

JD TO JONES HILL DOUBLE TRACKING PROJECT PRINCE GEORGE'S COUNTY, MD

ENVIRONMENTAL ASSESSMENT (EA)



BY:



U.S. Department of Transportation



Federal Transit Administration

AND:



The Maryland Department of Transportation



Maryland Transit Administration



DECEMBER 2011

JD TO JONES HILL DOUBLE TRACKING PROJECT

IN

PRINCE GEORGE'S COUNTY, MARYLAND

ENVIRONMENTAL ASSESSMENT (EA)

PREPARED PURSUANT TO

National Environmental Policy Act of 1969, §102, 42 U.S.C. §4332; Federal Transit Laws, Title 49 U.S.C. Chapter 53, §5301(e), §5323(b) and §5324(b); Title 49 U.S.C. §303, formerly Department of Transportation Act of 1966, §4(f); National Historic Preservation Act of 1966, §106, 16 U.S.C. §470(f); Executive Order 11990 (Protection of Wetlands); Executive Order 11988 (Floodplain Management); and Executive Order 12898 (Environmental Justice).

by the

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION**

and the

**MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND TRANSIT ADMINISTRATION**

December 2011

Letitia A. Thompson
Regional Administrator, Region III
Federal Transit Administration

Date of Approval

Ralign T. Wells
Administrator
Maryland Transit Administration

Date of Approval

TABLE OF CONTENTS

Chapter 1: Project Description and Purpose and Need	1	3.3.7. Terrestrial Wildlife	26
1.1 Project Description	1	3.3.8. Aquatic Biota	27
1.2. Purpose and Need for the Project	1	3.3.9. Rare, Threatened, and Endangered Species	28
1.3 Applicable Laws and Regulations	3	3.3.10. Chesapeake Bay Critical Area	28
1.3.1 Laws	3	3.4. Noise and Vibration	29
1.3.2 Regulations.	3	3.4.1. Noise	29
1.3.3 Executive Orders.	3	3.4.2. Vibration	29
Chapter 2: Alternatives Considered	4	3.5. Air Quality	29
2.1. No Build Alternative	4	3.6. Hazardous Materials	31
2.2. Double Tracking Alternative	4	3.7. Utilities	32
Chapter 3: Environmental Impacts	5	3.8. Energy	33
3.1. Socioeconomic and Community Resources	5	3.9. Safety and Security	33
3.1.1. Property Impacts and Displacements	5	3.10. Indirect and Cumulative Effects	34
3.1.2. Neighborhoods and Communities	7	3.10.1. Resources Considered	34
3.1.3. Environmental Justice	9	3.10.2. Geographic Boundary	34
3.1.4. Community Facilities and Services	13	3.10.3. Time Frames	34
3.1.5. Visual and Aesthetic Environment	15	3.10.4. Indirect and Cumulative Effects on Land Use	35
3.1.6. Traffic and Transportation	16	3.10.5. Indirect and Cumulative Effects on Socioeconomic Resources	35
3.1.7. Local Businesses	17	3.10.6. Indirect and Cumulative Effects on Natural Resources	37
3.1.8. Regional Business Activity	18	3.11. Summary of Effects for the No Build Alternative..	37
3.1.9. Land Use and Zoning	18	Chapter 4: SUMMARY OF PUBLIC INVOLVEMENT ACTIVITIES	38
3.1.10. Local Planning	18	4.1. Public Involvement Activities	38
3.1.11. Maryland Smart Growth	20	4.1.1. Field Observation	38
3.2. Cultural Resources	20	4.1.2. Public Notice	38
3.3. Natural Environmental Resources	20	4.1.3. Informational Materials	38
3.3.1. Geology and Soils	21	4.1.4. Environmental Justice (EJ) Outreach	38
3.3.2. Groundwater	21	4.1.5. 2011 Public Meeting	39
3.3.3. Water Resources.	22	4.2. Summary of Public Input.	39
3.3.4. Waters of the U.S. Including Wetlands	23	References	40
3.3.5. Floodplains	24	Digital Data	41
3.3.6. Vegetation	24		

APPENDICES

Appendix A: JD to Jones Hill Engineering Plans

Appendix B: Correspondence

Appendix C: Air Quality Conformity

LIST OF TABLES

Table 1: Summary of Right-of-Way Acquisitions 7

Table 2: Low-Income/Race Population Percentages by Census Block Group..... 12

Table 3: Alexandria Extension Roadway Crossings 17

Table 4: Fish Species Documented Within Five Miles Upstream 27

LIST OF FIGURES

Figure 1: Project Location and Study Area 2

Figure 2: Proposed Right-of-Way Acquisitions 6

Figure 3: Study Area Neighborhoods and Community Facilities..... 8

Figure 4: Study Area Census Block Groups..... 11

Figure 5: Land Use 19

Figure 6: Natural Environmental Resources 25

Figure 7: Indirect and Cumulative Effects Analysis Boundary 36

CHAPTER I: PROJECT DESCRIPTION AND PURPOSE AND NEED

This Environmental Assessment was prepared in accordance with the National Environmental Policy Act (NEPA) and requirements of the U.S. Department of Transportation, Federal Transit Administration (FTA) and the Maryland Transit Administration (MTA). The purpose of this document is to evaluate the potential environmental effects that may result from the proposed improvements associated with the JD to Jones Hill Double Tracking Project. This is a joint-benefit project between the MTA and CSX Transportation (CSX) that will allow for fewer disruptions to the MTA's Maryland Area Regional Commuter (MARC) train service.

I.1. PROJECT DESCRIPTION

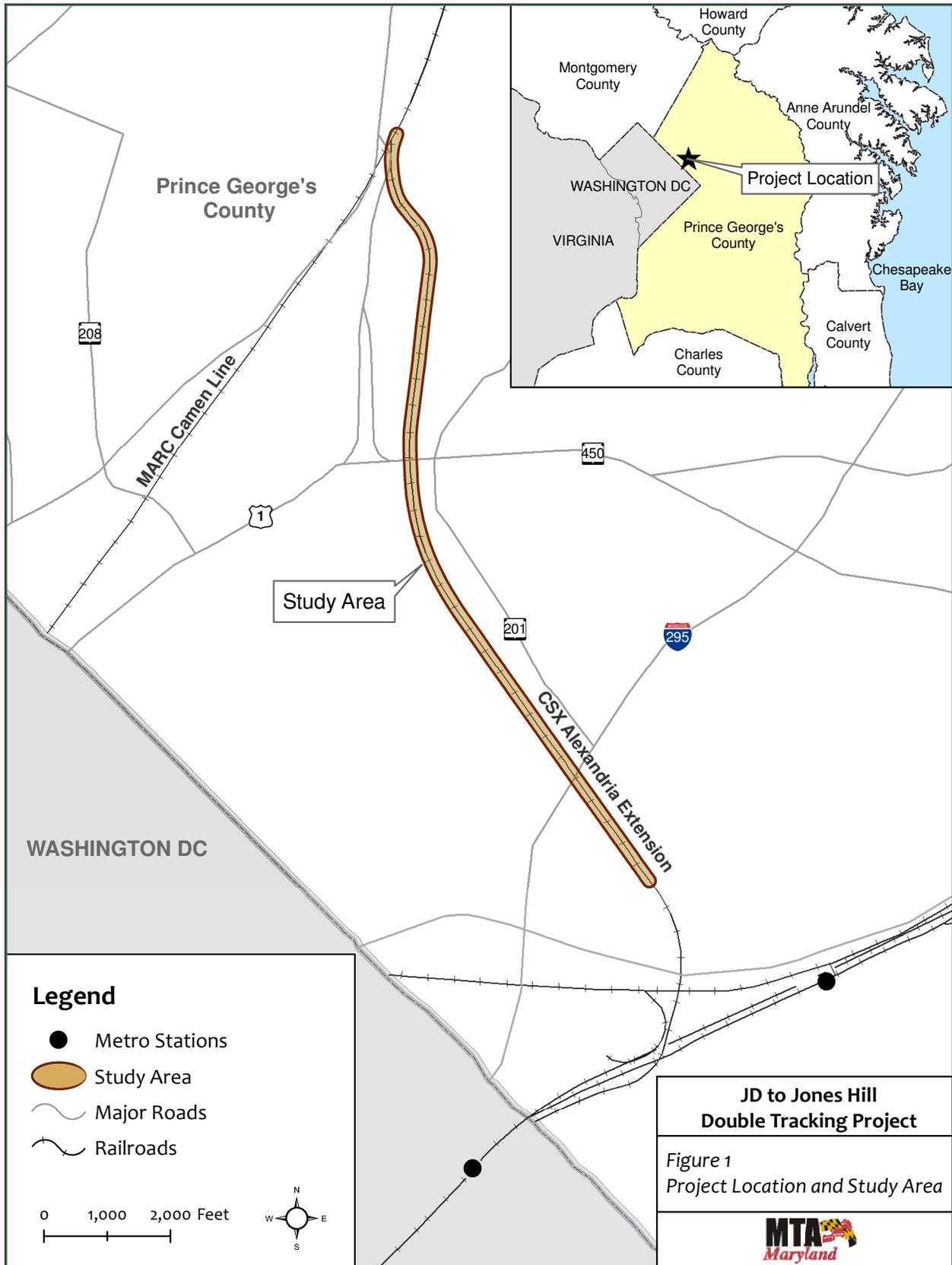
The JD to Jones Hill Double Tracking Project is located in the Hyattsville area of Prince George's County, Maryland (*Figure I*). The project proposes improvements to a two-mile stretch of railroad on a section of tracks known as the Alexandria Extension. The Alexandria Extension runs from Hyattsville to Virginia Avenue in the District of Columbia where it joins tracks from Union Station to form a route to Virginia and all points south. The Alexandria Extension is currently a single track for its entire four-mile length. In addition to trains heading into Virginia, freight trains delivering aggregates to construction facilities and coal to Southern Maryland power stations use the Alexandria Extension. This project would occur between Decatur Street and a point north of Frolich Road. Improvements would include the construction of a second track, the shifting of the existing track, modification of the existing bridge, construction of an additional railroad bridge deck over the Northeast Branch of the Anacostia River and other minor associated work.

I.2. PURPOSE AND NEED FOR THE PROJECT

The purpose of this project is to alleviate congestion on a portion of the CSX-owned Alexandria Extension that often causes disruptions to the MTA's MARC train service. The MARC Camden Line, which carries approximately 4,400 passengers between Camden Yards in Baltimore, Maryland and Union Station in Washington, D.C. each weekday, is the MARC line located adjacent to the Alexandria Extension and is affected by delays on the Alexandria Extension.

Approximately 25 to 35 trains use the Alexandria Extension daily. Many times during the day a freight train must wait for a train traveling in the opposite direction because only one track exists for a four-mile stretch. A train traveling to Virginia from the north has no place to wait other than on one of the two main tracks on the MARC Camden Line on either side of Hyattsville. Likewise, a northbound train may be forced to move from the Alexandria Extension onto the Camden line to allow a southbound train to pass. The project is needed because both of these situations cause delay to the MTA's MARC service.

The section of the MARC Camden Line adjacent to the Alexandria Extension is one of the biggest congestion points on the Camden Line for reasons described above. This project will benefit the MTA because the proposed addition of two miles of double track will allow southbound and northbound freight trains to bypass each other using the new siding, keeping them off the Camden Line.



I.3 APPLICABLE LAWS AND REGULATIONS

I.3.1 Laws

- ▶ Endangered Species Act 16 (16 U.S.C. § 1531 et seq)
- ▶ National Environmental Policy Act of 1969 (42 U.S.C. § 4321 et seq)
- ▶ Federal Transit Laws [49 U.S.C. § 5301(e), 5323(b), and 5324(b)]
- ▶ Federal Water Pollution Control Act, also known as The Clean Water Act (33 U.S.C. § 1251-1376)
- ▶ Clean Air Act Amendments of 1990 (42 U.S.C. § 7401-7671g)
- ▶ U.S. Department of Transportation (USDOT) Act of 1966 (49 U.S.C. § 303 and 23 U.S.C. § 138)
- ▶ Rivers and Harbors Act of 1899 (33 U.S.C. § 401)
- ▶ National Historic Preservation Act of 1966 (16 U.S.C. § 470 et seq)
- ▶ Land and Water Conservation Act of 1965 (16 U.S.C. § 460)
- ▶ Uniform Relocation Assistance and Real Property Act of 1970 (42 U.S.C. § 4601 et seq)
- ▶ Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d-2000d-4)
- ▶ Americans with Disabilities Act (42 U.S.C. § 12101 et seq)

I.3.2 Regulations

- ▶ CEQ “Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act” (40 CFR Parts 1500-1508)
- ▶ Advisory Council on Historic Preservation “Protection of Historic and Cultural Properties” (36 CFR Part 800)
- ▶ FTA “Environmental Impact and Related Procedures” (49 CFR Part 622)
- ▶ FHWA “Environmental Impact and Related Procedures” (23 CFR Part 771)
- ▶ FHWA “Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites [Section 4(f)] (23 CFR Part 774)”

I.3.3 Executive Orders

- ▶ EO 11988, Floodplain Management. 42 FR 26951, Signed May 24, 1977
- ▶ EO 11990, Protection of Wetlands. 42 FR 26961, Signed May 24, 1977
- ▶ EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. 59 FR 7629, Signed February 11, 1994
- ▶ EO 13166, Improving Access to Services for Persons with Limited English Proficiency. 65 FR 50121, Signed August 11, 2000
- ▶ EO 13423, Strengthening Federal Environmental, Energy, and Transportation Management. 72 FR 33504, Signed January 24, 2007
- ▶ EO 13514, Federal Leadership in Environmental, Energy, and Economic Performance. 74 FR 52117, Signed October 5, 2009”

CHAPTER 2: ALTERNATIVES CONSIDERED

The JD to Jones Hill Double Tracking Project is intended to address congestion that occurs on the Alexandria Extension which often leads to delays on the adjacent MARC Camden Line. Based on the results of a simulation of the entire CSX Baltimore-Washington Network, the double tracking of a two-mile portion of the Alexandria Extension has been proposed to reduce congestion. This Environmental Assessment considers the Double Tracking Alternative along with a No Build Alternative.

2.1. NO BUILD ALTERNATIVE

The No Build Alternative proposes no new improvements along the single tracked portion of the Alexandria Extension beyond normal maintenance. This alternative provides a baseline for comparison of the proposed Double Tracking Alternative.

2.2. DOUBLE TRACKING ALTERNATIVE

The Double Tracking Alternative would consist of grading and placing ballast adjacent to the existing mainline track of the Alexandria Extension for approximately two miles to support the construction of a second track to be used as a passing siding. The mainline track would be shifted slightly and then the new siding would be constructed. The distance between the two tracks would be fifteen feet from center to center. A set of universal crossovers would be included near Tanglewood Drive. The new track would be constructed with new rail and ties.

The speed for trains traveling on the Alexandria Extension would not change and the number of locomotives required to power a train would also remain the same. The curvature of tracks would not have a significant change as a result of this project.

