15. Wetlands

15.1. Chapter Overview

15.1.1. Introduction

This chapter discusses changes to the Preferred Alternative resulting in the potential for project improvements to adversely affect wetlands. Although the SDEIS Preferred Alternative no longer travels into Tenafly, no wetlands were affected in Tenafly under the DEIS Preferred Alternative. Consequently, the change in terminus does not affect the total impact to wetlands. The following revisions specifically required freshwater wetlands assessment:

- West Side Avenue alignment: the majority of the alignment, as well as a 3,000± square foot substation, represent new development within the Hackensack Meadowlands District (HMD) boundary.
- 85th Street Viaduct /85th Street Extension: the viaduct connection from West Side Avenue to the Northern Branch and extension of 85th Street would acquire and develop wooded acreage in North Bergen within the HMD boundary.
- Relocation of 91st Street Station platforms: linear wetland swales would be affected by a shift in platform location.
- Relocation of Ridgefield Station platforms: linear wetland swales would be affected by a shift in platform location.
- Relocation of Leonia Station parking deck: a parking deck is proposed to be developed within Overpeck County Park.
- Revised design of Englewood Route 4 Station: the Englewood Route 4 Station would now incorporate the vehicle base facility (VBF) into the proposed parking deck, and the entire facility would be located on the east side of the Northern Branch. Previously, the VBF was located in North Bergen with an option to locate in Englewood, and the Englewood Route 4 Station and parking area occupied land on both sides of the Northern Branch right-of-way.

Comments submitted on the DEIS pertaining to wetlands focused on the availability of wetlands mitigation banks and the need for a detailed wetlands delineation during the FEIS phase. The availability of wetlands mitigation credits was taken into consideration in the development of the SDEIS Preferred Alternative. The SDEIS, like the DEIS, evaluates the conceptual design to assess for the potential for impact and related fatal flaws.

15.1.2. Summary of Findings of the DEIS and the SDEIS

Changes to the Preferred Alternative altered the location of three improvements relative to identified wetland areas: 91st Street Station's platforms shifted from the south side of 91st Street to the north, affecting an area of wetlands, and the Ridgefield Station's platforms shifted south. The West Side Avenue realignment and 85th Street Extension (including a railroad underpass and grade crossings) would place Northern Branch improvements within the HMD, but the majority of the proposed developments would occur within existing road rights-of-way. Additionally, shifting the alignment to West Side Avenue would eliminate wetland impacts within the freight yard. A small portion of the 85th Street Extension would be located on undeveloped land; however, this land does not contain any wetlands. Although the new Leonia Station parking deck would be located within Overpeck County Park, the parking facility would be designed to avoid wetlands impacts. Table 15-1 summarizes the permanent impacts to study area wetlands resulting from the implementation of the SDEIS Preferred Alternative.

Table 15-1: Potential Wetland Acreage Impacts within Study Area

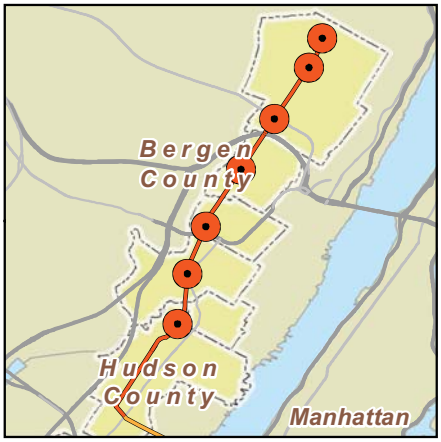
Municipality and Station/Element	Wetland Acreage*	Location Revised Between the DEIS and SDEIS?	Change in Wetland Impact Compared to DEIS
North Bergen			
Rail ROW (including structures, 85th Street Viaduct and 85th Street Extension)	0.81	Yes	Yes: less 0.98 acres
West Side Avenue Alignment	None	Yes	No
91st Street Station	0.14 acres	Yes	Yes: additional 0.10 acres
Fairview			
Rail ROW (including structures)	0.02 acres	No	No
Ridgefield			
Rail ROW (including structures)	0.26 acres	No	No
Ridgefield Station	0.07 acres	Yes	Yes: additional 0.07 acres
Palisades Park			
Rail ROW (including structures)	0.24 acres	No	No
Palisades Park Station	None	No	No
Leonia			
Rail ROW (including structures)	1.03 acres	No	No
Leonia Station	None	Yes	No
Englewood			
Rail ROW (including structures)	1.10 acres	No	No
Englewood Route 4 Station and VBF	0.25 acres	Yes	No
Englewood Town Center Station	None	Yes	No
Englewood Hospital and Medical Center Station	None	Yes	No
TOTAL	**3.92 acres**		**Yes: 0.81 acres less than DEIS Preferred Alternative**
**= based on preliminary engineering design and subject to change*			

