

19. Hazardous Materials

19.1. Chapter Overview

19.1.1. Introduction

The following analysis was conducted to determine whether the new or relocated SDEIS elements that were proposed are located in an area known to be contaminated by hazardous materials and to identify any newly reported hazardous material incidents that may affect SDEIS elements unchanged from the DEIS. The summary table in Section 19.4 presents the total of potential hazardous material exposure affecting the entire Northern Branch Project.

Although the SDEIS Preferred Alternative no longer travels into Tenafly, no disturbance of known contaminated sites was anticipated in Tenafly under the DEIS Preferred Alternative. Consequently, the change in terminus does not affect the risk of encountering known contaminated sites in Tenafly. The following revisions specifically affecting known contaminated site locations include:

- West Side Avenue alignment: the majority of the alignment, as well as a 3,000± square foot substation, represent new development.
- Relocation of Leonia Station parking deck: a parking deck is proposed to be developed within Overpeck County Park.
- Revision to Englewood Town Center Station: the Englewood Town Center Station has been relocated to the area north of Palisade Avenue.

There were no public comments submitted on the DEIS pertaining to hazardous materials contamination. This SDEIS reanalysis therefore addresses only the changes to the Preferred Alternative, as well as the incorporation of updated hazardous materials data.

19.1.2. Summary of Findings of the DEIS and the SDEIS

The Northern Branch study area is a densely developed urban corridor with a long history of industrial development associated with the railroad. As is common with locations known to have such a history, hazardous material contamination is prevalent, particularly in the southern portions of the study area. Additionally, active and previously active rail rights-of-way are typically considered to be contaminated as a result of the leakage of fluids (oil, diesel, brake fluid, and lubricants) from rail vehicles.

With the exception of 91st Street and Leonia Stations, the potential for hazardous materials was identified within 500 feet of all of the station sites. Comprehensive Environmental Response, Compensation, and Liability Sites (CERCLIS, also known as “Superfund” or National Priority sites) were identified near Palisades Park Station and Englewood Route 4 Station and vehicle base facility (VBF). The database search of New Jersey Department of Environmental Protection (NJDEP) records indicated that all of the known contaminated sites are presently undergoing remediation. The database search also indicated a large area of known groundwater contamination affecting land from 79th Street in North Bergen to its border with Ridgefield, including portions of Fairview. Should contaminated groundwater be encountered during construction of the alignment along West Side Avenue, the 85th Street Viaduct and 85th Street Extension, or the 91st Street Station, remediation efforts would be implemented to remove the contaminated water.

Based on the records research, it is unlikely that any of the station or VBF sites would be found to be contaminated to the point that an alternate location would need to be identified. A complete Phase I Environmental Site Assessment (ESA) would be conducted during Final Design and Engineering to verify that the station sites are not contaminated with previously undocumented hazardous materials.

This would potentially be followed up by Phase II testing, where necessary, to confirm the presence or absence of hazardous materials. Construction phase protocols for contaminated groundwater would be developed prior to construction.

19.2. Methodology

The following hazardous materials assessment describes the findings of the hazardous materials screening, which is one part of a Phase I ESA. The screening relied on governmental regulatory agency database searches and some preliminary field reconnaissance. Information pertaining to potential hazardous materials contamination in the Northern Branch study area was obtained from NJDEP databases and existing digital mapping from NJDEP GIS datasets. These records list known contaminated sites in New Jersey. Sites appearing in this list are classified as either active or pending; sites designated no further action are not included. Included on this list are sites being remediated under all of the various regulatory programs administered by the NJDEP Site Remediation Program. To determine hazardous materials disturbance and account for the potential for the migration of contaminants, known contaminated sites within 500 feet of proposed stations or project elements were identified.

The types of contaminants of most concern are the documented locations that are undergoing remediation or enforcement activities. Sites listed on the National Priority List (NPL), Comprehensive Environmental Response, CERCLIS, and State Hazardous Waste Sites (SHWS) are sites with known hazardous material contamination. Of lesser concern are NJ Spills and NJ Release sites. These sites represent incidents reported by the public, and may be isolated events that do not result in long-term environmental impacts to the study area.

It is also important to note when reviewing hazardous materials databases that government agencies also monitor businesses that are known generators of hazardous materials, including pharmaceutical manufacturers and dry cleaners. These establishments appear on hazardous materials lists because they are monitored, not because they have contributed to contamination. Underground storage tanks (USTs) are also returned in a database search. In older areas of the State, such as the Northern Branch study area, many homes and businesses are served by compliant USTs. Consequently, while these locations are mapped, they are not hazardous materials concerns.

