

# 17 Environmental Justice

## 17.1 INTRODUCTION

This chapter presents an analysis of the potential effects of the CBD Tolling Alternative on low-income and minority populations (collectively, environmental justice populations) and provides an analysis of whether the Project would result in disproportionately high and adverse effects on low-income and minority populations. *[Appendix 17, “Environmental Justice,” provides more detailed information on the methodology used to conduct this analysis.]*

The analysis in this chapter is based on the conclusions of the other analyses presented in previous chapters of this EA, concerns raised during the extensive public outreach that FHWA *[, and on supplemental analysis contained in Appendix 17D, “Technical Memorandum,” that was developed by the Project Sponsors in response to some of those concerns].*

## 17.2 REGULATORY CONTEXT

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994), directs Federal agencies to identify and address, as appropriate, disproportionately high and adverse effects of Federal actions on minority and low-income populations. Its purpose is to focus Federal attention on the environmental and human health effects of Federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities. FHWA defines environmental justice as identifying and addressing disproportionately high and adverse effects of the agency’s programs, policies, and activities on minority populations and low-income populations to achieve an equitable distribution of benefits and burdens. This also includes the full and fair participation by all potentially affected environmental justice populations in the transportation decision-making process.<sup>1</sup>

The following Federal regulatory and guidance documents were used for the environmental justice analysis:

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 1994)<sup>2</sup>
- U.S. Department of Transportation (USDOT) Order 5610.2C, Department of Transportation Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (May 2021)<sup>3</sup>
- USDOT, Environmental Justice Strategy (November 2016)<sup>4</sup>

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<sup>1</sup> [https://www.fhwa.dot.gov/Environment/environmental\\_justice/](https://www.fhwa.dot.gov/Environment/environmental_justice/).

<sup>2</sup> <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>.

<sup>3</sup> <https://www.transportation.gov/sites/dot.gov/files/Final-for-OST-C-210312-003-signed.pdf>.

<sup>4</sup> <https://www.transportation.gov/transportation-policy/environmental-justice/environmental-justice-strategy>.

- FHWA Order 6640.23A, FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (June 2012)<sup>5</sup>
- FHWA, Guidance on Environmental Justice and the National Environmental Policy Act (NEPA) (December 2011)<sup>6</sup>
- FHWA, Environmental Justice Reference Guide (April 2015)<sup>7</sup>
- Federal Interagency Working Group on Environmental Justice & NEPA Committee, Promising Practices for Environmental Justice Methodologies in NEPA Reviews (March 2016)<sup>8</sup>

## 17.3 METHODOLOGY

### 17.3.1 Overview

This chapter evaluates the potential for disproportionately high and adverse effects to environmental justice populations, consistent with FHWA's 2011 *Guidance on Environmental Justice and NEPA*, USDOT Order 5610.2C, and FHWA Order 6640.23A. FHWA and the Project Sponsors conducted extensive public outreach, including outreach targeted to environmental justice populations, during preparation of the EA. The following methodology was used to conduct the environmental justice analysis:

1. Review Project effects to identify appropriate study areas for analysis of environmental justice (**Section 17.4**).
2. Identify existing minority and low-income (environmental justice) populations in the study areas (**Section 17.5**).
3. Determine whether the Project would result in beneficial and/or adverse effects on the identified environmental justice populations. This includes consideration of measures to avoid, minimize, and/or mitigate any adverse effects of the Project as well as potential offsetting benefits to the affected environmental justice populations (**Section 17.6**). Input from environmental justice populations regarding potential issues of concern and mitigation measures is an important part of this step.
4. *[After accounting for mitigation and enhancement commitments made to address adverse effects,]* identify whether the Project would result in disproportionately high and adverse effects on environmental justice populations (**Section 17.7**). These are effects that would be predominately borne by environmental justice populations or are appreciably more severe or greater in magnitude on environmental justice populations than the adverse effect suffered by the non-minority or non-low-income population.
5. If disproportionately high and adverse effects on environmental justice populations are anticipated *[despite mitigation and enhancement commitments]*, evaluate whether there is a further practicable

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<sup>5</sup> <https://www.fhwa.dot.gov/legisregs/directives/orders/664023a.cfm>.

<sup>6</sup> [https://www.environment.fhwa.dot.gov/env\\_topics/ej/guidance\\_ejustice-nepa.aspx](https://www.environment.fhwa.dot.gov/env_topics/ej/guidance_ejustice-nepa.aspx).

<sup>7</sup> [https://www.fhwa.dot.gov/environment/environmental\\_justice/publications/reference\\_guide\\_2015/index.cfm](https://www.fhwa.dot.gov/environment/environmental_justice/publications/reference_guide_2015/index.cfm).

<sup>8</sup> The Project Sponsors reviewed this document in developing the analysis but used the guidance set forth in FHWA's 2011 Environmental Justice and NEPA. [https://www.epa.gov/sites/production/files/2016-08/documents/nepa\\_promising\\_practices\\_document\\_2016.pdf](https://www.epa.gov/sites/production/files/2016-08/documents/nepa_promising_practices_document_2016.pdf).

mitigation measure or practicable alternative that would avoid or reduce the disproportionately high and adverse effects.

6. Provide meaningful opportunities for environmental justice populations to provide input on the Project (Section 17.[9]).

### 17.3.2 Data Sources

The environmental justice analysis is based on the conclusions of the other chapters of this EA, in combination with supplemental data on environmental conditions and information from the U.S. Census Bureau, as follows:

- Information on the effects of the CBD Tolling Alternative is based on the conclusions of the other analyses presented in this EA. These conclusions were informed, in part, by concerns raised by the public during early public outreach for the Project in fall 2021.
- Areas where residents are minority and/or low-income were identified using data from the U.S. Census Bureau 2015-2019 American Community Survey (ACS) 5-Year Estimates. The 2015–2019 ACS 5-Year Estimates is the most current full set of demographic information, including racial and ethnic characteristics and household income and poverty status, available from the U.S. Census Bureau at the census tract level. The 2020 Census information now available does not include a full set of information.
- Socioeconomic characteristics of the traveling public, including minority and/or low-income populations, were based on data from the U.S. Census Bureau’s Census Transportation Planning Package (CTPP). The CTPP provides special tabulations, based on the U.S. Census Bureau ACS 5-Year Estimates, that are useful for transportation planning, including commuter flow data at varying geographic scales by mode of commute and household income. The CTPP data include information on commuter patterns for a range of income levels. The most recent CTPP is based on the 2012-2016 ACS 5-Year Estimates and has not been updated to reflect more recent ACS data.
- *[Supplemental analyses prepared following completion of the August 2022 EA of potential Project-related effects of traffic increases on environmental justice populations that already have high levels, compared to national norms, of pre-existing pollutant or chronic disease burdens.]*
- Conclusions about the effects of the CBD Tolling Alternative on low-income and/or minority populations and potential measures to avoid, minimize, or mitigate those effects were informed by the early public outreach for the Project in fall 2021 *[, public comments on the August 2022 EA, and additional outreach following publication of the August 2022 EA related to the supplemental analyses conducted]*. That outreach included public webinars to engage with environmental justice populations throughout the 28-county region, coordination with an Environmental Justice Technical Advisory Group, and meetings with an Environmental Justice Stakeholder Working Group (see Section 17.[9]).

## 17.4 ENVIRONMENTAL JUSTICE STUDY AREAS

The environmental justice analysis evaluates two types of potential effects of the CBD Tolling Program, neighborhood effects and regional effects:

- **Local (Neighborhood) Effects:** These are effects on local communities. Based on the conclusions of the other chapters of this EA, the potential neighborhood effects of the CBD Tolling Alternative would be primarily related to diverted trips and changes in traffic patterns, and the potential resulting effects in terms of traffic congestion, air emissions, and noise.
- **Regional Effects:** These are effects on regional mobility. The analysis considers how implementation of the CBD Tolling Alternative would affect the regional population in terms of increased costs (tolls), changes in trip time, and changes in transit conditions.

The information presented in **Chapters 4 through 15** of this EA and summarized in **Chapter 16, “Summary of Effects”** (see **Table 16-1**) describe the local and regional effects of implementation of the CBD Tolling Alternative on the general population and identify potential adverse effects and measures to avoid, minimize, or mitigate those effects. FHWA and the Project Sponsors reviewed those conclusions as well as concerns raised during public outreach for the Project to determine what Project effects have the potential to affect environmental justice populations. This informed selection of study areas for the environmental justice analysis, as discussed in **Sections 17.4.1 and 17.4.2**, and the topics to be considered in the analysis (see **Section 17.6**).

In addition, during public outreach conducted for the Project in fall 2021 (see **Section 17.9**), members of the public raised a number of concerns related to the Project’s potential for effects on environmental justice populations, and FHWA and the Project Sponsors reviewed those concerns and included them in the analysis of environmental justice presented in this chapter:

- **Potential Project Effects on Traffic, Air Quality, and Noise Near Environmental Justice Neighborhoods:** Participants in public webinars and meetings of the Environmental Justice Stakeholder Working Group and Environmental Justice Technical Advisory Group raised concerns that the CBD Tolling Alternative would divert traffic to circumferential highways around the Manhattan CBD and that these additional vehicles would adversely affect the nearby neighborhoods, including by degrading air quality and increasing noise. Participants also commented that the Project would affect local traffic volumes and potentially air quality and noise, in environmental justice neighborhoods, including on the Lower East Side in the Manhattan CBD and in the South Bronx outside the Manhattan CBD. **Section 17.6.1** of this chapter presents the results of the detailed analysis the Project Sponsors conducted of these issues (see **Sections 17.6.1.1, 17.6.1.2, 17.6.1.3, and 17.6.1.4**).

In response to comments during the fall 2021 outreach, the Project Sponsors expanded the analyses of traffic, air quality, and noise to include additional locations in environmental justice neighborhoods where concerns were raised, more detailed evaluation of changes in truck volumes on highways and local roadways, and more detailed evaluation of air pollutants of concern in the air quality evaluation. In addition, the Project Sponsors added a tolling scenario for analysis throughout the EA, Tolling Scenario G, to evaluate opportunities for reducing truck diversions that would result from the CBD Tolling Alternative.

*[Following publication of the EA in August 2022, in response to comments received during the public comment period on the EA and input from the Environmental Justice Technical Advisory Group, the*

*Project Sponsors conducted additional analysis related to the effects of traffic increases due to the CBD Tolling Alternative (see Section 17.6.1.3).]*

- **Potential Effects of the Project on Bus Ridership:** Participants in the early outreach commented that the Project has the potential to overburden local bus service as people shift from automobile to public transportation to avoid the toll. The EA includes a detailed analysis of the effects of the Project on public transportation ridership throughout the region, including on bus routes that serve environmental justice neighborhoods. **Section 17.6.1.5** provides information on the results of the analysis.
- **Potential for Indirect Displacement of Low-Income Residents in the Manhattan CBD:** The Environmental Justice Technical Advisory Group raised concerns about the potential involuntary displacement of environmental justice populations. They stated a concern that the CBD Tolling Alternative would attract new middle- and upper-income residents to the Manhattan CBD because of its proximity to transit and reduced vehicle congestion, allowing the new residents to avoid paying the toll. Commenters believed that this would put upward pressure on rents, forcing low-income residents to move to more affordable locations outside the Manhattan CBD. They also expressed concern about the potential increase in the cost of goods for Manhattan CBD and how this might affect the cost of living for low-income residents in the Manhattan CBD (see the next item in this discussion). **Section 17.6.1.8** provides an analysis of the potential for indirect displacement.
- **Potential Effects on the Cost of Goods in the Manhattan CBD:** During public outreach for the Project related to environmental justice, the Environmental Justice Technical Advisory Group raised concerns about the potential for the introduction of a new CBD toll to affect the price of consumer goods in the Manhattan CBD if the costs of new tolls on commercial vehicles would be passed on to customers. **Section 17.6.1.9** provides summarizes the conclusions related to this issue.
- **Increased Cost of Travel to the Manhattan CBD for Low-Income Drivers:** Speakers at the environmental justice webinars and members of the Environmental Justice Technical Advisory Group and Environmental Justice Stakeholder Working Group expressed concerns about increased costs for low-income drivers traveling to the Manhattan CBD. This included concerns related to potential adverse effects on community cohesion and access to the Manhattan CBD as well as the effect of increased costs for low-income drivers who commute to work in the Manhattan CBD. See **Section 17.6.2.1**.

#### 17.4.1 Local Study Area

Based on the review of Project effects identified in other chapters of the EA, most of the potential effects of the CBD Tolling Alternative on environmental justice populations would be local effects. **Appendix 17, “Environmental Justice,”** provides more detail on the conclusions of the EA and how issues were evaluated for consideration in this environmental justice analysis. To evaluate the local effects on environmental justice populations, the Project Sponsors used a 10-county local study area consisting of New York City and the five adjacent counties where the greatest change in traffic volumes and vehicle-miles traveled (VMT) are predicted to occur (**Figure 17-1**). This local study area is the area where localized effects (such as changes in traffic volumes, air emissions, or noise) would occur as a result of the Project. This 10-county study area includes the following:

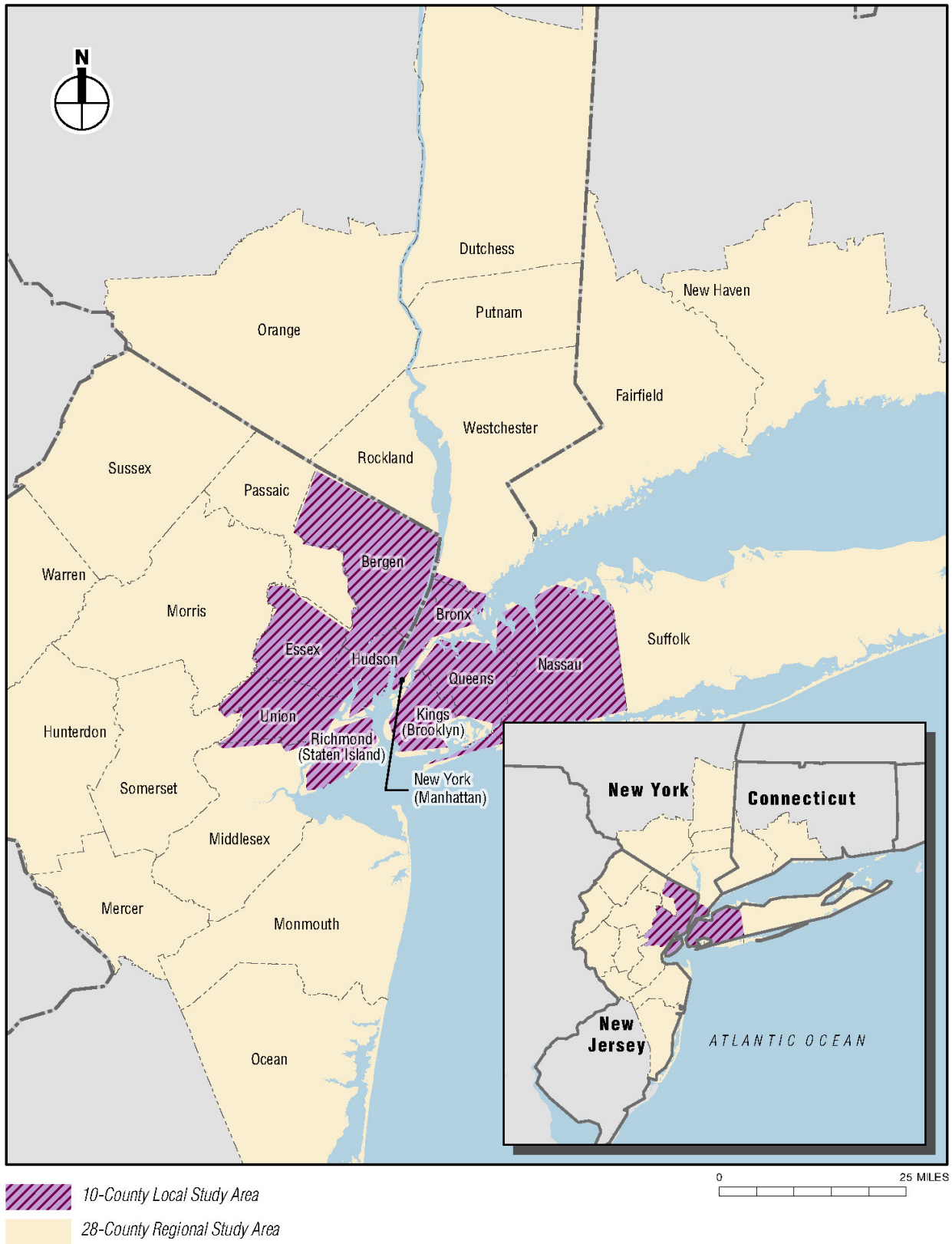
- Bronx County, New York
- Kings County (Brooklyn), New York
- New York County (Manhattan), New York
- Queens County, New York
- Richmond County (Staten Island), New York
- Nassau County, New York
- Bergen County, New Jersey
- Essex County, New Jersey
- Hudson County, New Jersey
- Union County, New Jersey

#### 17.4.2 Regional Study Area

For consideration of the effects of the new toll on people who travel throughout the region, the Project Sponsors used a larger, regional study area (see **Figure 17-1**). The regional study area is the main catchment area for trips to and from the Manhattan CBD and the area where changes in travel patterns and mobility would occur. The 28-county regional study area, which is the same regional study area used in other chapters of the EA, includes the following:

- New York City (Bronx, Kings [Brooklyn], New York [Manhattan], Queens, and Richmond [Staten Island] Counties)
- Long Island (Nassau and Suffolk Counties)
- New York counties north of New York City (Dutchess, Orange, Putnam, Rockland, and Westchester)
- New Jersey counties (Bergen, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and Warren)
- Connecticut counties (Fairfield and New Haven)

Figure 17-1. Environmental Justice Study Areas



Source: ArcGIS Online, <https://www.arcgis.com/index.html>.

## 17.5 EXISTING MINORITY AND LOW-INCOME POPULATIONS IN THE ENVIRONMENTAL JUSTICE STUDY AREAS

### 17.5.1 Defining Minority and Low-Income Populations

USDOT Order 5610.2C and FHWA Order 6640.23A define minority and low-income populations as follows:

- **Minority:** A person who is Black or African American (not Hispanic), American Indian *[or]* Alaskan Native, Asian American, Native Hawaiian or other Pacific Islander, and Hispanic or Latino. This analysis also includes people who identified themselves as “some other race” or “two or more races” in the U.S. Census. In addition, *minority population* is any readily identifiable groups of minority persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons who will be similarly affected by a proposed FHWA program, policy, or activity.
- **Low-Income:** A person whose household income is at or below the U.S. Department of Health and Human Services poverty guidelines.<sup>9</sup> In addition, a *low-income population* is any readily identifiable groups of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons who will be similarly affected by a proposed FHWA program, policy, or activity.

For the analysis of the local (neighborhood) study area, the following approach was used to identify minority and low-income populations (for more information, see **Appendix 17, “Environmental Justice”**):

- Census tracts in the local study area were considered to be **minority** when either: (1) at least 50 percent of the census tract’s population identifies as minority; or (2) the percentage of population identifying as minority in the census *[tract]* exceeds the share of minority population in the county where that census tract is located.
- Census tracts in the local study area were considered to be **low-income** when the percentage of individuals with household incomes up to twice the Federal poverty threshold in the census tract was higher than that percentage for the 28-county region.<sup>10</sup> The Project Sponsors in consultation with FHWA identified this income threshold, rather than using the lower Federal poverty threshold, to reflect local conditions and the cost of living in the study area (see **Appendix 17, “Environmental Justice,”** for more information).

