters of the U.S. in accordance with mitigation hierarchy, or provide a commensurate mitigation as deemed appropriate by federal and state regulatory agencies.

Permits/ Certifications/ Agreements	Regulations	Regulatory Agency/ Jurisdiction	Federal/ State/ Local	Activity	Special Conditions, Commitments and Mitigation Measures ³
			NJDEP Di	vision of Land Use Regulation	L
In-Water Waterfront Development Permit	Coastal Zone Management Rules (N.J.A.C. 7:7)	NJDEP Division of Land Use Regulation	State	Permit required for construction of outfall structures and a submerged/ directionally drilled cable (not the preferred river crossing option) below the Mean High-Water Line of the Hackensack River.	It is anticipated that the permit will identify a seasonal timing restriction on work within tidal waters to avoid negative effects on aquatic species in the Hackensack River.
Water Quality Certificate	Coastal Zone Management Rules (N.J.A.C. 7:7)	NJDEP Division of Land Use Regulation	State	NJDEP is responsible for issuing Water Quality Certificates (WQC) for activities which may result in a discharge into navigable waters including the discharge of dredged or fill material under Section 401 of the Clean Water Act, at 33 U.S.C. §1341, and implementing state regulations as well as implementing the New Jersey Coastal Management Program.	The WQC would be issued by the NJDEP under the In- Water Waterfront Development permit and also referenced by the USACE in the Section 10/404 permit approval.
Flood Hazard Area Individual Permit and Verification	Flood Hazard Area Control Act Rules (N.J.A.C. 7:13)	NJDEP Division of Land Use Regulation	State	A Flood Hazard Area Individual Permit and Verification is required for any work (grading, filling or clearing) above the Mean High-Water Line that is within a defined flood hazard area or associated riparian zone.	The proposed Project will ensure restoration of any vegetation within a regulated riparian zone that was temporarily altered by construction/access activities would mitigate localized impacts during construction.
			•	Tidelands	
Tidelands Conveyance Instrument	Tidelands Act (N.J.S.A. 12:3)	NJDEP Division of Land Use Regulation	State	A tidelands instrument in form of a utility license is required for a proposed electrical transmission cable that will aerial cross or go under mapped riparian land, or lands that are currently and formerly flowed by the mean high tide of a natural waterway	NJ TRANSIT will provide the Bureau-determined Tidelands Instrument annual fee as necessary upon issuance of the Tidelands Utility License. Additionally, NJ TRANSIT will ensure the authorized Hackensack River crossing construction activities, either overhead installation or submarine cable/directional drilled

Permits/ Certifications/ Agreements	Regulations	Regulatory Agency/ Jurisdiction	Federal/ State/ Local	Activity	Special Conditions, Commitments and Mitigation Measures ³				
				which are claimed by the State of New Jersey.	installation (not preferred option for river crossing), will occur within the conveyed Tidelands area.				
Air Quality									
Pre-Construction Permit	N.J.A.C. 7:27-8 Permit and Certificates for Minor Facilities (and Major Facilities Without an Operating Permit	NJDEP Division of Air Quality	f	Permit required for a major source of air pollutant emissions. Project is subject to operating permit requirements due to potential to emit more than 25 tons per year of NO _x and Project is subject to the Acid Rain Program.	All road and non-road vehicles in operation at the project site must comply with the "No Idling" Law <u>Related Applicable Regulatory Requirements</u> : Nonattainment New Source Review (NNSR) and NJ Subchapter 18 New Source Performance Standards (NSPS) NJ State of the Art (SOTA) Standards Lowest Achievable Emission Rate (LAER) for NO _x Emission Offset Rule compliance Reasonably Available Control Technology (RACT) New Jersey Standards for Combustion of Fuel Title IV of Clean Air Act				
					- Acid Rain Program				
Title V Air Permit (General Operating Permit)	Title V, Clean Air Act N.J.A.C. 7:27- 22.14	NJDEP Bureau of Stationary Sources	Federal, administered by the State	Permit is required to construct and operate major facilities for Title V Major Source Facilities.	Permit application must be submitted within one year of start of operations. Upon issuance of operating permit, terms and conditions of preconstruction permit (see above) and operating certificate are consolidated into operating permit.				

Permits/ Certifications/ Agreements	Regulations	Regulatory Agency/ Jurisdiction	Federal/ State/ Local	Activity	Special Conditions, Commitments and Mitigation Measures ³
	NJDI	EP Environmental	Infrastructure Fi	inancing – Redevelopment of Sewer & V	Nater Connections
Initial Physical Connection and Safe Drinking Water Permit	Safe Drinking Water Act Rules (N.J.A.C. 7:10)	NJDEP Division of Water Supply and Geoscience	State	Permit is required if water supply demand is greater than 12,000 gpd. Permit required to protect public water supply from contamination by requiring backflow prevention devices.	Project will require permit because non-residential water supply demand for the project is greater than 12,000 gpd.
			Water Quality	- Potable and Sewer Connections	
Treatment Works Approval	New Jersey Pollutant Discharge Elimination System Regulations (N.J.A.C. 7:14A)	NJDEP Bureau of Environmental, Engineering, and Permitting	State	Permit is required for construction and operation of industrial and domestic wastewater collection, conveyance and treatment facilities, including treatment plants, pumping stations, interceptors, sewer mains and other collection, holding and conveyance systems. The Treatment Works Approval process also involves assessing the design of new sewer lines and other wastewater conveyance facilities.	TWA approval to be obtained to ensure the proposed Project's compliance with the NJPDES effluent standards. In addition, the TWA review will access and approve the design of the sewer line connection for the proposed Project.
		NJ Polluta	nt Discharge Elin	nination System – Discharge to Surface	Water
Short Term De Minimis (B7) Discharge Permit	New Jersey Pollutant Discharge Elimination System Regulations (N.J.A.C. 7:14A)	NJDEP Division of Water Quality	State	Permit is required for short term discharges and discharge of groundwater, during construction dewatering, that contains negligible levels of pollutants, to adjacent surface waters of the Hackensack River.	During construction, any dewatering will be monitored to ensure water quality as determined by the NJDEP through the permit approval process. This permit/authorization will be coordinated with the NJDEP via submittal of a Request for Authorization Certification form at least 14 days prior to discharge activities.

