

Portal North Bridge Project
Report for the Diversion of Property Owned by Hudson County
Portion of Block 1, Lot 3 in the Town of Secaucus

September 21, 2020

INTRODUCTION

This report has been prepared in accordance with N.J.S.A. 40A: 12-13.5 et seq, which requires an informational report to be prepared whenever a county determines to sell, lease or exchange real property that it owns. Hudson County proposes to permanently divert approximately 2.445 acres of a wetland area in Hudson County's Laurel Hill Park (Block 1, Lot 3 in the Town of Secaucus), for the construction and operation of the Portal North Bridge. The purpose of the overall Portal North Bridge Project (the Project), sponsored by NJ TRANSIT, is to replace the aging Portal Bridge and eliminate the associated capacity constraints on the Northeast Corridor.

Pursuant to N.J.S.A. 40A:12-13.5, this report identifies the advantages and disadvantages of the proposed diversion; assesses the environmental and recreational impacts of the proposed diversion; and discusses the environmental and economic values of the site before and after the proposed diversion.

PROJECT DESCRIPTION

The Portal North Bridge Project would include the decommissioning and removal of the existing Portal Bridge, in addition to the following project elements:

- Construction of a new two-track fixed northern bridge at a height of 50 feet above mean high water (MHW) and related approach structures, constructed to the north of the existing bridge;
- Construction of approximately 6,180 linear feet of railroad embankment sections located on both sides of the river to support the new tracks, as well as the construction of a new bridge over Newark / Jersey City Turnpike; and
- Installation of multiple new improvements to the railroad's typical infrastructure systems, including the track, catenary, electrification, and communications and signaling systems.

PRIOR STUDIES AND APPROVALS

Pursuant to the National Environmental Policy Act of 1969 (NEPA), the Federal Railroad Administration (FRA) and NJ TRANSIT prepared a Final Environmental Impact Statement (FEIS) and Section 4(f) Evaluation in October 2008 to analyze the potential environmental impacts of the Portal Bridge Capacity Enhancement Project. The Record of Decision (ROD) for the Project was published by the FRA in December 2008. As design advanced through the preliminary and final engineering phases, FRA conducted several NEPA re-evaluations to confirm that no new significant adverse impacts would result. A further reevaluation was completed in 2016 by FRA and confirmed by the Federal Transit Administration (FTA) issued on July 25, 2017 concluding that there were no significant environmental impacts associated with revisions to the plans and that no modifications to the FEIS for the Project were warranted.

DESCRIPTION OF THE PROPOSED DIVERSION

NEED FOR THE PROPOSED DIVERSION

The existing Amtrak right-of-way is not sufficient to accommodate the construction of the new bridge while maintaining passenger rail operations along the Northeast Corridor (NEC). Approximately 2.445 acres within a 14.414-acre wetland area (on Block 1, Lot 3) identified as a portion of the Hudson County Park at Laurel Hill (Laurel Hill Park) is proposed for diversion as a permanent Bridge Easement (see Figures 1 and 2). The proposed diversion of parkland is required for the construction and operation of the Portal North Bridge Project. The northern bridge approach structure and a construction and maintenance platform would be permanently located on and over the land proposed for diversion. The Bridge Easement to be acquired on and over said land would become part of the railroad right-of-way and would be used for railroad related purposes.

DESCRIPTION OF THE PARKLAND PROPOSED FOR DIVERSION

The proposed parkland diversion consists of a Bridge Easement measuring 2.445-acres within a 14.414-acre wetland area (on Block 1, Lot 3) that is not accessible to the public, except by water. The parkland proposed for diversion is a triangular area between the Hackensack River, the former Boonton Line, the New Jersey Turnpike, and Amtrak's NEC. Hudson County acquired the wetland area in 2006 using New Jersey Department of Environmental Protection (NJDEP) Green Acres funding. Therefore, the Portal North Bridge Project is also subject to the requirements set forth in N.J.A.C. 7:36-26.9.

The non-native and invasive common reed (*Phragmites australis*) is the predominant plant species on this parcel and isolated pockets of cord grass (*Spartina alterniflora*) sparsely appear in areas of lower marsh plain elevations.