Grading and addition of ballast to allow for the siding would require the extension or relocation of

seven culverts. The largest culvert that would be extended is a four-foot by eleven-foot box culvert and the smallest culvert that would be extended is a twelve-inch corrugated metal pipe culvert. New asphalt and timber crossings would be provided at the crossing of Tanglewood Drive, Lloyd Street, Lawrence Street, Inwood Street, 52nd Avenue, and a private lane to accommodate the siding. The crossing at Upshur Street and Annapolis Road are elevated and would not require new asphalt and timber crossings. The existing flashers and gates at 52nd Avenue and Tanglewood Drive would require relocation because of the project. In addition, railroad signals, signal buildings, fencing, turnouts, derailleurs, and retaining walls would be relocated or installed, as required.

Work on the existing bridge would occur above the girders and would consist of converting the bridge from an open-deck bridge to a ballast-deck bridge. A second deck will be built immediately upstream and adjacent to the existing deck. It would be 14 feet wide at the deck and 230 feet long. It would be a girder supported ballast-deck bridge. The piers for the proposed second deck would be placed parallel to the existing piers.

Engineering plans depicting the Double Tracking Alternative are included in **Appendix A**.

CHAPTER 3: ENVIRONMENTAL IMPACTS

The proposed improvements associated with the JD to Jones Hill Double Tracking Project will result in physical changes that will affect the human and natural environment within the study area of this project (see **Figure 1**). The analysis contained in this chapter will determine if the environmental impacts will be significant in terms of the National Environmental Policy Act. The analysis is organized into the following sections:

- ▶ Socioeconomic and Community Resources
- ▶ Cultural Resources
- ▶ Natural Environmental Resources
- ▶ Noise and Vibration
- ▶ Air Quality
- ▶ Hazardous Materials
- ▶ Utilities
- ▶ Energy
- ▶ Safety and Security
- ▶ Indirect and Cumulative Effects

Discussions of individual resources are included within each of these sections.

3.1. SOCIOECONOMIC AND COMMUNITY RESOURCES

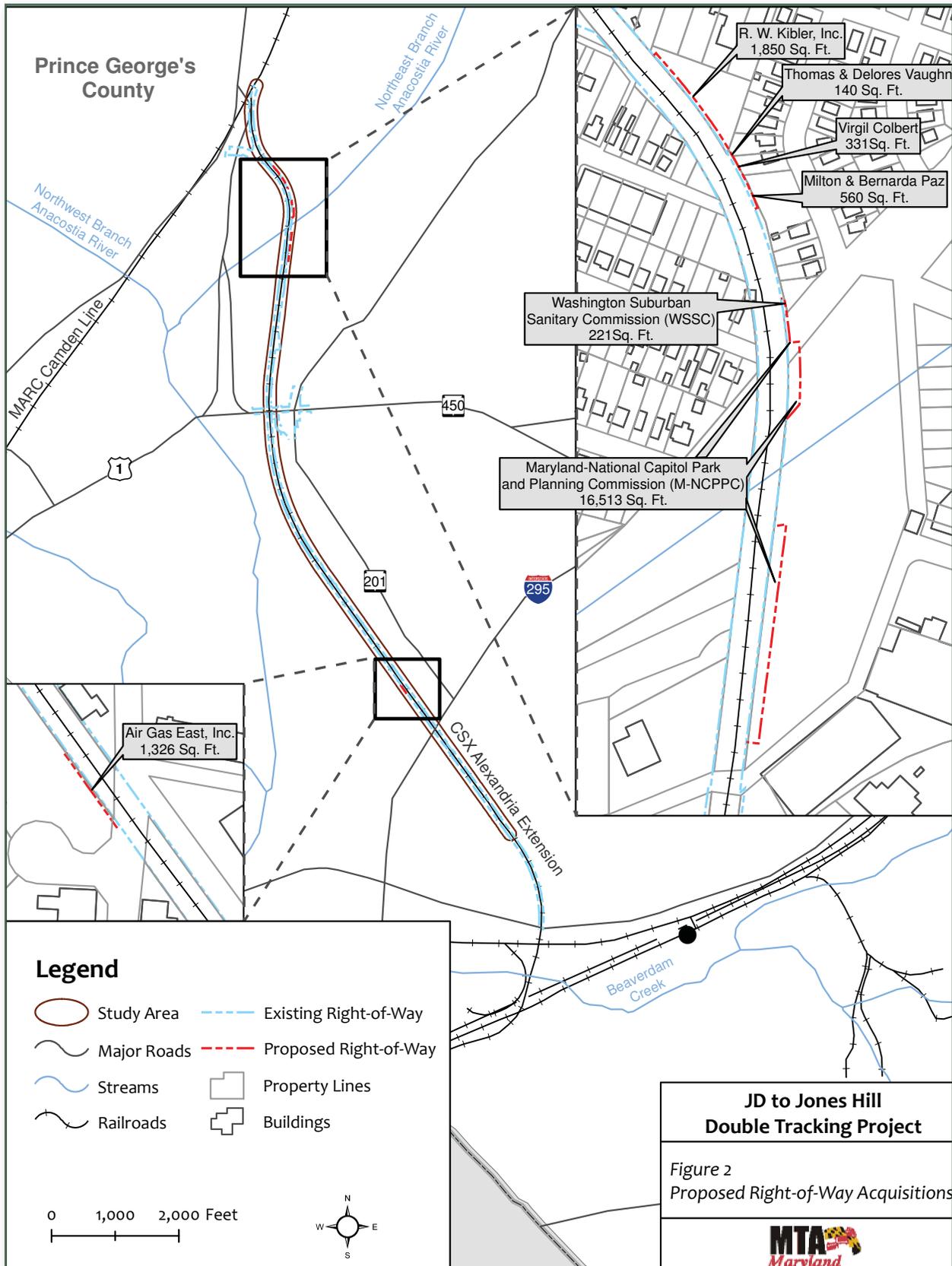
In this section, the project's effect on socioeconomic and community resources within the study area will be assessed. Socioeconomic and community resources predominantly include elements of the human or man-made environment. Specific resources and impacts evaluated here include:

- ▶ Property Impacts and Displacements
- ▶ Neighborhoods and Communities
- ▶ Environmental Justice
- ▶ Community Facilities and Services

- ▶ Visual and Aesthetic Environment
- ▶ Traffic and Transportation
- ▶ Local Businesses
- ▶ Regional Businesses Activity
- ▶ Land Use and Zoning
- ▶ Local Planning
- ▶ Maryland Smart Growth

3.1.1. Property Impacts and Displacements

The proposed JD to Jones Hill Double Tracking Project will not displace any businesses or residences, but will require the acquisition of 0.48 acre of new right-of-way from a total of seven properties (**Figure 2**). The proposed right-of-way acquisitions are summarized in **Table 1**. Three of the properties are residential lots located in the northern end of the study area, northwest of the Anacostia River, on the northeast side of the existing railroad tracks. The right-of-way that will be acquired is a linear strip of land along the back yards of these properties. Two of the seven properties are currently used as commercial facilities. One of the commercial facilities, R.W. Kibler, Inc., is a general contractor located in the northern end of the study area, just south of US 1, on the east side of existing railroad tracks. The other commercial facility, Air Gas East, Inc., is located in the southern portion of the study area, just north of MD 295, on the west side of the existing railroad tracks. One property is owned by the Washington Suburban Sanitary Commission (WSSC) and one property is owned by the Maryland-National Capital Park and Planning Commission (M-NCPPC) and is part of the Anacostia River Park.





Back yards of homes along 48th Avenue

Table 1: Summary of Right-of-Way Acquisitions

Property Owner	Property Type	Required Right-of-Way (square feet)
R.W. Kibler, Inc.	Commercial	1,850
Thomas & Delores Vaughn	Residential	140
Virgil Colbert	Residential	331
Milton & Bernarda Paz	Residential	560
Washington Suburban Sanitary Commission	Public	221
Maryland-National Capital Park and Planning Commission	Public	16,513
Air Gas East, Inc.	Commercial	1,326
TOTAL		20,941 (0.48 acre)

Affected property owners will receive assistance in accordance with federal requirements, including the *Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*. Fair market value will be provided to all property owners as compensation for land acquisition.

3.1.2. Neighborhoods and Communities

Most of the JD to Jones Hill Double Tracking Project study area consists of commercial and industrial development; however, two residential neighborhoods are located adjacent to the study area: the 48th Avenue and Burlington Road Neighborhoods (**Figure 3**). Both neighborhoods are located in the northern portion of the study area, northwest of the Anacostia River.

One additional residential area is located in the southern portion of the study area, east of the railroad tracks along 57th Avenue. After initially identifying this residential area, it was determined that there will be no effect on this neighborhood because the homes are over 200 feet away from the proposed improvements and they are separated from the railroad tracks by intense commercial development. Therefore, this residential area is not discussed further and the remainder of this analysis focuses on the 48th Avenue and Burlington Road neighborhoods.



48th Avenue Neighborhood –
Homes along 48th Avenue

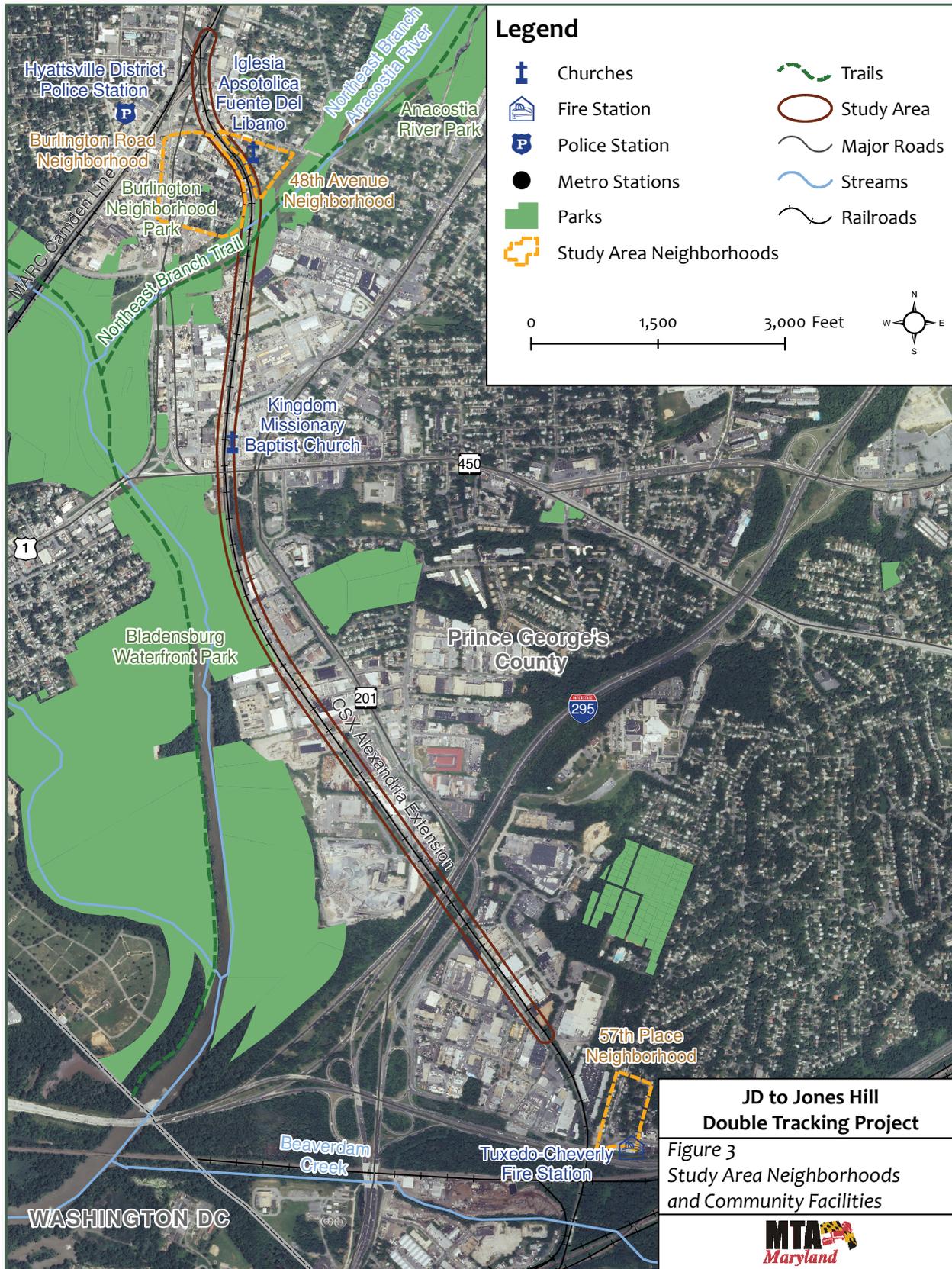
The 48th Avenue neighborhood is located on the northeast side of the CSX Alexandria Extension railroad tracks and is bound by Decatur Street to the north, the Anacostia River Park to the southeast and the railroad tracks to the southwest. The neighborhood includes residences along 48th Avenue and 49th Avenue, which are both accessed directly from Decatur Street to the north and dead end at the Anacostia River Park property. The neighborhood consists of moderate-sized single family homes situated on approximately 1/8 to



Burlington Road
Neighborhood – Homes
along Burlington Road



Burlington Road
Neighborhood – Homes
along Buchanan Street



1/4-acre lots. The closest residences, which are located at the southern end of 48th Street, are approximately 100 feet from the existing railroad tracks and some have sheds or other structures in their back yards that are closer to the tracks.

The Burlington Road neighborhood is located on the southwest side of the existing railroad tracks and is bound by the tracks on the north and east, by Baltimore Avenue on the west, and by the Anacostia River Park on the south. The neighborhood includes residences along Buchanan Street, Burlington Road, and Emerson Street. Each of these roads is accessed directly from Baltimore Avenue and dead ends at the Alexandria Extension right-of-way. This neighborhood consists of moderate-sized single family homes on approximately 1/8-acre lots. The closest residences, which are located at the eastern end of Burlington Road, are approximately 50 feet from the existing railroad tracks.

The proposed double tracking of this portion of the Alexandria Extension will occur primarily within or adjacent to the existing CSX-owned rail corridor and will not result in the bisection of either of these communities or the isolation of any residences within these neighborhoods. Direct vehicular access to and from the neighborhoods will not be altered as there will be no work occurring on Baltimore Avenue and track work occurring at Decatur Street will not interfere with the intersections of that roadway with 48th and 49th Avenues. There are no existing crossings of the railroad tracks in the vicinity of these neighborhoods south of Decatur Street and CSX will maintain access along Decatur Street throughout construction.

Only a small amount of right-of-way (0.02 acre) will be acquired from the 48th Avenue neighborhood and none will be acquired from the Burlington Road neighborhood. The property that will be impacted is a narrow linear strip of land along the back yards of three residences along the west side of 48th Avenue. No residents will be displaced as a result of this project.

Since the number of trains and the speed at which they are traveling will not change as a result of the project, noise levels are not expected to increase. Therefore, it is anticipated that there would be no noise-related community impacts. There will also be little impact to the visual quality of the neighborhoods as the new infrastructure will be in character with the existing visual environment in these neighborhoods.



View of Alexandria Extension from Burlington Road



View of Alexandria Extension from 48th Avenue

3.1.3. Environmental Justice

Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, directs federal agencies to identify and address disproportionately high and adverse human health or environmental effects that its programs, policies, and activities may have on minority and low-income populations.

As part of this Environmental Assessment, an analysis of potential environmental justice considerations for the proposed project was performed in accordance with U.S. Department of Transportation (USDOT), Federal Highway Administration/Federal Transit Administration (FHWA/FTA), and the Council on Environmental Quality (CEQ) guidelines.