Lastly, although not specifically included on a database, rail corridors are customarily expected to be contaminated sites, the result of the accumulation of engine and brake fluid and other hazardous materials. This is particularly true of the Northern Branch rail right-of-way, which has been in use for either passenger or freight service for more than 100 years. Service had been operating on the line prior to our modern understanding of the effect of hazardous materials on soil and groundwater. As a result, the rail corridor can be assumed to be a contaminated location even though the rail right-of-way itself may not appear on any database search.

19.3. Environmental Review

19.3.1. Existing Conditions

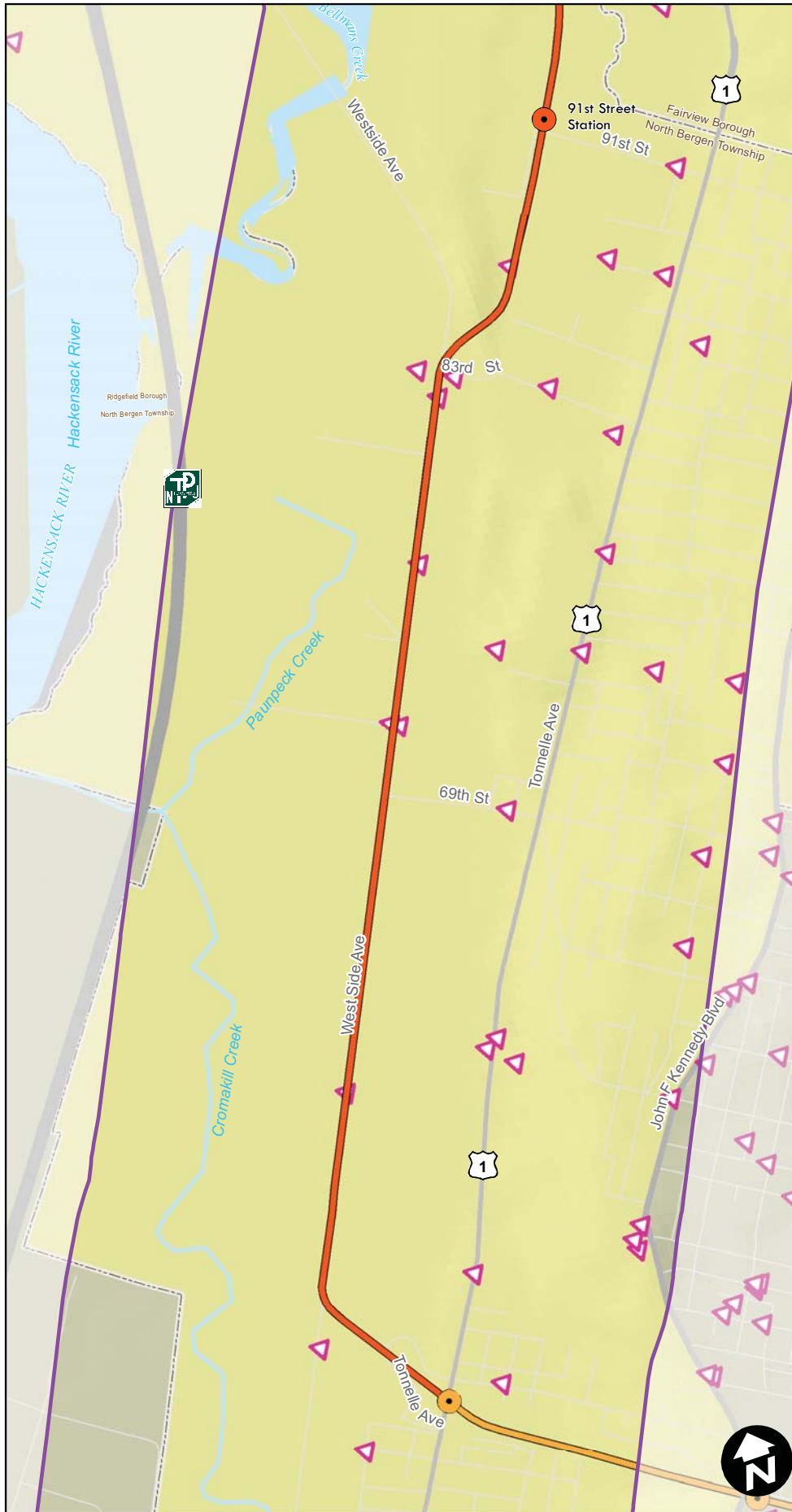
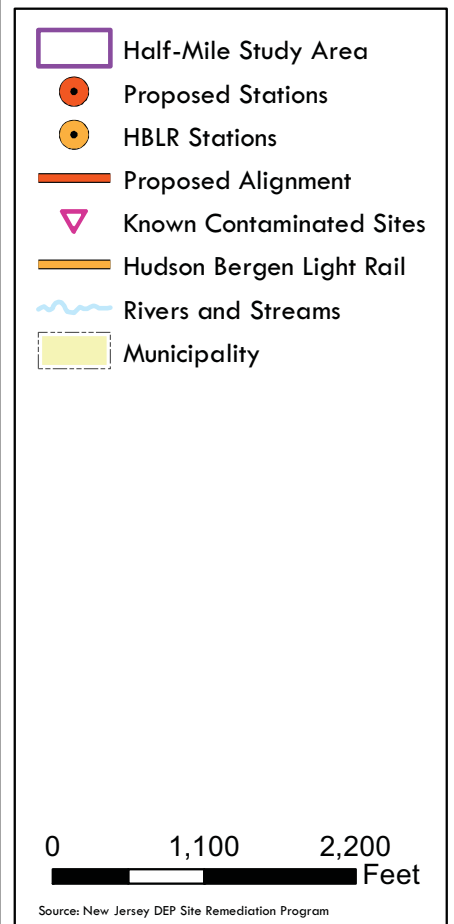
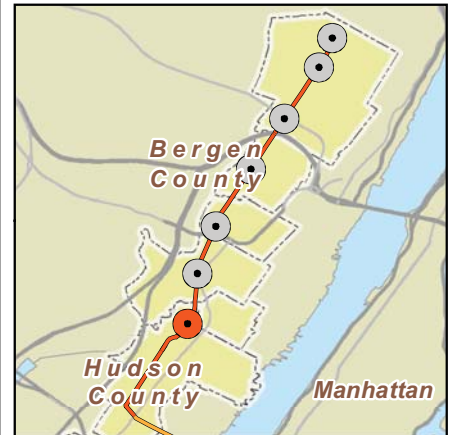
Figures 19-1 through 19-5 show the locations of known contaminated sites within 500 feet of the project corridor.