For evaluation of the potential effects on people who travel throughout the region (i.e., commuters, travelers, or individuals in specific industries, businesses, or other groups that could be affected by increased cost associated with accessing the Manhattan CBD), the following approach was used to identify minority and low-income populations:

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<sup>9</sup> The analysis for this Project used information related to the annual poverty threshold established by the U.S. Census Bureau rather than the U.S. Department of Health and Human Services poverty guidelines. The Health and Human Services poverty guidelines are a simplified version of those Federal poverty thresholds that are used for administrative purposes—for instance, determining financial eligibility for certain Federal programs.

<sup>10</sup> For this analysis, the Project Sponsors used data from the U.S. Census on the number of individuals in each census tract with household incomes up to 1.99 times the Federal poverty threshold. For simplicity, this chapter refers to that information as twice the Federal poverty threshold.



- **Minority** populations who commute to work in the Manhattan CBD were identified based on census information available in the CTPP.
- **Low-income** populations who commute to work in the Manhattan CBD were identified based on information available in the CTPP related to worker flows by mode and household income. A household income threshold of \$50,000 was used to identify low-income drivers, since no data are available on workers who have household incomes of up to twice the poverty threshold. This is approximately equivalent to, although higher than, the low-income threshold of twice the Federal poverty threshold for a three-person family, consistent with the average household size for the Project study area of 2.8 people per household.<sup>11</sup>

### 17.5.2 Environmental Justice Populations in the Local Study Area

The local study area includes the Manhattan CBD and the surrounding area that is most likely to be affected by changes in traffic volumes resulting from the CBD Tolling Alternative.

Approximately 617,00 residents live in the Manhattan CBD, with a wide range of income levels and racial and ethnic characteristics. The Manhattan CBD includes a number of different neighborhoods, which the New York City Department of City Planning combines together into neighborhood groupings for analysis purposes. These are illustrated in **Figure 17-2**. As shown in **Figure 17-2**, the Manhattan CBD includes areas with environmental justice census tracts, generally located in the Chinatown, Lower East Side, and Clinton neighborhoods, with additional tracts in other neighborhoods.

Outside the Manhattan CBD, the rest of the local study area includes more than 300 different neighborhoods and local communities. **Figure 17-3** provides an overview of the local study area and **Appendix 17, “Environmental Justice,”** provides additional, more detailed maps and information for each of these neighborhoods. As **Figure 17-3** illustrates, most census tracts in the area immediately surrounding the Manhattan CBD are environmental justice census tracts. **Table 17-1** provides a summary of the population characteristics of the local study area.

### 17.5.3 Environmental Justice Populations in the Regional Study Area

#### 17.5.3.1 Regional Overview

Minority and low-income populations live throughout the regional study area, which consists of 28 counties around and including New York City. As shown in **Figure 17-4**, environmental justice census tracts are predominantly located close to New York City in the area that constitutes the local study area. **Table 17-2** shows the population characteristics of the regional study area.

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<sup>11</sup> The average household size is 2.8 people per household in New York City, the 10-county study area, and the 28-county regional study area.

Table 17-1. Population Characteristics of the Local Study Area

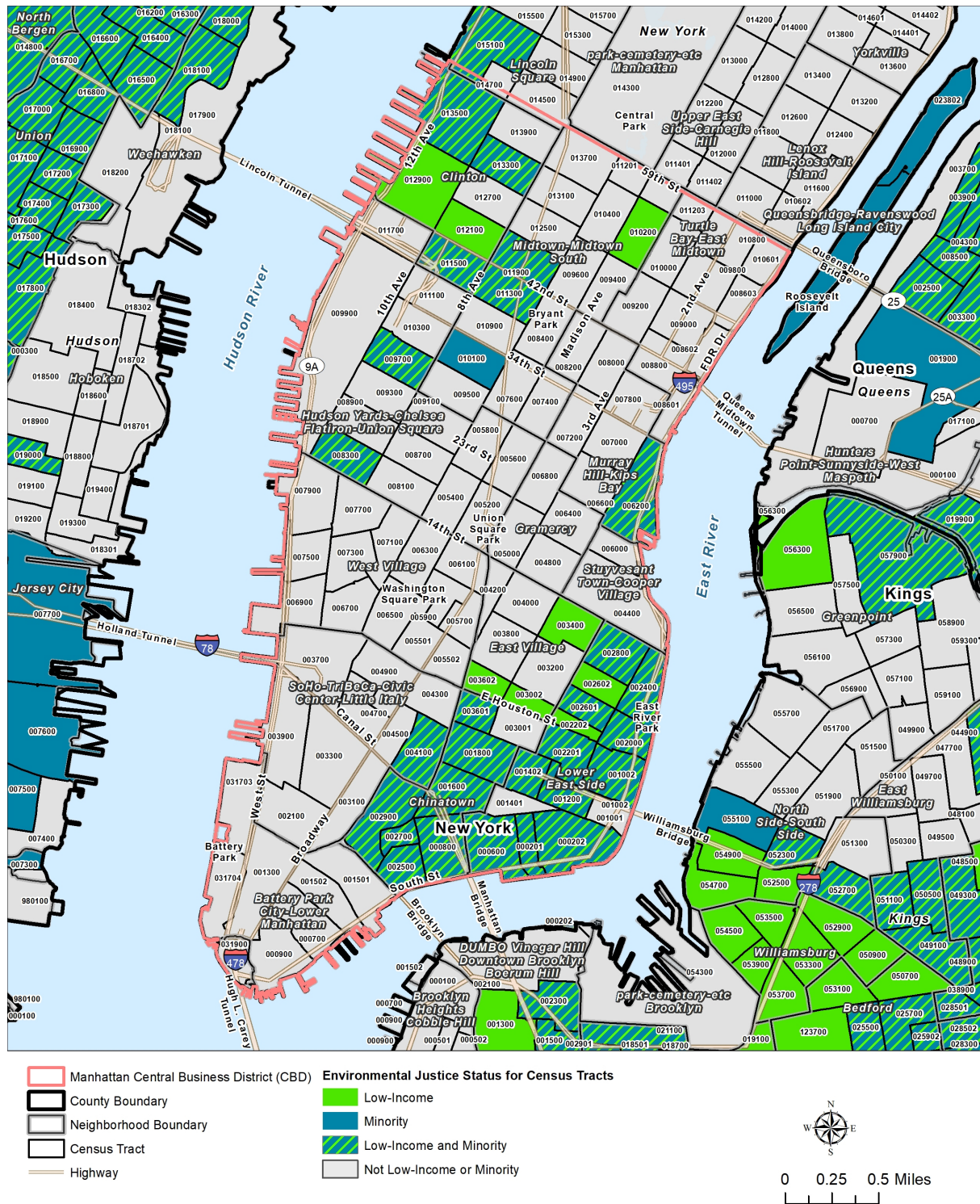
GEOGRAPHIC AREA	TOTAL POPULATION	ASIAN (NON-HISPANIC)	BLACK (NON-HISPANIC)	OTHER (NON-HISPANIC)	HISPANIC OR LATINO	WHITE (NON-HISPANIC)	% MINORITY	% LOW-INCOME
Bronx County	1,435,068	3.6%	29.2%	2.0%	56.0%	9.1%	90.9%	51.0%
Kings County (Brooklyn)	2,589,974	11.8%	30.0%	2.8%	19.0%	36.4%	63.6%	39.1%
New York County (Manhattan)	1,631,993	12.1%	12.5%	2.7%	25.8%	46.9%	53.1%	28.9%
Queens County	2,287,388	25.3%	17.2%	4.4%	28.0%	25.0%	75.0%	31.0%
Richmond County (Staten Island)	474,893	9.2%	9.4%	2.0%	18.4%	61.0%	39.0%	23.0%
Nassau County	1,356,509	9.6%	11.1%	2.4%	16.9%	60.0%	40.0%	14.5%
Bergen County	930,390	16.2%	5.3%	2.0%	19.9%	56.6%	43.4%	16.1%
Essex County	795,404	5.3%	38.4%	2.7%	23.0%	30.5%	69.5%	33.3%
Hudson County	670,046	15.0%	10.5%	2.6%	43.1%	28.8%	71.2%	32.8%
Union County	554,033	5.0%	20.1%	3.8%	31.6%	39.5%	60.5%	24.8%
<b>TOTAL</b>	<b>12,725,698</b>	<b>1,628,214 (12.8%)</b>	<b>2,525,656 (19.8%)</b>	<b>365,709 (2.9%)</b>	<b>3,509,208 (27.6%)</b>	<b>4,696,911 (36.9%)</b>	<b>63.1%</b>	<b>31.4%</b>

Source: U.S. Census Bureau, ACS 2015–2019 5-Year Estimates.

Notes:

1. Percentages may not add to 100 percent due to rounding.
2. Other includes the census categories of American Indian and Alaska Native, Native Hawaiian or other Pacific Islander, Some Other Race, and Two or More Races. People of any race may also be Hispanic.
3. Total minority percentage consists of all population other than non-Hispanic White people.
4. Low-income population is population with annual household incomes of up to twice (1.99 times) the Federal poverty threshold.

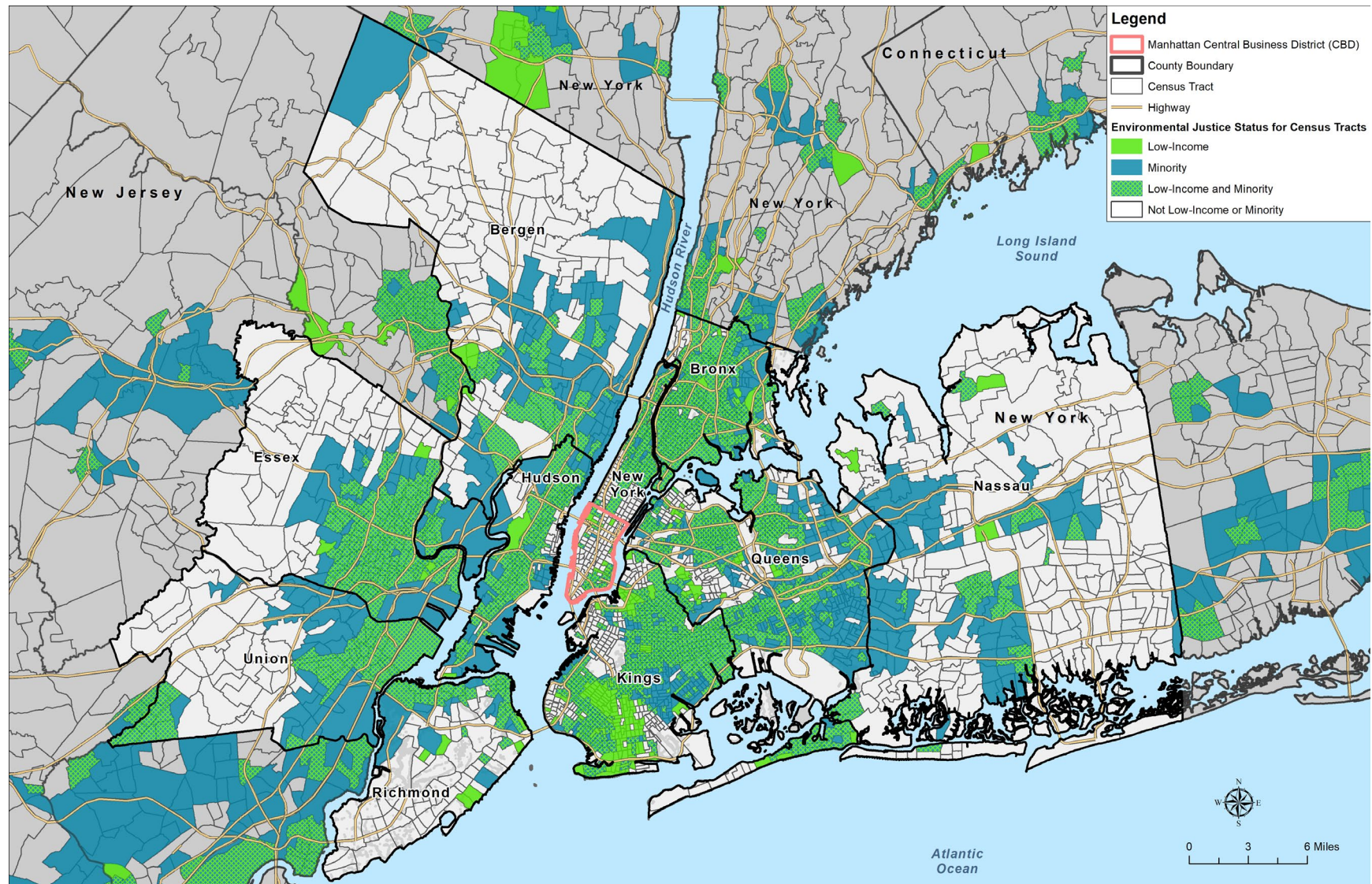
Figure 17-2. Environmental Justice Census Tracts in the Manhattan CBD



Source: U.S. Census Bureau ACS 2015–2019 5-Year Estimates.

[Note: For an audio description, please go to the following link: <https://youtu.be/VdJt3LrAFng>.]

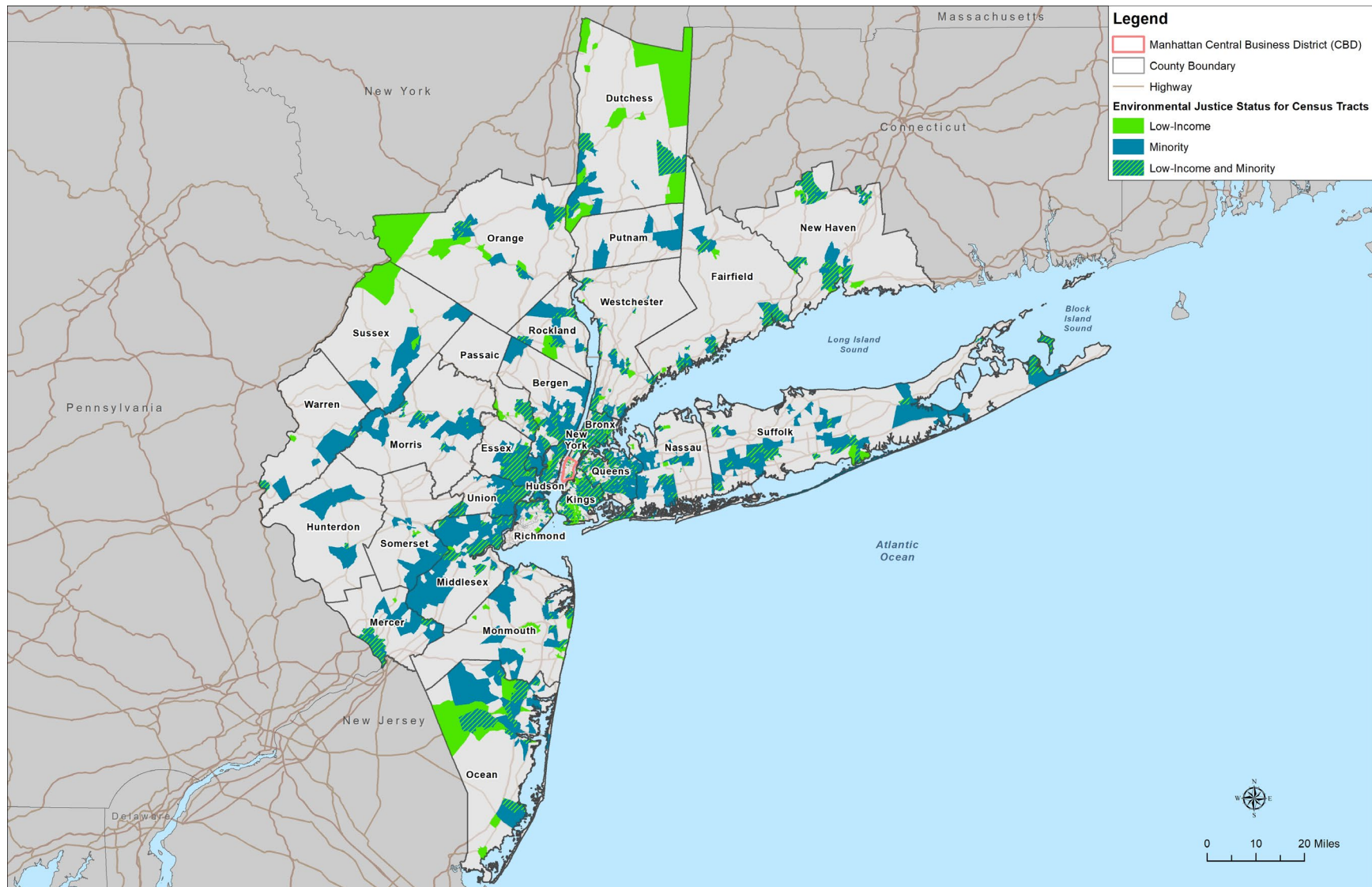
Figure 17-3. Environmental Justice Census Tracts in the Local Study Area



Source: U.S. Census Bureau ACS 2015–2019 5-Year Estimates.

[Note: For an audio description, please go to the following link: <https://youtu.be/F2veub1A24E>.]

Figure 17-4. Environmental Justice Census Tracts in the Regional Study Area



Source: U.S. Census Bureau ACS 2015–2019 5-Year Estimates.

[Note: For an audio description, please go to the following link: <https://youtu.be/xTYWedliraY>.]