The USDOT uses the following definitions under its EO for Environmental Justice (USDOT, 1997):

- ▶ Low-Income: a person whose median household income is at or below the Department of Health and Human Services poverty guidelines.

- ▶ **Minority:** a person who is:
 - Black (a person having origins in any of the black racial groups of Africa);
 - Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);
 - Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or
 - American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).
- ▶ **Low-Income Population:** any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy or activity.
- ▶ **Minority Population:** any readily identifiable group of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy or activity.

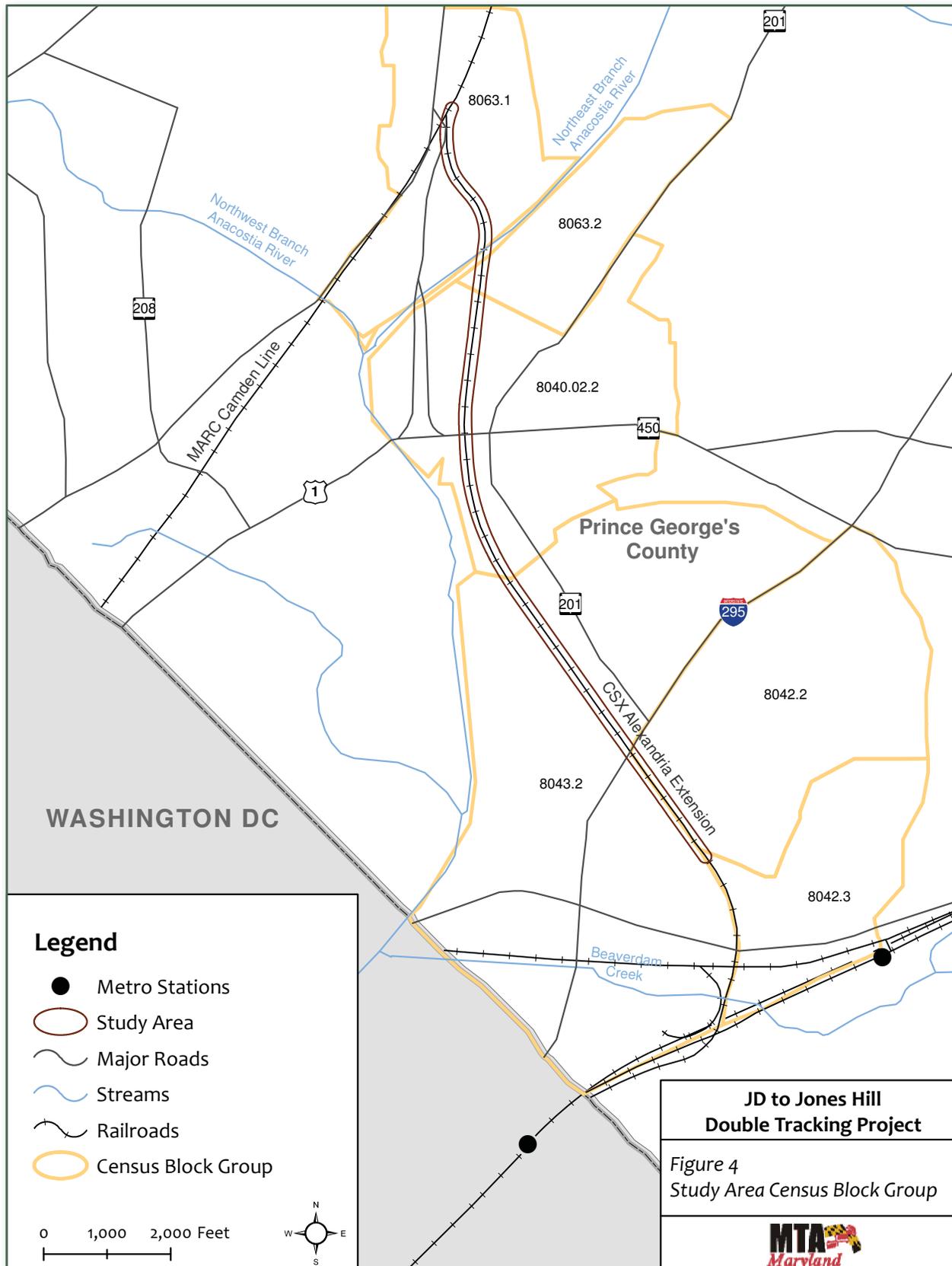
The methodology for the environmental justice analysis involved identifying the presence of minority and/or low-income persons and communities within the study area. The analysis was conducted using Census 2000 data at the census block group level. Census block groups are the geographical units that make up census tracts. There are six census block groups that represent the JD to Jones Hill Double Tracking Project study area (**Figure 4**). These block groups encompass a geographical area that is substantially larger than the actual study area of the project, but this geographical area is the best

representation of the study area possible using the established census data units. The block groups include:

- ▶ 8040.02.2
- ▶ 8042.2
- ▶ 8042.3
- ▶ 8043.2
- ▶ 8063.1
- ▶ 8063.2

To identify minority populations, the number of minority persons in each census block group was aggregated and divided by the total population for the census block group to yield the percentage of minority persons for each census block group. Per CEQ Environmental Justice guidance, census block groups with a 50 percent or higher minority population or block groups where the percentage of minority persons is “*meaningfully greater*” than the percentage of minority persons for the total study area qualified as potential environmental justice populations.

The number of persons living below the poverty level, as identified by Census 2000 data, was calculated for each census block group to determine the presence of low-income populations within the study area¹. The total number of persons living below the poverty level was aggregated and divided by the total population for each census block group. The percentage of low-income persons was then calculated for each census block group. According to CEQ’s Environmental Justice guidance, a low-income population may exist if 50 percent or more of the persons within a given geographical area (for this project, the census block group) meet the definition of “low-income” or if the percentage of low-income persons for the geographical unit is “*meaningfully greater*” than the percent low-income for the total study area. The term “*meaningfully greater*” for this analysis was determined to be twice the overall percentage of the low-income population for the entire study area, which was 11.2



percent. Therefore, in addition to census block groups with a low-income population percentage of 50 percent or more, any census block group with a low-income population percentage at or exceeding 22.4 percent was considered a potential environmental justice population.

Table 2 presents the minority and low-income population of each of the six census block groups that comprise the study area and shows the percentage of minority and low-income populations in comparison to those of the overall study area.

Based on the analysis of census block group data, five of the six block groups contain minority populations that constitute more than 50 percent of the total population. The remaining block group contains a minority population that is less than that of the entire study area; therefore, the minority population in this block group will not be “meaningfully greater.” None of the block groups have low-income populations that exceed the 22.4 percent threshold established for this project. Furthermore, of the five block groups that contain substantial minority populations, four of them do not have residential areas located in proximity to the project. The residential portions of these block groups are separated from the study area by substantial commercial/industrial development and will not be negatively impacted by the project.

Only one block group (8063.1) has residential land use in the vicinity of the project, but because the census block group boundary for block group 8063.1 extends well beyond the limits of the study area, it was necessary to isolate the data for the residential areas close to the project. Census

block data was examined to further evaluate the racial composition of the two residential areas in proximity to the project. These areas were previously defined as the 48th Street neighborhood and the Burlington Road neighborhood. The evaluation of census block data shows that the population of the 48th Street neighborhood was comprised of less than 50 percent minority individuals. Census data representing the Burlington Road neighborhood, however, shows that the neighborhood did have a minority population greater than 50 percent of the total.

The analysis of census data was supplemented with field investigation of these residential areas. Since the data from the Census is now 10 years old, the possibility that racial and income statistics have substantially changed is likely. The field investigation revealed that both the Burlington Road and 48th Avenue neighborhoods are comprised of potentially high concentrations of minority populations. In addition, a street sign with information posted in Spanish was observed and suggests that there is a concentration of people of Hispanic origin in the 48th Avenue neighborhood.

Table 2: Low-Income/Race Population Percentages by Census Block Group

	Study Area		8040.02.2		8042.2		8042.3		8043.2		8063.1		8063.2	
Total	8,772	100.0%	2,167	100.0%	1,284	100.0%	1,177	100.0%	2,241	100.0%	1,010	100.0%	893	100.0%
Minority	5,846	66.6%	1,529	70.6%	539	42.0%	602	51.1%	2,055	91.7%	526	52.1%	595	66.6%
Hispanic	1,047	11.9%	434	20.0%	49	3.8%	76	6.5%	109	4.9%	180	17.8%	199	22.3%
Low-Income	985	11.2%	292	13.5%	53	4.1%	84	7.1%	408	18.2%	87	8.6%	61	6.8%

Source: U.S. Census Bureau, Census 2000

¹ Poverty status refers to all people living below the poverty level except institutionalized people, people in military group quarters, people in college dormitories, and unrelated individuals under 15 years old (www.census.gov).



*Spanish Language Street Sign
in 48th Avenue Neighborhood*

Impacts resulting from the Double Tracking will be limited to minor changes in the visual environment due to the construction of the second track. The additional tracks and the widened bridge will be visible from the neighborhood. In addition, vegetation will be cleared within nearby areas where additional right-of-way will be acquired. Though the proposed improvements will alter the visual environment, the changes will be in character with the existing views from the neighborhood. Existing train traffic along the Alexandria Extension consists of approximately 25 to 35 trains per day and there are currently no plans to increase the number of trains if double tracking is completed.

3.1.4. Community Facilities and Services

Several community facilities are located in the vicinity of the proposed double tracking of the Alexandria Extension. These include the Burlington Neighborhood Park, the Anacostia River Park, Bladensburg Waterfront Park, and the Kingdom Missionary Baptist Church (see Figure 3). No physical impacts are anticipated to any of these facilities with the exception of the Anacostia River Park. In addition, the Hyattsville District Police Station and the Tuxedo-Cheverly Fire Station are located in the vicinity of the project and provide police, fire, and ambulance services throughout the study area.

Burlington Neighborhood Park

The Burlington Neighborhood Park is located along the north side of Burlington Road, between Baltimore Avenue and the Alexandria Extension. Since the park is located over 400 feet beyond the extent of the proposed improvements, it will not experience any impact as a result of the project.



Burlington Neighborhood Park

Bladensburg Waterfront Park

The Bladensburg Waterfront Park is located immediately adjacent to the Alexandria extension on the west side of the CSX right-of-way. It occupies the area along both sides of the Anacostia River; however, only the area on the east side of the river falls within the study area of this project. On the east side of the river, the park extends between MD 450 (Annapolis Road) and Lloyd Street and is accessed directly from MD 450. The railroad tracks are on an elevated structure that extends the full length of the park and beyond. The proposed track construction will be completed from the structure itself and no equipment will need to be located adjacent to the structure during construction. Therefore, no direct impacts to the park will occur and access to the park will not be affected.



*Alexandria Extension on
Elevated Structure Adjacent to
Bladensburg Waterfront Park*

Kingdom Missionary Baptist Church



Kingdom Missionary Baptist Church



Bladensburg Waterfront Park

The Kingdom Missionary Baptist Church is located on the west side of 47th Street, just north of MD 450 and is immediately adjacent to the east side of the Alexandria Extension. The railroad tracks are on an elevated structure that runs behind the church. No direct physical impact will occur, nor are changes in access and alterations of the visual environment anticipated.

Anacostia River Park & Northeast Branch Trail

The Anacostia River Park is a linear park owned by the Maryland-National Capital Park and Planning Commission (M-NCPPC) that extends along the Anacostia River. It primarily serves as a buffer of green space around the river, but also contains the Northeast Branch Trail. No funds from the federal Land and Water Conservation Fund or Maryland's Program Open Space were used to acquire or develop the park property affected by this project; however, the parcel was acquired with funds provided under the 1945 Capper-Cramton Act.



Anacostia River Park

The Alexandria Extension currently crosses the Anacostia River Park between Tanglewood Drive and Burlington Road. The crossing includes an existing bridge over the Northeast Branch of the Anacostia River. Impacts to the Anacostia River Park will result from the proposed widening of the existing bridge. Approximately 0.38 acre (16,513 square feet) of parkland will be acquired by CSX for the project. The affected area is currently undeveloped parkland located south of the Northeast Branch in a linear strip adjacent to east side of the Alexandria Extension.



*Right-of-way Required from
Anacostia River Park*

The Northeast Branch Trail, constructed in the 1990s with funds provided under the Intermodal Surface Transportation Efficiency Act (ISTEA), is part of a system of pedestrian and bicycle trails known as the Anacostia Tributary Trails that extend along small stream valleys that feed the Anacostia River. The Northeast Branch Trail runs in a north-south direction along the Northeast Branch from approximately MD 193 to a point south of Bladensburg Road. The trail passes beneath the existing CSX rail bridge that carries the Alexandria

Extension over the Northeast Branch. The trail is a paved facility that is approximately ten feet wide. A portion of the trail will require temporary closure at night during the construction activities for widening the CSX rail bridge. The temporary closures will only occur after dusk when the trail is closed to the public. CSX will maintain access along the trail during daytime hours when the trail is open.



Northeast Branch Trail at
CSX Bridge



Northeast Branch Trail

An assessment of the impacts to Anacostia River Park (including the Northeast Branch Trail) was completed for this project in accordance with Section 4(f) of the U.S. Department of Transportation Act (23 C.F.R. 774). The MTA will hold a public workshop to obtain public input on this Environmental Assessment and to provide opportunity for public input on the Section 4(f) use of park property. In a letter dated October 20, 2010, the MTA requested written concurrence from Maryland-National Capital Park and Planning Commission (M-NCPPC), the official with jurisdiction over the park, that the Section 4(f) use of the Anacostia River Park would not adversely affect the activities, features, or attributes of the park and that Section 4(f) does not apply to the temporary use and occupancy of the Northeast Branch Trail (**Appendix B**). In a letter dated December 17, 2010, the M-NCPPC concurred that the use of the park would not adversely affect the activities, features, or attributes of the park and that Section 4(f) would not apply to the temporary use and occupancy of the park as long as the Northeast Branch Trail remains open during normal park hours. Based on this assessment, the Federal Transit Administration has found that the

Section 4(f) use of the Anacostia River Park will be *de minimis*.

Since the Anacostia River Park was acquired with funds provided under the Capper-Cramton Act, coordination with the National Capital Planning Commission (NCPC) has been undertaken. A letter dated June 6, 2011 was sent to the NCPC indicating MTA's understanding that the NCPC will adopt this Environmental Assessment to fulfill its National Environmental Policy Act obligations (**Appendix B**).

As a result, there will be no acquisition of the necessary right-of-way until the NCPC adopts this Environmental Assessment and issues a final decision on environmental impacts related to the Anacostia River Park.

Emergency Services

One local police station and one local fire station are located just outside of the study area of this project. The Hyattsville District Police Station, part of the Prince George's County Police Department, is located at the north end of the study area, west of the Alexandria Extension along the west side of Rhode Island Avenue. In addition, the Tuxedo-Cheverly Fire Station is located at the southern end of the study area east of the Alexandria Extension along the south side of Tuxedo Road. Both of these facilities are located sufficiently far from the proposed improvements that they will not suffer any physical or visual impacts as a result of the project. Access to and from these facilities will not be altered and no noise impacts will occur because these facilities are not considered to be noise-sensitive.