19.3.1.1. No Build Alternative

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

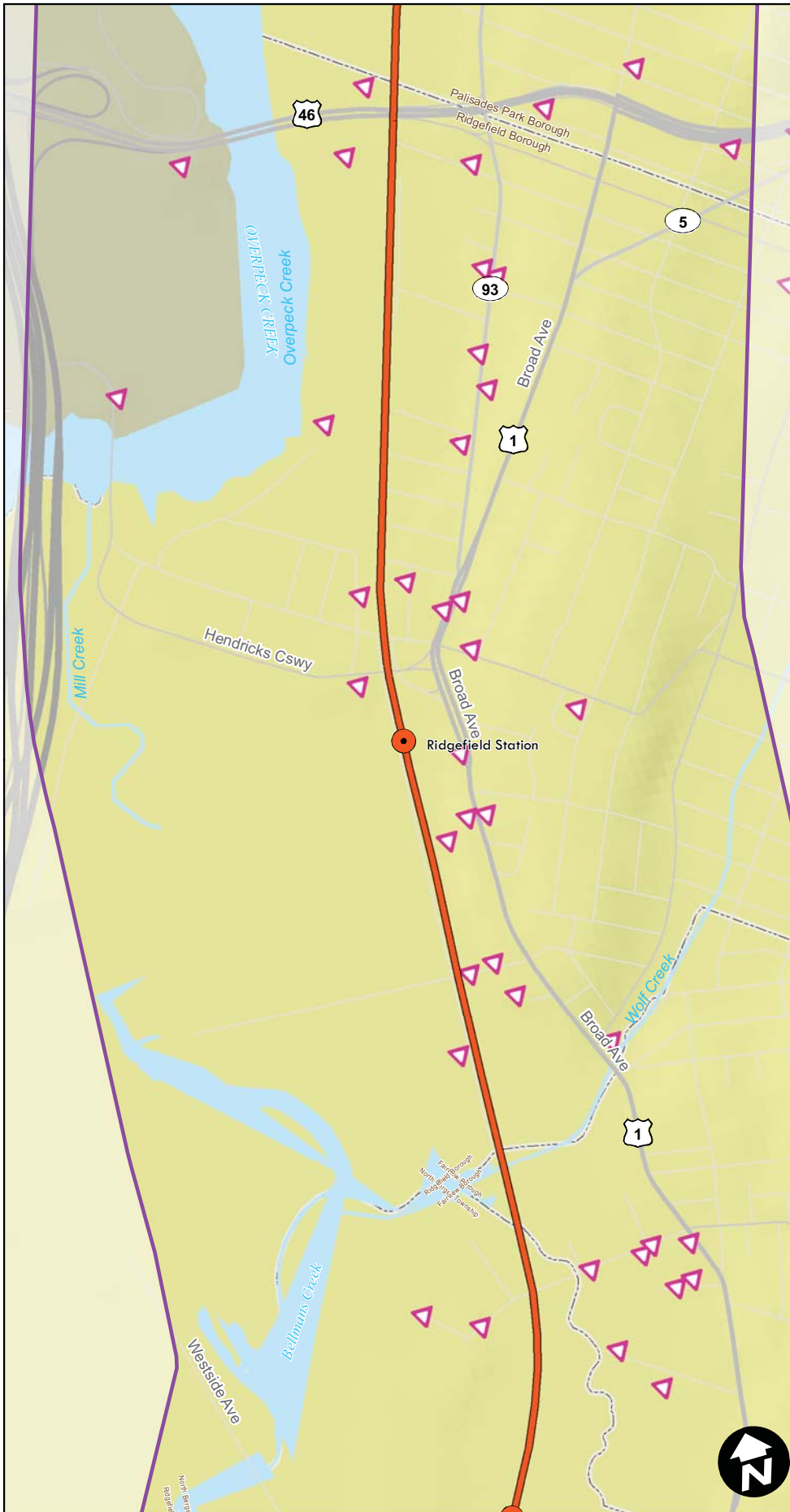
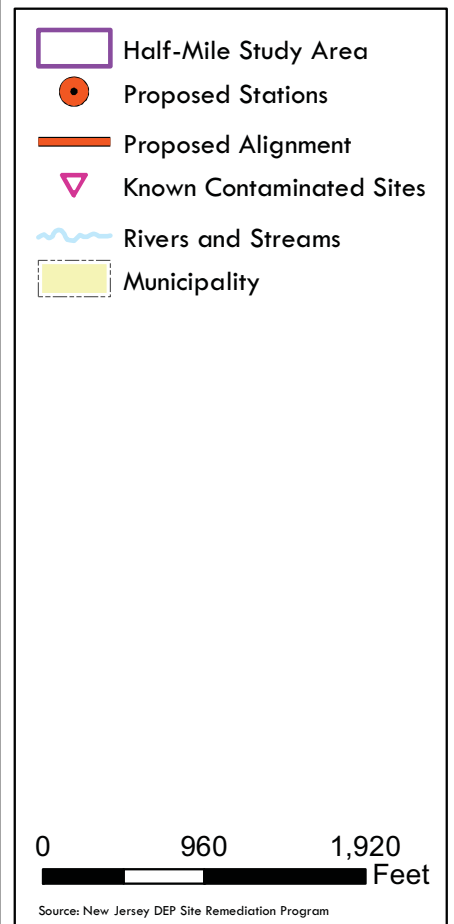
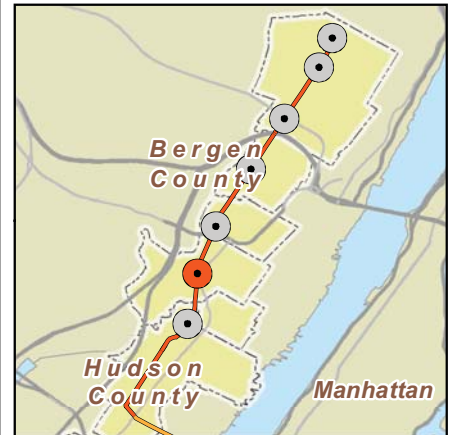