The SDEIS Preferred Alternative would result in 0.81 acres less wetlands impacts than the DEIS Preferred Alternative to Tenafly. The SDEIS Preferred Alternative therefore represents an improvement (less impacts) as compared to the DEIS. Although the SDEIS Preferred Alternative results in fewer impacted acres, the project would still require approval from the New Jersey Department of Environmental Protection (NJDEP) Freshwater Wetlands Protection Act (FWPA) to obtain a Freshwater Wetland Individual Permit.

Figures 15-1 to 15-6 illustrate the locations of wetlands along the Northern Branch Corridor. Baseline data updates did not indicate any new wetland areas or changes to the boundaries of wetlands analyzed in the DEIS.

Northern Branch Wetlands Overview

Figure 15-1



- Half-Mile Study Area
- Proposed Stations
- Proposed Alignment
- HBLR Stations
- Hudson Bergen Light Rail
- Rivers and Streams
- Delineated Wetland Areas
- Municipality

0 1 2 Miles

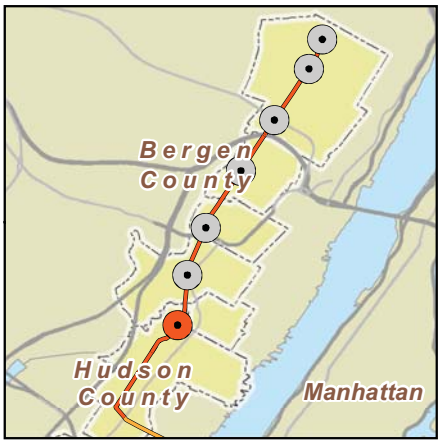
Source: NJ DEP and US FWS National Wetlands Inventory

NJTRANSIT The Way To Go.

JACOBS®

Northern Branch Wetlands 91st Street Station

Figure 15-2



Half-Mile Study Area
Wetlands
Proposed Alignment
Municipality

Station Area Features

Bus Pullout
Parking Area
Pedestrian Improvement
Platform

0 350 700 Feet

Source: NJ DEP and US FWS National Wetlant Inventory

NJTRANSIT The Way To Go.

JACOBS®

Northern Branch Wetlands Ridgefield Station

Figure 15-3

Half-Mile Study Area
Wetlands
Proposed Alignment
Municipality

Station Area Features

Bus Pullout
Parking Area
Pedestrian Improvement
Platform

0 90 180 Feet

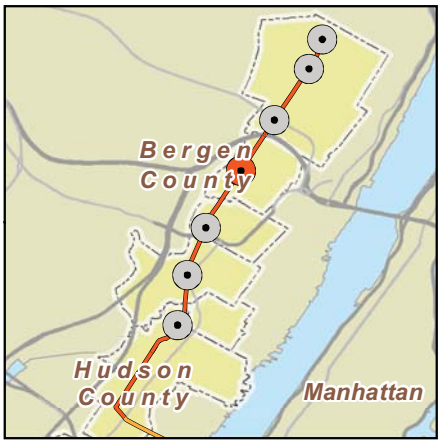
Source: NJ DEP and US FWS National Wetlant Inventory