Since this project will not result in changes to the local roadway network, it is expected that police, fire, and ambulance services would not be substantially affected. There may be minor delays for emergency vehicles during construction due to temporary road or lane closures at the roadways crossing the existing tracks. CSX will contact local emergency services prior to beginning construction to discuss potential temporary detours.

3.1.5. Visual and Aesthetic Environment

The visual and aesthetic environment of the study area for this project is dominated by intense commercial and industrial development along the Alexandria Extension. Commercial and industrial areas are typically considered to be of low visual quality. There are few locations where the visual environment would be considered more sensitive than the views of the commercial and industrial uses that comprise the majority of the study area. These include the residential areas in the northern end of the study area as well as the Anacostia River Park and the Bladensburg Waterfront Park areas.



Commercial/Industrial Development along Alexandria Extension

The proposed double tracking of the Alexandria Extension will not result in substantial changes to the visual environment of the study area. The proposed improvements will occur along the already existing railroad corridor and will be similar in character to the infrastructure that is currently present. In addition, a substantial portion of the proposed improvements will be located on an existing elevated structure and will not be visible from the ground. The most substantial change in the visual environment will result from the widening of the bridge over the Northeast Branch of the Anacostia River. The proposed bridge widening will result in changes in views from the Burlington Road and 48th Avenue neighborhoods as well as from the Anacostia River Park. Though the project will introduce a widened structure across the Northeast Branch, the effect will not be severe because the view of the widened bridge will be similar to that of the existing bridge.

3.1.6. Traffic and Transportation

The existing transportation network within the JD to Jones Hill Double Tracking Project study area consists of railroads, streets and highways, and pedestrian/bicycle facilities. Railroad lines include the Alexandria Extension as well as the MARC Camden Line. Major highways in the study area include US 50 (John Hansen Highway), MD 201 (Kenilworth Avenue), MD 295 (Baltimore Washington Parkway) and MD 450 (Annapolis Road). Numerous smaller streets are also located within the study area. A pedestrian/bicycle trail, the Northeast Branch Trail, exists within the study area along the Anacostia River.

The JD to Jones Hill Double Tracking Project's most direct effect on transportation will be the alleviation of congestion along the Alexandria Extension. This will allow the freight trains that currently use the line to operate more efficiently along this section of the railroad and, even though there are no current plans to do so, will make it possible to increase the volume of trains using the Alexandria Extension in the future. There will be short-term disruptions to freight train service along the Alexandria Extension during the construction of the second track and the modification of the bridge over the Northeast Branch of the Anacostia River. There will be no direct impact of the proposed project on the MARC Camden Line. However, by providing a second track on the Alexandria Extension, the time that trains have to wait on the MARC Camden Line tracks for a train to clear the Alexandria Extension will be reduced. Thus, the movement of MARC trains and any other trains using the Camden Line will be less hindered by the presence of trains waiting to access the Alexandria Extension. This will allow for more reliable and predictable travel times for commuters on MARC trains and will minimize time lost due to delays of the service.

Current freight service to a rock operation near 52nd Avenue periodically occupies the single track of the Alexandria Extension to pull and place cars. The proposed double tracking will allow local

service to the rock operation while trains can pass on the new track.

The portion of the Alexandria Extension within the study area currently crosses 13 streets (**Table 3**). Six of the existing crossings are grade separated, while seven are at-grade.



Grade-Separated Crossing of Alexandria Extension at Upshur Street



At-Grade Crossing of Alexandria Extension and Tanglewood Drive

Each of the at-grade streets are one lane per direction with various levels of crossing warning devices. Based on data provided by the Maryland State Highway Administration, the most significant traffic volumes are on Decatur Street, which carries roughly 600 vehicles during the peak hour and 6,000 vehicles per day, and Tanglewood Drive, which carries approximately 350 vehicles during the peak hour and 3,500 vehicles per day. Both

of these roadways are through streets between MD 201 (Kenilworth Avenue) and US 1 Alt. The other five at-grade roadways cross the tracks and end at private businesses, carrying minimal traffic. No improvements to any of the overpasses or underpasses at the six grade separated crossings are proposed under this project. The elimination of at-grade crossings is also not proposed as part of the project. Though there may be temporary disruptions in access across the tracks during construction, CSX will maintain access to the greatest extent possible.

The Northeast Branch Trail, which runs parallel to the Northeast Branch of the Anacostia River, passes beneath the existing railroad bridge. This bridge will be replaced as part of this project. As discussed previously in *Section 3.1.4*, the trail may need to be temporarily closed at night during construction activities to widen the bridge over the Northeast Branch, but pedestrian/bicycle access will be maintained.

3.1.7. Local Businesses

Numerous commercial and industrial facilities are located along the portion of the Alexandria

Table 3: Alexandria Extension Roadway Crossings

Roadway	Type of Crossing	Crossing Warning	Vehicles Per Day
Decatur Street	At-grade	Signal / No Gates	6,000
Tanglewood Drive	At-grade	Signal and Gates	3,500
Upshur Street	Grade Separated (underpass)	N/A	N/A
MD 450 (Annapolis Road)	Grade Separated (underpass)	N/A	N/A
Lloyd Street	At-grade	Signal / No Gates	250
Lawrence Street	At-grade	Signal / No Gates	250
Unnamed access road	At-grade	Stop Signs; No Signal / No Gates	250
Unnamed access road	At-grade	Stop Signs; No Signal / No Gates	250
52nd Street	At-grade	Signal and Gates	250
MD 295 (Baltimore Washington Parkway)	Grade Separated (overpass)	N/A	N/A
MD 201 (Kenilworth Avenue)	Grade Separated (overpass)	N/A	N/A
Tuxedo Road	Grade Separated (underpass)	N/A	N/A
US 50 (John Hansen Highway)	Grade Separated (underpass)	N/A	N/A

Extension where the double tracking is proposed. Direct impacts in the form of right-of-way acquisition will occur at only two of these businesses: R.W. Kibler, Inc. and Air Gas East, Inc. (see Section 3.1.1).



Right-of-way to be acquired from Air Gas East, Inc.



R.W. Kibler, Inc. Property

The proposed improvements are expected to result in no other impacts to local businesses. There will be no permanent changes in access, though there could be temporary closures of driveways that cross the existing tracks during construction. CSX will maintain access to all local businesses to the extent possible during construction. Furthermore, CSX will conduct most construction activities on weekends since most of the businesses near the existing at-grade crossings are only in operation Monday through Friday. Therefore, impacts to local businesses will be minimized.

3.1.8. Regional Business Activity

The increased rail capacity along the Alexandria Extension and the subsequent alleviation of congestion along the MARC Camden Line will allow trains to move more freely through this area. The reduction in delays will result in faster, more efficient movement of both freight and passengers, which will be beneficial to regional business activity.

The JD to Jones Hill Double Tracking Project study area is within close proximity to recognized business and employment activity centers in the Washington, D.C. metropolitan area. The Metropolitan Washington Council of Governments (MWCOCG)'s 2007 *Regional Activity Centers and Clusters* report lists New Carrollton as a suburban employment center (MWCOCG, 2007). The report also cites

the New Carrollton/Largo area as an employment activity cluster that, as of 2007, employed between 100,000 and 149,000 people. The New Carrollton activity cluster encompasses parts of Bladensburg and Hyattsville in the study area. Therefore, the increased rail capacity will likely enhance the business activities and employment opportunities in the area.

3.1.9. Land Use and Zoning

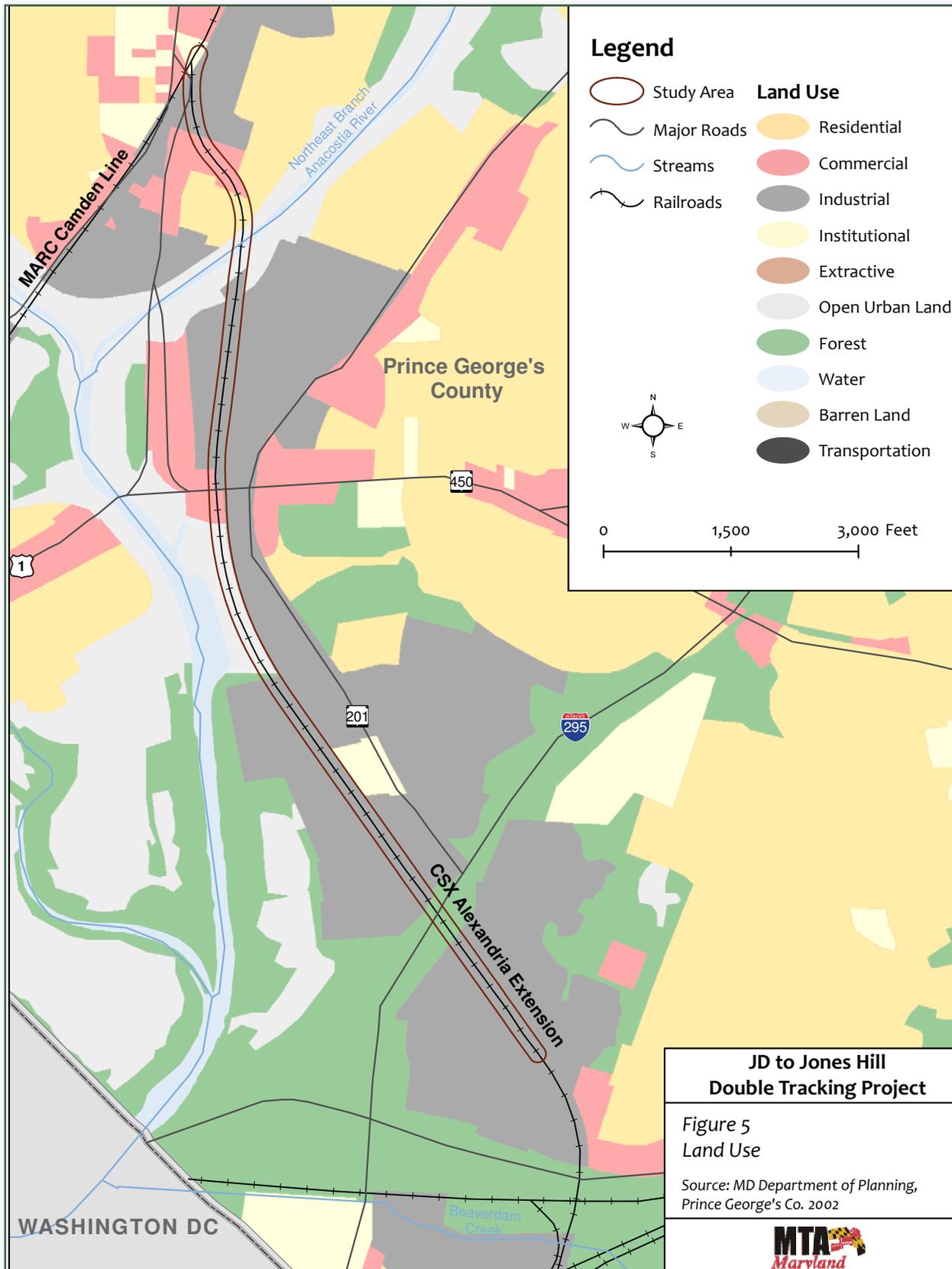
The area surrounding the JD to Jones Hill Double Tracking Project is an urban area comprised predominantly of industrial land uses, with a small amount of commercial, high-density residential, and park uses (**Figure 5**).

The proposed double tracking will have only minor effects on local land use. Since the proposed improvements will occur within or adjacent to an existing rail corridor, there will likely be little noticeable change in the land use pattern. There will be a small amount of land that is converted from its current residential, commercial, and park uses to transportation use.

The majority of the study area is zoned for industrial use; however, some areas are also zoned for mixed uses, residential uses, commercial uses, and open space. Since the project will occur in a corridor that is already used for rail transportation, the addition of the second track will not change this use. Therefore, the proposed changes are expected to be compatible with existing zoning.

3.1.10. Local Planning

Prince George's County is the second most populated county in Maryland and has had a well-established planning and regulatory framework in place to guide the location, pattern and pace of growth over the past 80 years. The Maryland-National Capital Park and Planning Commission (M-NCPPC) is a bi-county agency established by the Maryland General Assembly in 1927 to acquire, develop, maintain and administer the local and regional park system within Montgomery and Prince



**JD to Jones Hill
Double Tracking Project**

Figure 5
Land Use

Source: MD Department of Planning,
Prince George's Co. 2002

George's Counties, and to develop and guide land use planning for the physical development of the two counties through comprehensive land use regulation.

In 2002 M-NCPPC approved the General Plan for Prince George's County, a planning tool used to guide growth in the county. The General Plan links growth policies, capital improvement, economic development and environmental protection to assure resource protection and quality of life for its citizens. These strategies are backed by goals, policies and measurable objectives that lay the foundation for future planning and development efforts in Prince George's County.

3.1.11. Maryland Smart Growth

In the 1990s, Maryland passed the Planning Act of 1992 as well as a series of laws known as Maryland's Smart Growth Initiatives, which includes the Priority Funding Areas (PFAs) Act of 1997. The Planning Act of 1992 states that it is public policy that public facilities and infrastructure should be placed in areas where growth is planned to occur, and that growth should be directed to existing population centers. The PFAs Act of 1997 defined where such state-funded development should take place, and each county in the State was required to identify PFAs. The PFAs are defined by the Maryland Department of Planning (MDP) as existing communities and places where local governments want State investment to support future growth. The JD to Jones Hill Double Tracking Project is located entirely within a Prince George's County certified PFA. Therefore, the proposed improvements are be consistent with the Planning Act of 1992 and Maryland's Smart Growth Initiatives.

3.2. CULTURAL RESOURCES

For the purpose of this assessment, cultural resources are defined as historic standing structures and archeological sites. In addition to the FTA's responsibility to assess the possible impact this project has on cultural resources in accordance with the NEPA, the agency is also required to

consider the effects of this undertaking on cultural resources in accordance with Section 106 of the National Historic Preservation Act. To satisfy the requirements of both federal laws, CSX corresponded with the Maryland Historical Trust, which is the State Historic Preservation Officer for Maryland. In a letter dated December 11, 2009 (**Appendix B**), CSX requested input from the Maryland Historical Trust regarding the presence of known historic resources in the vicinity of the proposed improvements. On February 12, 2010, the Maryland Historical Trust indicated that the project would have no adverse effect on historic properties.

Since the initial coordination with the MHT, the plans for the project were updated and the need for additional right-of-way acquisition was identified. In a letter dated October 5, 2010, the MTA expressed its opinion that the project would continue to have no adverse effect on historic properties, including both standing structures and archaeological sites, and requested the MHT's concurrence with that finding. The MHT concurred with this finding on November 10, 2010 (see **Appendix B**).