Table 17-2. Population Characteristics of the Regional Study Area

GEOGRAPHIC AREA	TOTAL POPULATION	ASIAN (NON-HISPANIC)	BLACK (NON-HISPANIC)	OTHER (NON-HISPANIC)	HISPANIC OR LATINO	WHITE (NON-HISPANIC)	% MINORITY	% LOW-INCOME
<b>New York City</b>	<b>8,419,316</b>	<b>1,176,762 (14.0%)</b>	<b>1,837,549 (21.8%)</b>	<b>254,857 (3.0%)</b>	<b>2,447,862 (29.1%)</b>	<b>2,702,286 (32.1%)</b>	<b>67.9%</b>	<b>36.0%</b>
Bronx County	1,435,068	3.6%	29.2%	2.0%	56.0%	9.1%	90.9%	51.0%
Kings County (Brooklyn)	2,589,974	11.8%	30.0%	2.8%	19.0%	36.4%	63.6%	39.1%
New York County (Manhattan)	1,631,993	12.1%	12.5%	2.7%	25.8%	46.9%	53.1%	28.9%
Queens County	2,287,388	25.3%	17.2%	4.4%	28.0%	25.0%	75.0%	31.0%
Richmond County (Staten Island)	474,893	9.2%	9.4%	2.0%	18.4%	61.0%	39.0%	23.0%
<b>Long Island Counties</b>	<b>2,840,341</b>	<b>187,841 (6.6%)</b>	<b>258,946 (9.1%)</b>	<b>61,423 (2.2%)</b>	<b>515,858 (18.2%)</b>	<b>1,816,273 (63.9%)</b>	<b>36.1%</b>	<b>15.6%</b>
Nassau County	1,356,509	9.6%	11.1%	2.4%	16.9%	60.0%	40.0%	14.5%
Suffolk County	1,483,832	3.9%	7.3%	2.0%	19.3%	67.6%	32.4%	16.7%
<b>New York Counties North of New York City</b>	<b>2,065,938</b>	<b>98,893 (4.8%)</b>	<b>236,310 (11.4%)</b>	<b>50,928 (2.5%)</b>	<b>424,962 (20.6%)</b>	<b>1,254,845 (60.7%)</b>	<b>39.3%</b>	<b>22.3%</b>
Dutchess County	293,754	3.5%	9.8%	3.0%	12.2%	71.5%	28.5%	21.4%
Orange County	380,085	2.7%	10.0%	2.6%	20.5%	64.2%	35.8%	25.8%
Putnam County	98,787	2.0%	2.7%	1.5%	15.0%	78.7%	21.3%	12.7%
Rockland County	324,422	5.9%	11.3%	2.0%	17.7%	63.1%	36.9%	28.3%
Westchester County	968,890	5.9%	13.4%	2.5%	24.7%	53.5%	46.5%	20.2%
<b>New Jersey Counties</b>	<b>7,060,811</b>	<b>749,331 (10.6%)</b>	<b>856,041 (12.1%)</b>	<b>155,823 (2.2%)</b>	<b>1,546,228 (21.9%)</b>	<b>3,753,388 (53.2%)</b>	<b>46.8%</b>	<b>22.5%</b>
Bergen County	930,390	16.2%	5.3%	2.0%	19.9%	56.6%	43.4%	16.1%
Essex County	795,404	5.3%	38.4%	2.7%	23.0%	30.5%	69.5%	33.3%
Hudson County	670,046	15.0%	10.5%	2.6%	43.1%	28.8%	71.2%	32.8%
Hunterdon County	124,823	4.1%	2.4%	1.4%	6.5%	85.5%	14.5%	10.7%
Mercer County	367,922	11.1%	19.8%	1.8%	17.5%	49.7%	50.3%	25.0%
Middlesex County	825,920	23.9%	9.5%	2.3%	21.2%	43.1%	56.9%	19.4%
Monmouth County	621,659	5.4%	6.7%	1.9%	10.8%	75.2%	24.8%	16.3%
Morris County	493,379	10.3%	3.2%	1.9%	13.3%	71.4%	28.6%	12.4%

Table 17-2. Population Characteristics of the Regional Study Area

GEOGRAPHIC AREA	TOTAL POPULATION	ASIAN (NON-HISPANIC)	BLACK (NON-HISPANIC)	OTHER (NON-HISPANIC)	HISPANIC OR LATINO	WHITE (NON-HISPANIC)	% MINORITY	% LOW-INCOME
Ocean County	596,415	1.8%	2.8%	1.5%	9.2%	84.7%	15.3%	24.8%
Passaic County	503,637	5.1%	10.4%	1.6%	41.5%	41.3%	58.7%	32.8%
Somerset County	329,838	17.6%	9.2%	2.2%	14.7%	56.3%	43.7%	12.1%
Sussex County	141,483	2.0%	2.1%	1.3%	8.2%	86.3%	13.7%	13.6%
Union County	554,033	5.0%	20.1%	3.8%	31.6%	39.5%	60.5%	24.8%
Warren County	105,862	2.7%	4.4%	2.0%	9.3%	81.7%	18.3%	19.1%
<b>Connecticut Counties</b>	<b>1,801,439</b>	<b>84,153 (4.7%)</b>	<b>207,373 (11.5%)</b>	<b>46,465 (2.6%)</b>	<b>341,331 (18.9%)</b>	<b>1,122,117 (62.3%)</b>	<b>37.7%</b>	<b>23.1%</b>
Fairfield County	943,926	5.3%	10.6%	2.6%	19.7%	61.7%	38.3%	20.8%
New Haven County	857,513	4.0%	12.5%	2.5%	18.1%	62.9%	37.1%	25.6%
<b>TOTAL</b>	<b>22,187,845</b>	<b>2,296,980 (10.4%)</b>	<b>3,396,219 (15.3%)</b>	<b>569,496 (2.6%)</b>	<b>5,276,241 (23.8%)</b>	<b>10,648,909 (48.0%)</b>	<b>52.0%</b>	<b>26.8%</b>

Source: U.S. Census Bureau, ACS 2015–2019 5-Year Estimates.

Notes:

1. Percentages may not add to 100 percent due to rounding.
2. Other includes the census categories of American Indian and Alaska Native, Native Hawaiian or other Pacific Islander, Some Other Race, and Two or More Races. People of any race may also be Hispanic.
3. Total minority percentage consists of all population other than non-Hispanic White people.
4. Low-income population is population with annual household incomes of up to twice (1.99 times) the Federal poverty threshold.

### 17.5.3.2 Regional Travel Characteristics

According to 2012–2016 CTPP data, nearly 10.7 million people had their place of employment in the regional study area, and about 14 percent of them (approximately 1.5 million) work in the Manhattan CBD, based on the 2012–2016 CTPP. Of those, approximately 1,262,400 commute from locations outside the Manhattan CBD and the remainder live and work in the Manhattan CBD. **Table 17-3** shows the counties of residence for people who commute to the Manhattan CBD for work, including people who live within the Manhattan CBD itself.

**Table 17-3. Comparison of Origins for Commuters to the Manhattan CBD**

ORIGIN (PLACE OF RESIDENCE)	COMMUTERS TO MANHATTAN CBD	PERCENTAGE OF STUDY AREA TOTAL
<b>New York City</b>	<b>1,074,244</b>	<b>70.9%</b>
Bronx County	99,929	6.6%
Kings County (Brooklyn)	277,884	18.4%
New York County (Manhattan)	454,981	30.0%
Queens County	210,661	13.9%
Richmond County (Staten Island)	30,789	2.0%
<b>Long Island Counties</b>	<b>96,458</b>	<b>6.4%</b>
<b>New York Counties North of New York City</b>	<b>89,410</b>	<b>5.9%</b>
<b>New Jersey Counties</b>	<b>226,300</b>	<b>14.9%</b>
<b>Connecticut Counties</b>	<b>27,697</b>	<b>1.8%</b>
<b>TOTAL</b>	<b>1,514,109</b>	<b>100.0%</b>

Source: U.S. Census Bureau, CTPP, 2012–2016 Estimate. Percentages may not sum to 100 percent due to rounding.

Notes:

- Numbers from different tables in the CTPP (e.g., total commuters to the Manhattan CBD) may not be identical due to rounding and different methods of estimating inherent in the CTPP.
- Long Island counties include Nassau and Suffolk.  
New York counties north of New York City include Dutchess, Orange, Putnam, Rockland, and Westchester.  
New Jersey counties include Bergen, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and Warren.  
Connecticut counties include Fairfield and New Haven.

Approximately 28 percent of households in the regional study area do not have a vehicle available for their use (and, conversely, 72 percent of households have one or more vehicles available), although vehicle access varies widely across the region, as shown in **Table 17-4**. The proportion of households that do not have access to a vehicle is substantially higher in Manhattan (77 percent in Manhattan as a whole, 80 percent in the Manhattan CBD), the Bronx (59 percent), and Brooklyn (56 percent), than in the region (28 percent).



Table 17-4. Vehicle Access in the Regional Study Area

GEOGRAPHIC AREAS	TOTAL HOUSEHOLDS	HOUSEHOLDS WITH NO ACCESS TO A VEHICLE	PERCENTAGE OF HOUSEHOLDS WITH NO ACCESS TO A VEHICLE
<b>New York City</b>	<b>3,167,034</b>	<b>1,730,704</b>	<b>54.6%</b>
Bronx County	503,829	297,663	59.1%
Kings County (Brooklyn)	958,567	534,368	55.8%
New York County (Manhattan)	759,460	584,710	77.0%
Queens County	778,932	286,141	36.7%
Richmond County (Staten Island)	166,246	27,822	16.7%
<b>Long Island Counties</b>	<b>936,278</b>	<b>56,401</b>	<b>6.0%</b>
<b>New York Counties North of New York City</b>	<b>721,013</b>	<b>84,061</b>	<b>11.7%</b>
<b>New Jersey Counties</b>	<b>2,558,509</b>	<b>314,320</b>	<b>12.3%</b>
<b>Connecticut Counties</b>	<b>670,761</b>	<b>64,645</b>	<b>9.6%</b>
<b>TOTAL</b>	<b>8,053,595</b>	<b>2,250,131</b>	<b>27.9%</b>

Source: U.S. Census Bureau, ACS 2015–2019 5-Year Estimates.

Note:

Long Island counties include Nassau and Suffolk.

New York counties north of New York City include Dutchess, Orange, Putnam, Rockland, and Westchester.

New Jersey counties include Bergen, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and Warren.

Connecticut counties include Fairfield and New Haven.

Residents of New York City in particular are most likely to use transit<sup>12</sup> to travel to work in the Manhattan CBD. With a dense network of public transportation options throughout New York City and 24-hour service throughout that network, CTPP data indicate that 88 percent of the New York City residents who travel to the Manhattan CBD for work from outside the Manhattan CBD use public transportation for their commute. All of New York City is within one-half mile of a commuter rail station, subway station, or bus stop except one small area in southern Queens, a gated community called Breezy Point (see **Figure 5A-3 in Subchapter 5A**). Most of New York City is also within one-half mile of the faster public transportation modes available—commuter rail, subway, or Select Bus Service (SBS), New York City’s growing bus rapid transit system.<sup>13</sup>

Approximately 440,000 people (or about 5.2 percent of the city’s 8.4 million residents) live in areas of New York City that are more than one-half mile from these faster public transportation modes (commuter rail, subway, or express bus or SBS service), and approximately 33,900 of them commute to the Manhattan CBD. Approximately 5,200 (15 percent) of these commuters to the Manhattan CBD travel by car.

<sup>12</sup> Unless otherwise noted, the terms “public transportation” and “transit” are used interchangeably throughout this chapter.

<sup>13</sup> One-half mile represents an approximately 10- to 15-minute walk for an average pedestrian, and therefore indicates the availability of these transportation services.

### 17.5.3.3 Minority Commuters to Manhattan CBD from the Regional Study Area

More than half of the population of the regional study area (52 percent) identifies as minority, as shown in **Table 17-2** earlier in this chapter. The percentage of population who identify as minority populations is highest in New York City (68 percent), where all but Richmond County (Staten Island) are more than 50 percent minority and the Bronx (91 percent) and Queens (75 percent) have the highest proportions. In New Jersey, the counties closest to New York City also have populations with more than half identifying as minority (in particular, Essex County, with 70 percent; Hudson County, with 71 percent, Middlesex, with 57 percent; Passaic, with 59 percent; and Union, with 61 percent).

Consequently, many of the people who commute to work in the Manhattan CBD identify as minority. **Table 17-5** provides information on the number of minority commuters to the Manhattan CBD from the different origins in the regional study area. A total of 715,195 of the region's commuters to the Manhattan CBD (47.2 percent) identify as minority populations. Of these commuters, over three-quarters (76.9 percent) are from New York City, 14.5 percent are from New Jersey, 0.8 percent are from Connecticut, and 7.8 percent are from the other New York counties in the study area.

**Table 17-5. Origins for All Commuters and Minority Commuters to the Manhattan CBD (All Modes)**

ORIGIN (PLACE OF RESIDENCE)	ALL COMMUTERS	MINORITY COMMUTERS	% OF COMMUTERS WHO ARE MINORITY
<b>New York City</b>	<b>1,074,244</b>	<b>549,993</b>	<b>51.2%</b>
Bronx County	99,929	89,406	89.5%
Kings County (Brooklyn)	277,884	142,988	51.5%
New York County (Manhattan)	454,981	163,832	36.0%
Queens County	210,661	143,214	68.0%
Richmond County (Staten Island)	30,789	10,553	34.3%
<b>Long Island Counties</b>	<b>96,458</b>	<b>28,897</b>	<b>30.0%</b>
<b>New York Counties North of New York City</b>	<b>89,410</b>	<b>26,962</b>	<b>30.2%</b>
<b>New Jersey Counties</b>	<b>226,300</b>	<b>103,685</b>	<b>45.8%</b>
<b>Connecticut Counties</b>	<b>27,697</b>	<b>5,658</b>	<b>20.4%</b>
<b>TOTAL</b>	<b>1,514,109</b>	<b>715,195</b>	<b>47.2%</b>

Source: U.S. Census Bureau. CTPP, 2012–2016 Estimate. Percentages may not sum to 100 percent due to rounding.

Notes:

- Numbers from different tables in the CTPP (e.g., total commuters to the Manhattan CBD) may not be identical due to rounding and different methods of estimating inherent in the CTPP.
- Long Island counties include Nassau and Suffolk.  
New York counties north of New York City include Dutchess, Orange, Putnam, Rockland, and Westchester.  
New Jersey counties include Bergen, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and Warren.  
Connecticut counties include Fairfield and New Haven.

**Table 17-6** provides information on the mode of transportation to work for all workers and for minority workers in the Manhattan CBD. As shown in **Table 17-6**, approximately 10 percent of the minority commuters to the Manhattan CBD, or close to 73,000 people, use cars to make their trip. This is similar to the overall population of all commuters, of whom approximately 10.2 percent use cars.

Table 17-6. Travel Mode to Manhattan CBD for All Workers and Minority Workers

COMMUTERS TO MANHATTAN CBD	COMMUTE BY AUTO	COMMUTE BY TRANSIT	COMMUTE BY BICYCLE OR WALK	COMMUTE BY OTHER MODE
All workers	157,852 (10.2%)	1,213,793 (78.1%)	128,638 (8.3%)	53,530 (3.4%)
Minority workers	72,936 (10.0%)	602,493 (82.4%)	42,080 (5.8%)	13,425 (1.8%)

Source: U.S. Census Bureau. CTPP, 2012–2016 Estimate. Percentages may not sum to 100 percent due to rounding.

Notes:

1. Numbers from different tables in the CTPP (e.g., total commuters to the Manhattan CBD) may not be identical due to rounding and different methods of estimating inherent in the CTPP. Total workers shown in this table are those for whom means of transportation is available.
2. Commute by other mode includes taxicab, motorcycle, other modes, and people who work at home.

Table 17-7 and Figure 17-5 provide more specific information on the origins of minority auto commuters to the Manhattan CBD, based on the CTPP. As shown, more than half of the minority auto commuters come from locations in New York City, including more than 20 percent from Queens. About one-quarter of the minority auto commuters come from locations in New Jersey.

Table 17-7. Estimated Origins of Minority Auto Commuters to the Manhattan CBD

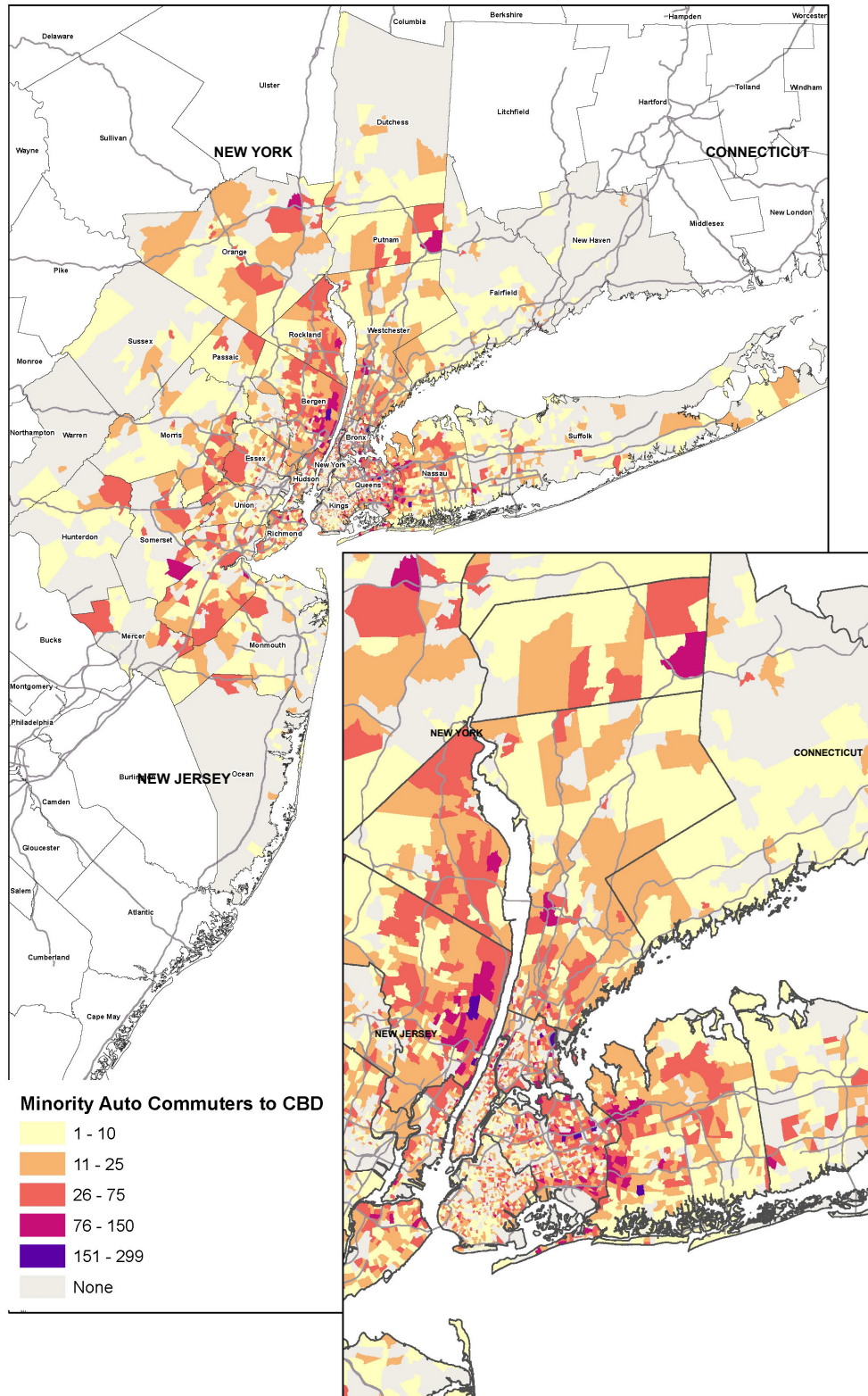
ORIGIN (PLACE OF RESIDENCE)	MINORITY AUTO COMMUTERS TO MANHATTAN CBD	PERCENTAGE OF STUDY AREA TOTAL
<b>New York City</b>	<b>41,505</b>	<b>56.9%</b>
Bronx County	8,125	11.1%
Kings County (Brooklyn)	9,528	13.1%
New York County (Manhattan)	5,143	7.1%
Queens County	16,410	22.5%
Richmond County (Staten Island)	2,299	3.2%
<b>Long Island Counties</b>	<b>6,740</b>	<b>9.2%</b>
<b>New York Counties North of New York City</b>	<b>6,756</b>	<b>9.3%</b>
<b>New Jersey Counties</b>	<b>17,070</b>	<b>23.4%</b>
<b>Connecticut Counties</b>	<b>864</b>	<b>1.2%</b>
<b>TOTAL</b>	<b>72,936</b>	<b>100.0%</b>

Source: U.S. Census Bureau, CTPP, 2012–2016 Estimate.

Estimates of origins for minority commuters based on analysis by AKRF, Inc. for this EA.

For more information on the methodology for this estimate, see Appendix 17, “Environmental Justice.”

Figure 17-5. Origins of Minority Auto Commuters to the Manhattan CBD



Source: U.S. Census Bureau, CTPP, 2012–2016 Estimate.