Observed wildlife use of this area includes nesting of bird species such as marsh wrens (*Cistothorus palustris*) and redwing blackbirds (*Agelaius phoeniceus*), as well as foraging by wading birds (e.g., great blue heron [*Ardea herodias*], great egret [*Ardea alba*], etc.). Other bird species that are known to forage in the area include snowy egrets (*Egretta thula*), least bitterns (*Ixobrychus exilis*), yellow-crowned night herons (*Nycticorax violaceus*), and black-crowned night herons (*Nycticorax nycticorax*). Northern harriers (*Circus cyaneus*) are commonly observed foraging over this area. Mammal use of these wetlands includes muskrats and raccoons. Estuarine reptiles, such as diamondback terrapins (*Malaclemys terrapin*), use this area for foraging, basking, and nesting.

ADVANTAGES OF THE PROPOSED DIVERSION

Project sponsor, NJ TRANSIT, and its partner Amtrak have proposed the Project to enhance the operations and capacity of the NEC to handle more passenger trains by constructing a new bridge as a replacement of the existing Portal Bridge.

The existing Portal Bridge is a two-track moveable swing-span bridge over the Hackensack River between the Town of Kearny and the Town of Secaucus in Hudson County, New Jersey. The Portal Bridge is a vital element of the NEC—the most heavily used passenger rail line in the United States, both in terms of ridership and service frequency. The NEC extends from Washington, D.C. in the south to Boston, Massachusetts in the north, in the densely populated northeast region, with stops in eight states, Washington, D.C., and Pennsylvania Station in New York City. The Portal Bridge enables movement between destinations east and west of the Hudson River. Each typical

weekday, 349 NJ TRANSIT trains and 105 Amtrak trains operate over Portal Bridge, accommodating approximately 206,500 trips (184,600 NJ TRANSIT + 21,900 Amtrak) on Amtrak and NJ TRANSIT commuter trains between New Jersey and midtown Manhattan.¹

The existing Portal Bridge, due to its age, design and current condition, is a single point of failure on the NEC, causing major rail traffic disruptions due to mechanical failures that inherently occur on a bridge equipped with 110 year-old fixtures, parts and technology. The existing Portal Bridge poses reliability concerns, capacity constraints, and operational inflexibility. Since the existing Portal Bridge was constructed 110 years ago, it is nearing the end of its service life and presents a considerable ongoing operation and maintenance expense for Amtrak. The mechanical and structural components are prone to failure due to age and wear. The speed restrictions of the bridge limit the number of trains that can cross the Hackensack River and leave few windows of opportunity for maintenance and inspection activities. The outdated movable swing-span also presents challenges to marine vessels.

The proposed Portal North Bridge Project will replace the existing Portal Bridge with a new two-track fixed structure. The overall construction project will be approximately 2.44 miles in length, including a 3,660-foot-long approach span located on the west side of the river, a 2,540-foot-long approach span on the eastside of the river and, a 1,200-foot-long center span crossing directly over the Hackensack River. The Portal North Bridge will result in the following benefits:

- Increase the capacity of the NEC to meet current and future service demands by reducing the number of locations along the NEC where trains must merge.
- Improve the service reliability and operational flexibility by reducing the vulnerability of the capacity constrained NEC to train delays, weather related incidents, breakdowns, and unusual travel demands.
- Provide a redundant rail crossing of the Hackensack River that will facilitate maintenance of the railroad to enhance passenger safety and security.
- Allow for continued rail operations during off-peak maintenance periods and in the event of an unplanned track closures.
- Minimize conflicts with maritime traffic to avoid disruptions to river users, while maintaining uninterrupted service to rail operations, by providing greater vertical and horizontal clearances for the larger marine vessels.

DISADVANTAGES OF THE PROPOSED DIVERSION

As described above, NJ TRANSIT is proposing a permanent Bridge Easement on and over 2.445 acres within a 14.414-acre wetland area within Laurel Hill Park. As part of the Portal North Bridge Project, the land would become part of the railroad right-of-way and would be used for railroad related purposes.

The Project is expected to impact a total of 26,728 square feet (0.614 acres) of riparian zone vegetation, as described in greater detail below. Of these impacts to riparian zone vegetation, 0.085 acres occurs within Laurel Hill Park. Within the affected portion of Laurel Hill Park (Block 1, Lot 3), it is estimated that 1.18 acres of *Phragmites*-dominated wetlands in the park will be permanently impacted (by the construction/access platform and pier caps above the surface), and 0.31 acres will be temporarily impacted to construct the pier caps below the surface. NJ TRANSIT has consulted with NJDEP, United States Army Corps of Engineers and United States Coast Guard

¹ NJ TRANSIT, Portal North Bridge Project Financial Plan, September 13, 2019.

for all impacts related to wetlands, floodplains and riparian vegetation. While these impacts to natural resources may be considered a disadvantage, these impacts will be compensated through appropriate mitigation measures.