Permits/ Certifications/ Agreements	Regulations	Regulatory Agency/ Jurisdiction	Federal/ State/ Local	Activity	Special Conditions, Commitments and Mitigation Measures ³
General Groundwater Remediation Clean-up (BGR) Permit	New Jersey Pollutant Discharge Elimination System Regulations (N.J.A.C. 7:14A)	NJDEP Division of Water Quality	State	This general permit authorizes discharges of treated groundwater to surface waters of the state. It regulates discharges from remediation clean-ups that do not typically contain petroleum products. The Hackensack River is not a C1 or PL waters and therefore would allow use of this GP.	Permit is required for discharges of contaminated and subsequently treated groundwater during construction into surface waters. As required the Project will adhere to any issued permit conditions and requested best management practices.
Discharge to Surface Waters for Industrial Discharge Individual Permit (Category B Permit)	New Jersey Pollutant Discharge Elimination System Regulations (N.J.A.C. 7:14A)	NJDEP Bureau of Surface Water Permitting	State	Permit issued to facilities that discharge treated and non-treated wastewater derived from, but not limited to process and non-process wastewater, contact and non-contact cooling water and storm water run-off.	Construction of proposed stormwater outfalls discharging into the Hackensack River will not require treatment prior to discharge. Only stormwater will be discharged. Cooling tower water would not be discharged to the Hackensack River.
	•	NJ Polluta	nt Discharge Elir	mination System – Discharge to Ground	water
Construction Activities (5G3) General Permit	New Jersey Pollutant Discharge Elimination System (NJPDES) Regulations (N.J.A.C. 7:14A)	NJDEP Bureau of Nonpoint Pollution Control	State	Permit is required for point source discharges from proposed general construction activities.	A Stormwater Construction General Permit Request for Authorization (RFA) would be submitted electronically using the NJDEP Online portal.

Permits/ Certifications/ Agreements	Regulations	Regulatory Agency/ Jurisdiction	Federal/ State/ Local	Activity	Special Conditions, Commitments and Mitigation Measures ³
Soil Erosion and Sediment Control Certificate	Soil Erosion and Sediment Control Act of 1975 as amended (N.J.S.A. 4:24-39 et seq.)	Hudson-Essex- Passaic Soil Conservation District	Local	SESC certification is required for land disturbance of more than 5,000 square feet for construction.	The proposed Project will disturb more than 5,000 square feet and requires SESC certification. This certificate is required prior to obtaining NJPDES 5G3 Permit.
		Addi	tional Permits/C	ertifications/Agreements/Requirement	S
Regulated Navigation Area or Limited Access Area	33 CFR 165.5- Establishment procedures	USCG/ USACE	Federal	The preferred alternative (aerial crossing) does not propose in water activities; however, should other alternatives requiring in water work be permitted options the appropriate USCG-Regulated Navigation Area or Limited Access Area will be established in accordance with 33 CFR 165.5 Establishment procedures to ensure safety to navigating vessels that utilize the Hackensack River.	The proposed electrical transmission line crossing option(s) will be authorized under an Individual permit and will adhere to applicable regional conditions as stipulated under a Nationwide Permit (NWP) 12 Utility lines, which provide minimal clearance requirements for aerial transmission lines across navigable waters and buried cables or pipelines across "All Other" federal navigation channels. Establishing top of cable depths when crossing river bottom and federal navigation channels. It is not anticipated that a Regulated Navigation Area or Limited Access Area be established at this time but should further design warrant establishment of this safety measure this will be coordinate as required with the USCG and USACE under the permit phase.

Permits/ Certifications/ Agreements	Regulations	Regulatory Agency/ Jurisdiction	Federal/ State/ Local	Activity	Special Conditions, Commitments and Mitigation Measures ³
Lined Surface Impoundment General Permit (LSI Permit)	New Jersey Pollutant Discharge Elimination System Regulations (N.J.A.C. 7:14A)	NJDEP Bureau of Nonpoint Pollution Control	State	An LSI permit is required for authorization of wastewater discharge into lined surface impoundments (i.e., construction of the proposed Stormwater Detention Basin).	The proposed stormwater design will adhere to requirements established in the LSI GP, when issued and will also adhere to an Operations and Maintenance (O&M) Manual for operations and maintenance of the proposed lined stormwater detention basin. This activity will also be tied to the RAWP for the site.
Materials Management Plan (MMP) and NJ TRANSIT's Remedial Action Workplan (RAWP) for the proposed Koppers Seaboard site development	Technical Requirements for Site Remediation (N.J.A.C. 7:26E)	NJDEP Site Remediation Program	State	MMP is required for construction on a remedied site that has been approved by NJDEP. RAWP approval is required from NJDEP and the Responsible Party (RP) to address any disturbance to the active remedy.	MMP/specifications for materials management (soil, groundwater, surface water and sediment) during construction. RAWP approval is required from NJDEP and Responsible Party (RP) for the Main Facility construction. MMP and RAWP will dictate implementation strategies for construction in contaminated areas. A Remedial Investigation Report (RIR) will be completed upon the completion of construction.
Koppers Coke Redevelopment Plan	District Zoning Regulations N.J.A.C. 19:4	New Jersey Sports and Exposition Authority	Local	Required coordination and Zoning Certification with NJSEA for construction within the Meadowlands and specifically in the Redevelopment Area.	Redevelopment Plan amendment required for approved land use and variance required for deviation from bulk requirements.
Sewer Use Permit	Kearny Municipal Utilities Authority (KMUA) Rules and Regulations	, KMUA	Local	Permit required for sewer discharges into the KMUA system.	The proposed project will adhere to established conditions of the Sewer Use Permit once issued.

Permits/ Certifications/ Agreements	Regulations	Regulatory Agency/ Jurisdiction	Federal/ State/ Local	Activity	Special Conditions, Commitments and Mitigation Measures ³
Federal Aviation Administration (FAA) Review of Obstruction Evaluation	Safe, Efficient Use, and Preservation of the Navigable Airspace 14 CFR Part 77.9	FAA	Federal	Submission of Notice Criteria Tool necessary for proposed obstacles greater than 200' tall off airport property.	Prior to construction, NJ TRANSIT will complete FAA Obstruction Evaluation / Airport Airspace Analysis (OE/AAA) to prevent temporary or permanent adverse effects on commercial aviation equipment and operations. This condition will be met as identified in May 14, 2019 correspondence with FAA (see FEIS Appendix G – Agency Correspondence)
NJDOT Route 7 Highway Occupancy/Access Permit	Access Code Regulations N.J.A.C. 16:47	NJDOT	State	Property owners seeking traffic access to state roadways and transportation infrastructures must submit applications for access to New Jersey Department of Transportation (NJDOT). Access applications with fewer than 500 daily trips are considered minor, while those with more than 500 are considered as major.	Permit required for access to NJ Route 7, if deemed required to facilitate future construction and or access.

The sections that follow provide additional details on the anticipated regulatory requirements to which NJ TRANSIT will adhere.