[Note: For an audio description, please go to the following link: <https://youtu.be/vV6-gf9PuFw>.]

### 17.5.3.4 Low-Income Commuters to Manhattan CBD from the Regional Study Area

About 14 percent of the commuters to the Manhattan CBD (about 219,000 people) are low-income. Most of these low-income commuters (88 percent, or just under 193,000 people) live in New York City, and about 14 percent (close to 32,000 people) live and work within the Manhattan CBD. About 8 percent of the low-income commuters to the Manhattan CBD are from New Jersey, about 2 percent are from Long Island and the New York counties north of New York City, and fewer than 1 percent are from Connecticut (See **Table 17-8.**)

**Table 17-8. Origins for All Commuters and Low-Income Commuters to the Manhattan CBD (All Modes)**

ORIGIN (PLACE OF RESIDENCE)	ALL COMMUTERS	LOW-INCOME COMMUTERS	% OF COMMUTERS WHO ARE LOW-INCOME
<b>New York City</b>	<b>1,074,244</b>	<b>192,497</b>	<b>17.9%</b>
Bronx County	99,929	36,718	36.7%
Kings County (Brooklyn)	277,884	49,910	18.0%
New York County (Manhattan)	454,981	64,439	14.2%
Queens County	210,661	38,959	18.5%
Richmond County (Staten Island)	30,789	2,471	8.0%
<b>Long Island Counties</b>	<b>96,458</b>	<b>3,773</b>	<b>3.9%</b>
<b>New York Counties North of New York City</b>	<b>89,410</b>	<b>4,443</b>	<b>5.0%</b>
<b>New Jersey Counties</b>	<b>226,300</b>	<b>16,830</b>	<b>7.4%</b>
<b>Connecticut Counties</b>	<b>27,697</b>	<b>980</b>	<b>3.5%</b>
<b>TOTAL</b>	<b>1,514,109</b>	<b>218,523</b>	<b>14.4%</b>

Source: U.S. Census Bureau, CTPP, 2012–2016 Estimate. Percentages may not sum to 100 percent due to rounding.

Notes:

- Numbers from different tables in the CTPP (e.g., total commuters to the Manhattan CBD) may not be identical due to rounding and different methods of estimating inherent in the CTPP.
- Low-income commuters are those with household incomes of less than \$50,000.
- Long Island counties include Nassau and Suffolk.  
New York counties north of New York City include Dutchess, Orange, Putnam, Rockland, and Westchester.  
New Jersey counties include Bergen, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and Warren.  
Connecticut counties include Fairfield and New Haven.

A total of 16,100 low-income workers drive to the Manhattan CBD for work, based on the CTPP. The CTPP provides information on income level and mode by commuters' origin, but only at the county level. However, information on commuting patterns to Manhattan overall help to understand where low-income drivers to the Manhattan CBD live. As shown in **Table 17-9**, about 72 percent of the low-income commuters who drive to Manhattan for work come from locations within New York City, and the largest share comes from Queens, followed by Brooklyn and the Bronx. About 14 percent of the low-income drivers come from New Jersey.

Table 17-9. Travel Modes for Low-Income Commuters to Manhattan Overall by Origin

ORIGIN (PLACE OF RESIDENCE)	ALL LOW-INCOME COMMUTERS	LOW-INCOME COMMUTERS BY TRANSIT	LOW-INCOME COMMUTERS BY AUTO	% OF ALL LOW-INCOME COMMUTERS BY AUTO
<b>New York City</b>	<b>401,220</b>	<b>319,400</b>	<b>28,485</b>	<b>72%</b>
Bronx County	81,005	73,210	6,200	16%
Kings County (Brooklyn)	93,785	85,685	6,280	16%
New York County (Manhattan)	137,510	83,965	5,300	13%
Queens County	83,335	72,215	9,580	24%
Richmond County (Staten Island)	5,585	4,325	1,125	3%
<b>Long Island Counties</b>	<b>7,375</b>	<b>4,690</b>	<b>2,520</b>	<b>6%</b>
<b>New York Counties North of New York City</b>	<b>8,247</b>	<b>5,245</b>	<b>2,880</b>	<b>7%</b>
<b>New Jersey Counties</b>	<b>27,328</b>	<b>21,465</b>	<b>5,406</b>	<b>14%</b>
<b>Connecticut Counties</b>	<b>1,705</b>	<b>1,215</b>	<b>480</b>	<b>1%</b>
<b>TOTAL</b>	<b>445,875</b>	<b>352,015</b>	<b>39,771</b>	<b>100%</b>

Source: U.S. Census Bureau, CTPP, 2012–2016 Estimate.

Notes:

1. Auto commuters include those who drive alone and those who carpool.
2. Low-income commuters are those with household incomes of less than \$50,000.
3. Long Island counties include Nassau and Suffolk.  
New York counties north of New York City include Dutchess, Orange, Putnam, Rockland, and Westchester.  
New Jersey counties include Bergen, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and Warren.  
Connecticut counties include Fairfield and New Haven.

### 17.5.3.5 *Businesses Dependent on Vehicles: Taxi and For-Hire Vehicles*

The analysis presented in Chapter 6, “Economic Conditions,” examines the effects of the Project on various vehicle-dependent industries and concludes that the implementation of a new toll with the CBD Tolling Alternative would not result in adverse effects on businesses in the Manhattan CBD because of the introduction of a new toll.

Tolling scenarios included in the CBD Tolling Alternative include a range of treatments of taxis and FHV trips. Some scenarios exempt taxi and FHV trips from the charge entirely, some include discounts in the form of caps on the number of trips that would be subject to the charge, some charge taxi and FHV trips once per day, and others charge them for every trip entering or remaining in the Manhattan CBD. Scenarios that charge every taxi and FHV trip would lead to higher overall prices paid by customers for these trips. While the CBD Tolling Alternative would not result in an adverse economic impact on the taxi and FHV industry overall, it could reduce employment of taxi and FHV drivers in some tolling scenarios. Section 17.6.2.2 later in this chapter describes the potential adverse effect on these drivers in more detail. This section presents information about the population characteristics of those drivers, based on available information from the New York City Taxi and Limousine Commission (TLC), which grants licenses for taxi cabs and FHVs in the city.

Taxis include yellow cabs (which are authorized to operate throughout New York City) and green cabs (which are authorized to pick up passengers by street-hail outside of the core service area of Manhattan).

Street-hail livery cabs can accept trips in Manhattan north of East 96th Street and West 110th Street, and in any location in the boroughs outside of Manhattan. FHV's include "traditional" FHV's, which are pre-arranged trips via black cars, liveries, and luxury limousine dispatched from a base that handles fewer than 10,000 trips each day, and "high-volume" for-hire services, which are pre-arranged trips dispatched from a base that handles more than 10,000 trips each day. The high-volume FHV category includes Lyft and Uber.

The TLC provides data for both licensed vehicles and drivers (those who are currently in good standing with TLC's licensing division) and active vehicles and drivers (those who provided at least one trip in a given time period). According to the TLC's 2020 Fact Book, in 2019 there were 13,587 yellow cabs, 2,895 green cabs, and 101,663 FHV's licensed by the TLC.<sup>14</sup> In 2019 the TLC licensed more than 118,000 vehicles and nearly 185,000 drivers in total. The number of active vehicles differs from the number of licensed vehicles, because not every licensed vehicle is actively in use during a given time period. In April 2022, there were 7,053 yellow cabs, 1,027 green cabs, and 70,281 FHV's that made at least one trip.

Data from the TLC indicates that approximately 96 percent of yellow and green cab drivers and 91 percent of FHV drivers were born in countries other than the United States. Based on this data, more than half the taxi or FHV drivers are from countries in Asia, Africa, and the Caribbean that have high percentages of populations that would be considered minority populations for this analysis.<sup>15</sup> **Table 17-10** lists the countries of birth for taxi and FHV drivers according to the 2020 TLC Fact Book. Because no more specific data on the racial and ethnic characteristics of these drivers is available, for this analysis, all taxi and FHV drivers are identified as a minority population.

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<sup>14</sup> The New York City TLC's 2020 Fact Book defines paratransit vehicles as vehicles that provide pre-arranged service for medical-related purposes. Trips are usually to or from healthcare facilities and vehicles must be dispatched by a paratransit base. These do not include ADA-accessible yellow cabs.

<sup>15</sup> New York City TLC. 2020 Fact Book. <https://www1.nyc.gov/assets/tlc/downloads/pdf/2020-tlc-factbook.pdf>.

Table 17-10. Country of Birth for Taxi and FHV Drivers, 2018–2019

COUNTRY OF ORIGIN	YELLOW CAB	GREEN CAB	TRADITIONAL FHV	HIGH VOLUME FHV
Bangladesh	23%	23%	4%	9%
China	–	–	5%	3%
Côte d'Ivoire	–	2%	–	–
Dominican Republic	2%	12%	31%	14%
Ecuador	–	3%	6%	–
Egypt	4%	3%	2%	3%
Ghana	4%	–	–	–
Guinea	–	3%	–	–
Haiti	6%	3%	3%	3%
India	8%	8%	4%	5%
Morocco	3%	–	–	–
Nepal	–	–	–	3%
Pakistan	9%	12%	6%	9%
Senegal	2%	–	–	–
United States	4%	3%	8%	9%
Uzbekistan	–	–	3%	3%
<b>TOTAL REPORTED</b>	<b>65%</b>	<b>72%</b>	<b>69%</b>	<b>58%</b>
<b>OTHER ORIGINS NOT REPORTED</b>	<b>35%</b>	<b>28%</b>	<b>31%</b>	<b>42%</b>

Source: New York City TLC. 2020 Fact Book. <https://www1.nyc.gov/assets/tlc/downloads/pdf/2020-tlc-factbook.pdf>.

Note: Data are as presented in the 2020 Fact Book. Information on country of birth for other drivers of each type is not available.

## 17.6 POTENTIAL ADVERSE EFFECTS ON ENVIRONMENTAL JUSTICE POPULATIONS

This section provides an analysis of the issues identified as warranting further investigation, based on the information in previous chapters of this EA and the concerns related to environmental justice raised during public outreach (see **Table 17-17** for a summary of the effects for each tolling scenario *[and Table 17-18 for a summary of how mitigation and enhancement measures will be implemented by the Project Sponsors]*). This analysis considers whether potential adverse effects would occur to minority and/or low-income populations, given the context specific to those populations, even when no adverse effects would occur to the general population.

Consideration of whether effects would be adverse includes consideration of any measures to avoid, minimize, or mitigate potentially adverse effects.

### 17.6.1 Potential Adverse Effects in the Local Study Area

As noted earlier in this chapter, most of the effects of the CBD Tolling Alternative on environmental justice populations would be local effects. This section of the chapter evaluates each of those local effects to identify whether potential adverse effects on environmental justice populations would occur. The discussion includes the following topics, based on the issues identified in other chapters of this EA and as a result of environmental justice outreach for the Project:



- Increased traffic congestion on highway segments (**Section 17.6.1.1**)
- Changes in traffic conditions at local intersections (**Section 17.6.1.2**)
- Traffic-related effects on air quality (**Section 17.6.1.3**)
- Traffic-related effects on noise (**Section 17.6.1.4**)
- Increases to transit ridership (**Section 17.6.1.5**)
- Changes in passenger flows at transit stations (**Section 17.6.1.6**)
- Changes in pedestrian circulation on sidewalks near transit hubs (**Section 17.6.1.7**)
- Potential for indirect displacement (**Section 17.6.1.8**)
- *[Potential effects on the costs of goods (Section 17.6.1.9)]*

### ***17.6.1.1 Increased Traffic Congestion on Highway Segments***

During the targeted environmental justice public outreach for the Project in fall 2021, some commenters voiced concerns about the potential for increases in traffic on regional highways and how that might affect nearby environmental justice neighborhoods. This section describes the Project’s potential effects on traffic operations on highways in and around the Manhattan CBD. **Section 17.6.1.3** presents the potential air quality effects of these traffic changes and **Section 17.6.1.4** describes the conclusions of the noise analysis.

In response to comments during the fall 2021 outreach, the traffic analyses for the EA were expanded to include additional locations in environmental justice neighborhoods where concerns were raised and more detailed evaluation of changes in truck volumes on highways and local roadways. In addition, the Project Sponsors added a tolling scenario for analysis throughout the EA, Tolling Scenario G, to evaluate opportunities for reducing truck diversions that would result from the CBD Tolling Alternative.

As described in **Subchapter 4B, “Transportation: Highways and Local Intersections,”** detailed modeling was conducted for 10 highway segments near the Manhattan CBD that provide access to the Manhattan CBD or are circumferential routes around the Manhattan CBD that drivers could use to avoid the toll. These are the locations most likely to experience an increase in traffic due to a shift in traffic from currently toll-free facilities to currently tolled facilities and diversion of through Manhattan CBD traffic to circumferential routes. Several of these highway corridors were raised as a concern during early public outreach for the Project, given their proximity to neighborhoods with environmental justice populations.

The analysis presented in **Subchapter 4B, “Transportation: Highways and Local Intersections,”** concludes that with implementation of the CBD Tolling Alternative, traffic patterns would shift throughout the study area because of drivers who divert to avoid the new toll. The level of diversions would depend on the toll value and potential crossing credits or exemptions.

Tolling Scenario D—with the highest crossing credits, exemptions, and discounts—was determined to be representative of the tolling scenarios with the highest potential for diversions and increases in traffic at certain Manhattan CBD crossings, Manhattan CBD highway approaches, intersections within and outside of the Manhattan CBD, and circumferential routes bypassing the Manhattan CBD. Based on the results of the modeling, Tolling Scenario D would result in increased traffic congestion on 8 of those 10 highway segments, resulting in increased delays and queues in peak hours. The effects of Tolling Scenarios E and F would be similar. The projected increases in delays are discussed further in **Subchapter 4B, “Transportation:**

**Highways and Local Intersections.”** On 3 of the 10 segments analyzed in detail, the increases in delay and queue length due to the Project would constitute adverse effects on traffic conditions according to New York State’s State Environmental Quality Review Act (SEQRA) impact criteria, as follows:

- Approaches to westbound George Washington Bridge on the Trans-Manhattan Expressway (I-95) between the Harlem River and the bridge during the midday peak hour
- The westbound Long Island Expressway (I-495) near the Queens-Midtown Tunnel during the midday peak hours
- The southbound and northbound Franklin D. Roosevelt (FDR) Drive between East 10th Street and the Brooklyn Bridge during the PM peak hour

With implementation of the CBD Tolling Alternative, a robust post-implementation traffic monitoring program will be implemented to identify and quantify actual traffic effects associated with the adopted tolling scenario and to inform the development of appropriate mitigation measures, if needed, including Intelligent Transportation Systems (ITS) measures, signing, motorist information, and targeted toll policy modifications. Depending on the tolling program implemented, it is possible that some residual traffic effects along certain highway segments may remain. However, given the relatively few locations where there is a potential for adverse traffic effects along highways leading to and from the Manhattan CBD and circumferential highways, the offsetting reductions in traffic volumes and improvements in travel times along routes from which traffic would divert, and the overall Project benefits in the Manhattan CBD and regionally due to a reduction in vehicular travel, the Project when viewed holistically would not have an adverse effect on traffic. **Subchapter 4B, “Transportation: Highways and Local Intersections,”** provides more specific information on the adverse effects and proposed mitigation.

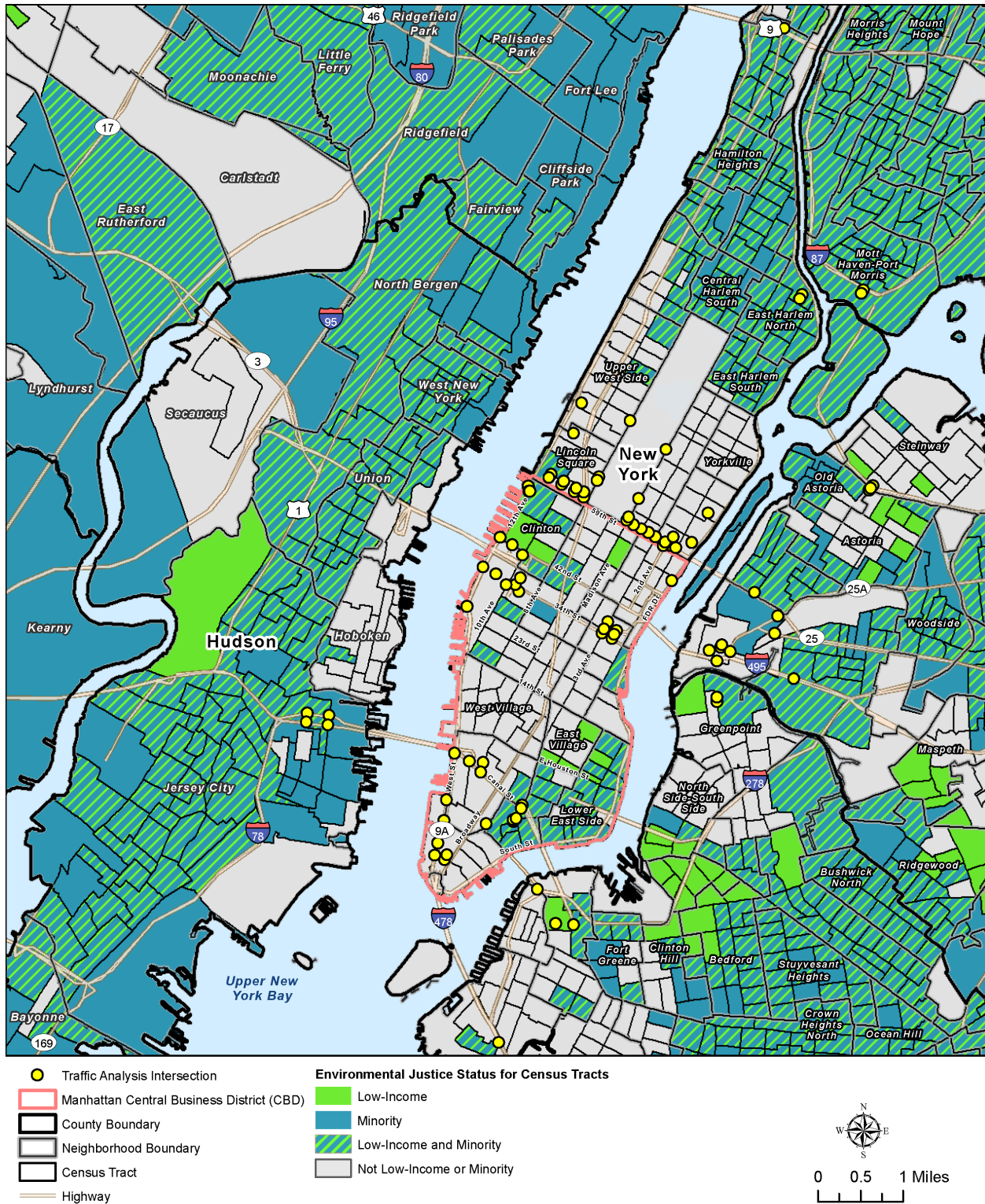
All 10 highway segments analyzed in detail for this EA are within or adjacent to environmental justice census tracts. As shown in **Figure 17-3**, much of the area around the Manhattan CBD consists of neighborhoods with environmental justice census tracts. However, as major regional highways, these highway segments predominantly serve regional and interstate traffic rather than local traffic.