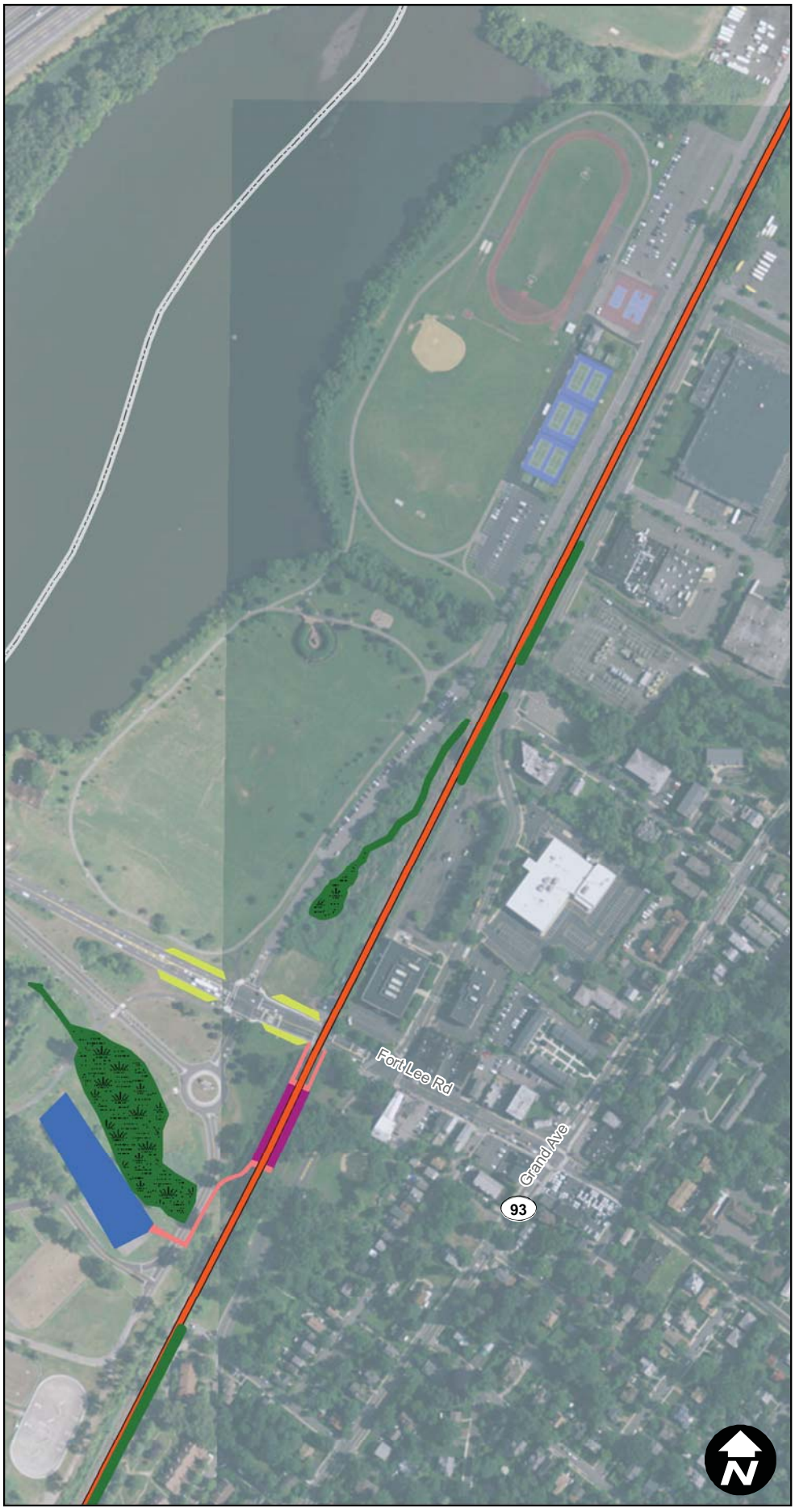
NJTRANSIT The Way To Go.

JACOBS®

Northern Branch Wetlands Leonia Station

Figure 15-4





Half-Mile Study Area

Wetlands

Proposed Alignment

Municipality

Station Area Features

Bus Pullout

Parking Area

Pedestrian Improvement

Platform

0 440 880 Feet

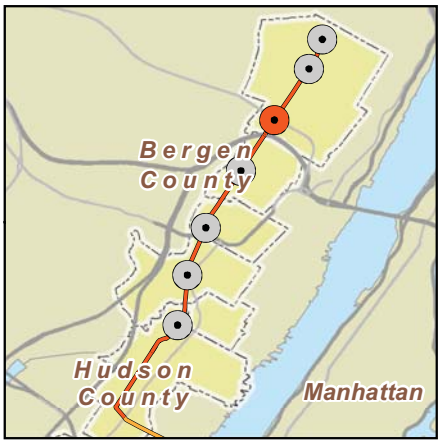
Source: NJ DEP and US FWS National Wetlant Inventory