ENVIRONMENTAL IMPACT OF THE PROPOSED DIVERSION

As described above, pursuant to NEPA, the FRA and NJ TRANSIT prepared an FEIS and Section 4(f) Evaluation in October 2008 to analyze the potential environmental impacts of the Project. The ROD for the Project was published by the FRA in December 2008. As design advanced through the preliminary and final engineering phases, FRA conducted several NEPA re-evaluations to confirm that no new significant adverse impacts would result. The FEIS was performed for a larger study area bounded by Secaucus Transfer Station to the east and Swift Interlocking to the west, and the study area extended 2,000 feet north and 2,000 feet south of the Northeast Corridor. The FEIS analyzed the following technical areas: transportation effects; land use and social conditions; historic resources; visual and aesthetic considerations; air quality; noise and vibration; ecology; contaminated materials; coastal zone management; environmental justice; construction impacts; secondary and cumulative impacts,; and a Section 4(f) Evaluation. NEPA was conducted in accordance with applicable federal and New Jersey state laws and regulatory programs, including Executive Order 11990, the Clean Water Act (33 USC §§ 1251 to 1387), Rivers and Harbors Act of 1899, Coastal Zone Management Act of 1972 (16 USC §§ 1451 to 1465), Magnuson-Stevens Act (16 USC §§ 1801 to 1883), Endangered Species Act (ESA) of 1973 (16 USC §§ 1531 to 1544), Fish And Wildlife (FWS) Coordination Act (PL 85-624; 16 USC 661-667D), Executive Order 11988 (Floodplain Management), NJDEP Tidelands Act (N.J.S.A. 12:3-1), Waterfront Development Act (N.J.S.A. 12:5-3 and N.J.A.C. 7:7 and 7:7E), Flood Hazard Area Control Act (N.J.S.A. 58:16A-50 et seq. and N.J.A.C. 7:13), Coastal Wetlands Act of 1970 (N.J.S.A. 13:9A), and other applicable regulations, permits, and approvals. This report focuses on the diversion parcel (Block 1, Lot 3), its applicable regulations, and the effects of the proposed diversion on natural resources.

ECOLOGICALLY SENSITIVE LANDS

Floodplains and Riparian Impacts

Much of the natural wetland area of Laurel Hill Park is within the 100-year floodplain (indicating a one percent annual chance flood). See Figure 3 for a floodplain map. Construction within the floodplain cannot be avoided because the replacement rail tracks must be located near and connect to the existing NEC rail tracks on both sides of the Hackensack River. To avoid adverse floodplain impacts, the Project has been designed to minimize the footprint of the support structures within the floodplain. The Project maximizes the use of elevated structures and retaining walls in lieu of filled embankment. Proposed in-water structures, when considered in conjunction with the removal of the existing pivot pier, would not alter the flow characteristics of the Hackensack River.

The Project is expected to impact a total of 26,728 square feet (0.614 acres) of riparian zone vegetation. This impact is 21,728 square feet (0.49 acres) of riparian zone vegetation impact beyond the allowable 5,000 square feet. The provisions at **N.J.A.C. 7:13-10.2** (Requirements for a regulated activity in a riparian zone) set forth the 5,000 square foot limit for railroad projects crossing a water, and that have a 50-foot riparian zone (Table C of **N.J.A.C. 7:13-10.2**). For impacts to riparian zone vegetation requiring an individual permit, "the applicant shall provide 2:1 compensation for all cleared, cut and removed vegetation in excess of the limit set forth in Table C" (**N.J.A.C. 7:13-10.2 (f)1**). These impacts will be mitigated at the prescribed 2:1 ratio. Of these impacts to riparian zone vegetation, 0.085 acres occurs within Laurel Hill Park.

Wetlands and Subtidal and Intertidal Shallows

The Portal North Bridge Project would result in adverse effects to wetlands and subtidal and intertidal shallows. Within the affected portion of Laurel Hill Park (Block 1, Lot 3), it is estimated that 1.18 acres of *Phragmites*-dominated wetlands in the park will be permanently impacted (by the construction/access platform and pier caps above the surface), and 0.31 acres will be temporarily impacted to construct the pier caps below the surface (see Figures 4 and 5). Additionally, an estimated 0.05 acres of subtidal and intertidal shallows within the park will be permanently impacted, and 0.04 acres of subtidal and intertidal shallows within the park will be temporarily impacted. There will be no impacts to open water within the park.