#### ***17.6.1.2 Changes in Traffic Conditions at Local Intersections***

**Subchapter 4B, “Transportation: Highways and Local Intersections,”** presents the results of a detailed analysis of traffic conditions in and near the Manhattan CBD. To evaluate the potential localized traffic effects of the Project, multiple study areas were defined based on the key entry points to the Manhattan CBD, including along the 60th Street Manhattan CBD boundary and on either side of the bridges and tunnels that provide access to and from the Manhattan CBD. These local study areas are the intersections most likely to have increases in traffic, based on the regional transportation modeling for the Project. A total of 102 intersections were evaluated (see **Figure 17-6**).

Many of these intersections were identified through the public outreach process to reflect locations where communities expressed concerns regarding the Project’s potential to affect traffic conditions there. Of these 102 intersections, almost half are in environmental justice neighborhoods, reflecting the concerns that were expressed during public outreach.

Figure 17-6. Local Traffic Analysis Intersections Relative to Environmental Justice Neighborhoods



Source: U.S. Census Bureau, ACS 2015–2019 5-Year Estimates.

[Note: For an audio description, please go to the following link: <https://youtu.be/bs9QUwdb0-Y>.]

The traffic analysis concluded that shifts in traffic patterns would change conditions at some local intersections within and near the Manhattan CBD. Of the 102 intersections analyzed (with more than 363 analyses in multiple peak hours), most intersections would have reductions in delay under all tolling scenarios. The detailed evaluation conducted for the tolling scenarios with the greatest change in traffic volumes showed that those tolling scenarios (Tolling Scenarios D, E, and F) would result in increases in average delays at four intersections that would exceed the impact threshold established for SEQRA evaluations. These delays will be mitigated through the use of signal-timing adjustments and, therefore, there would not be an adverse traffic effect at any intersection. **Subchapter 4B, “Transportation: Highways and Local Intersections,”** provides more information on the proposed mitigation at each potentially affected location.

Consequently, the changes in traffic conditions at local intersections would not result in adverse effects on environmental justice populations.

### ***17.6.1.3 Traffic-Related Effects on Air Quality***

During early public outreach for the Project, participants in the environmental justice outreach sessions raised concerns that the CBD Tolling Alternative would divert traffic to circumferential highways around the Manhattan CBD and that these additional vehicles would adversely affect the nearby neighborhoods by degrading air quality. Other participants were concerned that changes in traffic at local intersections, including on the Lower East Side in the Manhattan CBD and in the South Bronx outside the Manhattan CBD, would adversely affect air quality nearby.

Air pollution is a concern because of its associated adverse effects on human health. This is a particular concern for environmental justice populations, who often live in areas already considered overburdened by pollution. Exhaust from trucks, which has a higher level of particulate matter (PM) than automobile exhaust, and has been associated with adverse health effects like cardiovascular and respiratory diseases, is a particular concern for many environmental justice populations (for more information on health effects of air pollutants, see **Appendix 10, “Air Quality”**). Members of the Environmental Justice Technical Advisory Group for the Project requested additional information on the Project’s potential to increase the number of trucks on highways outside the Manhattan CBD, especially on the Cross Bronx Expressway in the South Bronx.

**Chapter 10, “Air Quality,”** of this EA presents the results of the evaluation conducted of the Project’s potential effects on air quality. The analysis included consideration of highway segments throughout the region and local intersections where traffic would be most likely to change as a result of the Project. In response to specific environmental justice concerns identified above, the Project Sponsors included locations on the Lower East Side, in the South Bronx, and at other locations in environmental justice neighborhoods in and near the Manhattan CBD.

The air quality analysis included evaluation of the following types of air pollutants (for more information, see **Chapter 10, “Air Quality”**):

- Pollutants regulated by the National Ambient Air Quality Standards (NAAQS): Referred to as “criteria” pollutants, these include carbon monoxide (CO); nitrogen dioxide (NO<sub>2</sub>); ozone (O<sub>3</sub>); PM regulated in two sizes, 2.5 microns and 10 microns (PM<sub>2.5</sub> and PM<sub>10</sub>); sulfur dioxide (SO<sub>2</sub>); and lead (Pb).
- Mobile source air toxics (MSAT): These are air pollutants associated with vehicular traffic that are hazardous to human health and are also regulated by the U.S. Environmental Protection Agency (EPA).

### **Effects of the Project on Regional Air Quality**

The regional analysis focused on 12 counties in New York and New Jersey. Emissions estimates were based on predicted changes in VMT, speed, and vehicle mix since the interaction of these factors affects the relative decreases and increases in each county. Some counties are predicted to show increases in pollutant emissions, while others would have decreases, as shown in **Table 17-11** (for more information, see **Chapter 10, “Air Quality”**).

### **Effects of the Project on Local, Neighborhood Air Quality**

The analysis of the Project’s potential effect on local air quality near roadways where traffic would increase considered all 102 intersections for which traffic analyses were conducted as presented in **Subchapter 4B, “Transportation: Highways and Local Intersections”** (**Figure 17-6**). Those intersections are the locations most likely to experience increases in traffic, based on the regional transportation modeling for the Project. Of these 102 intersections, approximately half are in environmental justice neighborhoods, reflecting the concerns that were expressed during public outreach.

Based on the air quality analyses conducted, the level of potential change in CO and PM<sub>2.5</sub>/PM<sub>10</sub> at all 102 intersections would not result in adverse effects on local air quality, based on evaluation criteria developed by NYSDOT. All locations passed the screening criteria used to identify the potential for adverse effects requiring further evaluation.

### **Effects of the Project on Highway Traffic Related to Diversions**

To address specific concerns related to truck diversions raised during environmental justice public outreach, the air quality analysis also included specific consideration of the potential truck diversions that could occur as a result of the CBD Tolling Alternative. In addition, the Project Sponsors also evaluated a segment of the FDR Drive near the Lower East Side in Manhattan because of the potential for notable traffic diversions there. Truck traffic is not permitted on the FDR Drive, so this analysis considered the effects of automobile traffic only.

Table 17-11. Summary of Effects of CBD Tolling Alternative on Air Pollutants at the County Level

GEOGRAPHY	CRITERIA POLLUTANTS (2023)	CRITERIA POLLUTANTS (2045)	MSATs (2023)	MSATs (2045)
Manhattan CBD	Decreases of all pollutants	Decreases of all pollutants	Decreases in all MSATs	Decreases in all MSATs
New York County (Manhattan)	Decreases of all pollutants	Decreases of all pollutants	Decreases in all MSATs	Decreases in all MSATs
Bronx County	Increases of all pollutants	Decreases of some pollutants; increases of other pollutants	Increases in all MSATs	Decreases of some MSATs; increases of others
Kings County (Brooklyn)	Decreases of all pollutants	Decreases of all pollutants	Decreases in all MSATs	Decreases in all MSATs
Queens County	Decreases of all pollutants	Decreases of all pollutants	Decreases in all MSATs	Decreases in all MSATs
Richmond County (Staten Island)	Increases of all pollutants	Increases of all pollutants	Increases in all MSATs	Increases in all MSATs
Bergen County	Increases of all pollutants	Increases of all pollutants	Increases in all MSATs	Increases in all MSATs
Hudson County	Decreases of all pollutants	Decreases of all pollutants	Decreases in all MSATs	Decreases in all MSATs
Nassau County	Increases of all pollutants	Decreases of some pollutants; increases of other pollutants	Increases in all MSATs	Decreases of some MSATs; increases of others
Putnam County	Decreases of some pollutants; increases of other pollutants	Decreases of some pollutants; increases of other pollutants	Increases in all MSATs	Decreases in all MSATs
Rockland County	Decreases of all pollutants	Decreases of some pollutants; increases of other pollutants	Decreases in all MSATs	Decreases of some MSATs; increases of others
Suffolk County	Decreases of some pollutants; increases of other pollutants	Decreases of all pollutants	Increases in all MSATs	Decreases in all MSATs
Westchester County	Decreases of some pollutants; increases of other pollutants	Decreases of some pollutants; increases of other pollutants	Decreases in all MSATs	Decreases of some MSATs; increases of others

The Project Sponsors also developed and evaluated a modified tolling scenario, Tolling Scenario G, following completion of a preliminary analysis of Tolling Scenarios A through F, specifically in response to concerns about truck diversions. Scenario G was developed as a potential modification to the Base Plan (Tolling Scenario A) that would reduce the number of trucks that would divert around the Manhattan CBD. This modification, Tolling Scenario G, has lower toll rates for trucks than the other tolling scenarios (see **Chapter 2, “Project Alternatives,” Section 2.4.2.4** for more information).

Traffic modeling for the Project indicates that the CBD Tolling Alternative would result in some traffic diversions around Manhattan, into the Bronx and northern New Jersey and Staten Island in all tolling scenarios. These circumferential diversions are due to implementation of the tolling in the Manhattan CBD, as drivers and trucks traveling to and from Long Island and Pennsylvania would divert around Manhattan

to avoid the tolling in the Manhattan CBD. These diversions would be most pronounced at the approach to the Robert F. Kennedy Bridge in Queens, across the South Bronx and the George Washington Bridge, and into northern New Jersey. Diversions to the south would occur across the Verrazzano-Narrows Bridge and through Staten Island. Diversions would be greatest in Tolling Scenarios D, E, and F, and smallest in Tolling Scenario G.

To address concerns related to the potential effects on local air quality from those traffic diversions, the Project Sponsors conducted additional, more detailed analyses for four highway segments near environmental justice neighborhoods. These segments were selected based on the potential increases in diesel-truck traffic that might occur due to the Project, community concern, and/or existing high volumes of Annual Average Daily Traffic. The following locations were evaluated:

- FDR Drive at 10th Street, Manhattan, New York
- I-95 west of the George Washington Bridge, Fort Lee, New Jersey
- Cross Bronx Expressway (I-95) at Macombs Road, Bronx, New York
- Robert F. Kennedy Bridge approach, Queens, New York

For the FDR Drive, where Project-related changes would be related to automobiles and no trucks are permitted, the Project Sponsors conducted additional evaluation of the potential Project-related effects on CO. For the three other highway segments, because of the concern about increases in truck traffic, the Project team conducted detailed microscale PM analyses at these locations. The analyses for all four highway segments concluded that the CBD Tolling Alternative would not result in adverse effects on air quality at any of those locations. **Chapter 10, "Air Quality,"** provides more information on these analyses.

### **Changes in Traffic Volumes and VMT in Environmental Justice Neighborhoods**

The air quality analyses presented in **Chapter 10** conclude that no adverse effects to air quality would occur at local intersections or along highway segments due to the CBD Tolling Alternative in any of the tolling scenarios. This section compares the changes in traffic volumes, and particularly VMT, that would occur in environmental justice neighborhoods to those that would occur in non-environmental justice neighborhoods. **Subchapter 4A, "Transportation: Regional Transportation Effects and Modeling,"** provides more detailed information on where increases and decreases in traffic volumes would occur due to diversions, as well as a comparison of Project-related changes in VMT in environmental justice communities vs. non-environmental justice communities.

Tolling Scenarios A, B, C, and G, with the lowest level of discounts, exemptions, and/or crossing credits, would reduce the overall traffic volumes entering and leaving the Manhattan CBD with the least potential effect on travel patterns and diversions. However, VMT would increase slightly in Staten Island and the Bronx due to drivers to and from New Jersey diverting around the Manhattan CBD to avoid paying the CBD toll. Tolling Scenarios D, E, and F, with higher discounts, exemptions and/or crossing credits would create the highest overall reduction in traffic entering and leaving the Manhattan CBD, but with higher potential changes in travel patterns and diversions to several highways.

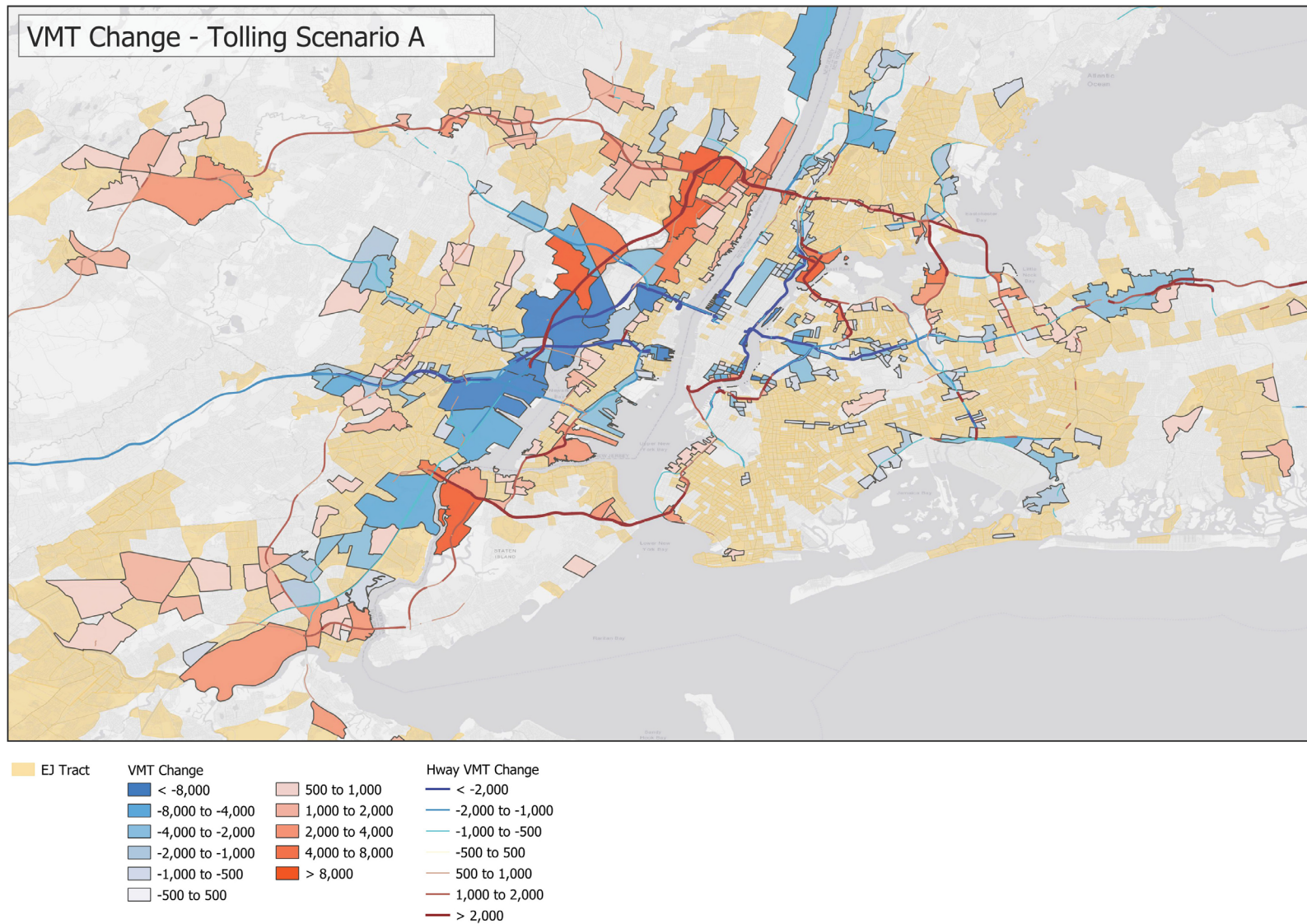
*[Decreases and]* increases in traffic volumes due to diversions would occur near some environmental justice communities, depending on the tolling scenario. The environmental justice communities experiencing the largest increases in traffic volumes, including trucks, from circumferential diversions would be along I-95 in northern New Jersey and in Queens at the approach to the Robert F. Kennedy Bridge. Environmental justice communities experiencing the largest decreases in traffic volumes, including trucks, would be along the Long Island Expressway (I-495) in Queens, Hell's Kitchen in Manhattan (near the Lincoln Tunnel), and in areas of New Jersey south of the Lincoln Tunnel. Decreases would result primarily from traffic no longer traveling from Long Island through the Queens-Midtown Tunnel, across the Manhattan CBD, and through the Lincoln Tunnel into New Jersey. As shown in **Subchapter 4A**:

- Within New York City, non-environmental justice areas would have slightly higher reductions in VMT in most tolling scenarios compared to environmental justice areas.
- Within the Manhattan CBD, environmental justice areas would have substantially higher reductions in VMT for all tolling scenarios compared to non-environmental justice areas.
- Within New York City areas outside the Manhattan CBD closest to the Manhattan CBD crossings (i.e., near 60th Street; the Brooklyn, Manhattan, Williamsburg, and Ed Koch Queensboro Bridge, and the Queens-Midtown Tunnel), environmental justice areas would have slightly lower reductions in VMT compared to non-environmental justice areas for Tolling Scenarios A, B, and G (tolling scenarios without crossing credits) and slightly higher reductions in VMT compared to non-environmental justice areas for Tolling Scenarios C, D, E, and F (tolling scenarios with crossing credits).
- Within areas of New York City outside but relatively close to the Manhattan CBD (i.e., the Upper East Side, Upper West Side, East Harlem, and western portions of Queens and Brooklyn), environmental justice areas would experience similar but slightly lower reductions in VMT compared to non-environmental justice areas.
- Within other areas of New York City outside the Manhattan CBD, environmental justice areas would experience slight reductions in VMT, while non-environmental justice areas would experience increases in VMT.
- Outside New York City in other New York counties north of New York City, environmental justice areas would experience slightly higher reductions in VMT compared to non-environmental justice areas for Tolling Scenarios C, D, E, and F.
- In New Jersey and Long Island counties, environmental justice areas would experience similar or deeper reductions in VMT compared to non-environmental justice areas for all tolling scenarios.

**Figure 17-7, Figure 17-8, and Figure 17-9** illustrate the predicted changes in VMT for Tolling Scenarios A, D, and G relative to the location of environmental justice census tracts. Those three tolling scenarios represent the range of changes that would occur in all tolling scenarios evaluated.