2.4.1 Section 106 - Programmatic Agreement

As the proposed Project has been found to potentially adversely affect historic resources, a Programmatic Agreement (PA) between the FTA, NJ TRANSIT and the NJ HPO was executed on January 16, 2020 to define the stipulations and measures to be implemented during the project's design and construction, to avoid, minimize, or mitigate adverse effects of the project on historic resources.

Agreed upon stipulations and mitigation measures for historic/ architectural resources would include preparation of a comprehensive historic context document, recordation of historic/ architectural resources, preparation and installation of interpretive exhibits that are visible to the public and having an archaeologist on-site during construction activities in areas designated as archeological sensitivity potential. Further details of these stipulations are in FEIS Appendix B – Programmatic Agreement.

2.4.2 Section 4(f) of the US Department of Transportation (USDOT) Act of 1966

The proposed Project underwent extensive alternatives analysis and evaluations to ensure impacts to historic and cultural resources were avoided to the maximum extent practicable while continuing to support the purpose and need of the proposed Project, see FEIS Appendix A – Final Section 4(f) Evaluation.

Through consultation, FTA and NJ TRANSIT have developed measures to minimize or mitigate the adverse effect on the properties protected under Section 4(f). The mitigation measures are set forth in the executed PA, signed January 16, 2020 by FTA, NJ TRANSIT, and NJ HPO (FEIS Appendix B – Programmatic Agreement). The PA lists the historic resources that may be adversely affected by the project and describes the measures to be implemented during the project's design and construction, to avoid, minimize, or mitigate adverse effects of the project on historic resources.

2.4.3 Section 10 Individual Permit

Pursuant to Section 10 of the Rivers and Harbors Act of 1899, the USACE regulates the obstruction or alteration of navigable waters of the U.S. The proposed Project includes the construction of either an overhead transmission line across the Hackensack River, or the installation of a submarine cable via directional drilling or cable laydown across the Hackensack River (not the preferred river crossing option). Therefore, a Section 10 Individual Permit is required from the USACE New York District to allow installation of overhead transmission line crossing, or either of the two below mudline installation options.

Conditions issued as part of this permit are discussed above under the Section 404 Individual Permit. As the Section 10 and Section 404 Individual Permits are commonly submitted as a single application, their conditions are identical. However, the USCG may recommend the USACE include a condition to require the potential submarine cable crossing along the Hackensack River (not the preferred river crossing option) be installed at a suitable depth (generally about 6' below mudline) from top of cable below the federal navigation channel to allow for safe travel within the navigational channel of the Hackensack River.

The actual below mudline installation depth will be confirmed and agreed upon during agency permit review, NJ TRANSIT is prepared to adhere to this requirement should this option be progressed.

2.4.4 Section 404 Individual Permit

Pursuant to the Clean Waters Act of 1977, the USACE regulates the discharge of dredged or fill material into waters of the U.S., including wetlands. The proposed Project includes the permanent disturbance of up to 2 acres of freshwater wetlands in the Hackensack River and Cedar Creek Marsh South for public infrastructure development purposes in the Meadowlands District. Therefore, a Section 404 Individual Permit is required from the USACE New York District. Note, on January 23, 2020 the U.S. Environmental Protection Agency finalized the Navigable Waters Protection Rules to define "waters of the U.S." under the Clean Waters Act. As such, further consultation with the USACE as the Project progresses may result in a decrease in regulated wetlands and waters of the U.S. impacted by the proposed Project.

Proposed impacts to existing wetlands would be mitigated by the purchase of federally approved compensatory wetland mitigation credits or commensurate compensatory mitigation approved by federal and state regulatory agencies. The proposed Project will also adhere to the National Oceanic and Atmospheric Administration (NOAA) National Fish and Wildlife Service's marine habitat Timing Restrictions for construction and development within marine environments, especially essential fish habitats. These Timing Restrictions are conservancy restrictions during which in-water construction activities are prohibited. However, with Best Management Practices (BMPs) and Soil Erosion and Sediment Control (SESC) measures in place, such as cofferdams, in-water work may proceed during restricted timeframe.

2.4.5 Compensatory Mitigation for Losses of Aquatic Resources

As the proposed Project will permanently impact up to 2 acres of wetlands and waters of the U.S., compensatory mitigation is required to provide a "no net loss" of resources for the proposed impacts. Mitigation for the proposed Project is anticipated to be completed via mitigation bank credit purchase from one of the servicing federally approved mitigation banks, for the proposed Project's location. Upon the completion of credit purchase, documentation of the transaction will be provided to both to the NJDEP and the USACE for recordation.

2.4.6 In-Water Waterfront Development Permit

Within the Meadowlands District, the NJDEP Division of Land Use Regulation (DLUR) regulates In-Water activities below a regulated stream's Mean High-Water Line pursuant to the Coastal Zone Management Rules (N.J.A.C. 7:7). As the proposed Project includes the construction of two stormwater outfalls and the construction of either an overhead transmission line across the Hackensack River, or the installation of a submarine cable via directional drilling or cable laydown across the Hackensack River, this permit is required. Upland activities are not regulated by the NJDEP within the Hackensack Meadowlands, and the proposed Project does not include any impacts to the Upland Waterfront Development Zone outside of the Meadowlands District, therefore an Upland Waterfront Development Permit is not required.

Similar to the Section 10 and Section 404 Individual Permit conditions, the NJDEP regulates a Timing Restriction for in-water construction work. This timeframe is determined during agency review based on documented aquatic species, but NJ TRANSIT will utilize BMPs and SESC measure such as cofferdams to continue working through this timeframe while still maintaining the marine environment.

2.4.7 Water Quality Certificate

Freshwater wetlands and regulated activities in waters of the U.S. within the Meadowlands are regulated by the USACE, not the NJDEP DLUR. However, the USACE requires projects to receive a Water Quality Certificate from the NJDEP DLUR prior to the USACE issuing a permit pursuant to the Clean Waters Act of 1977 or Rivers and Harbors Act of 1899, verifying that proposed projects will not negatively affect the quality of waters of the U.S. As the proposed Project includes up to 2 acres of permanent impacts to freshwater wetlands and waters within the Meadowlands District, a Water Quality Certificate will be required.

2.4.8 Flood Hazard Area Individual Permit and Verification

The NJDEP DLUR regulates development (filling), excavation and grading within the floodplain of a regulated stream and the riparian zone of a regulated stream (i.e., Hackensack River). The Federal Emergency Management Agency (FEMA) has identified the majority of the proposed Project to be located within a mapped floodplain. As the proposed Project will disturb over one acre of land and increase impervious surface by one-quarter acre or more, the proposed Project is deemed a Major Development by the NJDEP's Stormwater Management Rules (N.J.A.C. 7:8), and therefore cannot apply for authorization under a FHA permit-by-rule, a general permit-by-certification, or a general permit.