All wetland, floodplain and riparian impacts have been acknowledged and approved by NJDEP (Permit #0900-09-0005.2 WFD 15001), United States Army Corps of Engineers (USACE) (NAN-2009-01222) and United States Coast Guard (USCG) (4a-13-1). Compensatory mitigation is required by these permits.

WATER

The Portal North Bridge Project would not result in any long-term adverse effects to water quality or stormwater. In the area of the proposed Bridge Easement, a pervious construction platform will be constructed in addition to overhead bridge construction. The improvements will not increase stormwater runoff or redirect stormwater to other locations.

In areas of the tidal channels of Laurel Hill Park, all work will be completed from the construction platforms. The outer perimeter of the foundations will be established through small cofferdams or pre-formed containment structures; the work area dewatered and construction limited to the area of the foundation. During the construction of the cofferdams/containment and the retaining walls, there may be slight elevations of turbidity resulting from ground disturbance. All work will be consistent with Standards for Soil Erosion and Sediment Control and monitored by the Hudson Essex Passaic Soil Conservation District.

Any temporary sediment resuspension associated with construction activities would be localized to the project site. This sediment would be expected to dissipate shortly after the completion of the sediment disturbing activity and would not be expected to result in impacts to water quality or aquatic biota. Life stages of estuarine-dependent and anadromous fish species, bivalves and other macroinvertebrates generally are generally tolerant of elevated suspended sediment concentrations and have evolved behavioral and physiological mechanisms for dealing with variable concentrations of suspended sediment. The invertebrate species found in the Hackensack River are adapted to naturally turbid estuarine conditions and can tolerate short-term exposures by closing valves or reducing pumping activity. Mobile benthic invertebrates that occur in estuaries have been found to be tolerant of extremely high suspended sediment concentrations. In studies of the tolerance of crustaceans exposed to suspended sediments for up to two weeks, nearly all mortality was caused by the full-time exposure to high suspended sediment concentrations (greater than 10,000 mg/L) (Clarke and Wilber 2000), which would not occur from the in-water work associated with the proposed project (except perhaps extremely locally). Therefore, temporary increases in suspended sediment resulting from construction activities within subtidal and intertidal shallows would not be expected to result in significant adverse impacts to fish and mobile benthic macroinvertebrates.

Protective measures would be taken to prevent contamination of the Hackensack River during in-water construction of the Portal Bridge. Implementation of erosion and sediment controls will minimize adverse impacts to aquatic biota from the discharge of stormwater and groundwater

Portal North Bridge Project

recovered during construction of the upland project elements. Within the wetlands of Laurel Hill Park, special shaft/pier installation techniques and materials would limit contaminants from entering the wetlands.

AQUATIC AND TERRESTRIAL IMPACTS

Portal North Bridge Project would affect the Laurel Hill Park wetlands and subtidal and intertidal shallows. Mitigation would be implemented, as specified in the USACE Section 404 Permit, USCG Section 9 Permit, NJDEP Waterfront Development Permit, and Water Quality Certificate. Field surveys were performed for threatened and endangered species and outreach to natural resource agencies was undertaken as part of the EIS and permitting phase. The following agencies were consulted regarding the presence or absence of threatened or endangered species or other species of particular concern within and immediately adjacent to the project study area, which includes Laurel Hill Park: National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS), United States Fish and Wildlife Service (USFWS), and NJDEP Natural Heritage Program. More recently, a review of the New Jersey Landscape Project v. 3.3, Natural Heritage Database request (April 2019), and United States Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (iPac) was completed to determine presence of Endangered or Threatened Wildlife or Vegetation Species Habitat.

The proposed Bridge Easement within Laurel Hill Park is not anticipated to result in adverse impacts on threatened or endangered species or critical habitat. There are no trees greater than six inches in diameter at breast height within the site proposed for removal. Construction activities within the proposed area of disturbance will result in removal of some suitable foraging and nesting habitat (i.e., *Spartina* marsh and open water habitat), and could result in displacement of nesting or foraging activity within and near the proposed area of disturbance due to land disturbance and construction-related noise. It is important to note, however, that other suitable nesting and foraging habitat for the above species exists both within and beyond the study area. These habitats may provide suitable refuges for individuals displaced by construction-related activities. Because considerable disturbance due to noise and human activity presently exists in the project area, threatened and endangered species currently using this area are habituated to these disturbances and may continue foraging and nesting in the area during and following construction. The Project will not affect nesting habitat of listed species, and no permanent disturbance to listed species is expected to occur.