Northern Branch North Bergen & 91st Street Station Hazardous Materials Sites

Figure 19-1



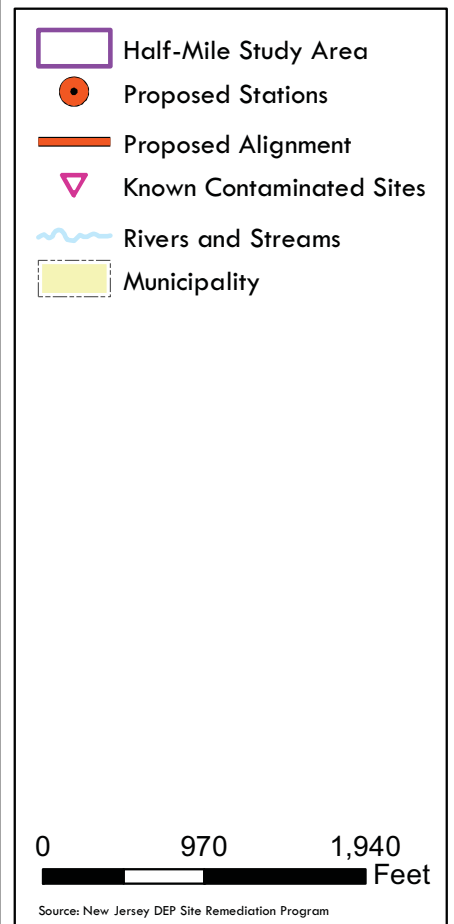
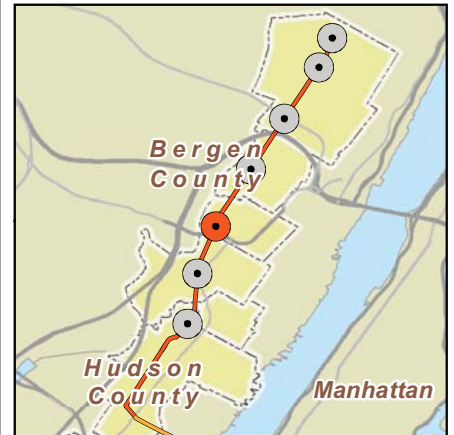
Northern Branch Ridgefield Station Hazardous Materials Sites