3.3. NATURAL ENVIRONMENTAL RESOURCES

The JD to Jones Hill Double Tracking Project is proposed within a densely-developed, urban, commercial/industrial setting, where few natural environmental features are present. In this section, the project's effect on natural environmental resources within the study area will be assessed. Specific resources and impacts evaluated in this section include:

- ▶ Geology and Soils
- ▶ Groundwater
- ▶ Surface Water
- ▶ Wetlands and Waters of the U.S.
- ▶ Floodplains
- ▶ Vegetation

- ▶ Terrestrial Wildlife
- ▶ Aquatic Wildlife
- ▶ Rare, Threatened, and Endangered Species
- ▶ Chesapeake Bay Critical Area

3.3.1. Geology and Soils

The study area lies entirely within the Coastal Plain physiographic province, and contains geological features associated with the Anacostia Valley Area and Glen Burnie Rolling Upland District (Reger and Cleaves 2008, Cleaves et al. 1968). Elevation ranges from approximately 10 to 60 feet above sea level (Google Earth 2010). Lowland deposits originating from the Pleistocene period and earlier comprise the predominant geologic unit along the length of the project corridor. These areas are characterized by alluvial deposits of gravel, sand, silt and clay, and may contain reworked Eocene glauconite, varicolored silts and clays, brown to dark gray lignitic silty clay, and in some locales, fossil evidence of estuarine to marine fauna (Cleaves et al. 1968). Uplands immediately upslope of the Anacostia River valley occur at the northern and southern ends of the study area. These areas are underlain by geologic subtypes found within the Potomac Group, which are generally represented by orthoquartzitic argillaceous sands and white, dark gray and multicolored silts and clays (Cleaves et al. 1968). The Potomac Group includes the Raritan and Patapsco formations, Arundel Clay, and the Patuxent formation.

Due to the highly developed nature of the area, many of the soils in the vicinity of the project corridor exist as complexes of natural and human-transported material. Along the study area, all but one of the soil mapping units identified were complexes of urban land and various natural soil types. These soils include Urban land-Zekiah complex, Urban land-Issue complex, Urban land-Elsinboro, Urban land-Alloway-Downer, Urban land-Woodstown, Urban land-Russett-Christina complex, Urban land-Christina-Downer complex, Udorthents, Fallsington-Urban land complex,

Zekiah and Issue soils (Web Soil Survey 2010). Of these soil types, all are moderately to well drained, with the exception of Zekiah and Issue soils, which are somewhat poor to poorly drained. According to the Natural Resources Conservation Service (NRCS), the Fallsington-Urban land complex and the Zekiah and Issue soils are listed as hydric soils (Soils Data Mart- <http://soildatamart.nrcs.usda.gov/Report.aspx?Survey=MD033&UseState=MD>).

Due to the urbanized nature of the study area, the majority of the soils potentially affected by the project have already been disturbed, manipulated or covered by development. Additional soil disturbances may occur due to minimal grading for second track and any associated components. However, in most cases, project-induced changes to the existing nature of the soils will be compatible with existing and surrounding conditions. Other potential impacts that could occur from the proposed project, depending on the level of earthmoving required, include small changes to drainage patterns within or adjacent to the right-of-way associated with redirecting surface runoff and minor localized changes in shallow groundwater movement. However, these effects should be minimal and remedied by required stormwater management (SWM) facilities.

3.3.2 Groundwater

The aquifers of the Coastal Plain originated with continental sediments of Cretaceous Age and contain numerous lenses of water bearing sand and gravel that are sufficiently hydrologically connected to form good aquifers. These sediments are the most important source of groundwater in the project area. The Upper Cretaceous deposits of marine sediments are composed of materials that are fine-grained with low porosity and permeability and do not form satisfactory aquifers. Sediments from other portions of the Cretaceous Period formed better aquifers. The Tertiary sediments include an important aquifer in the southeastern part of Prince George's County, particularly in the central and southern parts; the shallow Pleistocene deposits contain beds of sand and gravel capable of

storing and yielding adequate quantities of water for domestic purposes. The Magothy Formation and Patapsco Formation are important aquifers in the Coastal Plain of Prince George's County and can yield as much as 230 gallons per minute or greater. (Trapp et al. 1997)

The aquifers in Prince George's County within the project area usually contain fresh water, although the water quality can vary, depending on specific location and recent recharge. Some of the typical sedimentary formations that form aquifers include the Patuxent Formation and the Patapsco-Raritan Formation. The water quality from Patuxent Formation in updip (angle of deviation from horizontal) areas is usually soft, with low amounts of chlorides and dissolved solids, as well as moderately low pH levels. The water may have high levels of dissolved iron though. Patapsco-Raritan Formation water is generally low in chlorides, although deeper waters have higher chloride and total dissolved solids concentrations. The updip areas of the Patapsco-Raritan formation also have very soft water, low pH, and have high concentrations of dissolved iron. (Trapp et al. 1997)

Project area impacts will not affect study area groundwater to a substantial degree. The double tracking of portions of the Alexandria Extension will occur completely on the surface and only minor changes to the movements of the shallow groundwater table are likely to occur during grading and construction of the project. In addition, the urbanized nature of the study area and soils make it unlikely that runoff from the additional track after construction will reach the groundwater table. Instead, any runoff would be treated in accordance with the Maryland Department of the Environment (MDE) guidelines for stormwater management and released to surface waters.

3.3.3. Water Resources

Surface Water

The study area contains one Maryland Department of Natural Resources (DNR) third order watershed,

the Anacostia River. The Alexandria Extension crosses Northeast Branch, a tributary to the Anacostia River.

The Northeast Branch subwatershed drains 14.7 square miles (9,419 acres). Within this subwatershed, 51 percent of the land is residential, 26 percent is forested, and 10 percent is commercial (AWRP 2009). The stream originates east of College Park, Maryland at the confluence of Paint Branch and Indian Creek. Northeast Branch flows south from the confluence to meet the Northwest Branch, north of Bladensburg, Maryland, to form the Anacostia River. The subwatershed is located within the Coastal Plain physiographic province.

The Northeast Branch subwatershed is channelized for 85 percent of its mainstem length and most of it is managed as a FEMA flood control channel. This prevents the growth of a riparian forest buffer and only 21 percent of the mainstem has an adequate riparian buffer. The associated thermal loading, combined with channelization and lack of in-stream shading may cause impairment to the aquatic biotic communities (AWRP 2009).

Chemical Water Quality

The MDE has established acceptable standards for several parameters for each designated Stream Use Classification. Northeast Branch is classified as Use I-P, which is designated for water contact recreation, protection of aquatic life, and public water supply.

The DNR conducted a study in 2000, for the U.S. Army Corps of Engineers (USACE) that included a site on the Northeast Branch. Data collected at the site for temperature and dissolved oxygen were within state standards; however, pH levels taken in the field were above state standards. Based on readings at the USGS stream gauge located near Riverdale, Maryland, turbidity on the Northeast Branch exceeds the state standards on a regular basis for short periods of time. However, the turbidity averages are well below the state standard.

The double tracking of the Alexandria Extension will increase imperviousness and contaminants that could affect existing surface water quality within the Northeast Branch of the Anacostia River. However, these increases will be negligible due to the existing highly urbanized setting of the study area.

TMDLs

Total maximum daily loads (TMDLs) are an estimate of the maximum amount of a pollutant that a water body can absorb without violating ambient water quality standards (MDE 2010). TMDLs are developed as part of the State's requirements under Section 303 of the Clean Water Act (CWA). Each state is required to prepare a biannual list of stream segments that are considered "impaired" and submit this list (303(d) list) to the Environmental Protection Agency (EPA). These segments are known as water quality limited segments (WQLs) and a TMDL must be developed for each. These WQLs can be considered "impaired" by analyzing a wide variety of water quality monitoring data. After listing a stream as a WQLs on the 303(d) list, the state is required to prioritize each water body's need for TMDL development. Several WQLs have been identified by MDE under the 2010 Draft Integrated 303(d) list within the study area.

Northeast Branch is part of the tidal and the non-tidal portions of the Anacostia River watershed. The Anacostia River watershed was listed in 2002 to develop TMDLs for polychlorinated biphenyls (PCBs) and heptachlor epoxide. It was also listed in 2006 to develop a TMDL for debris, floatables, and trash. Each listing of the Anacostia River is listed as having a low priority for TMDL development except for the TMDL for debris, floatables and trash in the non-tidal portion, which is listed as having a medium priority. Currently within the watershed, TMDLs have been approved for bacteria, PCBs (tidal), sediment, and nutrients. The public comment periods have ended for PCBs (non-tidal) and trash. In addition, the Anacostia River is part of the greater Chesapeake Bay watershed which currently has a draft TMDL for nitrogen, phosphorous, and

sediments (MDE 2010). All sediment and erosion activities for this project will adhere to approved Anacostia River and Chesapeake Bay TMDLs.

Scenic and Wild Rivers

The DNR Scenic and Wild Rivers program (Md. Code Natural Resources Sections 8-402) was developed to protect the scenic, recreational, and aquatic habitat values of the state's wild and scenic rivers under the National Wild and Scenic River Act (16 U.S.C Sections 1271-1287). According to the DNR, the Anacostia River and its tributaries are designated as Scenic and Wild Rivers.

A similar federal program exists: The National Scenic and Wild Rivers System. No federally listed Scenic and Wild Rivers exist within the state of Maryland.

Impacts to Scenic and Wild Rivers will be minimal as the proposed improvement will include addition bridge pilings and the extension of an existing culvert.

3.3.4. Waters of the U.S. Including Wetlands

Waters of the U.S., including wetlands, are regulated under Section 401 and 404 of the Clean Water Act, the Maryland Tidal Wetlands Act, and the State of Maryland Nontidal Wetlands Protection Act.

The results of the wetland delineation in 2009 identified four waters of the U.S. and no wetlands within the project area. The four waters of the U.S. include the Northeast Branch of the Anacostia River and three unnamed tributaries to the Anacostia River.

Based on the Joint Permit Application (JPA) for the project that was submitted in February 2010 (**Appendix B**), the bridge over the Northeast Branch of the Anacostia River will be extended to the east, impacting approximately 1,472 square feet of stream due to the placement of piers within the channel. The culvert on the south side of the bridge approach will also be extended to the east

approximately eleven feet, encapsulating 242 square feet of a tributary to the Anacostia River.



Mainstem of Anacostia River

Two intermittent streams that bisect the project area north and south of MD 295 will be impacted by the extension of pipes that currently reside in those areas. The stream north of MD 295 will be placed in 12 linear feet of pipe, impacting approximately 54 square feet of stream, while the stream south of MD 295 will be placed in 13 linear feet of pipe, impacting approximately 52 square feet of stream. A concrete-lined channel located south of MD 201 exhibiting an ephemeral condition will also be impacted by the placement of a 54-inch pipe within 12 linear feet of the channel, impacting approximately 54 square feet of stream.

This project qualifies for a Maryland State General Permit-3 (MDSGP-3), as this project has less than one acre of tidal and non-tidal stream impact. This permit was received on February 1, 2011 (**Appendix B**). As part of this permit, a Section 401 Water Quality Certificate was also issued. Mitigation for associated stream impacts are not required as a condition of the permit.

All construction activities will be completed using Best Management Practices (BMPs), including limiting work below the Ordinary High Water Mark (OHWM), use of sediment fencing, rock checks, and sediment traps during project activities and immediately reseeding any exposed banks or other disturbed areas with appropriate seed mix. In

addition, bank slopes disturbed during construction will be returned to pre-construction contours. These measures will supplement those activities being performed under the Stormwater Pollution Prevention Plan (SWPPP).

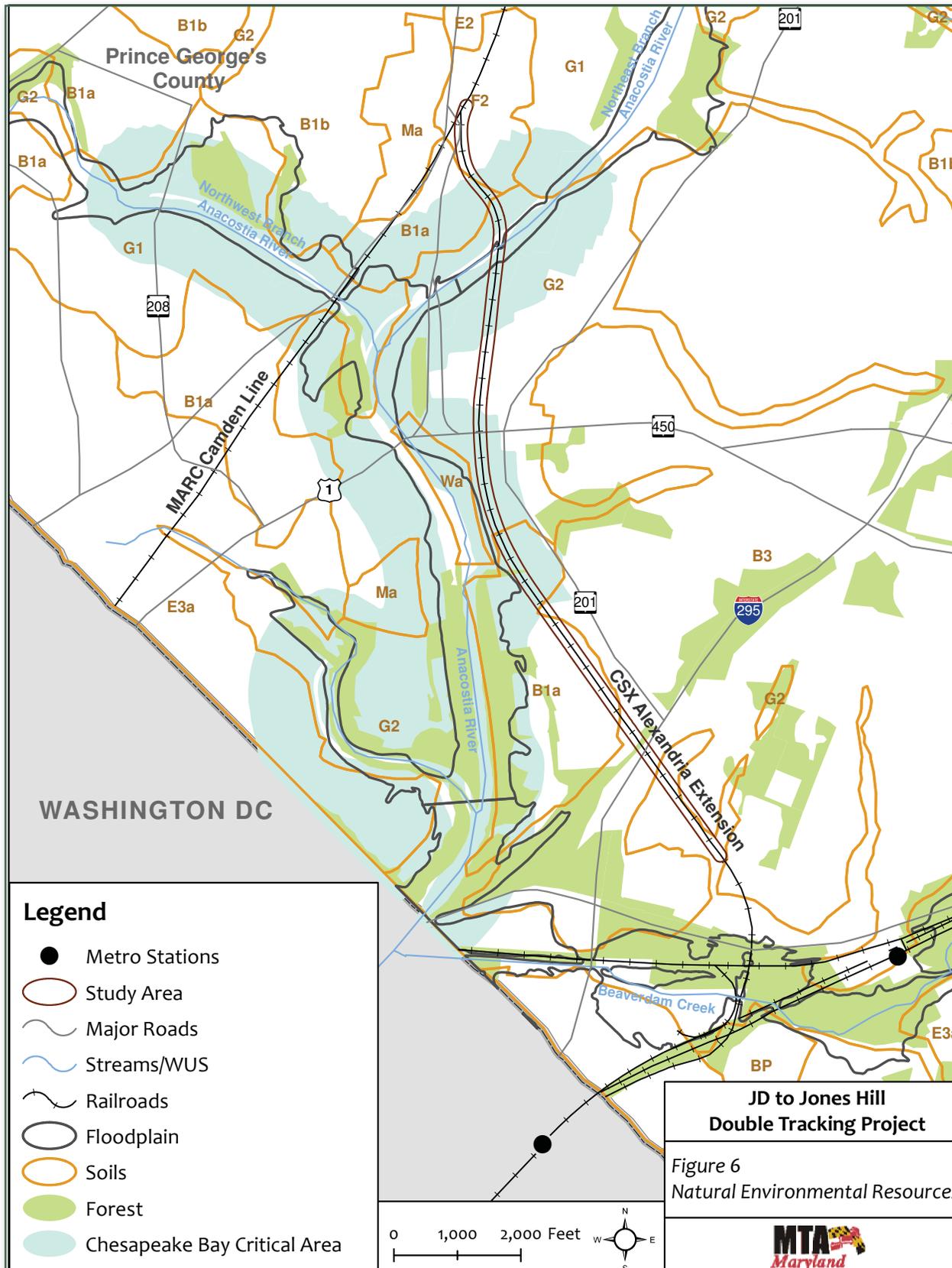
3.3.5. Floodplains

U.S. Department of Transportation (DOT) Order 5650.2, entitled “Floodplain Management and Protection,” prescribes policies and procedures for ensuring that proper consideration is given to the avoidance and mitigation of adverse floodplain effects. The project area traverses the 100-year floodplains of Beaverdam Creek and the Northeast Branch of the Anacostia River as shown in **Figure 6** (FEMA Flood Maps 2010). The 100-year floodplain is confined to the channel due to levees that exist on either side of the stream. The 500-year floodplain of the Northeast Branch of the Anacostia River encompasses the project area from Lloyd Street to the crossing of the Northeast Branch of the Anacostia River. Due to active flood management practices such as routine vegetation cuttings, the floodplain is devoid of natural vegetation.