MITIGATING ADVERSE ENVIRONMENTAL IMPACTS ASSOCIATED WITH THE PROJECT

On-site mitigation for riparian impacts in the form of soil restoration and seeding/planting as appropriate will be provided to offset permanent impacts to riparian areas. Wetland credits have been purchased in accordance with permit conditions to offset permanent wetland impacts. For temporary wetland impacts, restoration of disturbed areas will include planting a variety of species including but not limited to *Spartina spp.* and *Baccharis halimifolia*.

Environmental design and other measures to minimize and mitigate adverse effects of the Portal North Bridge Project within Laurel Hill Park and the proposed parkland diversion include:

- Constructing on structure instead of fill to avoid impacts to wetlands
- Installation of pier caps below the marsh surface to minimize surficial impacts to wetlands
- Minimization of the footprint of the support structure
- Minimization of the footprint of the elevated structure

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- On-site mitigation in the form of soil restoration and seeding/planting as appropriate for temporary impacts to wetlands
 - Off-site mitigation for permanent wetland impacts through purchase of approved wetland mitigation credits
 - Monetary compensation for the parkland diversion at a 4:1 ratio
 - Best practices during construction as described in the USACE, USCG, NJDEP Waterfront Development Permit (N.J.S.A. 12:5-3), the Water Quality Certificate issued pursuant to Section 401 of the Federal Clean Water Act (33 U.S.C. 1251 et seq.), and other permits.
 - Provisions listed in the Memorandum of Agreement to avoid, minimize, and mitigate adverse effects on historic properties, pursuant to Section 106 of the National Historic Preservation Act.

RECREATIONAL IMPACT OF THE PROPOSED DIVERSION

The parkland proposed for diversion is a triangular area of wetland between the Hackensack River, the former Boonton Line, the New Jersey Turnpike, and Amtrak's NEC.

The upland portion of Laurel Hill Park is adjacent to the wetland area and is located on the east bank of the Hackensack River within an approximately 114-acre Hudson County-owned parcel in the Town of Secaucus, New Jersey. A recently completed academic campus (Frank J. Gargiulo Campus) is located on 22 acres of the Hudson County-owned parcel. Natural features of the larger Laurel Hill Park include the Hackensack River shoreline, the wetland area, vegetation, and wildlife, and a 12-acre remnant rock outcropping known as "Laurel Hill". The upland portions of Laurel Hill Park contain both passive and active recreational resources. Passive facilities include benches, picnic tables, pathways and gazebos. Laurel Hill Park is home to a boat launch, cricket field, a batting cage, and several grass and synthetic fields for soccer, football, and baseball.

None of the existing recreational facilities and amenities on the upland portion of Laurel Hill Park would be affected by the proposed diversion. The Portal North Bridge Project bridge easement within Laurel Hill Park would be limited to a portion of Block 1 Lot 3, which is not accessible to the public, except by water. Therefore, no recreational impacts are anticipated to occur from the proposed diversion.

ENVIRONMENTAL AND ECONOMIC VALUE OF THE PROPERTY

The wetlands and riparian vegetation on the property have environmental value, since they provide habitat for fish, wildlife and plants, recharge groundwater, provide storm protection and reduce flooding, and improve water quality.

The value of the real property (Block 1, Lot 3) was estimated in January 2020 by Sterling DiSanto & Associates. The report identifies the highest and best use for the parcel is passive recreation (before and after). The report estimates the market value to be \$90,000 before the proposed bridge easement and \$76,300 after, making the value of the easement \$13,700.

CONCLUSION

The proposed alignment of the Portal North Bridge was specifically chosen to minimize impacts on the surrounding environment. The expected benefits to the region's transportation, infrastructure, and environment that would result from the proposed Portal North Bridge Project largely outweigh the potential disadvantages of the proposed diversion and probable environmental impacts, which will be mitigated to the maximum extent practicable.