Figure 19-2



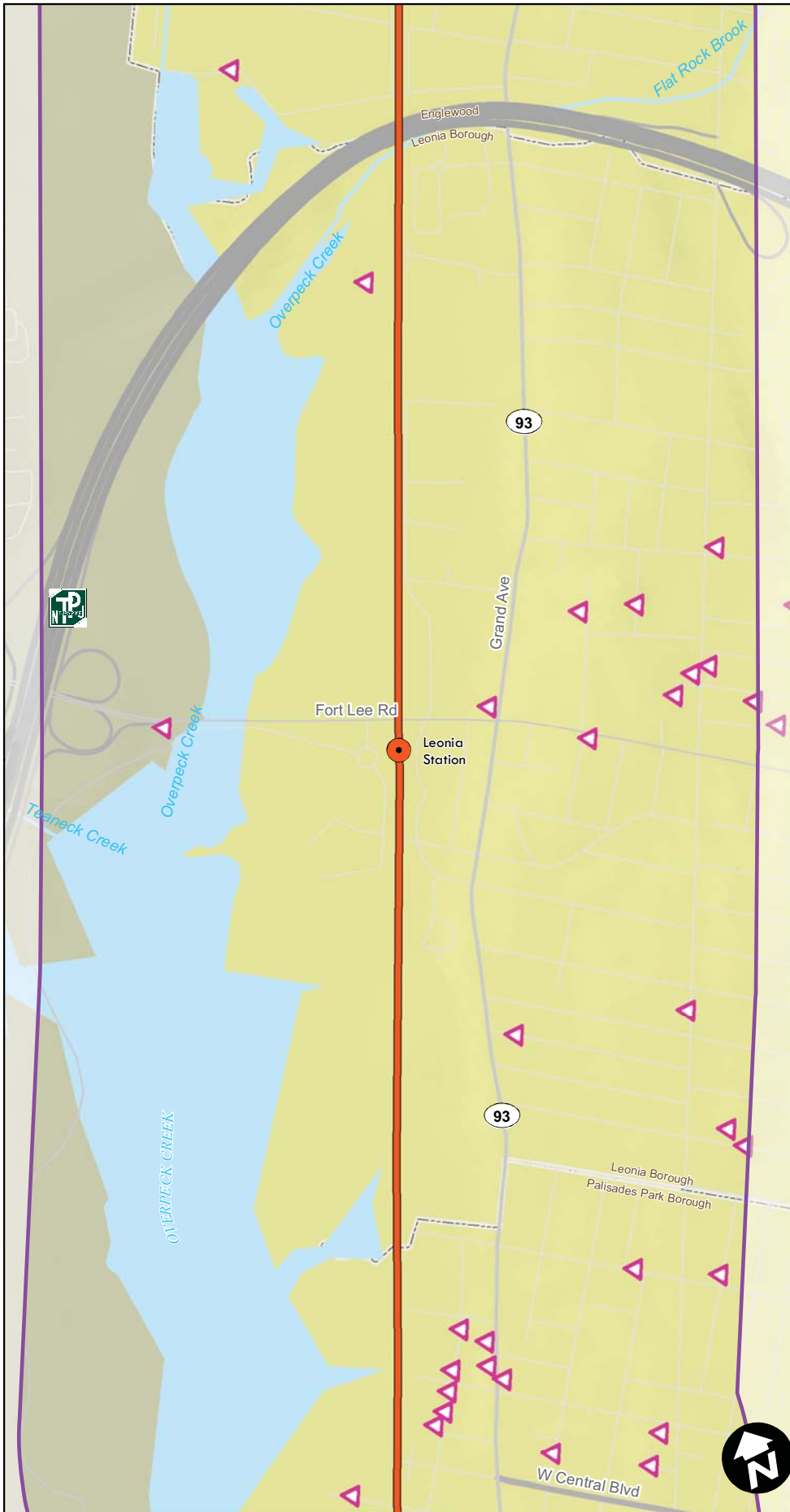
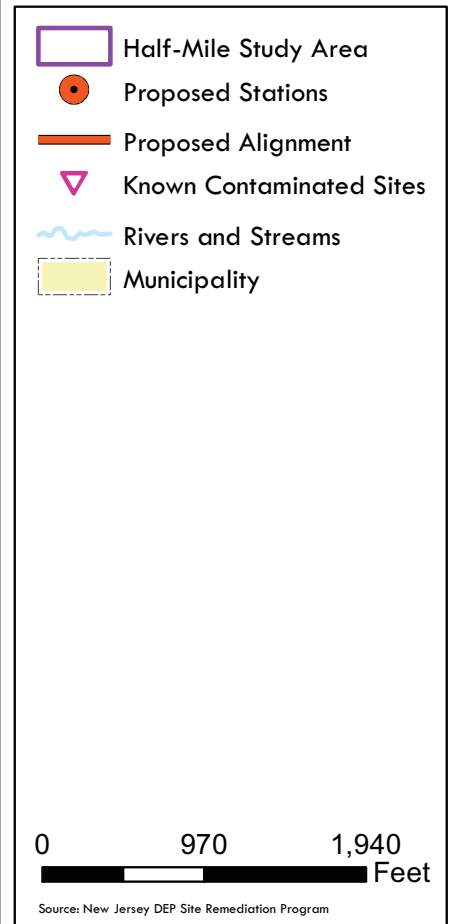
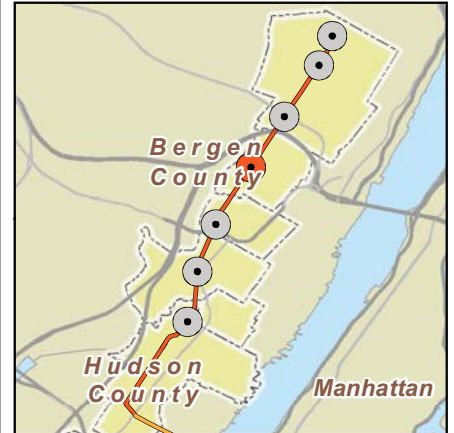
Northern Branch Palisades Park Station Hazardous Materials Sites