The widening of the existing bridge over the Northeast Branch of the Anacostia River will impact approximately 5,783 square feet (0.13 acre) of the 100-year floodplain. However, project related activities in the 100-year floodplain will not have a negative effect on flood levels or alter floodplain boundaries. CSX has been coordinating with the Prince George’s County Department of Public Works and Transportation (PGDPW&T) and the USACE to assess potential floodplain impacts of the project. A HEC-RAS model that incorporated the siding impacts showed a “No-Rise” to the existing conditions base flood elevations (BFEs).

3.3.6. Vegetation

The proposed track passes through a highly urbanized corridor with little to no natural vegetation. A majority of the vegetation has been cleared and maintained as part of the CSX right-of-way. The forested areas that remain within



the project area are associated with streams that bisect the right-of-way. Due to the disturbed nature of the project area, several vine species are prolific, killing or stunting the growth of volunteer, non-native woody species such as *Paulownia tomentosa* (princesstree), *Ailanthus altissima* (tree of heaven), and *Robinia pseudoacacia* (black locust). The dominant vine species include *Ampelopsis brevipedunculata* (Amur peppervine), *Toxicodendron radicans* (eastern poison ivy), *Hedera helix* (English ivy), and *Lonicera japonica* (Japanese honeysuckle).



Vegetation along CSX Right-of-Way

Most of the forested areas are highly disturbed due to their close proximity to development. The forested areas are part of the River Birch-Sycamore Association with dominant species that include *Fraxinus pennsylvanica* (green ash), *Ulmus rubra* (slippery elm), *Platanus occidentalis* (American sycamore), black locust, Japanese honeysuckle, *Lonicera tatarica* (tatarian honeysuckle), and *Acer negundo* (boxelder) (Brush and Lenk 1976). A total of thirteen (13) specimen trees (greater than 30 inches in diameter at breast height (DBH) or 75 percent of the State champion) were identified within the corridor. The large trees are represented by seven different species ranging in size from 30 to 40 inches DBH. Most of the trees are covered in poison ivy and Amur peppervine but appear healthy.

Approximately 10,963 square feet (0.25 acre) of forest will be impacted by the project in areas just south of Lawrence Street and north of the

Anacostia River crossing. Neither of these areas meets the definition of a forest as defined by the State Forest Conservation Technical Manual. These areas are very disturbed and linear in nature with invasive species as the dominant vegetation.

The Maryland Forest Conservation Act, enacted in 1991, is intended to minimize the loss of forests throughout the State and compliance with the law is typically required before a sediment and erosion control permit is issued for a project. Since the JD to Jones Hill Double Tracking Project would be a linear project with less than 20,000 square feet of forest clearing, the project is exempt from the Maryland Forest Conservation Act. In a letter dated December 6, 2010, the DNR concurred with this exemption (**Appendix B**).

3.3.7. Terrestrial Wildlife

The presence of terrestrial wildlife within the project area is a function of available habitats. Because of the urban and built-up land uses present within the corridor, native wildlife species would be mostly restricted to the less developed areas such as the forested areas. However, most of these forested areas are not contiguous with larger, forested, parcels that could provide a wildlife corridor for native wildlife species. Most of the project area provides habitat for disturbance-tolerant species and species adapted to woodland edges. These species include *Procyon lotor* (raccoon), *Sciurus carolinensis* (gray squirrel), *Didelphis virginiana* (Virginia opossum), *Sylvilagus floridanus* (eastern cottontail), *Marmota monax* (groundhog), *Peromyscus leucopus* (white-footed mouse), *Zenaida macroura* (mourning dove), *Thryothorus ludovicianus* (Carolina wren), *Turdus migratorius* (American robin), *Dumetella carolinensis* (gray catbird), *Mimus polyglottos* (northern mockingbird), *Sturnus vulgaris* (European starling), *Melospiza melodia* (song sparrow), *Zonotrichia albicollis* (white-throated sparrow), *Cardinalis cardinalis* (northern cardinal), *Quiscalus quiscula* (common grackle), *Carpodacus mexicanus* (house

finch), *Carduelis tristis* (American goldfinch), and *Passer domesticus* (house sparrow).

Clearing within the existing right-of-way will occur to vegetated areas that are highly disturbed and that currently provide little to no suitable habitat for wildlife species. Therefore, impacts to wildlife are not expected to occur as a result of the project.

3.3.8. Aquatic Biota

Fish

The DNR Maryland Biological Stream Survey has developed a Fish Index of Biological Integrity (FIBI) that compares the fish community at a given site to reference fish communities in the least-impaired streams. Prince Georges County Department of Environmental Resources (PGDER) follows the DNR methods of sampling and analysis, consequently PGDER and DNR data are directly comparable.

Three sites in the study area were rated as good, two sites were rated as fair, and two sites were rated as poor. Overall, 41 species of fish have been

collected within the project study area since 2000 (Table 4). Twenty-seven percent of these species are regarded as pollution tolerant species and twenty-two percent of these species are considered to be pollution intolerant species. One species of game fish, largemouth bass was collected. Of the 41 species, four species, the American shad, American eel, striped bass, and sea lamprey, are regarded as migratory species.

Benthic Macroinvertebrates

The DNR has developed a Benthic Index of Biotic Integrity (BIBI) that compares the macroinvertebrate community within a given site to reference macroinvertebrate communities in a least-impaired stream. PGDER follows the DNR methods of sampling and analysis, so PGDER and DNR data are directly comparable.

All sites in the study area scored in the Poor or Fair range. The sites with the highest quality benthic communities in the study area were located in the Paint Branch. Generally, the benthic communities

Table 4: Fish Species Documented within Five Miles Upstream

Fish Species				
American eel (<i>Anguilla rostrata</i>)	Common carp (<i>Cyprinus carpio</i>)	Fathead minnow (<i>Pimephales promelas</i>)	Mummichog (<i>Fundulus heteroclitus</i>)	Striped bass (<i>Morone saxatilis</i>)
American shad (<i>Alosa sapidissima</i>)	Common shiner (<i>Luxilus cornutus</i>)	Gizzard shad (<i>Dorosoma cepedianum</i>)	Pumpkinseed (<i>Lepomis gibbosus</i>)	Swallowtail shiner (<i>Notropis procne</i>)
Banded killifish (<i>Fundulus diaphanus</i>)	Creek chub (<i>Semotilus atromaculatus</i>)	Golden redhorse (<i>Moxostoma erythrurum</i>)	Redbreast sunfish (<i>Lepomis auritus</i>)	Tessellated darter (<i>Etheostoma olmstedii</i>)
Blacknose dace (<i>Rhinichthys atratulus</i>)	Creek chubsucker (<i>Erimyzon oblongus</i>)	Eastern mosquitofish (<i>Gambusia holbrooki</i>)	Rosyside dace (<i>Clinostomus funduloides</i>)	White sucker (<i>Catostomus commersoni</i>)
Blue ridge sculpin (<i>Cottus caeruleomentum</i>)	Cutlips minnow (<i>Exoglossum maxillingua</i>)	Goldfish (<i>Carssius auratus</i>)	Satinfin shiner (<i>Cyprinella analostana</i>)	Yellow bullhead (<i>Ameiurus natalis</i>)
Bluegill (<i>Lepomis macrochirus</i>)	Eastern mosquitofish (<i>Gambusia holbrooki</i>)	Green sunfish (<i>Lepomis cyanellus</i>)	Sea lamprey (<i>Petromyzon marinus</i>)	
Bluntnose minnow (<i>Pimephales notatus</i>)	Eastern mudminnow (<i>Umbra pygmaea</i>)	Lepomis hybrid (<i>Lepomis sp</i>)	Silverjaw minnow (<i>Notropis buccatus</i>)	
Brown bullhead (<i>Ameiurus nebulosus</i>)	Eastern silvery minnow (<i>Hypognathus regius</i>)	Largemouth bass (<i>Micropterus salmoides</i>)	Spotfin shiner (<i>Cyprinella spilopterus</i>)	
Channel catfish (<i>Ictalurus punctatus</i>)	Fallfish (<i>Semotilus corporalis</i>)	Margined madtom (<i>Noturus insignis</i>)	Spottail shiner (<i>Notropis hudsonius</i>)	

Source: MDNR MBSS Database and PGDER Sampling

at these sites were comprised of taxa tolerant to urban conditions.

Physical Habitat

PGDER uses the United States Environmental Protection Agency's (EPA) Rapid Bioassessment Protocol for habitat scoring. Through extensive sampling, PGDER has developed habitat criteria specifically for streams within Prince George's County. The habitat assessment used by the DNR is specialized for the Coastal Plain physiographic province.

The DNR PHI rated five sites in the study area, the majority of the sites were rated as Partially Degraded to Severally Degraded. Within the Indian Creek subwatershed, the PGDER PHI rated a site as Supporting.

Impacts

Impacts to aquatic habitats and species will result from direct loss of habitat from proposed project infrastructure such as culvert and pipe extensions on tributaries to Northeast Branch of the Anacostia River and bridge pilings within the mainstem. Also, water quality degradation could potentially occur from the construction of these structures. Sediment and erosion control will be strictly adhered to in order to avoid negative effects associated with stormwater runoff. In accordance with the State's Use I time of year restrictions, no in-stream construction will be performed during the stream closure period from March 1st through June 15th. Due to the already degraded habitat and impaired aquatic communities, negative effects associated with the work will be minimal.

3.3.9. Rare, Threatened, and Endangered Species

The U.S. Fish and Wildlife Service (USFWS), Maryland DNR Wildlife and Heritage Service, National Marine Fisheries Service (NMFS), and the DNR Environmental Review Unit (DNR – ERU) were each requested to provide input on the presence of rare, threatened, and

endangered species in the vicinity of the project. Correspondence received from the USFWS, dated March 14, 2010, and from the DNR Wildlife and Heritage Service, dated December 19, 2009, indicates that there are no state- or federally-listed rare, threatened, or endangered (RTE) plant or animal species known to exist within the vicinity of the project area (**Appendix B**). In a letter dated October 26, 2010, the DNR-ERU commented that where yellow perch have been documented in the vicinity of an instream project, generally no in-stream work is permitted in Use I waters during the period of February 15th through June 15th, inclusive, during any year.² Finally, correspondence from the National Marine Fisheries Service (NMFS), dated January 13, 2011, indicates that no federally listed or proposed threatened or endangered species and/or designated critical habitat for listed species under the jurisdiction of the NMFS are known to occur in the Anacostia River or in the vicinity of this project.

Based on the coordination with these agencies, impacts to RTE species will not occur as part of this project because there are no known records of these species within the project area.

3.3.10. Chesapeake Bay Critical Area

The Maryland Chesapeake Bay Critical Area Protection Law gives special protection to areas that fall within 1,000 feet of tidal waters of the Chesapeake Bay and its tributaries. As shown in **Figure 6**, a portion of the study area is located within the Critical Area extending from approximately Lawrence Street to the northern study limits. This portion of the Critical Area is designated as an Intensely Developed Area (IDA).

Approximately 6,931 square feet (0.16 acres) of vegetation will be removed within the Critical Area, just north of the CSX crossing of the Northeast Branch of the Anacostia River to the ramp to US 1 north.

Development within the Critical Area is subject to review by the Chesapeake Bay Critical Area

Commission or the County in which the project occurs. Typical mitigation requires 10 percent reduction in phosphorous and mitigation planting for any vegetation disturbance within the Critical Area. This project will comply with all Critical Area regulations.

3.4. NOISE AND VIBRATION

3.4.1. Noise

Based on FTA's *Transit Noise and Vibration Impact Assessment*, noise created by trains can be affected by a number of attributes including: locomotive noise from passing trains; locomotive noise from standing trains awaiting clearance to move; the sounds of wheels rolling on rails; and the sound made by railroad/highway crossing bells used in conjunction with railroad crossing protection. As the number, speed and locomotive power requirements of trains traversing the area would not change as a result of this project, the sound currently created by moving trains would not change. The sound of standing trains, however, will change as a result of the project. Trains currently held at the JD and Riverdale Interlockings and at the Benning Yard Area for movement over the Alexandria Extension will be reduced as a result of this project. The area south of Tanglewood Avenue is a commercial/industrial area with held trains (and the idling locomotives) moving to this location. The area around the JD and Riverdale Interlockings is a residential area. Overall, the project will not increase noise levels to sensitive receptors in the study area and may in fact result in a reduced noise level in some areas.

3.4.2. Vibration

Vibrations caused by trains rolling over tracks can be affected by a number of physical attributes including: condition of wheels (roundness and flat spots); condition of track including rail surface imperfections and track surface irregularities; train speed; and volume of train traffic. As the number and speed of

trains and the condition of the train wheels traveling through this area will not be affected by this project, vibrations due to these factors will not change. The construction of the additional passing track will use new rail and new track materials. As a result, the vibrations created attributable to rail and track conditions will be, at worst, equal to the current situation. It is possible that the use of new track and materials could result in an improvement over the current situation.

3.5. AIR QUALITY

The JD to Jones Hill Double Tracking Project is located in the Hyattsville area of Prince George's County, Maryland (see **Figure 1**). The project proposes improvements to a two-mile stretch of railroad tracks on a four-mile section of tracks known as the Alexandria Extension. The improvements will occur between Decatur Street and Tuxedo Road and will include the construction of a second track, the shifting of the existing track, and the modification of the existing railroad bridge over the Northeast Branch of the Anacostia River.

Conformity

The JD to Jones Hill Double Tracking Project is included in the Maryland Department of Transportation's Consolidated Transportation Plan (CTP) for fiscal years 2010 through 2015 (**Appendix C**). The project is also included in the Metropolitan Washington Council of Government's FY 2011 – 2016 Transportation Improvement Program (TIP). In a report entitled *Air Quality Conformity Determination of the 2009 Constrained Long Range Plan and the FY2010 – 2015 Transportation Improvement Program for the Washington Metropolitan Region* dated November 17, 2010, a determination of conformity was made with respect to the requirements under the Clean Air Act.

Carbon Monoxide and 8-hour Ozone

EPA's *Guideline for Modeling Carbon Monoxide from Roadway Intersections* generally requires that

² As indicated by Table 4, yellow perch has not been documented in the vicinity of the project; therefore the applicable stream closure period would be from March 1st through June 15th.

all signalized intersections are reviewed for the potential to create an adverse air quality impact by either significantly increasing traffic or reducing roadway distances from receptors where the general public has access. Intersections analyzed to function at Level-of-Service of A, B, or C need not be considered because they do not have sufficient traffic volumes and delay to require further review.

The study area for this project currently crosses thirteen streets. Six of the existing crossings are grade-separated, while seven are at-grade. No improvements to any of the overpasses or underpasses at the six grade separated crossing are proposed under this project. The elimination of at-grade crossings is also not proposed as part of the project. The seven at-grade crossings are isolated, having no effect upon signalized intersections on the local roadway network. It is for this reason that a hot-spot analysis will not be performed for this project.