Pursuant to the FHA Control Act Rules (7 N.J.A.C. § 13), the proposed work in a tidally influenced floodplain will not cause significant floodplain impacts or loss of flood storage capacity. Even still, the Project will require a NJDEP FHA Individual Permit, as work is proposed within the floodplains of the Hackensack, Passaic and Hudson Rivers, all of which are tidally influenced at the Project locations. Additionally, portions of the proposed Project will temporarily impact the 50-foot riparian zone of the Hackensack River, and as such will also require authorization.

An FHA Verification provides the NJDEP's official verification determination of the flood hazard area design flood elevation, limits, and riparian zone limits and width throughout a project site. The verification determination is required in order for the NJDEP to determine project compliance with the FHA Rules under a general permit or Individual Permit. As the proposed Project requires an FHA Individual Permit, an FHA Verification is also required for the project site.

The proposed Project will ensure restoration of any vegetation within a regulated riparian zone that was temporarily altered by construction/access activities would mitigate localized impacts during construction.

2.4.9 Tidelands Conveyance Instrument

The NJDEP Bureau of Tidelands regulates development on riparian lands that are currently or formerly flowed, by the mean high tide of a natural waterway pursuant to the Tidelands Act. The State of New Jersey claimed these Tidelands, and authorization to work within these lands must be conveyed from the State of New Jersey to the applicant by issuance of either a short-term Tidelands License or a permanent Tidelands Grant. These Tidelands Instruments include payment of annual or a single fee, determined by the Bureau upon application review. Preferred Alternative Project Components A, E, F, and G intersect Tidelands areas (Figures 12-1, 12-3 through 12-6 of the DEIS). Preferred Alternative Project Components A, E, F and G have been issued Tidelands Grants, authorizing some work within the Tidelands area, as indicated in Table 12-1 of the DEIS (also see Appendix D, "Agency Correspondence" of the DEIS). As stated in the Table ROD-2, the Project will apply for a Tidelands Utility License for installation of either the overhead transmission lines or submarine/directional drilled cable, as required to meet compliance.

NJ TRANSIT will provide the Bureau-determined Tidelands Instrument fee as necessary upon issuance of the Tidelands Utility License. Additionally, NJ TRANSIT will ensure the authorized Hackensack River crossing construction activities, either overhead installation or submarine cable/directional drilled installation (not preferred option for river crossing), will occur within the conveyed Tidelands area.

2.4.10 Air Quality

The following sections discuss the federal and state air quality regulations that are applicable to the proposed Project.

2.4.10.1 Nonattainment New Source Review (NNSR) and New Jersey Subchapter 18

The entire state of New Jersey is designated as in nonattainment with the National Ambient Air Quality Standards (NAAQS) for ozone, which is regulated through its precursors, Nitrogen Oxides (NO_x) and volatile organic compounds (VOCs). New projects in New Jersey that emit more than 25 tons per year of NO_x or VOC are required to undergo Nonattainment New Source Review (NNSR), which is regulated under N.J.A.C. 7:27 Subchapter 18. Subchapter 18 requires any new project emitting more than 25 tons per year of NO_x or VOC to meet the Lowest Achievable Emission Rate (LAER) and purchase emission offsets for that pollutant at a minimum offset ratio of 1.3 to 1.0. Subchapter 18 also requires a Certification of Compliance and Analysis of Siting Alternatives.

The proposed Project potential to emit (PTE) for VOCs is below 25 tons per year, so Subchapter 18 is not applicable to VOCs. Because the total facility-wide emissions of NO_x from the Project will exceed 25 tons per year, the proposed Project is subject to Subchapter 18 for NO_x. A detailed control technology evaluation (LAER Analysis) for NO_x was completed for the Preconstruction Air Permit application, currently under review by NJDEP.

Since the proposed Project's potential emission of NO_x exceeds 25 tons per year, Subchapter 18 requires air quality modeling of any pollutant, other than VOC, exceeding the significant net emission increase thresholds. As evaluated during the Preconstruction Air Permit application preparation, both NO_x and PM exceed the net increase thresholds. Therefore, air quality analysis has been conducted to assess the impact of these pollutants on the NAAQS and New Jersey Ambient Air Quality Standards (NJAAQS). NJDEP is currently reviewing the Air Quality Modeling Protocol and Results for the proposed Project.

2.4.10.2 New Source Performance Standards (NSPS)

USEPA has developed New Source Performance Standards (NSPSs) to address emissions from new or modified emission sources. Each NSPS standard applies to a specific type of emission source (e.g., gas-fired power plants) and addresses one or more criteria pollutants. NSPS standards apply if a facility operates the regulated equipment, regardless of emission levels. The stationary combustion turbines will be subject to NSPS Subpart KKKK for Stationary Combustion Turbines, and the emergency black start engines will be subject to NSPS Subpart JJJJ for Stationary Spark Ignition Internal Combustion Engines.

2.4.10.3 New Jersey State of the Art (SOTA) Standards

New Jersey has established Start of the Art (SOTA) control and emission standards that apply to all new significant air emission sources that emit more than 5 tons per year of any one criteria pollutant (except carbon dioxide) and SOTA Hazardous Air Pollutants (HAP) thresholds. SOTA standards can be satisfied by meeting LAER, Best Achievable Control Technology (BACT), Maximum Achievable Control Technology (MACT), or Generally Available Control Technology (GACT) standards, or by meeting NSPS standards promulgated on or after 8/2/1995. For pollutants not covered by these standards, SOTA is satisfied by meeting the requirements specified in Technical Manuals developed by NJDEP, through a case-by-case analysis, or by documenting compliance with a General Permit.

The PTE limits proposed for the combustion turbines satisfy the NO_x, VOC, CO, ammonia slip, and opacity standards specified in the NJDEP SOTA manual for Stationary Combustion Turbines.

The emergency black start engines exceed the SOTA applicability threshold for methane listed in Appendix 1, Table A of N.J.A.C. 7:27-8. Therefore, the engines are subject to SOTA. The SOTA manual for Reciprocating Internal Combustion Engine generators states that "SOTA for an emergency generator application meeting the definition found at N.J.A.C. 7:27-19.1, 'emergency generator' is no auxiliary air pollution control." This definition limits the power from the emergency generators for use exclusively at the facility during power outages, voltage reductions issued by PJM, or up to 30 days per calendar year of power disruptions resulting from construction, repair or maintenance activities at the facility. Since power from the black-start

engine generators will only be used for starting the turbines during power outages, the engines meet this definition of emergency generators.