Figure 19-3



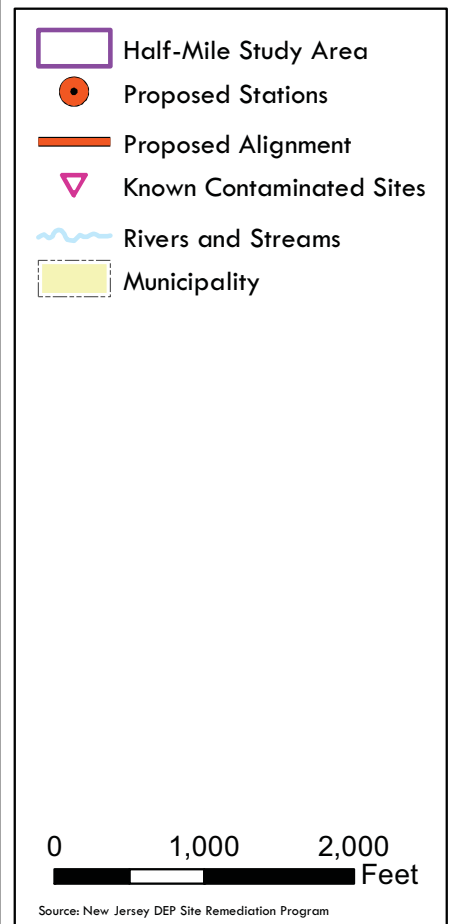
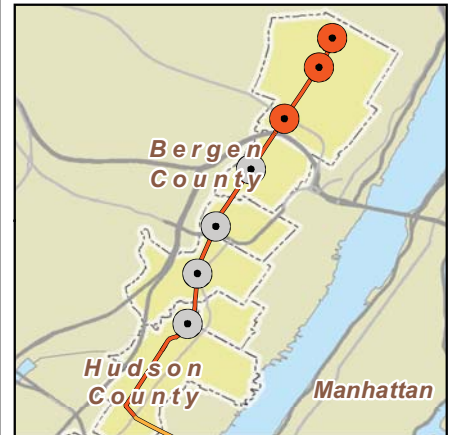
Northern Branch Leonia Station Hazardous Materials Sites

Figure 19-4



Northern Branch Englewood Stations Hazardous Materials Sites

Figure 19-5



19.3.1.2. Preferred Alternative

Following is a description of the revisions to the Preferred Alternative and their potential for encountering hazardous materials within the study area, followed by a description of the mitigation that is applicable to all of the impacted areas. Descriptions are also included for project elements where new known contaminated sites have been identified within 500 feet of the project element's footprint.