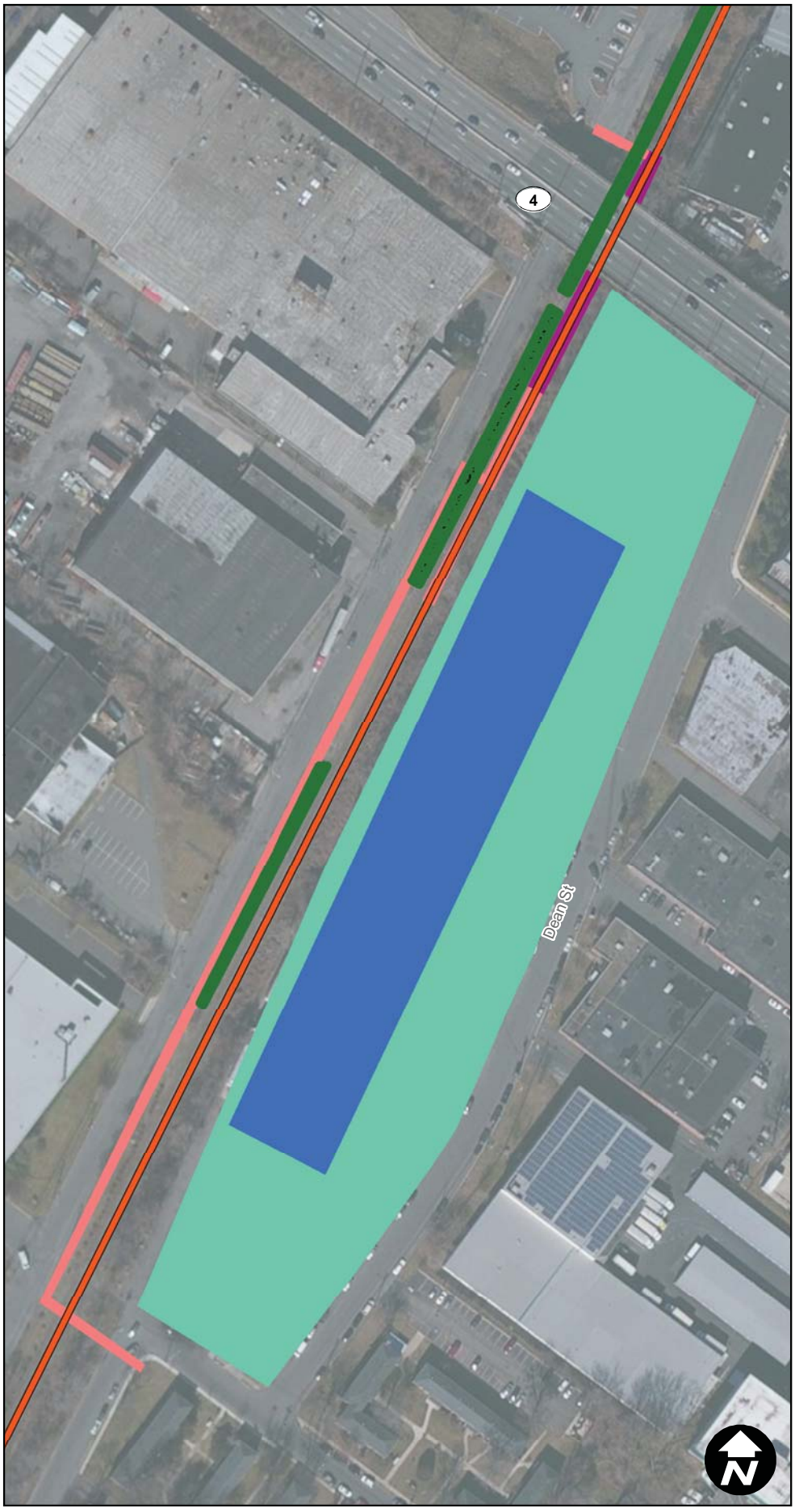
NJTRANSIT The Way To Go.