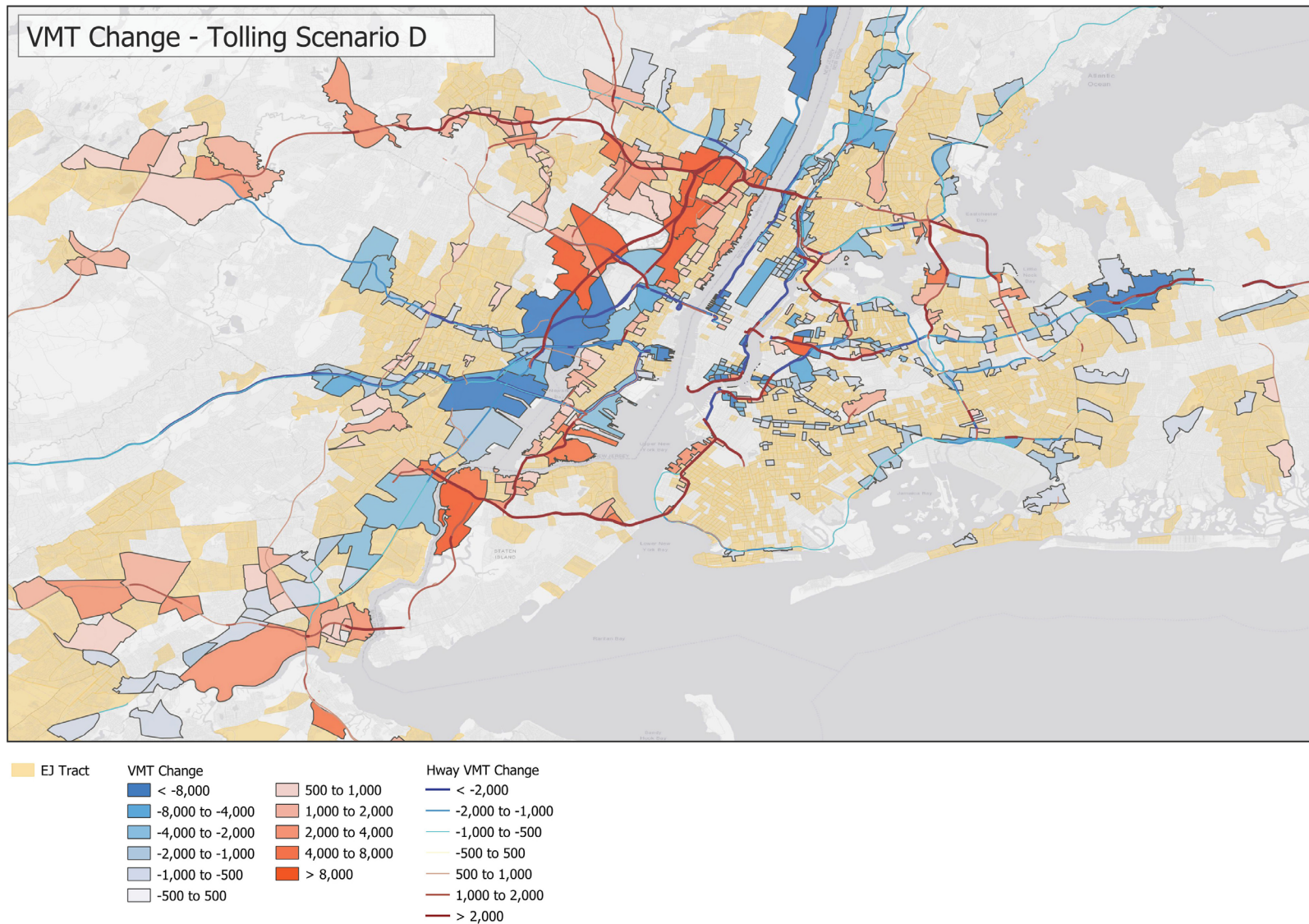
Figure 17-7. Predicted Changes in Vehicle-Miles Traveled in Tolling Scenario A Relative to Environmental Justice Neighborhoods



Source: WSP, Best Practice Model, 2021.

[Note: For an audio description, please go to the following link: [https://youtu.be/B9CoB4C\\_rIQ](https://youtu.be/B9CoB4C_rIQ).]

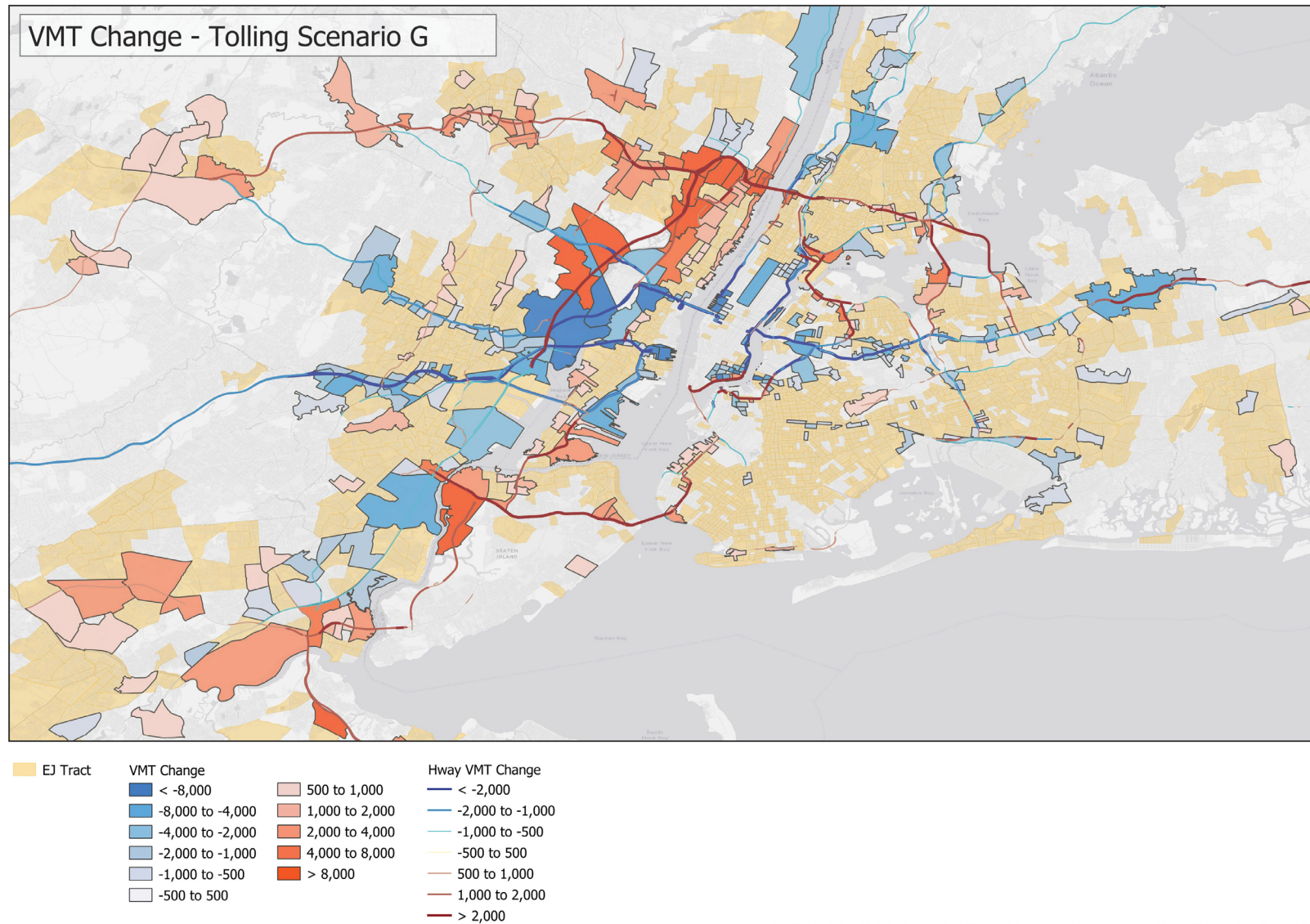
Figure 17-8. Predicted Changes in Vehicle-Miles Traveled in Tolling Scenario D Relative to Environmental Justice Neighborhoods



Source: WSP, Best Practice Model, 2021.

[Note: For an audio description, please go to the following link: <https://youtu.be/vZHcX33DB6c>.]

Figure 17-9. Predicted Changes in Vehicle-Miles Traveled in Tolling Scenario G Relative to Environmental Justice Neighborhoods



Source: WSP, Best Practice Model, 2021.

[Note: For an audio description, please go to the following link: <https://youtu.be/sxDWQaXx8Xw>.]

During the public outreach phase of the Project, several commenters raised questions about the type and location of diversions in the Bronx, and particularly on the Cross Bronx Expressway, the Bruckner Expressway, and the Major Deegan Expressway. Additional analysis was conducted to address these questions and is described in **Subchapter 4A, “Transportation: Regional Transportation Effects and Modeling.”** As described there, increases in VMT in the Bronx would be driven largely by increases in VMT on the Cross Bronx Expressway between the Alexander Hamilton Bridge and the two Long Island Sound crossings (Whitestone and Throgs Neck Bridges). Personal vehicle VMT would comprise most of the VMT increases on the Cross Bronx Expressway, with commercial truck VMT contributing roughly 25 percent of the overall VMT increase in all tolling scenarios. This increase in truck VMT would equate to up to 7 additional trucks during the 4-hour AM period, 40 additional trucks during the 6-hour midday period, and 10 additional trucks during the 4-hour PM period.

In addition, as noted earlier, following completion of preliminary analysis of Tolling Scenarios A through F, and in response to concerns raised during environmental justice outreach for the Project, the Project Sponsors identified a potential modification to the Base Plan (Tolling Scenario A) that would reduce the number of trucks that would divert around the Manhattan CBD, particularly those diverting to the South Bronx and Staten Island. This modification, Tolling Scenario G, would apply the same toll rates to all vehicle classes instead of charging higher rates small and large trucks and buses. As with Tolling Scenario A, there would be no crossing credits in Tolling Scenario G, and taxis, FHV, buses, and small or large trucks would pay the Manhattan CBD toll each time they access the Manhattan CBD. Tolling Scenario G would substantially reduce the diversion of trucks from the Manhattan CBD, resulting in a total daily increase in truck traffic on the Cross Bronx Expressway at Macombs Dam Road of 50 trucks (as compared to 704 for Tolling Scenario B and 536 for Tolling Scenario F, the two tolling scenarios with the highest truck diversions).

#### **MTA Actions to Improve Air Quality**

As an independent action, MTA is currently transitioning its fleet to zero-emission buses, which will reduce air pollutants and improve air quality near bus depots and along bus routes. TBTA coordinated with MTA NYCT, which is committed to prioritizing service to traditionally underserved communities and particularly for areas with concerns related to air quality and climate change, and has developed a new approach that actively incorporates these priorities in the deployment phasing process of the bus-fleet transition. Based on feedback and concerns raised during public outreach for the Project related to environmental justice, MTA NYCT will prioritize transitioning the fleet at two bus depots in Upper Manhattan and the Bronx: the Kingsbridge Depot and Gun Hill Depot, **with** MTA NYCT's next major procurement of battery electric buses, **which began in late** 2022. Both of these depots are in and provide service to environmental justice neighborhoods.

#### **[Additional Analysis of Project Effects of Traffic and Truck Traffic on Communities with Associated Pre-Existing Air Pollutant and Health Burdens]**

*Based on the comments received during the public comment period after the August 2022 release of the EA, and on input from the Environmental Justice Technical Advisory Group, the Project Sponsors conducted*

*an additional assessment of the Project effects on traffic proximate to environmental justice communities and resulting emissions and potential associated health effects. The analysis, presented in Appendix 17D, “Technical Memorandum,” describes how and why traffic, and particularly truck traffic, contributes to pollutant burdens and the association between these burdens and health outcomes.*

*New York City’s air quality has been improving in many ways since 1990; indeed, the city has experienced substantial declines in the annual average of USEPA’s criteria pollutants since 1990.<sup>16</sup> Nevertheless, the impacts of the region’s history of land-use and transportation development is still felt by residents living near roadway traffic. Further, the people of the 10-county local study region—whether they live in communities designated as environmental justice communities or in other communities—are burdened with high levels of air toxics cancer risk, air toxics respiratory hazards risk, and diesel particulate matter levels, when compared to the rest of the United States.*

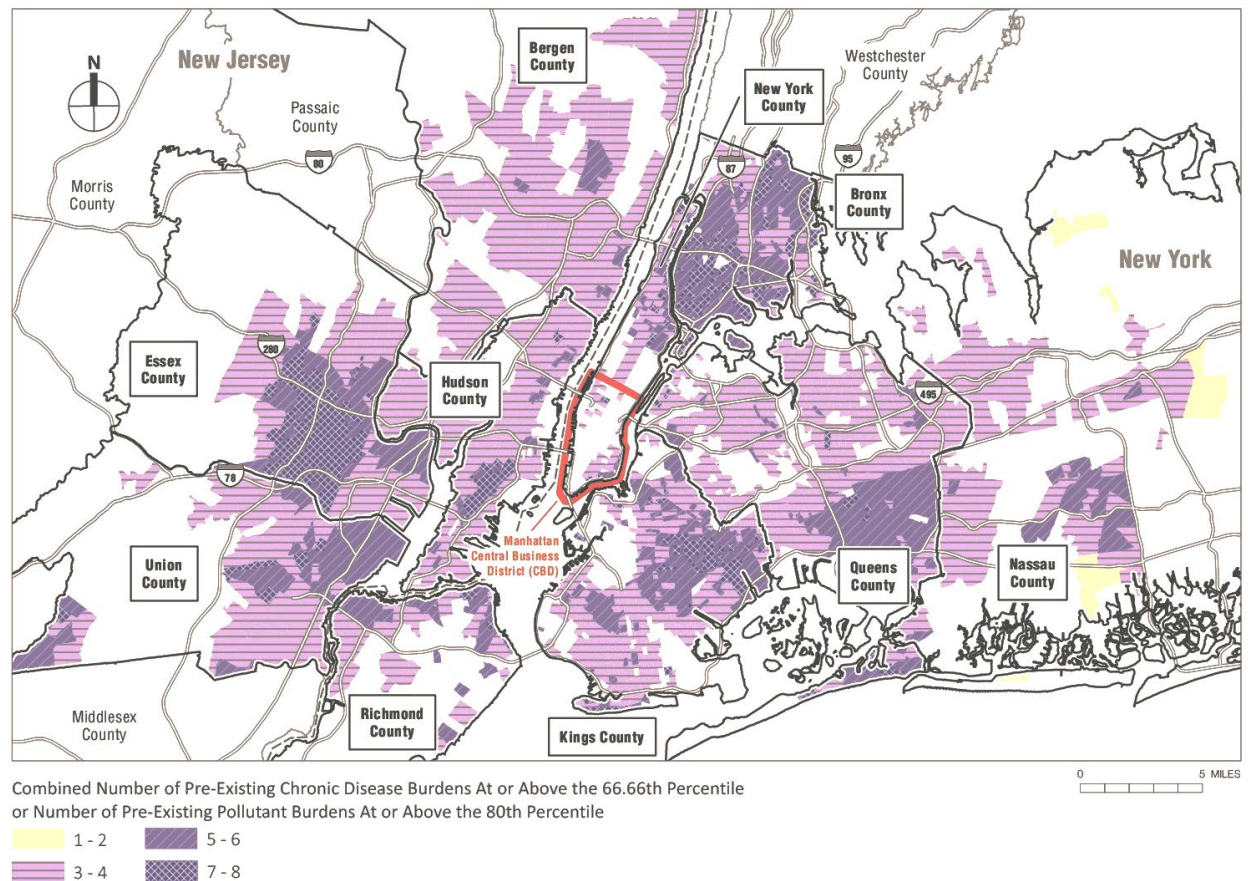
*Appendix 17D, “Technical Memorandum,” includes an overview of how the 10-county local study area developed and how past land use and development patterns, together with pre-existing traffic proximity, have contributed to pre-existing pollutant and chronic disease burdens that affect environmental justice populations in the study area. The analysis considers changes in traffic that would occur as a result of the CBD Tolling Alternative, and where these changes would occur relative to environmental justice populations that already have high levels, compared to national norms, of pre-existing pollutant or chronic disease burdens. It identifies locations where the CBD Tolling Alternative would reduce traffic, thereby having a positive effect on existing conditions, as well as where it could increase traffic, thus potentially adding to pre-existing burdens on potentially vulnerable communities. Based on this new analysis, the Project Sponsors have committed to a package of mitigation measures to address potential traffic diversions and associated pollutant emissions or health effects resulting from the Project, to avoid a disproportionately high and adverse effect on environmental justice populations (Section 17.7).*

*To identify and describe the burdens experienced by environmental justice communities with pre-existing pollutants or chronic diseases, the analysis relies on data from a number of sources, including USEPA, the Council on Environmental Quality, the Centers for Disease Control (CDC), New York State Department of Health, New York City Department of Health and Mental Hygiene, New Jersey Department of Health, and New Jersey Department of Environmental Protection. The analysis identifies those census tracts in the 10-county local study area where pre-existing/cumulative pollutant burdens are at or above the 80th percentile for the United States or existing health burdens are above the 66.66th percentile for the United States. Figure 17-10 illustrates these locations; more detail can be found in Appendix 17D, “Technical Memorandum.”*

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<sup>16</sup> USEPA, OAR. 2022. “Air Quality - Cities and Counties | US EPA.” USEPA. June 1, 2022. <https://www.epa.gov/air-trends/air-quality-cities-and-counties>.]

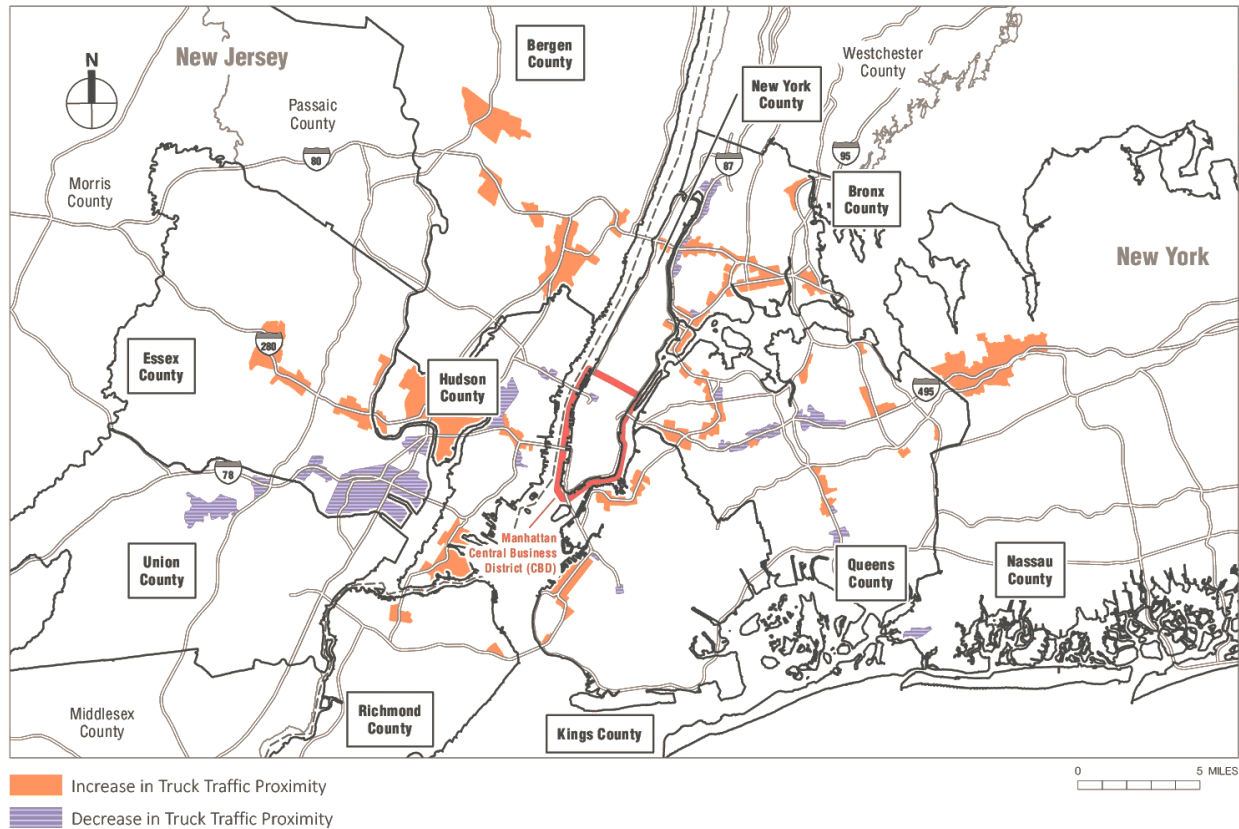
**[Figure 17-10. Environmental Justice Designated Census Tracts with Pre-Existing Pollutant or Chronic Disease Burdens above the 80th or 66.66th National Percentile, Respectively]**



Source: USEPA EJScreen 2021 data. EJI 2022.