CONTACT INFORMATION

For further information, please contact:

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References

Clarke, D.G., and D.H. Wilber. 2000. Assessment of potential impacts of dredging operations due to sediment resuspension. DOER Technical Notes Collection (ERDC TN-DOER-E9), US Army Engineer Research and Development Center, Vicksburg, MS.

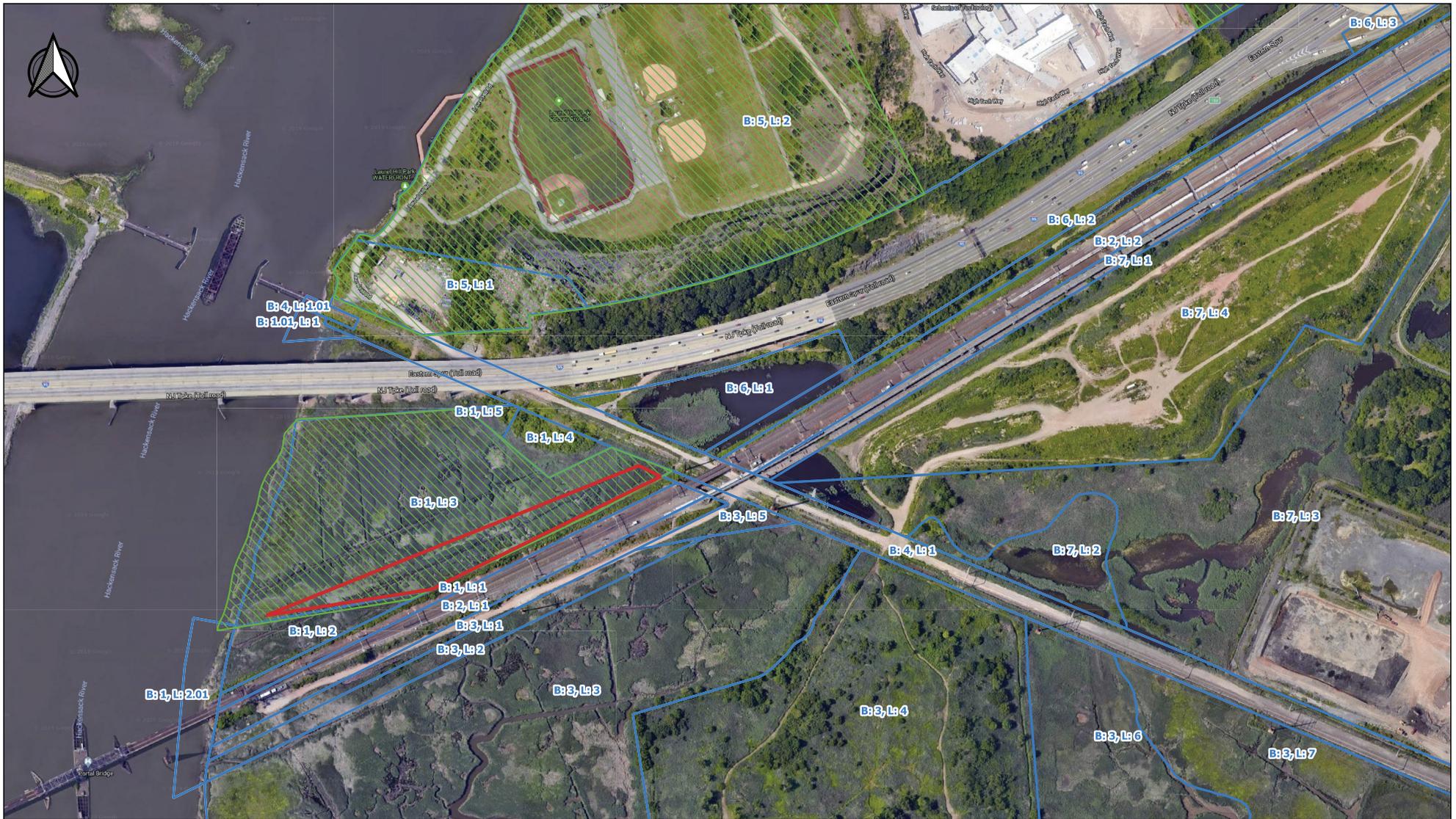


 Diversion Area
 Laurel Hill Park

0 750 1500 ft


Portal North Bridge
Hudson County

Figure 1