JACOBS®

Northern Branch
Wetlands
Englewood
Route 4 Station

Figure 15-5





Half-Mile Study Area

Wetlands

Proposed Alignment

Municipality

Station Area Features

Parking Area

Pedestrian Improvement

Platform

VBF

0 175 350 Feet

Source: NJ DEP and US FWS National Wetlant Inventory

NJTRANSIT
The Way To Go.

JACOBS®

15.2. Methodology

Information on wetlands and drainage in the Northern Branch Corridor study area was obtained from field verification conducted during the DEIS phase and existing digital mapping from the NJDEP Division of Land Use Regulation and U.S. Fish and Wildlife Service National Wetland Inventory GIS datasets. DEIS phase field verification investigated the area adjacent to the rail corridor, regardless of the potential for development of the DEIS Preferred Alternative and remains the most accurate mapping of wetland constraints in the study area. SDEIS Preferred Alternative improvements that were located beyond the limits of the area investigated and delineated during the DEIS were assessed using NJDEP land use and land cover (LULC) data by watershed to indicate the likely presence of wetlands. Improvements were also analyzed on an aerial basemap to indicate whether the land potentially affected by project development was already disturbed or built.

The reanalysis also sought to confirm the existing jurisdictional boundaries relating to wetlands regulations. NJDEP assumes authority to regulate freshwater wetlands and streams in most of New Jersey. US Army Corps of Engineers (USACE) retains authority over certain designated areas and tidal waters of the United States. In the Northern Branch Corridor study area, USACE jurisdiction is limited to the HMD. The HMD boundary did not change between the DEIS and SDEIS phase.

To estimate wetland disturbance, it was assumed that any existing wetlands within 25 feet of the centerline of the alignment would be impacted during construction activities. These wetland areas were then calculated to determine the approximate area of permanent impact, if any, due to the proposed project. Permanently impacted areas along the right-of-way were assumed to be filled as a result of construction activities, representing the loss of the identified acreage. Right-of-way improvements include improvements to the rail bed. Station platform development, although occurring within the right-of-way, was counted separately as "station" impacts, and reflects the approximate acreage permanently incorporated into paved and concrete areas serving the station, including platforms and parking areas. No areas were double-counted.

15.3. Environmental Review

15.3.1. Existing Conditions

Wetland areas mapped in the DEIS are consistent with those found in the SDEIS. The southern and western portions of the study area are within the HMD and are under the jurisdiction of the USACE. The Northern Branch railroad alignment serves as the western boundary of the HMD from North Bergen to its intersection with Hendricks Causeway in Ridgefield. North of Hendricks Causeway, as well as south of Hendricks Causeway and east of the Northern Branch, all wetlands are under the jurisdiction of NJDEP. Wetlands not directly connected to existing waterbodies (Bellman's Creek, Wolf Creek, Overpeck Creek, etc.) are typically linear drainage swales dominated by invasive species including phragmites. These linear areas were delineated as part of the analysis performed for the DEIS. Re-evaluation performed as part of SDEIS revisions to the Preferred Alternative indicated no change in the delineated boundaries.

15.3.2. Potential Impacts and Mitigation

15.3.2.1. No Build Alternative

There are no changes to the impacts associated with the No Build Alternative as compared with the DEIS.

15.3.2.2. Preferred Alternative

Following is a description of the revisions to the Preferred Alternative and their potential for affecting wetlands within the study area, followed by a description of the mitigation that is applicable to all of the impacted areas.

West Side Avenue Alignment

The alignment along West Side Avenue is within the HMD and under USACE jurisdiction; however, the proposed alignment occurs within existing paved areas. No wetlands would be affected as a result of this revision to the Preferred Alternative (refer to Figure 15-2). However, as a result of shifting the alignment to West Side Avenue instead of within the existing right-of-way, the impacts to wetlands were reduced by almost an acre.

85th Street Viaduct/85th Street Extension

The 85th Street Viaduct and 85th Street Extension would acquire and develop wooded acreage within the parcel occupied by the North Bergen Municipal Pool. The land to be acquired is within the HMD. A linear wetland swale is present in the portion of the property to be developed. The estimated impact would be less than 0.01 acres. This acreage is included in the rail right-of-way impact estimate shown in Table 15-1.