*Based on prior analysis regarding truck traffic diversions in the EA and additional analysis regarding the magnitude of effects experienced by populations living near highways (both of which are detailed in Appendix 17D, "Technical Memorandum"), Figure 17-11 denotes the locations experiencing pre-existing pollutants or chronic disease at the 80th and 66.66th percentiles, respectively, where truck traffic would either decrease or increase as a result of the Project.*

*[Figure 17-11. Environmental Justice Census Tracts with Either Pre-Existing Pollutant Indicators At or Above the 80th Percentile or Pre-Existing Chronic-Disease Indicators At or Above the 66.66th Percentile That Could Experience Truck Traffic Increases or Decreases (Tolling Scenario E)]*



Source: CDC PLACES Estimates 2020 via EJI 2022 data; BPM.

*There are 434 census tracts in the 10-county local study area within 300 meters of a highway. All of the 434 census tracts within 300 meters of a highway—both those that are environmental justice communities and those that are not—have at least one pollutant burden at or above the 80th national percentile or at least one chronic-disease burden above the 66.66th percentile, including the 284 census tracts that could experience decreases or increases in truck traffic proximity under Tolling Scenario E. As summarized in Table 17-12, the proportion of environmental justice census tracts within 300 meters of a highway (71.7 percent) relative to the total of all census tracts within that distance mirrors the overall proportion of environmental justice census tracts in the 10-county local study area as a whole relative to the total number of census tracts (70.6 percent).*

*[Table 17-12. Summary of Project Effects on Truck Traffic Proximity (Tolling Scenario E)]*

DIRECTION OF HIGHWAY TRUCK TRAFFIC PROXIMITY CHANGES	NUMBER OF TRACTS WITH PRE-EXISTING AIR POLLUTANT OR CHRONIC DISEASE BURDENS WITHIN 300 METERS OF A HIGHWAY			% OF COMMUNITY TYPE AFFECTED	
	Non-Environmental Justice	Environmental Justice	Total	Non-Environmental Justice	Environmental Justice
Decrease	23	56	79	19%	18%
No Change	49	101	150	40%	32%
Increase	51	154	205	41%	50%
<b>TOTAL</b>	<b>123</b>	<b>311</b>	<b>434</b>	—	—

*Increases in truck traffic in currently overburdened environmental justice communities, relative to national percentiles, would constitute an adverse effect. The effects would vary in magnitude depending on the additional volume of truck traffic and the extent of pre-existing pollutant and chronic disease burdens.*

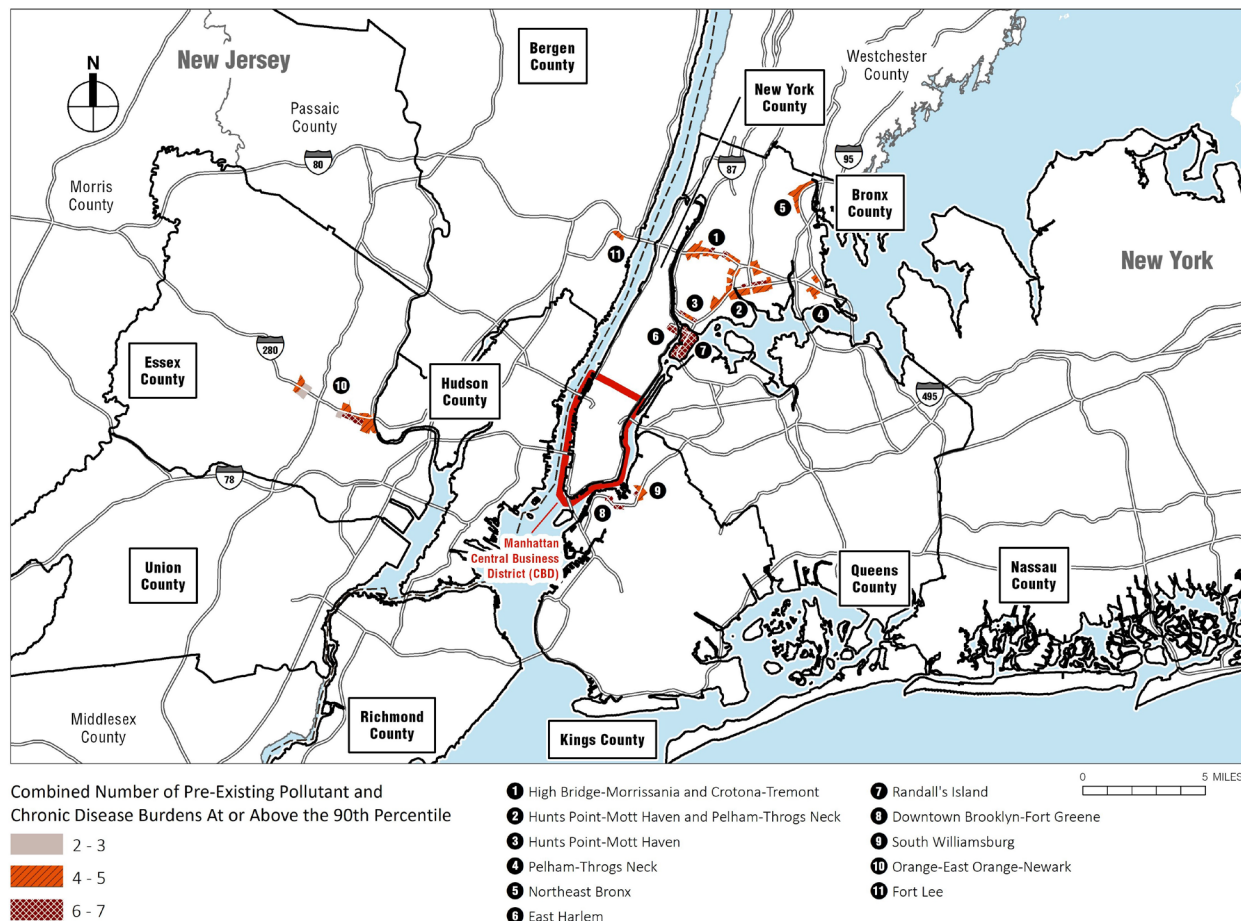
*To identify locations for mitigation to address Project effects, the Project Sponsors determined that it would be appropriate to follow the Council on Environmental Quality's Climate and Economic Justice Screening Tool's (CEJST) methodology for identifying communities in the 10-county local study area that are at or above the 90th percentile for either pre-existing pollutant or chronic disease burdens, and which may also experience increases in truck traffic proximity as a result of the Project. Due to the nature of this region and the distribution of both environmental justice census tracts and the level of pre-existing burdens, the environmental justice census tracts with either pre-existing pollutant or chronic disease indicators that could experience truck traffic increases are the same whether applying the 80th and 66.66th percentiles, or the 90th percentile (Figure 17-11).<sup>17</sup> These areas would benefit from regional mitigation measures described in Section 17.7 of this chapter.*

*Figure 17-12 depicts the environmental justice census tracts where individuals experience at least one pre-existing pollutant burden and at least one pre-existing chronic disease burden at or above the 90th percentile, nationally, and where truck proximity could increase as a result of the Project. The map further categorizes each tract by the number of indicators for which the tract is in the 90th national percentile or higher. The tracts shown here have a combined number of indicators at or above the 90th percentile between two and seven; none are at or above the 90th percentile for eight or all nine indicators.*

<sup>17</sup> Section 17D-5 of Appendix 17D, "Technical Memorandum," analyzes pre-existing air pollutant and health burdens at the 80th and 66.66th percentiles to understand the Project effects. Section 17D-7 analyzes these burdens at the 90th percentiles to determine where mitigation is needed. In essence, the census tracts identified for both of these analyses are co-extensive because all census tracts in which highway truck traffic proximity would increase have at least one pre-existing burden exceeding the 90th percentile. The regional-focused mitigation would benefit these census tracts regardless of the percentile used for analysis.]



[Figure 17-12. Environmental Justice Census Tracts with High Pre-Existing Pollutant and Chronic Disease Burdens Where Truck Traffic Proximity Could Potentially Increase (Tolling Scenario E)]



Source: USEPA National Air Toxics Assessment (NATA) and Agency Air Quality System via EJScreen 2021 data; CDC PLACES Estimates 2020 via EJI 2022 data; BPM, WSP 2021.

Note: Percentiles are national. Census Tract 3009, Nassau County not shown. Potential truck volume increases and decreases on roadways within the tract would ultimately cancel each other out and result in no change of truck traffic proximity for the residential populations within the tract.

*The census tracts where increases or decreases would occur are often in the same neighborhoods and towns. In 63 census tracts with high pre-existing pollutants and health burdens, truck traffic proximity would remain the same (47) or decrease (16) in Tolling Scenario E. Under the same tolling scenario, truck traffic proximity could increase in 56 environmental justice census tracts where at least one pre-existing pollutant burden and at least one pre-existing chronic disease are at or above the 90th percentiles (the locations of increases are listed in Table 17-13).*

*The specific census tracts that would experience increased or decreased truck traffic change slightly depending on the tolling scenario. The following communities (as illustrated in Figure 17-12 and listed in Table 17-13) could have census tracts that would merit place-based mitigation: High Bridge, Morrisania and Crotona, Tremont, Hunts Point, Mott Haven, Pelham, Throgs Neck, Northeast Bronx, East Harlem, Randall's Island, Downtown Brooklyn, Fort Greene, South Williamsburg, Orange, East Orange, Newark, and Fort Lee.*

**[Table 17-13. Daily Truck Volume in Tolling Scenario E Compared to No Action in Overburdened Communities]**

COUNTY	MAP MARK	COMMUNITY	NO. OF TRACTS BY NO. OF PRE-EXISTING POLLUTANT OR CHRONIC DISEASE BURDENS			HIGHWAYS	DAILY TRUCK VOLUME		
			2-3	4-5	6-7		NO ACTION (AADT)	CHANGE (AADT)	CHANGE (%)
Bronx, NY	1	High Bridge–Morrisania and Crotona–Tremont	0	16	2	Cross Bronx Expwy	21,819	168	0.8%
	2	Hunts Point–Mott Haven/Pelham–Throgs Neck	0	11	3	Bruckner Expwy	5,624	277	4.9%
	3	Hunts Point–Mott Haven	0	1	2	Major Deegan & Bruckner Expwys	7,618	874	11.5%
			0	0	1*	Approach to RFK Bridge	9,868	1,339	13.6%
	4	Pelham–Throgs Neck	0	1	0	Throgs Neck Expwy	4,194	50	1.2%
			0	1	0	Cross Bronx Expwy Ext.	9,580	398	4.2%
5	Northeast Bronx	0	1	0	New England Thruway	13,640	191	1.4%	
New York, NY	6	East Harlem	0	0	2	RFK Bridge Approach at E 125th St	1,513	1,556	102.8%
	7	Randall’s Island	0	0	1	RFK Bridge on Randall’s Island	12,432	3,170	25.5%
Kings, NY	8	Downtown Brooklyn–Fort Greene	0	0	3	Brooklyn Queens Expwy	14,107	891	6.3%
	9	South Williamsburg	0	3	1	Brooklyn Queens Expwy	15,870	853	5.4%
Essex, NJ	10	Orange–East Orange–Newark	2	3	1	I-280	6,106	116	1.9%
Bergen, NJ	11	Fort Lee	0	1	0	I-95 / George Washington Bridge	14,768	195	1.3%

## Notes:

AADT – Average Annual Daily Traffic.

\* Census Tract 27.01, Bronx County, immediately north of junction between bridge approach and Bruckner Expwy; tract also included in row for Major Deegan & Bruckner Expwys above.

\*\* Tracts with pre-existing air pollutant and chronic disease burdens that would benefit from reduced traffic, and those affected by increased traffic would vary somewhat, but the identified communities remain largely the same across tolling scenarios. Under Tolling Scenario G, Fort Lee would not experience increases.

\*\* Census Tract 3009, Nassau County; closer examination indicates that this tract is shown with a potential increase in truck traffic proximity under Tolling Scenario E; though roadways passing through the tract have the potential to see decreases in truck traffic, the center of its population is near a roadway where modeling indicates that truck traffic could increase.

*As shown in Table 17-13, certain areas in the Bronx, notably Hunts Point and High Bridge, have many census tracts with high pre-existing burdens. Though the increase in traffic due to the Project at some of these locations would be more modest (e.g., along the Cross Bronx Expressway), when combined with the pre-existing burdens, these areas suggest a high priority for place-based mitigation measures. Other locations, particularly East Harlem, do not have a large number of tracts with pre-existing pollutant or chronic disease burdens, but do have a larger Project-related increase in truck traffic and therefore also merit place-based mitigation measures. Locations with neither high pre-existing burdens, nor large increases in truck traffic, that may experience adverse effects from Project-related truck diversions will be addressed more broadly through regional mitigation.*

*Similar modeling was performed for non-truck traffic proximity changes resulting from the Project. In this case, 35 environmental justice communities with at least one census tract demonstrating a pre-existing air pollutant burden or chronic disease burden would potentially experience a decrease in highway non-truck traffic proximity. However, 33 communities with these same pre-existing air pollutant or chronic disease burdens could experience an increase in non-truck traffic proximity. All but 11 of these communities were also identified during the analysis of truck traffic. The results from this analysis and concerns raised by environmental justice communities drew particular attention to a projected increase in traffic on the FDR Drive adjacent to communities in Lower Manhattan and the Lower East Side.*

*The Project Sponsors have committed to a package of regional and place-based measures to mitigate these potential adverse effects on environmental justice populations, regardless of the tolling structure eventually adopted, which is discussed in Section 17.7 of this chapter.]*

#### **17.6.1.4 Traffic-Related Effects on Noise**

Participants in the environmental justice outreach sessions in fall 2021 commented that changes in traffic conditions due to the CBD Tolling Alternative would adversely affect noise levels in nearby environmental justice neighborhoods. The EA includes an analysis of the potential for increased noise levels resulting from changes in traffic conditions with the CBD Tolling Alternative in **Chapter 12, “Noise.”**

The noise assessment was conducted for locations where traffic analysis was performed, where the results of the traffic studies indicated the potential for changes in noise levels to occur as a result of the Project. The assessment was completed for AM, midday, PM, and late-night peak periods at the same 102 local intersections for which detailed traffic analyses were conducted (**Figure 17-6**). Those intersections are the locations most likely to have increases in traffic, based on the regional transportation modeling for the Project. Of these 102 intersections, approximately half are in environmental justice neighborhoods, reflecting the concerns that were expressed during public outreach.

As described in **Chapter 12, “Noise,”** the analysis found that projected noise-level changes versus the No Action Alternative on all roadways evaluated would be below 3 dB(A),<sup>18</sup> a level that is barely perceptible to

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<sup>18</sup> The noise analysis considers noise levels in dB(A), or A-weighted decibels, a unit of sound that accounts for those frequencies most audible to the human hearing range. Generally, the average human is unable to perceive noise-level changes until the changes measure more than 3 dB(A) and can readily perceive changes of 5 dB(A) or more (for more information on noise levels and human perception, see **Chapter 12, “Noise”**).

most listeners. At locations near bridge and tunnel crossings, the maximum predicted noise level increase of 2.9 dB(A), which was predicted in Manhattan adjacent to the Queens-Midtown Tunnel in Tolling Scenario D, would not be perceptible. Similarly, the maximum predicted noise level on local streets where traffic would increase, an increase of 2.5 dB(A) at Trinity Place and Edgar Street in Lower Manhattan, would not be perceptible. Consequently, with the CBD Tolling Alternative, ambient noise levels would not be perceptibly different from those without the Project. Noise-level changes at approximately 90 percent of the evaluated roadways would range from -1 dB(A) to +1 dB(A), and less than 1 percent of the roadways evaluated would show an increase between 1 dB(A) and 2 dB(A).

As a result, the CBD Tolling Alternative would result in no adverse effects on ambient noise levels related to traffic changes with the CBD Tolling Alternative.

#### ***17.6.1.5 Increases to Transit Ridership***

Some participants in the fall 2021 public outreach related to environmental justice raised concerns that the Project has the potential to overburden local bus service as people shift from automobile to transit to avoid the toll. The EA includes a detailed evaluation of the Project's effects on transit ridership in **Subchapter 4C, "Transportation: Transit."**

With all tolling scenarios for the CBD Tolling Alternative, some people who currently drive to and from the Manhattan CBD would shift to using transit instead. Overall, ridership on the extensive public transit system linking the Manhattan CBD with the surrounding region would increase by 1 to 2 percent relative to the No Action Alternative.

The region's transit users, including environmental justice populations, would experience increases in ridership on transit vehicles and at transit stations. Analysis presented in **Subchapter 4C, "Transportation: Transit,"** shows that there is sufficient capacity throughout the system, including commuter rail, Port Authority Trans-Hudson (PATH) rail, subway, and bus, to accommodate this increase in passengers.

In early public outreach, some participants expressed concerns regarding increases in bus ridership that could result from Project implementation. Commenters asked if additional buses would be needed to account for ridership increases. Based on the line-haul capacity analysis results presented in **Subchapter 4C,** which examined bus ridership at the point where the route would be the most crowded, no buses would cross the threshold for requiring detailed line-haul analysis; therefore, no adverse effects on bus lines are projected. This means that no new buses would be required to support ridership increases as a result of implementation of the CBD Tolling Alternative.

#### ***17.6.1.6 Changes in Passenger Flows at Transit Stations***

The analysis in **Subchapter 4C, "Transportation: Transit,"** concludes that most transit stations throughout the regional public transportation system have adequate capacity to accommodate the projected increase in passengers that would occur as a result of the CBD Tolling Alternative, as people switch from automobile to transit to avoid the new CBD toll. However, analysis of the tolling scenarios with the greatest predicted increase in passengers at transit stations reveals that vertical circulation elements within four MTA NYCT subway stations in New York City and the PATH/NJ TRANSIT rail terminal in Hoboken, NJ, could become

overcrowded by the additional riders during peak periods. These stations are in or adjacent to neighborhoods with environmental justice census tracts. In addition, since the majority of people who travel in the region use public transit, including minority populations, some of the passengers using the affected stairways and escalators are environmental justice populations.

**Subchapter 4C, “Transportation: Transit,”** identifies measures to mitigate the effects on these vertical circulation elements, and these measures would eliminate the adverse effects at these locations. These affected stations, the specific location within the station where the adverse effect would occur, and the proposed mitigation measures are as follows:

- 42nd Street-Times Square subway station (Manhattan), Stair ML6/ML8 connecting mezzanine to uptown Nos. 1/2/3 subway lines platform: Remove the center handrail and standardize the riser, so that the stair meets code without the hand rail. Mitigation likely needed for Tolling Scenario E, and possibly for Tolling Scenarios D and F. Requires future monitoring, which will be conducted for the selected tolling scenario.
- Flushing-Main Street subway station (Queens), Escalator E456 connecting street to mezzanine level: Increase speed from 100 feet per minute to 120 feet per minute. Mitigation likely needed for Tolling Scenarios A, C, D, E, F; and possibly for Scenario B. Requires future monitoring, which will be conducted for the selected tolling scenario.
- Union Square subway station (Manhattan), Escalator E219 connecting the L subway line platform to the Nos. 4/5/6 subway line mezzanine: Increase speed from 100 feet per minute to 120 feet per minute. Mitigation likely needed for Tolling Scenarios A, C, D, E, F; and possibly for Scenario B. Requires future monitoring, will be conducted for the selected tolling scenario.
- PATH Hoboken Station (New Jersey), Stair 01/02: Monitor pedestrian volumes on Stair 01/02, then implement improved signage and wayfinding to divert some people from Stair 01/02 if agreed thresholds are met.