Double tracking, as proposed for the JD to Jones Hill Double Tracking Project, is among the operational strategies that can reduce emissions from freight transportation listed in FHWA's *Assessing the Effects of Freight Movement on Air Quality at the National and Regional Level* dated April 2005. An effective operational strategy to reduce locomotive emissions is to reduce idling. Locomotives may idle for as long as eight hours while cars are switched or while the train waits on a siding for other trains to pass. Idling may also be needed to keep the engine warm in cold weather and to keep accessories from freezing. However, locomotives are often kept idling even when there are no operational reasons to do so. EPA estimates that idling accounts for 60 percent of switch yard locomotive operating time and 12.5 percent of line-haul locomotive operating time.

Based upon the location of the rail crossings and the double tracking improvement described above, it is determined that the JD to Jones Hill Double Tracking Project meets the Clean Air Act and 40 CFR 93.109 requirements for CO and 8-hour

Ozone. These requirements are met without a hot-spot analysis because the project has not been found to be a project of air quality concern as defined under 40 CFR 93.123. The project will not cause or contribute to a new violation of the National Ambient Air Quality Standards (NAAQS) or increase the frequency or severity of an existing violation.

PM₁₀ and PM_{2.5}

Prince George's County, Maryland, is in the Washington, DC-MD-VA Particulate Matter (PM_{2.5}) nonattainment area. This area was designated as nonattainment for PM_{2.5} on January 5, 2005 by the EPA. This designation became effective on April 5, 2005, 90 days after EPA's published action in the Federal Register. Transportation conformity for the PM_{2.5} standards applied on April 5, 2006, after the one-year grace period provided by the Clean Air Act.

The EPA published its final revisions to the NAAQS for particulate matter on October 17, 2006. The rule requires the assessment of localized air quality impacts of federally-funded or approved transportation projects in PM₁₀ and PM_{2.5} nonattainment and maintenance areas deemed to be *projects of air quality concern*. Because the project will not cause or contribute to a new violation of the PM_{2.5} NAAQS, or increase the frequency or severity of an existing violation, it has not been found to be a project of air quality concern.

Based on review and analysis as discussed above, it is determined that the JD to Jones Hill Double Tracking Project meets the Clean Air Act and 40 CFR 93.109 requirements for particulate matter. These requirements are met without a hot-spot analysis because the project has not been found to be a project of air quality concern as defined under 40 CFR 93.123.

Mobile Source Air Toxics (MSAT) Analysis

FHWA's *Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents*,

dated September 30, 2009 requires analysis of Mobile Source Air Toxics (MSATs) under specific conditions. The JD to Jones Hill Double Tracking Project is considered in the category: “*Projects with No Meaningful Potential MSAT Effects or Exempt Projects*”, as described in the above referenced interim guidance. An example of this type of project is a project with no meaningful impacts on traffic volumes or vehicle mix.

MSATs are a subset of the 188 EPA identified hazardous air pollutants (HAPs). Some of the MSAT regulated compounds are present in fuel and are emitted in combustion or evaporative processes. Seven of the 21 MSATs were identified as “priority” MSATs in the Final Rule on Controlling Emissions of Hazardous Pollutants from Mobile Sources: benzene, diesel exhaust organic gas, formaldehyde, acetaldehyde, 1,3-butadiene, and acrolein (66 FR 17230). In the process of establishing this rule, the EPA also examined the impacts from projected mobile source control programs (reformulated gasoline, vehicle emission standards, fuel sulfur, and heavy duty vehicle emission controls) and determined that between 1999 and 2050, emissions from the seven priority MSATs would be reduced by 72 percent. This would occur despite a projected increase in vehicle miles traveled (VMT) of 145 percent.

Available technical tools do not enable us to predict the project-specific health impacts of the emission changes associated with the Build Alternative. Due to these limitations, the following discussion is included in accordance with Council on Environmental Quality regulations (40 CFR 1502.22(b)) regarding incomplete or unavailable information.

Evaluating the environmental and health impacts from MSATs would involve several key elements, including emissions modeling; dispersion modeling in order to estimate ambient concentrations resulting from the estimated emissions; exposure modeling in order to estimate human exposure to the estimated concentrations; and final determination

of health impacts based on the estimated exposure. Each of these steps is encumbered by technical shortcomings or uncertain science that prevents a more complete determination of the MSAT health impacts of this project.

The EPA tools to estimate MSAT emissions are not sensitive to key variables determining emissions of MSATs. The tools to predict how MSATs disperse are also limited. Even if emission levels and concentrations of MSATs could be accurately predicted, shortcomings in current techniques for exposure assessment and risk analysis preclude reaching meaningful conclusions about project-specific health impacts. Research into the health impacts of MSATs is ongoing. For different emission types, there are a variety of studies that show that some either are statistically associated with adverse health outcomes through epidemiological studies (frequently based on emissions levels found in occupational settings) or that animals demonstrate adverse health outcomes when exposed to large doses. The EPA is in the process of assessing the risks of various kinds of exposures to these pollutants.

The JD to Jones Hill Double Tracking Project will decrease locomotive engine idling times, but it will not have an effect on traffic volumes or signalized intersection delay. On the basis of having no meaningful impacts on traffic volumes or vehicle mix, this project is considered a project with no meaningful potential MSAT effects.

3.6. HAZARDOUS MATERIALS

A Phase I Environmental Site Assessment (ESA) was completed for the JD to Jones Hill Double Tracking Project. The purpose of the ESA was to identify, pursuant to the process prescribed in American Society for Testing and Materials (ASTM) E 1527-05, recognized environmental conditions (RECs) in connection with the study area.

The ESA consisted of a review of current and historic activities and conditions in the study area and on surrounding properties as well as the review of

local, state, and federal regulatory database records; review of available historic records; and a survey of adjacent land uses. An inspection of the right-of-way to be acquired for the project was also conducted.

The findings of the ESA indicate that there is evidence of RECs in the study area. Due to the previous and current land use, as well as the findings of the database records review, there is the potential for hazardous materials to be present within the study area. The RECs are summarized as follows:

- ▶ Routine railroad operations commonly use hazardous materials such as PCB oils, creosote compounds, and degreasers (CSX right-of-way).
- ▶ One Resource Conservation and Recovery Act - small quantity generator (RCRA-SQG) facility is located within the study area (Air Gas East property). This facility generates between 100 kg and 1,000 kg of hazardous waste per month. No violations associated with this facility were discovered.
- ▶ One property located within the study area was listed as having three Underground Storage Tanks (USTs) currently in use (Air Gas East property).
- ▶ One facility located within the study area was listed as storing ammonia (anhydrous), argon (refrigerated liquid), calcium carbide, calcium hydroxide, carbon dioxide, chlorine, nitrogen (refrigerated liquid), nitrous oxide, oxygen (refrigerated liquid), propane, sulfur dioxide, acetone, and acetylene (Air Gas East property). No violations associated with this facility were discovered.

The following historical RECs were also identified in the study area:

- ▶ Eight USTs containing hazardous materials were removed from the study area (R.W. Kibler, Inc. and Air Gas East properties). The associated MDE Oil Control Program (OCP) cases have been listed as closed.

- ▶ One property located within the study area was listed as a formerly investigated site by EPA (Air Gas East property). After investigating the site, EPA stated that residual contamination may exist onsite, but issued a No Further Requirements determination.
- ▶ One UST located within the study area was determined to be leaking. No active remediation was required; however, the monitoring wells onsite were being sampled. The status of the associated MDE OCP case has been listed as closed.

Although the above listed RECs were identified within the study area, only the following RECs were observed during the site inspection:

- ▶ Routine railroad operations commonly use hazardous materials such as PCB oils, creosote compounds, and degreasers (CSX right-of-way).
- ▶ One unidentified vent pipe associated with the rail line structure located within the CSX right-of-way (Air Gas East property).

Additional information regarding the RECs can be found in the report entitled *Phase I Environmental Site Assessment CSXT Alexandria Branch, Bladensburg Maryland*, which is available from the MTA upon request.

Based on the results of the Phase I ESA, it is recommended that if extensive cut and fill operations are to occur within the CSX right-of-way, surficial soil sampling should be performed to identify the nature and extent of any potential contamination that may exist as a result of leaking rail cars and routine CSX activities. It is also recommended that further investigation of the unidentified vent pipes observed along the CSX right-of-way would be prudent to identify their purpose and origin. Once the new information is obtained, these areas may no longer be considered RECs.

3.7. UTILITIES

Numerous public utilities are located throughout the study area for the JD to Jones Hill Double Tracking Project. These utilities include power lines, gas lines, telecommunication lines, water lines, and sewer lines. These utilities are located both above ground and below ground and in some locations cross the CSX-owned right-of-way that contains the Alexandria Extension. Since the proposed double tracking of the Alexandria Extension will occur within the existing rail corridor, there would be little relocation of utilities required. Temporary impacts to some utilities may occur during construction causing temporary disruptions in service. CSX will work with utility owners including the Potomac Electric Power Company (PEPCO), Washington Gas, Verizon, Comcast, Level 3 Communications, and the Washington Suburban Sanitary Commission, to complete the necessary construction and will minimize to the greatest extent possible the duration of service loss.

3.8. ENERGY

Energy consumed as a result of this project will consist of a combination of the energy needed to propel the diesel trains that will use a two-mile portion of the Alexandria Extension and the adjacent MARC Camden Line and the energy needed to realign the existing track, construct the proposed second track, and widen the existing bridge over the Northeast Branch. Since there are no current plans to increase the number of trains utilizing the Alexandria Extension, there will be no permanent increase in energy consumption as a result of this project. While a temporary increase in consumption may occur due to the energy needed to complete construction activities, this will be offset in the long term by the conservation of energy realized by eliminating the need for trains to sit idle on the MARC Camden Line while other trains clear the Alexandria Extension.

3.9. SAFETY AND SECURITY

The safety and security of the public is of particular importance for any transportation project. For a project such as the JD to Jones Hill Double Tracking Project, safety and security are evaluated in terms of the railroad's interaction with other traffic, including pedestrians, bicyclists, and vehicles.

The proposed double tracking of the CSX Alexandria Extension from JD to Jones Hill will occur within an already existing rail corridor. The majority of this corridor is located in areas behind local businesses and residences where few pedestrians walk and where bicycles and vehicles are not permitted. A portion of the corridor is also on an elevated structure, which is completely separated from all other traffic.

The only strictly pedestrian/bicycle facility that crosses the existing tracks is the Northeast Branch Trail. This existing track and the proposed second track will both be located on a bridge that crosses over the trail, thus separating the pedestrian/bicycle traffic from the rail traffic. Therefore, there is little risk of accidents involving pedestrian or bicycle traffic at this location.

Pedestrians and bicycles may also interact with rail traffic at at-grade intersections between the railroad and roadways where vehicular traffic also interacts with the rail traffic. This project will introduce a second track, thus making the interaction of train traffic with the pedestrian, bicycle, and vehicular traffic more complex as there will be the potential for two trains to be moving simultaneously past an intersection. Seven at-grade roadway intersections exist along this section of the Alexandria Extension (*see Table 3*). Of these seven intersections, five have signals. Two of those five intersections also have gates. The two intersections that do not have signals or gates have stop signs located at the rail crossing. Therefore, safety measures are currently in existence at each of these at-grade intersections which will minimize the risk of accidents involving pedestrians, bicyclists, or

vehicles at these locations. Furthermore, no new at-grade crossings are proposed as part of this project.

Although the project will add new track within this corridor, there are currently no plans to increase the volume of trains utilizing the Alexandria Extension. Therefore, there will be no associated increase in the risk of accidents due to greater volumes of rail traffic. In addition, this corridor carries only freight traffic. No passenger trains utilize these tracks and there are no passenger stations in the project area. Therefore, there are no concerns related to passenger security.

3.10. INDIRECT AND CUMULATIVE EFFECTS

In addition to the consideration of a project's "direct" impacts, the Council on Environmental Quality's (CEQ) regulations also require that the indirect and cumulative effects of a project be examined (40 CFR § 1508.25 (c)). Indirect effects are defined as, "Effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR § 1508.8(b)). Cumulative effects are defined as, "Impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (40 CFR § 1508.7).

The JD to Jones Hill Double Tracking Project will have minimal indirect and cumulative effects on project resources within the Indirect and Cumulative Effects (ICE) boundary due to the nature of the improvements proposed. The Double Tracking Alternative will reduce delays for commuters utilizing the MARC Camden Line and has the potential to allow increased freight movement along the Alexandria Extension, which could increase productivity for

surrounding businesses. The Double Tracking Alternative could also result in indirect impacts to water quality.

3.10.1. Resources Considered

Resources that will be directly impacted by the proposed alternative were first identified, since those resources are more likely to experience indirect or cumulative impacts. In addition, any resources that will experience indirect effects will also be considered in the ICE analysis. Resources considered in this ICE Analysis include social, and natural resources. Cultural resources are not expected to be directly or indirectly impacted as part of this project and, therefore, were not assessed.

3.10.2. Geographic Boundary

Indirect and cumulative effects are farther removed in distance from the project alternatives than direct impacts. Therefore, the geographic limits for the ICE analysis reach beyond the JD to Jones Hill Double Tracking Project study area. Since there are various factors that contribute to the geographic limit of the ICE analysis, the ICE boundary was established through a synthesis of resource sub-boundaries into one overall boundary (**Figure 7**). Although, census tracts and 12-digit subwatersheds were the primary sub-boundaries synthesized in developing the ICE boundary as they relate directly to the resources impacted, other sub-boundaries were considered in the analysis including: planning areas, priority funding areas, and traffic analysis zones.

3.10.3. Time Frames

The past time frame established for the ICE analysis for the JD to Jones Hill Double Tracking Project is 1970. The rationale for selecting 1970 as the initial year was based on capturing the resultant population growth that occurred between 1960 and 1970, which likely lead to the opening of the Capital Beltway (I-495) and the adoption of On Wedges and Corridors, A General Plan for the Maryland-Washington Regional District, which both occurred

in 1964. This growth was consistent with the migration trend at that time from Washington, D.C. to the outlying suburban areas. The year 1970 acts as a baseline for future trends in the county.

The future time frame was chosen based on the project's design year of 2030.

3.10.4. Indirect and Cumulative Effects on Land Use

The ICE boundary is completely contained within the Developed Tier of Prince George's County, which seeks to maintain suburban residential communities, distinct commercial centers and employment areas that are transit serviceable, while preserving and enhancing the natural environment. Based on 2002 GIS data, land use within the ICE boundary is dominated by commercial, residential, industrial or institutional development, which accounts for approximately 65 percent of land within the ICE boundary (MDP, 2002). The remaining 35 percent is made up of undeveloped land uses including open urban land, agriculture, forest, wetlands and water (MDP, 2002). Approximately, 16 percent of the undeveloped land uses within the ICE boundary are designated as parkland.

Based on past land use trends, developed land within the ICE boundary has decreased by five percent over time while undeveloped land uses have increased by five percent. According to Maryland Department of Planning land use/land cover data from 1973, developed land within the ICE boundary accounted for 70 percent of total land, while undeveloped land accounted for 30 percent during the past time frame (MDP, 1973). This is due to the large amount of natural features within the ICE boundary and the emphasis M-NCPPC has placed on implementing land use policies and strategies over the past 40 years to preserve, protect and enhance natural features throughout the county (M-NCPPC, 2002).