2.4.10.4 New Jersey Reasonably Available Control Technology (RACT) Standards

The Clean Air Act requires states in nonattainment for ozone to develop state specific Reasonably Available Control Technology (RACT) standards to reduce NO_x and VOC emissions. Per NJDEP policy, the RACT standards are applicable during start-up, shutdown, and construction operating scenarios.

2.4.10.5 New Jersey Standards for Combustion of Fuel

The New Jersey standard for "Control and Prohibition of Smoke from Combustion of Fuel" (N.J.A.C. Subchapter 3) specifies opacity limits of 20% for turbines and engines. The New Jersey standard for "Control and Prohibition of Particles from Combustion of Fuel" (N.J.A.C. Subchapter 4) specifies Total Suspended Particulate (TSP) emission rates for the turbines (24.7 lb/hr) and engines (7.2 lb/hr).

2.4.10.6 Acid Rain Program

As directed by Title IV of the Clean Air Act, which aims to reduce acid rain, USEPA has established a marketbased allowance program for SO₂ emissions from utility units (that offer electricity for sale). The Acid Rain Program exempts new utility units "serving one or more generators with a total nameplate capacity of 25MWe or less." The three simple cycle combustion turbines meet this New Unit Exemption. However, because the 22.5MW combined cycle turbines also serve the 15MW steam turbine, the two combined cycle units will be subject and will be coordinated to comply with the Acid Rain Program. For the proposed Project, emissions of SO₂ are not expected to contribute significantly to air pollution or acid rain. This will be verified by the USEPA through the Acid Rain Permit application review process. NJ TRANSIT is prepared to purchase any SO₂ allowances, as required by the Acid Rain Program.

2.4.10.7 Title V Operating Permit Program

Title V of the Clean Air Act establishes an operating permit program for major sources of air emissions. As specified in 40 CFR Part 70 and N.J.A.C. 7:27-22.2, Title V operating permits are required for:

- A major source of HAPs
- Major Sources of Criteria Pollutants:
 - \circ Sources emitting more than 25 tons per year of NO_x or VOC (for projects located in a nonattainment area for these pollutants)
 - Sources emitting more than 100 tons per year of CO, PM10, TSP, SO₂, Lead, or any other Air Contaminant other than CO₂
- An affected Title IV facility (for Acid Rain Permitting), as defined at N.J.A.C. 7:27-22.1

• A facility with any source operation in a source category designated by USEPA under 40 CFR 70.3(a)(5) (none have been designated so far)

For the purposes of determining applicability, emissions must include fugitives for listed source categories including fossil-fuel-fired steam electric plants of more than 250MMBtu/hr heat input. Title V permitting cannot be triggered based solely upon Greenhouse Gas emission levels.

The Project will require a Title V operating permit because it is subject to the Acid Rain Program and has the potential to emit more than 25 tons of NO_x. The application procedures for obtaining an initial air permit under the Title V program are outlined in N.J.A.C. 7:27-22.5. As allowed under N.J.A.C. 7:27-22.5, NJ TRANSIT has submitted an application for a preconstruction permit and operating certificate pursuant to N.J.A.C. 7:27-8 "Permit and Certificates for Minor Facilities (and Major Facilities Without an Operating Permit)." NJ TRANSIT then has until one year after starting operation to apply for the Title V operating permit. Upon issuance of an operating permit, the terms and conditions of the preconstruction permit and operating certificate are consolidated into the operating permit.

2.4.11 Initial Physical Connection and Safe Drinking Water Permit

Pursuant to the New Jersey Safe Drinking Water Act, the NJDEP's Division of Water Supply and Geoscience Safe Drinking Water Program ensures the provision of safe drinking water to consumers with adequate pressure and volumes in compliance with the Federal Safe Drinking Water Act and the Water Supply Management Act. Facilities requiring more than 12,000 gpd of water supply must apply for a Safe Drinking Water Permit. Additionally, physical connection permits are also regulated under this Act, and standards for construction and procedures for certifications are also established. The proposed Project requires over 12,000 gpd for water supply as well as a physical connection, or a connection between a public community water system, to provide adequate drinking water to the proposed Main Facility, and therefore will require a Physical Connection and Safe Drinking Water Permit.

2.4.12 Treatment Works Approval

The NJDEP Bureau of Environmental, Engineering and Permitting (BEEP) Treatment Works Approval (TWA) Program regulates the construction and operation of industrial wastewater collection, conveyance and treatment facilities, including treatment plants, pumping stations, interceptors, sewer mains and other collections, holding and conveyance systems. TWA are a type of construction permit wherein the Bureau evaluates the proposed treatment plant's design and its ability to meet the effluent standards specified in the NJPDES permit. The proposed Project includes a stormwater management system including conveyance pipes, detention basin and stormwater outfalls which will require NJPDES permits. In order to obtain these permits, a TWA must be issued confirming the proposed Project's compliance with the NJPDES effluent standards. In addition, the TWA review will access the design of the sewer line connection for the proposed Project.

Previously known as the Construction Dewatering Permit, the B7 Discharge Permit authorizes short term, uncontaminated discharges of groundwater generated during construction for the purpose of lowering the groundwater table. A de minimis discharge is defined as a discharge containing a relatively insignificant amount of pollutants. During construction throughout the proposed Project site, dewatering is anticipated. Therefore, a B7 Discharge Permit is required to discharge groundwater encountered during construction into a surface water.

2.4.14 General Groundwater Remediation Clean-up (BGR) Permit

As with the B7 Discharge Permit, the BGR Permit authorizes the discharge of treated groundwater into a surface water body during construction activities.

2.4.15 Discharge to Surface Waters for Industrial Discharge Individual Permit (Category B Permit)

Individual New Jersey Pollutant Discharge Elimination System (NJPDES) Discharge to Surface Water (DSW) permits are issued to specific facilities to authorize any discharge of effluent to surface waters. A Category B permit is for Industrial facilities that discharge treated and non-treated wastewater derived from, but not limited to process and non-process wastewater, contact and non-contact cooling water and storm water run-off. As the proposed Project involves the construction of a stormwater system, including a stormwater detention basin and two stormwater outfalls, the proposed Project will generate only stormwater discharges to surface waters. These discharges will not require treatment and will not be derived from the coolant water system. Therefore, an Industrial Category B NJPDES DSW Permit is required.

2.4.16 Construction Activities (5G3) General Permit

The Bureau of Nonpoint Pollution Control issues 5G3 General Permits for the discharge of stormwater runoff from certain construction activities, including clearing, grading and excavation, or construction activities that disturb one acre or more of land. Pursuant to the New Jersey Water Pollutant Control Act, as part of the NJPDES, the Project will be disturbing over one acre of land and will include grading and excavation during construction. Therefore, a 5G3 General Permit is required. Additionally, a SESC Certificate is required prior to the issuance of a 5G3 General Permit. The SESC is discussed further below.