91st Street Station

The platforms for 91st Street Station would be relocated to the north side of the 91st Street intersection within the Northern Branch railroad right of way. Both the inbound and outbound platforms would be located within previously-delineated wetland swales. Approximately 0.14 acres of linear freshwater wetlands would be permanently impacted to accommodate the new station platforms. The station site is located both in USACE jurisdiction and NJDEP jurisdiction as the HMD boundary is coterminous with the Northern Branch railroad centerline. The western platform, affecting 0.09 acres of wetlands, is subject to USACE mitigation. The eastern platform, affecting 0.05 acres of wetlands, is within NJDEP jurisdiction (refer to Figure 15-3).

Ridgefield Station

Ridgefield Station platforms were previously located within 100 feet of the Hendricks Causeway overpass. Due to the eastern curve in the Northern Branch alignment, project engineers noted that the service plan would be better met by moving the platforms south. This arrangement enables the light rail vehicles to enter the curve while in motion instead of starting from a station stop on a curve. The southern shift affects one linear wetland swale on the east side of the Northern Branch within NJDEP jurisdiction. Total permanent impact to wetlands resulting from this adjustment in station configuration is 0.07 acres (refer to Figure 15-4).

Leonia Station

Leonia Station platforms are proposed to be located within the existing Northern Branch right-of-way, south of Fort Lee Road. This is a new location for the platforms, but the relocation does not affect any mapped or previously-delineated wetlands. The four-story parking deck and pedestrian walkway to the platforms are proposed to be located within the Leonia South Area of Overpeck County Park, on land currently developed with an abandoned paved basketball court and restroom facility. Wetlands were delineated immediately north of the proposed parking deck site, but the facility would be designed to avoid impact to the wetland resource. The bus pull-outs proposed for Fort Lee Road are located at the roadway edge and would not affect wetlands (refer to Figure 15-5).

Englewood Route 4 Station/VBF

The proposed Englewood Route 4 Station and proposed VBF are located adjacent to previously-delineated freshwater linear wetland drainage swales parallel to platforms located on the east and west

sides of the existing right-of-way (refer to Figure 15-6). The combined VBF and parking deck would occupy the same footprint as the Englewood VBF described in the DEIS and right-of-way impacts would not change. No difference in wetlands impacts occurs under the SDEIS Preferred Alternative as compared to the DEIS Preferred Alternative.

Mitigation

Mitigation measures for SDEIS impacts are the same as those described for DEIS impacts. NJ TRANSIT's preferred means of mitigation of permanent impacts would be to acquire wetland mitigation credits within an NJDEP-approved Wetland Mitigation Bank. This method is typically preferred by the USACE due to its ability to create high-quality wetland areas of sufficient size to provide habitat for wetland fauna. This mitigation method would address all wetlands impacts, regardless of location or associated project element. The purchase of credits would require an agreement between NJDEP and USACE, but is typically a 2:1 ratio.

Two options include the Kane Tract and the MRI-3 Wetland Mitigation Bank. The Kane Tract, administered by the Meadowlands Conservation Trust Organization, is located in Bergen County. The Kane Tract is a 587-acre property located in the Borough of Carlstadt and Township of South Hackensack, Bergen County. This wetlands mitigation bank is located approximately 1.25 miles west of the project alignment in the HMD and is within the same Hackensack Pascack Watershed Management Area 5 as the project corridor and the potentially impacted areas. The MRI-3 Mitigation Bank, operated by Evergreen Environmental, is a site of approximately 51 acres and is also located in the Borough of Carlstadt and Township of South Hackensack, Bergen County, along the banks of the Hackensack River in the Hackensack Meadowlands. The bank site is bordered on the west by Bashes Creek and is drained by Moonachie Creek to the east.

15.4. Summary of Potential Environmental Effects of the DEIS and the SDEIS

The SDEIS Preferred Alternative results in a total of 3.92 acres of wetlands impacts associated with the development of project elements. The project elements that changed between the DEIS and SDEIS did not result in a substantial increase in wetland acreage impacts; to the contrary, the new configuration of project elements in the SDEIS resulted in fewer impacts. None of the wetlands affected by the new or relocated elements are high-quality habitat areas; all are isolated drainage swales of minimal quality. Mitigation is anticipated to occur in the form of the purchase of mitigation credits from an approved wetlands mitigation bank, regardless of the jurisdiction of the acreage affected.