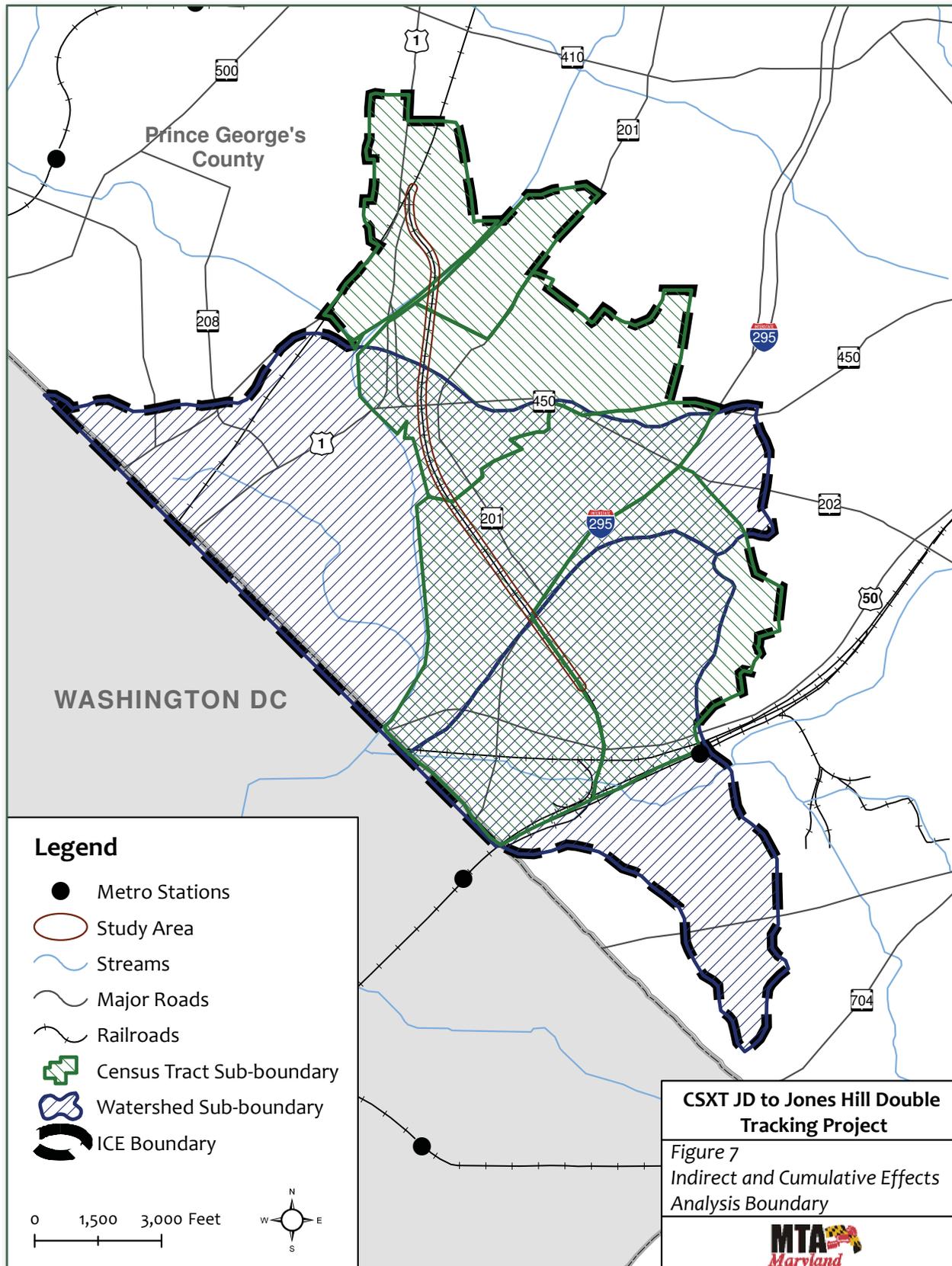
The Build Alternative will not indirectly change the pattern of land use or growth rates within the ICE boundary. The ultimate goal of adding a second track is to alleviate the current service delays.

These improvements are meant to improve current wait times for both the MARC Camden Line and Alexandria Extension; there are currently no plans to increase service on either line, such that induced growth or land use changes would occur in the vicinity.

Cumulative effects on land use from the past to present time frame have shown a slight decrease in development pressures over time. This trend will likely continue or remain the same into the future time frame based on M-NCPPC's sound land use policies and strategies protecting and enhancing natural features within this portion of the county. Examples include: protecting and enhancing green infrastructure, water quality, ecological function, and woodland, and by providing additional parkland to meet the needs of residents (M-NCPPC, 2002).

3.10.5. Indirect and Cumulative Effects on Socioeconomic Resources

In addition to direct impacts from the Double Tracking Alternative, indirect impacts to socioeconomic resources within the ICE boundary will occur as a result of the JD to Jones Hill Double Tracking Project; however, these impacts will be negligible. The Double Tracking Alternative will alleviate interruptions on the MARC Camden Line by providing a second track for trains using the Alexandria Extension to bypass one another and eliminate the need for trains to wait on the Camden Line for other trains to clear the Alexandria Extension. This will result in fewer delays for individuals traveling on the MARC Camden Line. Additionally, this will also allow for the eventual possibility of increased freight travel on the Alexandria Line, although no increase is currently proposed, which could result in increased productivity and delivery times for businesses utilizing this mode of transportation.



Visual impacts from the Double Tracking Alternative will alter views from surrounding neighborhoods and parks. Specific resources affected will include the 48th Avenue neighborhood, the Burlington Road neighborhood, Northeast Branch Trail and the Anacostia River Park. Although visual impacts will occur the changes in the visual environment will be consistent in character with the currently existing environment.

Along with direct and indirect impacts from the Double Tracking Alternative, there would also be the potential for cumulative effects to occur from other planned transportation or development projects which could have a negative effect on socioeconomic resources within the ICE boundary. However, compliance with environmental regulations would be required and could reduce impacts from transportation projects. Additionally, Prince George's County's land use policies and State Smart Growth laws will help to reduce the impacts from planned transportation and development projects in the ICE boundary during the future timeframe.

3.10.6. Indirect and Cumulative Effects on Natural Resources

In addition to direct impacts from the Double Tracking Alternative, indirect impacts to natural resources within the ICE boundary will occur as a result of the JD to Jones Hill Double Tracking Project. However, these impacts will be negligible. This is mostly due to the minimal direct impacts to natural resources coupled with the very urbanized nature of the area. In-stream work will be limited to adding four new bridge bents and the extension of several existing culverts. These alterations could have a minimal indirect impact on surface water and groundwater including increased runoff; however, best management practices, stormwater management and sediment and erosion control requirements will be adhered to in order to minimize impacts to these resources.

Along with direct and indirect impacts from the Double Tracking Alternative, there will also be the potential for cumulative effects to occur from other planned transportation or development projects which could have a negative effect on natural resources within the ICE boundary. Compliance with environmental regulations would be required and could reduce impacts from federally and state funded or approved projects. Additionally, other laws and regulations will help to reduce impacts from planned transportation and development projects within the ICE boundary that occur during the future timeframe including but not limited to local land use policies; Section 404 of the Clean Water Act; MDE's Section 401 Water Quality Certification; Prince George's County's Floodplain Management Ordinance; Maryland's Reforestation Law and Maryland's Forest Conservation Act.

3.11. Summary of Effects for the No Build Alternative

For each of the sections and resources included as headings and sub-headings in this chapter, the potential effects of the No Build Alternative were examined. The No Build Alternative will have no effect on those resources and topics because it will not alter the existing cultural, social or natural environments.

CHAPTER 4: SUMMARY OF PUBLIC INVOLVEMENT ACTIVITIES

4.1. PUBLIC INVOLVEMENT ACTIVITIES

Engaging the surrounding communities is an important step in the project planning process. The JD to Jones Hill Double Tracking Project is conducting several public involvement activities to share information with the public and to ensure that stakeholders are aware of opportunities to provide input and comment. Public involvement strategies will be geared toward increasing awareness about the project and promoting attendance at the public meeting that will occur after the official release of this EA. The purpose of the public meeting will be to obtain feedback and public input on the EA.

4.1.1. Field Observation

Field observation was conducted early in the project development process to identify stakeholders within the study area. The field observation indicated that stakeholders in the study area include businesses within industrial areas and along main corridors including Kenilworth Avenue and Annapolis Road, residents in neighborhoods surrounding the Alexandria Extension, and community facilities within the study area including parks and churches. The initial field observation aided in identifying areas where informational materials will be distributed later in the project.

4.1.2. Public Notice

A public notice will be placed in local and regional newspapers to announce the availability of the EA for public review and the date, time, and location of the public meeting.

4.1.3. Informational Materials

One of the public involvement strategies for the project will involve developing informational materials to ensure that residents, businesses, and other interested stakeholders are aware of the project and have an opportunity to comment throughout the process. The two informational pieces will include a door hanger and flyer. Following the publication of the public notice announcing the public meeting, the project team will conduct neighborhood canvassing to distribute the door hangers to residences throughout the study area. The flyers will be concurrently distributed to businesses within the study area. Both the door hangers and the flyers will feature information on the purpose of the project, a notice about the availability of the EA document for public review, and details on the public meeting. The pieces will encourage stakeholders to attend the public meeting, to review the EA document, to ask questions, and to provide comments.

4.1.4. Environmental Justice (EJ) Outreach

Potential EJ populations were identified within the study area (see Section 3.1.3.). For this project, these include potential minority neighborhoods. Public involvement activities for the project will include outreach to these areas. The locations of these potential EJ populations were noted during the initial field observation and identified through Census research. Door hangers will be distributed to homes and community facilities within the potential EJ areas during the neighborhood canvassing. Because there is evidence that one of the potential EJ areas may have a high concentration of Spanish-speaking people, the door hanger will be translated into Spanish. Copies of the Spanish-translated door hanger will be distributed throughout the identified limited-English proficiency (LEP) areas identified during the initial field observation. These areas include neighborhoods that have street signs with information in Spanish.

4.1.5. 2011 Public Meeting

A public meeting will be held following the official release of this EA at a location within the study area. The meeting will be an opportunity to share information with stakeholders about the project including the EA document and displays featuring environmental and community resources, plans for the proposed double tracking, and pictures of the study area. An important element of the meeting will also be gathering input from stakeholders. Project team members will be on-hand to discuss the project with members of the public in attendance and to answer questions and record comments. Those who attend will have the opportunity to provide comments verbally or via comment cards.

4.2. SUMMARY OF PUBLIC INPUT

All comments provided by stakeholders throughout the project will be reviewed, addressed, responded to, and summarized. The summary of public input will list the common themes among comments received from stakeholders. The summary will also identify how key issues were addressed by the project team based on the comments received from the public.

As part of the efforts of CSX to obtain a permit under Section 404 of the Clean Water Act and associated State authorizations, letters were sent to adjacent property owners informing them of the project. Several questions were received from property owners wishing to obtain additional information about the project and inquiring about the possible impacts to their properties. Information about the project will be provided to those property owners once the plans are further designed. In addition, the property owners will have the opportunity to attend the public meeting that will be held for the project.

REFERENCES

- Anacostia Watershed Restoration Partnership. 2009. Subwatershed Information. Accessed 10/14/2010 at: http://www.anacostia.net/Subwatershed/Northeast_Branch.html
- Brush, C. Lenk, J. Smith. 1976. Vegetation Map of Maryland: The Existing Natural Forests. Department of Geography and Environmental Engineering. The Johns Hopkins University. Baltimore, Maryland. Scale 1:250,000.
- Cleaves, E.T., J. Edwards, Jr., J.D. Glaser. 1968. Geologic Map of Maryland. Maryland Geological Survey. Baltimore, Maryland. Scale 1:250,000. Accessed 9/14/2010 at: <http://www.mgs.md.gov/esic/geo/pri.html>
- Environmental Protection Agency. Guideline for Modeling Carbon Monoxide from Roadway Intersections. November 1992.
- Federal Emergency Management Agency. Flood Insurance Rate Maps (FIRM) 2452080025C and 2452080040C, accessed 9/27/10 (http://www.msc.fema.gov/webapp/wcs/stores/servlet/CategoryDisplay?storeId=10001&catalogId=10001&langId=-1&categoryId=12001&parent_category_rn=12001&type=CAT_MAPPANEL&stateId=13027&countyId=14236&communityId=345260&stateName=MARYLAND&countyName=PRINCE+GEORGES+CO.&communityName=PRINCE+GEORGES+CO+*&dfirm_kit_id=&future=false&dfirmCatId=null&isCountySelected=&isCommSelected=&userType=G&urlUserType=G&sfc=0&cat_state=13027&cat_county=14236&cat_community=345260)
- Federal Transit Administration. *Transit Noise and Vibration Assessment*. May 2006
- Maryland Department of Assessments and Taxation. Real Property Data Search. (http://sdatcert3.resiusa.org/rp_rewrite/).
- Maryland Department of the Environment. 2010. Accessed on 10/14/2010 (<http://www.mde.state.md.us/index.asp>).
- Maryland Department of Natural Resources. Maryland Biological Stream Survey. 2010. Stream Data. Accessed on 10/14/2010 (<http://www.dnr.state.md.us/streams/mbss/>).
- Maryland Department of Transportation. Consolidated Transportation Plan: State Report on Transportation FY2010 – 2015.
- Maryland-National Capital Park and Planning Commission. PG Atlas Prince George's County GIS (<http://www.pgatlas.com/pgatlas/>).
- Maryland-National Capital Park and Planning Commission, Prince George's County Planning Department. Approved General Plan. 2002.
- Maryland Transit Administration. Phase I Environmental Site Assessment CSXT Alexandria Branch, Bladensburg, Maryland. 2011.
- Metropolitan Washington Council of Governments. FY2010 – 2015 Transportation Improvement Program.

- Metropolitan Washington Council of Governments. Air Quality Conformity Determination of the 2010 Constrained Long Range Plan and the FY 2011-2016 Transportation Improvement Program for the Washington Metropolitan Region. November 17, 2010.
- Prince George's County Department of Environmental Resources. Water Quality Data. 2007.
- Reger, J.P., E.T. Cleaves. 2008. Draft Physiographic Map of Maryland. Maryland Geological Survey. Baltimore, Maryland. Scale 1:250,000. Downloaded 9/14/2010 from: <http://www.mgs.md.gov/coastal/maps/physio.html>
- Trapp, H. and M.A. Horn. 1997. United States Geological Survey. Groundwater Atlas of the United States. HA 730-L. Accessed 10/7/10 at: http://pubs.usgs.gov/ha/ha730/ch_l/index.html
- United States Census Bureau. 2000 Census (<http://factfinder.census.gov/servlet/BasicFactsServlet>).
- United States Department of Agriculture, Natural Resource Conservation Service. Soils Data Mart. 2010. Accessed 9/14/10 at: <http://soildatamart.nrcs.usda.gov/>.
- United States Department of Transportation, Federal Highway Administration. Assessing the Effects of Freight Movement on Air Quality at the National and Regional Level. 2005.
- United States Department of Transportation, Federal Highway Administration. Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents. 1997.
- United States Environmental Protection Agency. Final Guidance for Incorporating Environmental Justice Concerns in NEPA Compliance Analyses. Washington: GPO, 1998.
- United States Department of Agriculture, Natural Resource Conservation Service. Web Soil Survey. 2010. Accessed 9/14/10 at: <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>.

Digital Data

- Priority Funding Areas, MD Department of Natural Resources, 1998
- Census Tracts, US Census Bureau, 2000
- Census Block Groups, US Census Bureau, 2000
- Present Land Use MD Office of Planning, 2002