2.4.17 Soil Erosion and Sediment Control Certification

Projects that disturb more than 5,000 square feet of land require a Soil Erosion and Sediment Control (SESC) Certification from the applicable local Soil Conservation District pursuant to the Soil Erosion and Sediment Control Act of 1975. The Hudson Essex Passaic Soil Conservation District hold regulatory jurisdiction over the proposed Project site, which will permanently disturb more than 5,000 acres of land. Therefore, a SESC Certification is required for the proposed Project. SESC Certification is also required for the issuance of a NJPDES 5G3 Permit, as discussed above.

accordance with the to-be-issued SESC Certification.

NJ TRANSIT will ensure that all SESC measures are monitored and maintained throughout construction in

2.4.18 Lined Surface Impoundment General Permit

The NJDEP Bureau of Nonpoint Pollution Control issues Lined Surface Impoundment (LSI) General Permits to authorize the discharge of wastewater into a basin. The proposed Project includes the construction of a stormwater detention basin at the Main Facility. Therefore, an LSI General Permit will be required.

2.4.19 Materials Management Plan

As the proposed Project is located on a contaminated site, the NJDEP Site Remediation Program requires NJ TRANSIT to prepare a Materials Management Plan (MMP) for contaminants encountered during the construction phase. However, the site has already been reviewed and has an approved Remedial Action Work Plan (RAWP), and therefore a RAWP Amendment will be required. Any disturbances will require mitigation, which will be outlined in the proposed Project's RAWP Amendment, to remedy the impacts due to development. In addition, the deed notice will require revision to reflect new construction as builts. A Remediation Investigation Report (RIR) will be completed upon completion of construction.

2.4.20 Koppers Coke Redevelopment Plan

The New Jersey Sports and Exposition Authority (NJSEA) works with the municipalities located within the Meadowlands District to identify sites in need of redevelopment and prepare redevelopment plans to rehabilitate areas of contamination and decline pursuant to the Hackensack Meadowlands Agency Consolidation Act. The 2013 Koppers Coke Peninsula Redevelopment Plan focuses on the 367-acre Koppers Coke Peninsula Redevelopment Area located within the Town of Kearny, in the southeast portion of the Meadowlands District. To develop within this Redevelopment Area, a Zoning Certification is required from the NJSEA. In general, in accordance with the Redevelopment Plan, an amendment is required for deviation from a permitted land use. Power generation is an approved land use with the sole purpose of serving facilities within the Redevelopment area. As the proposed Project will distribute power outside the Redevelopment Area, an amendment is required to change the approved land use. In addition, a variance will be required for deviation from bulk requirements of the Redevelopment Plan.

2.4.21 Other Measures to Minimize Harm

Construction activities would be conducted to minimize noise impacts to nearby community facilities, neighborhoods, and residential properties. Quality control measures to reduce fugitive dust would be implemented during construction, and construction equipment would use Tier 4-compliant engines to reduce emissions. Additionally, materials would be sourced locally when feasible, construction equipment would use biodiesel fuel when possible, obey New Jersey's "No Idling" Law, and transportation routes would be designed to be as efficient as possible to reduce GHG emissions.

The use of double/multi-cased pilings will minimize potential for contaminant transport at Main Facility and locations of monopoles.

Noise or vibration impacts related to aquatic habitats will be avoided through construction windows/ seasonal restrictions as determined during the permitting process.

All construction workers would be required to attend all applicable NJ TRANSIT and/or Amtrak safety training. Coordination with the USCG would be completed through the USACE Section 10 permit, as discussed above, including barge deliveries of large equipment (if required) and installation of the electrical line crossing the Hackensack River.

During operations, emissions would be minimized by using state-of-the-art pollution-reduction measures, which would be monitored by the NJDEP in compliance with the Title V permit. The purchase of NO_x credits would offset NO_x emissions. Impacts of noise would be minimized by the remote location of the Main Facility, which will also include sound-dampening technology, and by housing the nanogrid generators in a building with sound-dampening technology.

The NJDEP Green Acres Program, created in 1961, protects open space and historic and cultural resources for recreational uses from future development. Green Acres properties are not anticipated to be impacted by the proposed Project. As required, the Project footprint was evaluated against the Recreational and Open Space Inventory (ROSI) database maintained by the Green Acres Program. This database includes municipal, county and nonprofit parkland encumbered by the Green Acres Program. In the event future design progress results in potential impacts on any Green Acres property, NJ TRANSIT will coordinate with NJDEP Green Acres Program immediately.

2.5 MONITORING AND ENFORCEMENT

Prior to construction, the height of all monopoles and stacks would be reported to the Federal Aviation Administration (FAA) for compliance with FAA's Obstruction Evaluation process. Any monopoles greater than 200 feet above grade would be required to have lighting, and any monopoles or stacks in airplane flight paths would need to be approved.

For the construction of the transmission line crossing the Hackensack River, the USCG would be notified, to minimize impacts to river navigation. If the submarine installation option is ultimately implemented, the United States Fish & Wildlife Service (USFWS), NJBMF and NMFS will again be consulted regarding threatened and endangered species, and any restrictions on the construction window will be strictly observed.

For the installation of monopole foundations and duct banks for electrical lines, an archaeologist will be present during construction in areas of archaeological sensitivity, as described in the executed PA.

During operations, emissions would be monitored by the NJDEP to ensure compliance with the Title V permit.

2.6 PUBLIC AND AGENCY COORDINATION

2.6.1 Scoping

A public scoping meeting was held on February 3, 2016 to provide information on the proposed Project, solicit input on the DEIS analysis, and respond to concerns and comments expressed by members of the local community. A Project website was established to provide information on the Project and upcoming milestones or meetings. It also featured postings on Project benefits and goals, and environmental documentation. The website accessible NJ TRANSIT's is through resilience website (http://njtransitresilienceprogram.com/). Fact sheets were made available in both English and Spanish in printed form for distribution at public comment meetings and are available on the web page in electronic format (i.e. PDF).

2.6.2 Draft Environmental Impact Statement

FTA and NJ TRANSIT, in cooperation with the USEPA and the USACE, initiated an Environmental Impact Statement (EIS) and Section 4(f) Evaluation for the Project in 2016. The DEIS was issued on May 17, 2019 and was prepared pursuant to NEPA.