West Side Avenue Alignment and 85th Street Viaduct

Predominant land use along West Side Avenue is industrial. The NJDEP database search identified one recorded known contaminated site (Tree of Life at 2501 71st Street) in proximity to the proposed substation to be located at 69th Street. Nine other known contaminated sites are located on the west side of the alignment between 61st and 91st Streets. Two of the sites were reported as having soil contamination; the remaining sites were reported as having potential groundwater contamination. NJDEP also reported a large area of known groundwater contamination reaching from 79th Street in North Bergen to its border with Ridgefield. Contaminated groundwater is a concern when construction activity involves excavation to the level of the water table. Phase II sampling would be performed prior to property acquisition unless the property can be classified accurately by other means or methods. Should contaminated groundwater be encountered during construction of the rail line, remediation efforts would be implemented to remove the contaminated water.

85th Street Extension (railroad underpass and grade crossing)

The area proposed for the 85th Street extension is primarily located within railroad and industrial land uses. The database search did not identify any newly listed known contaminated sites in the proposed station location since the DEIS assessment; however, as noted above, contaminated groundwater is reported to be in the area of the underpass. Phase II sampling would be performed prior to property acquisition unless the property can be classified accurately by other means or methods. Should contaminated groundwater be encountered during construction of the 85th Street Extension's underpass through the elevated CSX line or the 91st Street Station, remediation efforts would be implemented to remove the contaminated water.

Ridgefield Station

The proposed Ridgefield Station site contains older commercial and industrial properties on either side of the rail right-of-way. One newly recorded NJDEP known contaminated site is located at 501 Hillside Street on the east side of the alignment near U.S. Route 1 with potential groundwater contamination from a homeowner UST. No visible evidence of hazardous waste was observed at the proposed station site and is unlikely that hazardous materials will be encountered during the development of Ridgefield Station; however, the potential for disturbance of hazardous materials remains given the nature of the adjacent industrial land uses.

Leonia Station

Leonia Station platforms are proposed to be located in the existing Northern Branch right-of-way, south of Fort Lee Road. The four-story parking deck and pedestrian walkway to the platforms are proposed to be located in the Leonia South Area of Overpeck County Park, on land currently developed with an abandoned paved basketball court and restroom facility. The NJDEP database search did not identify any hazardous waste sites and no visible evidence of hazardous waste was observed at the proposed station site; however, NJDEP's database indicated that the park was built on historic fill. Soil borings collected to test the geotechnical suitability of the site indicated that the site has been filled with soil, miscellaneous construction debris, and coal cinders. The geotechnical samples were not tested for contaminated materials as geotechnical protocols are different from hazardous materials sampling protocols, and the first soil test was necessary to determine whether the proposed parking deck site was buildable. While it is unlikely that hazardous materials will be encountered during the development of Leonia Station, Phase

II sampling will be performed prior to property acquisition unless the property can be classified accurately by other means or methods.

Englewood Town Center Station

The proposed Englewood Town Center Station site contains older commercial and industrial properties on either side of the railroad right-of-way. Six NJDEP known contaminated sites, with unknown or uncontrolled discharge to groundwater or soil, were identified within 500 feet of the station site. Four sites are classified as active. One site is located across the street from the proposed station platform at 66 Van Brunt Street. The other three are located on W. Palisade Avenue. Two sites are classified as pending and are located at 30-32 E. Palisade Avenue and 33 N. Dean Street. It is unlikely that hazardous materials will be encountered during the development of Englewood Town Center Station; however, there is the potential for disturbance of hazardous materials.

Englewood Hospital and Medical Center Station

One newly listed NJDEP known contaminated site adjacent to the right-of-way on the east side of the alignment is located at 1 Brownes Terrace with potential groundwater contamination from a homeowner UST. No visible evidence of hazardous waste was observed at the proposed station site, and it is unlikely that hazardous materials will be encountered during the development of Englewood Hospital Station; however, there is the potential for disturbance of hazardous materials.