Aerial Map



- Diversion Area
- Laurel Hill Park
- Block and Lot



Portal North Bridge
Hudson County

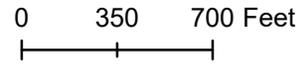
Figure 2
Tax Map



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

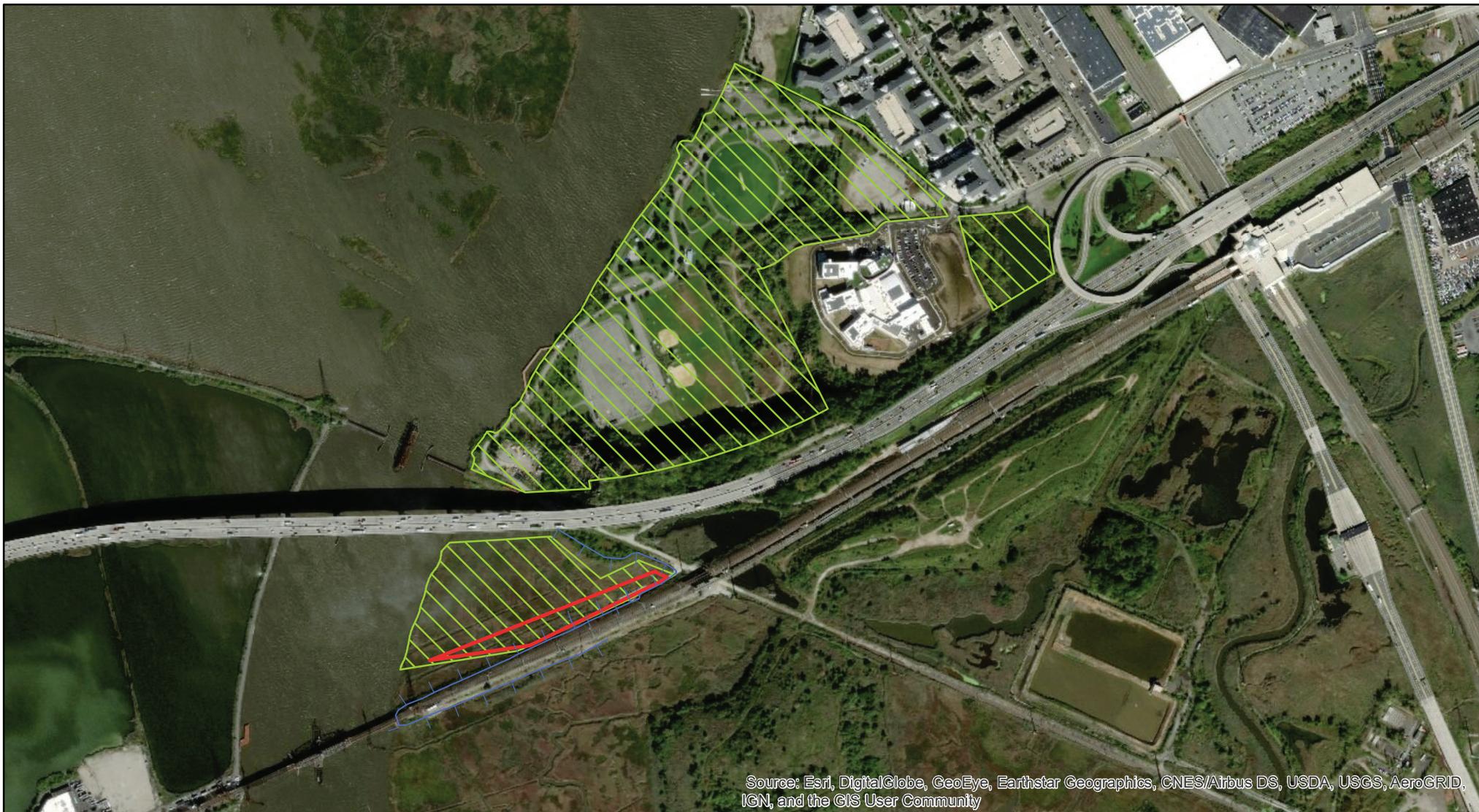
Legend

-  Diversion Area
-  Laurel Hill Park
-  FEMA Zone X
-  FEMA Zone AE (100-Year Floodplain)
-  FEMA 500-Year Flood Plain



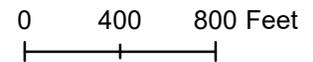
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Figure 3
Floodplain Map