The Notice of Availability for the proposed Project's DEIS in the Federal Register on Friday, May 17, 2019, formally beginning the 60-day public review and comment period (May 20, 2019 – July 19, 2019). NJ TRANSIT distributed the DEIS to local, regional, state and federal agencies, interested and affected parties, and the public for review and comment. The public notice included information on where to view the document and how to provide comments during the public comment period. The availability of the DEIS and notice of the Public Hearing sessions were advertised in four area newspapers (The Jersey Journal on May 20, 2019; The Star-Ledger on May 20, 2019; The Observer on May 22, 2019 and El Especialito on May 24, 2019), on project information flyers to Section 8 Housing Authorities (English and Spanish) and local libraries (English, Spanish and Haitian Creole) for posting at their facilities. Appendix E – Public Outreach Update includes additional details on public outreach efforts as well as the published advertisements. NJ TRANSIT held two public hearings at St. Peters University in Jersey City, NJ on June 18, 2019 (2:00PM – 4:00PM and 7:00PM – 9:00PM), where oral and written comments regarding the DEIS could be formally submitted. Comments were also accepted by email and by mail. The review and comment period ended on July 19, 2019. In total, FTA received 3 agency comments, 7 comments at the public hearings, 39 web comments, and 4 comments from other interested parties. A summary of all comments and responses are included in FEIS Appendix C – Response to Agency and Public Comments.

The DEIS for the proposed Project is currently available to the public on the Project website (<u>https://njtransitresilienceprogram.com/documents/deis/</u>), at the FTA Region 2 Headquarters located at One Bowling Green, Room 428 New York, New York 10004, and at the NJ TRANSIT Headquarters, One Penn Plaza East, Newark, New Jersey 07105.

2.6.3 Section 106 and Section 4(f) Coordination

FTA and NJ TRANSIT are coordinating with NJ HPO and other applicable parties through the Section 106 coordination process. FTA and NJ TRANSIT published the Draft Section 4(f) Evaluation in conjunction with the DEIS for public review and comment (see Section 2.7.2 below for a detailed description of coordination efforts). The Final Section 4(f) Evaluation is presented in Appendix A. At FTA's direction, a Programmatic Agreement (PA) was executed on January 16, 2020 to define the measures to be undertaken to avoid, minimize, and/or mitigate the adverse effects of the Project on historic resources (see FEIS Appendix B – Programmatic Agreement).

2.7 DETERMINATION OF FINDINGS

2.7.1 National Environmental Policy Act

The FTA, in accordance with NEPA, 42 USC §4321 et seq. and Council on Environmental Quality (CEQ) implementing regulations (40 CFR Part 1500 et seq.); US DOT project development procedures for efficient environmental reviews for project decisionmaking, 23 United States Code (USC) § 139(n)(Accelerated Decisionmaking in Environmental Reviews), and FTA implementing regulations (23 CFR § 771.124(a)(1))(Final environmental impact statement/record of decision document), the FTA Environmental Impact and Related Procedures (23 CFR Part 771 and by this ROD finds that the requirements of NEPA have been satisfied for the NJ TRANSITGRID TRACTION POWER SYSTEM Project. This Record of Decision (ROD) applies to the Preferred Alternative described in the Final Environmental Impact Statement (FEIS). The ROD also documents compliance with applicable federal environmental laws, rules and regulations as discussed below. Any proposed changes by NJ Transit must be evaluated in accordance with 23 CFR Sections 771.129 and 771.130, and must be approved by FTA in writing before the agency can proceed with the change.

2.7.2 Section 106 Consultation and Section 4(f) Evaluation

Concurrently with the NEPA process, the proposed Project was reviewed in accordance with Section 106 of the National Historic Preservation Act and evaluated in accordance with Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966, as amended (codified in 49 USC § 303), and implementing regulations 23 CFR § 774. FTA and NJ TRANSIT have consulted with the NJ HPO and Consulting Parties pursuant to Section 106 consultation requirements. As part of the Section 106 consultation process, FTA contacted agencies and individuals with an identified interest in history or historic preservation in the Project area. The Town of Kearny and the Delaware Tribe Historic Preservation Representatives accepted the invitation to participate as Consulting Parties for the project. No other responses were received for invitation to participate. A full list of parties invited is included in Appendix C – Historic Resources of the DEIS.

Through the Section 106 consultation process, FTA finds, based on NJ HPO opinion, that the Preferred Alternative would result in an adverse effect to the Old Main DL&W Railroad Historic District, Lower Hack Draw Bridge, the Hackensack River Lift Bridges Historic District, Old and New Bergen Tunnels, West End Through Truss Bridges, West End Interlocking Tower and the DL&W Railroad Boonton Line Historic District.

The Preferred Alternative also may result in disturbance of areas identified as high sensitivity for archaeological resources. FTA also determined that the Preferred Alternative would also result in the Section 4(f) use of the Old Main DL&W Railroad Historic District as defined in 49 USC 303. The US Department of Interior (via letter dated February 27, 2020) concurred with the FTA analysis and conclusion that there are no feasible and prudent alternatives to the use of the Section 4(f) property. Measures to avoid, minimize, and mitigate harm to historic and potential archaeological properties are included in the stipulations of the Section 106 PA signed January 2020 (FEIS/ROD Appendix B) and will be implemented as part of the design and construction of the proposed Project. FTA, NJ TRANSIT and NJ HPO will implement these measures, which reflect all possible planning to minimize harm from the use of the Old Main DL&W Railroad Historic District.

2.7.3 Clean Water Act

Any permanent wetland disturbances and loss of ecological function would be mitigated through the purchase of wetland mitigation bank credits. Outlined at 40 C.F.R. § 230 [2008] – Compensatory Mitigation for Losses of Aquatic Resources, mitigation via credit purchase is the preferred method for completing mitigation requirements. As the proposed activities are located in the Watershed Management Area No. 5 – Hackensack, Hudson and Pascack, and the Hydraulic Unit Code (HUC) No. 30103180, the servicing state and federally approved wetland mitigation banks are the Kane Mitigation Bank for transportation related activities within the Meadowlands District, and MRI-3 for transportation activities outside the Meadowlands District. This compensatory mitigation alternative will be coordinated with the USACE and the Interagency Review Team (IRT) that oversees wetland impacts and proposed mitigation for wetland resources located in the Meadowlands District. Mitigation credit purchase will provide a "no net loss" through the purchase of wetland credits released for sale based on the restoration and establishment of wetland functions and native wetland vegetation. Wetland credit purchase is assumed to be estimated, equivalence of 1 credit is equal to 2.4 acres of restored high value functional wetlands. Although up to two acres of low value isolated wetlands will be eliminated by the Preferred Alternative, through mitigation, the project will support the restoration of up to five acres of high value, functional wetlands within a contiguous tidal marsh and aquatic nursery. Based on the current wetland Mitigation Bank Inventory (MBI) ledger the Kane Mitigation Bank has 24.55 credits available, and MRI-3 Mitigation Bank has 7.89 credits available.