Mitigation

The implementation of the Preferred Alternative is not expected to encounter contamination associated with newly reported known contaminated sites along the project corridor or at station, with the exception of the potential for contaminated groundwater at the 85th Street Extension underpass location; therefore, mitigation measures for SDEIS impacts are the same as those described for DEIS impacts with the addition of Phase II testing at the 85th Street Extension underpass site and Leonia Station parking deck and development of construction phase protocols for contaminated groundwater.

As industry standards expect contamination along railroad tracks, all right-of-way improvements would be constructed with an understanding of the potential for exposure to hazardous materials. Best management practices (BMPs) would be followed, including on-site work protocols and methods for removing and cleaning the existing ballast. Additionally, a complete Phase I survey would be conducted during Final Design and Engineering of the project. Should the potential for contamination be identified, a Phase II study would be conducted prior to property acquisition unless the property can be classified accurately by other means or methods.

Should hazardous materials be identified on site, remediation efforts will be implemented to remove the hazardous materials. Remediation activities are guided by several federal and state regulations depending on the nature of the hazardous material and material it is contaminating. Applicable federal regulations include Title 40 of the Code of Federal Regulations (CFR) Subparts 124, 260-266, 268, and 270. Applicable state regulations are found in the New Jersey Administrative Code (N.J.A.C.) Title 7 Chapter 26G. Typical remediation activities governed by these regulations include the removal, cleaning, and replacement of contaminated soil or dewatering a location known to contain contaminated groundwater.

BMPs will also be implemented. BMPs are developed and adopted by the government agencies responsible for regulating hazardous materials. BMPs typically include preventative measures to ensure that hazardous materials do not migrate from a construction site, and may include spraying down excavated soil to prevent fugitive dust, use of tarps or silt screens to prevent the erosion of known or suspected hazardous materials from the site, use of grates to remove soil from the tires of construction vehicles leaving the site, and use of appropriate protective gear for on-site personnel. BMPs may be implemented in those instances where hazardous materials are not identified on site as precautionary measures.

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

The potential for hazardous materials was identified within 500 feet of all of the station sites except 91st Street and Leonia stations, including CERCLIS sites near Palisades Park Station and Englewood Route 4 Station and VBF. The Leonia Station parking deck would be constructed on land identified as undocumented historic fill, which is not known specifically to be contaminated, but its uncertain origin and age indicate that contamination is a possibility. A complete Phase I ESA will be conducted during Final Design and Engineering to verify that the proposed improvements are not located on sites with known or undocumented contamination. Phase II testing is anticipated to be necessary at the Leonia Station parking deck location as well as the Englewood Route 4 VBF/parking deck site as the development of both improvements necessitates excavation that could expose contaminated soils and groundwater. Phase II testing would be performed prior to property acquisition unless the property can be classified accurately by other means or methods. Table 19-1 summarizes the potential hazardous materials impacts as identified in the DEIS and the SDEIS.

Table 19-1: Summary of Potential Hazardous Materials Impacts of DEIS and SDEIS

Station/ Element	Hazardous Materials Sites	Change in Hazardous Materials Impact Compared to DEIS
West Side Avenue, 69 th Street Substation	Ten minor hazardous materials sites are adjacent to the alignment, one of which is within 500 feet of the 69 th Street substation location. One NJDEP known contaminated site with potential groundwater contamination was identified within the vicinity of the 69 th Street Substation.	Yes
85 th Street Viaduct and 85 th Street Extension	Database results did not identify any recorded known contaminated site locations within the proposed station site. The area is generally affected by contaminated groundwater and will require Phase II testing prior to acquisition unless the property can be classified accurately by other means or methods.	Yes
91 st Street Station	Database results did not identify any recorded known contaminated site locations within the proposed station site. Previously listed sites have been remediated.	No
Ridgefield Station	One NJDEP known contaminated site with potential groundwater contamination from a homeowner UST was identified within the vicinity of the proposed station site.	Yes
Palisades Park Station	Two NJDEP known contaminated sites and potential contamination from Phister Chemical CERCLIS site.	No
Leonia Station	Database results did not identify any recorded known contaminated site locations within the proposed station/parking deck site. The area is built on historic fill; therefore, Phase II testing would be conducted prior to acquisition unless the property can be classified accurately by other means or methods.	No
Englewood Rt. 4 Station/VBF	Several NJDEP known contaminated site locations and potential contamination from Permabond International CERCLIS site.	No
Englewood Town Center Station	Six NJDEP contaminated sites with unknown or uncontrolled discharge to groundwater or soil were identified within the vicinity of the proposed station site.	Yes
Englewood Hospital and Medical Center Station	One NJDEP known contaminated site with potential groundwater contamination from a homeowner UST was identified within the vicinity of the proposed station site.	Yes

Source: NJDEP Record Access Program (OPRA) Database Search, November 2014