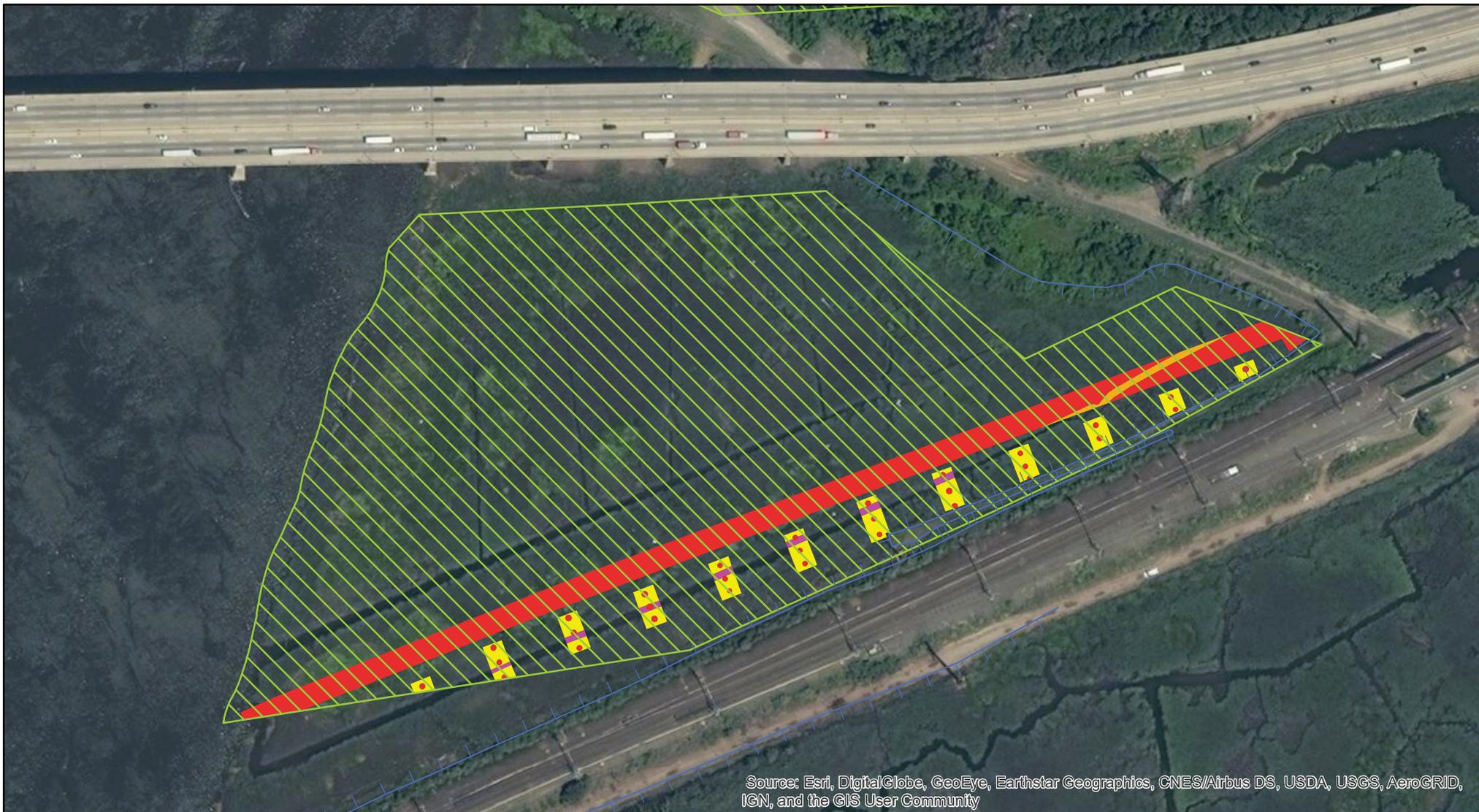
Legend

- Approximate Coastal Wetland Line
- ▭ Diversion Area
- ▨ Laurel Hill Park



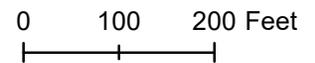
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Figure 4
Wetland Map



Legend

- Approximate Coastal Wetland Line
- Laurel Hill Park
- Permanent Wetland Impacts
- Permanent Subtidal/Intertidal Shallows Impacts
- Temporary Wetland Impacts
- Temporary Subtidal/Intertidal Shallows Impacts



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Figure 5
Wetland Impacts Map