2.7.4 Floodplains

Pursuant to the FHA Control Act Rules (7 N.J.A.C. § 13), the proposed work in a tidally influenced floodplain will not cause significant floodplain impacts or loss of flood storage capacity. Even still, the Project will require a NJDEP FHA Individual Permit and FHA Verification, as regulated work is proposed within the floodplains of the Hackensack, Passaic and Hudson Rivers, all of which are tidally influenced at the Project locations.

2.7.5 Executive Order 11988- Floodplain Management

Executive Order 11988- Floodplain Management, 42 Fed Reg 26951 (issued May 24, 1977) was issued to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and

modification of floodplains as well as avoidance of direct or indirect support of floodplain development. US DOT Order 5650.2 "Floodplain Management and Protection" contains policies and procedures for implementing Executive Order 11988. The proposed Project includes work within tidally influenced floodplains and must ensure compliance with local, state and federal regulations to avoid adverse impacts. A summary of how the project activities meet compliance with the applicable Sections of Executive Order 11988 is included in the DEIS Chapter 12.5. US DOT Order 5650.2, defines a significant encroachment as one that results in one or more of the following: a considerable probability of loss of human life; likely future damage associated with the encroachment that could be substantial in cost or extent, including interruption of service on or loss of a vital transportation facility; or a notable adverse impact on natural and beneficial floodplain values. Based on the analysis of Preferred Alternative impacts on flood and tidal plains in the DEIS Chapter 12, FTA finds that the proposed action does not constitute a significant encroachment, subject to the required permits and mitigation commitments summarized in this ROD. The Main Facility (Component A) will be constructed within the 126-acre Kopper's Koke property that is being filled and elevated by HCIA regardless of the proposed federally funded action. Other Preferred Alternative encroachments are minor and/or will be mitigated through wetlands mitigation.

2.7.6 Clean Air Act / Conformity with Air Quality Plans

The proposed Project is in or within two miles of portions of Bergen, Essex, and Hudson Counties. All three counties are part of the Northern New Jersey-New York-Connecticut area designated as moderate nonattainment for ozone (O₃) and maintenance for CO and Particulate Matter (PM_{2.5}). The area is in attainment for Nitrogen Dioxide (NO₂), Sulfur Dioxide (SO₂), and PM₁₀. Projects that emit pollutants in nonattainment areas are required to offset emissions (i.e., reduce emissions elsewhere to compensate for emissions generated), and dispersion modeling is usually required to demonstrate that no new exceedances would occur and/or that the existing exceedance would not be exacerbated. Emissions are reviewed under the "Nonattainment New Source Review" (NNSR) program, which requires strict emission controls meeting the Lowest Achievable Emission Rate (LAER) with no regard to cost. The need for emission offsets is also determined as part of the permitting process. In general, Transportation and/or General Conformity requirements apply to proposed major projects in nonattainment or maintenance areas. However, the Preferred Alternative is exempt from these requirements (for both operation and construction) since NJ TRANSIT is designing it to conform with the approved emissions budget for the area through the Title V permitting process (see 40 CFR 93.153(d)(1)).

As designed, the preferred equipment option of the Preferred Alternative for the Main Facility (Preferred Alternative Project Component A) would not cause significant air quality impacts; therefore, no mitigation is needed for this component. Any impact on air quality would be minimized through use of modern technology and could be further offset by reduced demand from the commercial power generation plant. Additional emission reduction controls technologies, however, may be incorporated into the proposed Project's design during the facility's Title V permitting process to further reduce emissions. Additionally, neither the normal operation nor the emergency operation of the reciprocating engines for the blackstart engines at the Main Facility (Preferred Alternative Project Component A) or the nanogrid (Preferred Alternative Project Component F) would cause significant air quality impacts; therefore, no mitigation is

needed for these components. A Pre-Construction Air Permit application was submitted to NJDEP in November 2018 and is currently under review.

2.7.7 Environmental Justice

The Main Facility will be constructed in an area with no nearby residences (nearest residence is 0.7 miles away). While some construction activities may take place near minority or low-income communities, the activities will not result in disproportionately high and adverse effects on minority or low-income populations, as all construction activities will take place with transportation rights-of-way. The project is designed to improve resilience of public transportation, which will provide a net benefit to minority and low-income populations, particularly during power outages when emergency transportation is needed.

2.8 CONCLUSION

The Preferred Alternative will minimize all impacts and NJ TRANSIT s committed to mitigating significant adverse impacts as summarized in ROD Table 1. The Preferred Alternative is designed to provide a reliable and resilient source of power to allow continuous use of a critical segment of the mass transportation system serving the New Jersey and New York City commuters during power outages.

Based on the environmental record analyzed for the project, the evaluations of social, economic, and environmental impacts as presented in the DEIS and FEIS; the summary of committed mitigation for the NJ TRANSITGRID (see Mitigation Measures in the above Section 2.6); and the written and oral comments offered by the public and other agencies, the FTA has determined that:

- An adequate opportunity was afforded for the presentation of views by all parties with a significant economic, social, or environmental interest in the Project;
- The preservation and enhancement of the environment and the interest of the community in which the proposed Project is located was considered; and
- No feasible and prudent alternative to the adverse environmental effects of the NJ TRANSITGRID exists and all reasonable steps have been taken minimize the effects.

The environmental record for this decision includes the following documents:

- Project DEIS
- Combined FEIS/ROD/ Section 4(f) Determination
- All technical reports, white papers, Title VI analysis, and supporting documentation incorporated by reference into the DEIS and FEIS.

These documents, incorporated herein by reference, constitute the statements required by NEPA and Title 23 of the United States Code on:

- The environmental impacts of the project
- The adverse environmental effects that cannot be avoided should the project be implemented
- Alternatives to the proposed project

 Irreversible and irretrievable impacts on the environment that may be involved with the project should it be implemented

Having carefully considered the environmental record noted above, the mitigation measures as required herein, the written and oral comments offered by agencies and the public on this record and the written responses to the comments, the FTA has determined that the NEPA Preferred Alternative is also the environmentally preferred alternative. The NEPA Preferred Alternative represents the best option for the Project. The FTA finds that all practicable measures to minimize environmental harm have been incorporated into the design of the NEPA Preferred Alternative and will ensure that the commitments outlined herein will be implemented as part of final design, construction contract, and post-construction monitoring.

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4/15/2020

Date of Approval

Stephen Goodman, PE Regional Administrator Federal Transit Administration - Region 2