All passengers, including environmental justice populations, would benefit from the proposed mitigation measures and, consequently, the changes in transit ridership would not result in adverse effects on environmental justice populations.

#### ***17.6.1.7 Changes in Pedestrian Circulation on Sidewalks Near Transit Hubs***

The CBD Tolling Alternative in all tolling scenarios would result in new pedestrian trips near transit hubs as a result of people who shift from driving to using transit as a result of the new toll. New pedestrian trips would occur at transit stations throughout the local study area, including areas that are in or adjacent to environmental justice census tracts. In addition, the sidewalks near transit stations throughout the local study area are already used by thousands of pedestrians each day, and some of these are minority and low-income populations.

Within the Manhattan CBD, walking and cycling are heavily used modes of travel because people often bike or walk between transit stations or parking lots and garages to reach their destination, and many others make their trips entirely by bicycle or on foot. Walking and cycling are also heavily used modes of travel in

the local study area. Within the Manhattan CBD, and particularly the densely developed commercial and office corridors, and in the densely developed neighborhoods and communities in the local study area, pedestrian infrastructure elements (sidewalks, marked crosswalks, and pedestrian signals) are common.

**Subchapter 4E, “Transportation: Pedestrians and Bicyclists,”** examines the potential for new pedestrian trips to result in crowding at crosswalks, corners, and sidewalks near transit stations. In most cases, there is adequate capacity at corners and crosswalks and on sidewalks to absorb the additional pedestrian trips without adversely affecting pedestrian conditions there.

The analysis identified the potential for adverse effects to pedestrian flows in the Herald Square/Penn Station area (in the Manhattan CBD) on one sidewalk and two crosswalks. By repainting the crosswalks to widen the area available to legally cross the street and removing a planter on the sidewalk, the Project Sponsors will mitigate the adverse effects on pedestrian circulation at these three locations.

One of the affected locations (Seventh Avenue and West 32nd Street) is within an environmental justice census tract and the other two (Eighth Avenue between West 34th and West 35th Streets, and Sixth Avenue at West 34th Street) are adjacent to both environmental justice census tracts and non-environmental justice tracts. The Herald Square/Penn Station New York area is a major hub for transit and accommodates high volumes of pedestrians in peak and off-peak hours, and the proposed mitigation would alleviate the effects of increased pedestrian activity at the analysis locations, including effects on environmental justice populations.

Therefore, the change in pedestrian trips associated with the CBD Tolling Alternative would not result in adverse effects on environmental justice populations.

#### ***17.6.1.8 Potential for Indirect Displacement***

During public outreach for the Project related to environmental justice, the Environmental Justice Technical Advisory Group raised concerns about the potential involuntary displacement of environmental justice populations.

**Subchapter 5A, “Social Conditions: Population Characteristics and Community Cohesion,”** presents an analysis of this issue that concludes that involuntary displacement would be unlikely to occur as a result of the CBD Tolling Alternative. The analysis concludes that the CBD Tolling Alternative would not result in changes in market conditions that would increase real estate values, so as to result in increased rents; the CBD Tolling Alternative would not result in an increase in the cost of goods within the Manhattan CBD; and certain residents of the Manhattan CBD would be entitled to a New York State tax credit to offset their tolls.

In terms of increased real estate values, any changes in residential patterns related to residents moving closer to transit would be broadly distributed throughout the regional study area because of the wide variety of factors that influence a household’s decision about where to live. In addition, in areas to which people might move to avoid the toll or be close to transit, the value of residential property and rents is already influenced by the existing proximity to transit. While there could be some additional value to living

close to transit (i.e., the value of living near a commuter station) in the future with the CBD Tolling Alternative, there is value to such proximity under existing conditions. Within the Manhattan CBD in particular, residential property values are already well established and influenced by factors such as the area's central location in New York City and its proximity to transit. While a reduction in traffic congestion could increase residential sales prices and thus could exert upward pressure on rents, this factor would not be substantial enough to markedly influence rents or residential property market conditions given the other factors already influencing New York City's residential real estate market (i.e., its central location and proximity to transit, jobs, cultural amenities, etc.).

Moreover, the substantial number of apartments in the Manhattan CBD that have protected rents (e.g., apartments under the jurisdiction of the New York City Housing Authority and apartments that are protected by New York State's rent control and rent stabilization laws) would not be subject to market-driven price increases. Furthermore, the Manhattan CBD already has the highest cost of living and highest home prices and rents in the region, and it is unlikely that many individuals would seek to move to the Manhattan CBD specifically to avoid the toll or because of a reduction in congestion. Therefore, the CBD Tolling Alternative would not substantively affect population characteristics of the Manhattan CBD or other transit hubs by attracting new residents seeking to avoid the toll.

Furthermore, the cost of new tolls with the CBD Tolling Alternative would not be likely to result in an increase in the cost of goods within the Manhattan CBD, as discussed below in **Section 17.6.1.9**.

In addition, residents whose primary residence is inside the Manhattan CBD and whose New York adjusted gross income for the taxable year is less than \$60,000 would be entitled to a New York State tax credit equal to the aggregate amount of Manhattan CBD tolls paid during the taxable year.

For these reasons, the CBD Tolling Alternative would not result in adverse effects on environmental justice populations related to indirect displacement.

#### ***17.6.1.9 Potential Effects on Cost of Goods***

During public outreach for the Project related to environmental justice, the Environmental Justice Technical Advisory Group raised concerns about the potential for the introduction of a new CBD toll to affect the price of price of consumer goods in the Manhattan CBD.

**Chapter 6, "Economic Conditions,"** presents an analysis of the CBD Tolling Alternative's potential to affect the price of goods in the Manhattan CBD, including the cost at smaller businesses such as local *[market convenience stores]* and delis. That analysis describes that the new CBD toll would increase the cost of shipping to the Manhattan CBD for some shippers[,] because of the price of the new toll[,] but reduce it for others[,] (because of travel time savings[,] the potential for reduced parking fees *[(since, with fewer automobiles entering the Manhattan CBD each day, the demand for parking would be reduced and additional legal curbside parking would be available for delivery vehicles), and other potential cost savings]*). The specific change to costs *[for any particular shipper]* would vary greatly depending on the toll rate, whether there is a cap on the number of tolls per day, and the number of times a truck is detected entering or remaining in the Manhattan CBD. Businesses in the Manhattan CBD that would be more likely to be

affected by increased delivery costs associated by tolling increases are small businesses that have a high rate of deliveries, and most specifically small retail businesses such as grocery stores, restaurants, and small market convenience stores, since they are dependent on frequent deliveries of smaller loads and delivery of goods represent a higher portion of their operating costs. There are approximately 600 such businesses within the Manhattan CBD, representing slightly less than 1 percent (0.7 percent) of all businesses within the Manhattan CBD.

The analysis in **Chapter 6** concludes that the incremental toll costs that are passed along to receiving businesses would be passed on in a diluted fashion, because shippers would allocate the toll costs among the multiple receivers on a journey *[(within New York City, averaging 5.5 stops per journey). While small retail businesses may receive more frequent deliveries,]* shippers to small retail stores like bodegas typically make many stops and consequently would share toll cost[s] among those multiple receivers. An incremental cost to any one retail store would be passed along as an incremental cost to consumers but would represent a very small component of the retail price charged to the consumer. *[In addition, the incremental cost of the new toll passed to receivers could be further diluted by cost savings realized by shippers due to reduced congestion, which would reduce the cost of delivering goods and services because of decreased travel times and lower operating costs incurred on the transportation system and could ultimately lower the cost of some products consumed in New York City.]* Consequently, the CBD Tolling Alternative would be unlikely to result in an appreciable increase in the cost of goods in the Manhattan CBD.

### 17.6.2 Potential Adverse Effects in the Regional Study Area

The analysis considers the potential regional effects of the CBD Tolling Alternative on environmental justice populations for the topics identified in **Table 17-1** earlier in this chapter. It considers how implementation of the CBD Tolling Alternative would affect the regional population in terms of increased costs (tolls), changes in trip time, and changes in transit conditions. The discussion includes the following topics, based on the issues included in **Table 17-1**:

- Potential effects associated with the increased cost for drivers (**Section 17.6.2.1**)
- Potential effects on employment for taxi and FHV drivers (**Section 17.6.2.2**)

#### 17.6.2.1 Increased Cost for Drivers

During early public outreach for the Project in fall 2021, members of the public raised concerns related to the increased cost of travel to the Manhattan CBD for low-income drivers, low- and middle-income families in the Manhattan CBD, and residents of the Manhattan CBD traveling regionally to visit family and friends outside the Manhattan CBD.

As discussed earlier, most people (76 percent) in the regional study area travel to and from the Manhattan CBD by public transportation using the region's robust transit network and the transit share is higher for minority and low-income populations (82 and 79 percent, respectively). With the CBD Tolling Alternative, most people, including minority and low-income populations, would continue to use public transportation to travel to and from the Manhattan CBD and would not be adversely affected by the new toll. With the



new toll, some people would switch from driving to transit to travel to and from the Manhattan CBD. This is consistent with the purpose of the Project, which is to reduce traffic congestion in the Manhattan CBD.

**Subchapter 5A, “Social Conditions: Population Characteristics and Community Cohesion,”** describes that all areas of New York City outside the Manhattan CBD have transit access to the Manhattan CBD and would not be isolated from community services or ties within the Manhattan CBD. It also discusses that while most community facilities and services within the Manhattan CBD serve a local clientele, some do serve people in a wider area. Most community facilities and services in the Manhattan CBD are close to transit services, making this a viable mode choice for access to those community facilities. The analysis in **Subchapter 5A** concludes that since the majority of trips to and from the Manhattan CBD are made by transit, community cohesion and access to employment would not be adversely affected.

Given the region’s robust transit network, most people, including minority and low-income populations, would have alternative travel options to avoid the CBD toll. However, for some people, switching to transit is not a viable option because they have poor access to transit, commuting by transit is inefficient with long travel times, they have work hours during times of limited transit service, or they need access to a private automobile for their work. For these individual drivers who do not have *[reasonable]* alternatives *[to private vehicles]*, the new toll would represent an adverse effect. Other people would choose to drive because it is more convenient for them and they would benefit from the reduced congestion within the Manhattan CBD.

The costs incurred by individuals driving to or through the Manhattan CBD would vary widely, depending on individual circumstances and the specific tolling scenario. The greatest cost would be incurred by those who make frequent driving journeys to the Manhattan CBD during peak hours. Driving to and from the Manhattan CBD is already expensive given the very limited availability of free or low-cost parking and the cost of off-street parking or taxi/FHV fares. Individuals who drive less frequently would incur lower costs because of the toll. **Appendix 4A.3, “Transportation: Representative Commuting Costs by Auto and Transit,”** presents information about the wide range of costs and travel times for people who travel to and through the Manhattan CBD today.

This section considers the specific effects of that increased cost on minority and low-income drivers.

### **Minority Drivers**

As presented earlier in this chapter, more than half (about 52 percent) of the population of the regional study area identifies as minority and close to half of the people who work in the Manhattan CBD identify as minority. Most minority workers who commute to the Manhattan CBD use transit (82 percent). Approximately 10 percent of the minority workers (close to 73,000 people) commute by vehicle to the Manhattan CBD, a similar proportion to that of the overall population. These minority workers come from locations throughout the regional study area, with higher numbers coming from New York City and the immediately surrounding areas with higher populations and higher proportions of minority population. These areas are well-served by the regional public transportation network. *[I]* Individual minority drivers who do not have *[reasonable]* alternatives other than driving to reach the Manhattan CBD *[would be subject to]* the new toll, *as would non-minority drivers who must drive*.

One group of minority drivers who would be adversely affected by the new CBD toll is taxi and FHV drivers, who would need to pay the CBD toll for entering or remaining in the Manhattan CBD, including at the start of their work day, in tolling scenarios that do not have caps or exemptions for taxis and FHV drivers (Tolling Scenarios A, D, and G).<sup>19</sup> According to the TLC's 2020 Fact Book, while about half of all FHV and taxi passenger pickups were in Manhattan, the majority of taxi and FHV drivers (80 percent) do not live in Manhattan. **Section 17.6.2.2** below provides more information on the potential effects of the CBD Tolling Alternative on taxi and FHV drivers.

### **Low-Income Drivers**

An estimated 79 percent of low-income populations who work in the Manhattan CBD use transit to make their commute and approximately 9 percent) rely on automobiles for their commute to work in Manhattan. An estimated 16,100 low-income people (including people who live within the Manhattan CBD) use an automobile for their commute to work in the Manhattan CBD. *[For more information on how the number of low-income commuters and their home locations were estimated, see Appendix 17E, "Approach to Mitigating the Effect of CBD Tolls on Low-Income Frequent Drivers."]*

These low-income workers come from locations throughout the regional study area, with higher numbers coming from New York City and the immediately surrounding areas with larger populations and higher proportions of low-income population. These areas are well-served by the regional public transportation network. Considering the availability of alternative modes of transit, many low-income drivers would have other alternatives available for their trip to work.

However, as noted earlier, switching to transit is not a viable option for some people, because they have poor access to transit, commuting by transit is inefficient with long travel times, they have work hours during times of limited transit service, or they need access to a private automobile for their work. For individual low-income drivers who do not have viable alternative modes other than driving to reach the Manhattan CBD, the new toll would represent an adverse effect. The size of cost increase would depend on the tolling scenario and each driver's specific route and travel patterns. *[For low-income drivers who do not have reasonable alternatives to driving to reach the Manhattan CBD and must pay the toll, the new CBD toll would represent a potential adverse effect in the context of their existing income.]*

#### ***17.6.2.2 Effects on Taxi and For-Hire Vehicle Drivers in New York City***

The analysis in **Chapter 6, "Economic Conditions,"** concludes that some tolling scenarios could reduce VMT by taxis and FHV, and particularly for yellow cabs operating in Manhattan. The predicted change in overall taxi/FHV travel characteristics indicates that there could be some shift in business practices within the industry, particularly for yellow cabs operating in Manhattan, where under some tolling scenarios the predicted reductions in VMT could exceed 10 percent. Under scenarios with predicted reductions in VMT, there could also be reductions in taxi and FHV employment, as described in this section.

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<sup>19</sup> As detailed in **Section 17.6.2.2**, the Project Sponsors also considered modifications to these three tolling scenarios that would include caps and/or exemptions for taxi and FHV drivers.

According to TLC's 2020 Fact Book, there were 185,000 TLC-licensed drivers in New York City in 2019. In April 2022, 72,244 TLC-licensed drivers made at least one FHV trip in New York City, while 9,560 made at least one yellow taxi trip. A TLC-licensed driver can work for any sector of the industry (yellow cab, green cab, or FHV) at any time, if the license is active. In 2019 there were 13,587 yellow cabs, 2,895 green cabs, and 101,663 FHVs. In April 2022, there were 7,053 yellow cabs, 1,027 green cabs, and 70,281 FHVs that made at least one trip. The number of drivers was larger than the number of cabs and FHVs, because drivers typically share vehicles. Before the COVID-19 pandemic, the number of licensed yellow cabs was steady between 2015 and 2019, limited by the number of total medallions (permits for yellow cabs) available from the TLC. In contrast, the number of licensed green cabs decreased by 48 percent between 2016 and 2019 as the emerging FHV technology gained popularity and the number of licensed FHVs increased by 50 percent over that period.<sup>20</sup>

TLC-licensed vehicles completed more than 1,000,000 trips a day on average in 2019. Most trips in yellow cabs (97 percent) originated in Manhattan and most drop-offs occurred within the other four boroughs. According to the 2020 TLC Fact Book, 56 percent of the passenger pickups in Manhattan were by FHV and 45 percent were by taxi. Similarly, 54 percent of all passenger drop-offs in Manhattan were by FHV and 46 percent were by taxi. The 2020 TLC Fact Book notes that high-volume FHVs "are universally used both in and outside of Manhattan," but does not provide more specific statistics.

The number of active vehicles differs from the number of licensed vehicles, because not every licensed vehicle is actively in use during a given time period. In 2018, during peak activity periods, as many as 12,610 active yellow cabs, 4,026 green cabs, and 90,284 active FHVs were providing trips in New York City.<sup>21</sup>

With the CBD Tolling Alternative, reductions in vehicle volumes and VMT in the Manhattan CBD and other locations within the regional study area would benefit taxi and FHV drivers. With less congestion and improved speeds, drivers can reach their customers more quickly and transport them to their destinations more quickly. By

### **New York City's Commitment to Supporting Taxi and FHV Drivers**

In 2019, New York City became the first city in the world to implement a trip-based, guaranteed minimum pay standard for high-volume FHV drivers, whether they drive their own vehicle or lease an FHV. The TLC also modified rules for yellow and green taxis to increase driver income protections, including reducing the daily maximum credit card surcharge and increasing accessible dispatch fees.

In 2021, the City implemented a medallion relief program and loan guaranty program to provide relief for owners with five or fewer medallions. Both programs provide financial assistance and free legal representation to help negotiate with lenders to reduce loan balances and lower monthly payments.

<sup>20</sup> New York City TLC. 2018 Fact Book and 2020 Fact Book. [https://www1.nyc.gov/assets/tlc/downloads/pdf/2018\\_tlc\\_factbook.pdf](https://www1.nyc.gov/assets/tlc/downloads/pdf/2018_tlc_factbook.pdf); <https://www1.nyc.gov/assets/tlc/downloads/pdf/2020-tlc-factbook.pdf>.

<sup>21</sup> The New York City TLC's 2018 Fact Book presents an annual number for licensed yellow cab, green cab, and FHVs, while data on the number of active vehicles is reported on a monthly basis. In the case of green cabs, the highest monthly statistic for active vehicles (4,026 in January 2018) was greater than the number of reported average annual licensed vehicles (3,579 vehicles in 2018); this is likely due to a downward trend in licensed green cab vehicles over 2018. For this reason, the numbers of licensed and active vehicles should not be used to estimate the percentage of licensed vehicles that are active. This level of data is not provided in the 2020 Fact Book.

improving the trip times, the CBD Tolling Alternative could facilitate more fares during drivers' shifts and increase their receipts.

Under some tolling scenarios, there could be an increase in taxi and FHV fares that could reduce demand and industry revenues for taxis and/or FHV. As detailed in **Chapter 2, "Project Alternatives,"** the tolling scenarios assess a variety of tolling policies for taxis and FHV ranging from charging a toll each time a taxi or FHV enters the Manhattan CBD to a complete exemption from paying the Manhattan CBD toll. Tolling Scenarios A, D, and G would have no limit to the number of times taxis and FHV would pay the CBD toll each day, Tolling Scenarios B and F would limit (cap) the number of times taxis and FHV would pay the CBD toll to once each day, and Tolling Scenarios C and E would exempt taxis from the CBD toll and limit the number of times that FHV would pay the toll to three times a day. In addition, in response to concerns expressed during the public outreach process with respect to the anticipated effects of the Project on taxi and FHV drivers, additional analyses were conducted of modified tolling scenarios with caps and exemptions for taxis and FHV, as discussed later in this section.

#### Modified Tolling Scenarios Addressing Taxi/FHV Policies

- ❖ Tolling Scenario A with Tolls for Taxis/FHVs capped once per day
- ❖ Tolling Scenario D with Tolls for Taxis/FHVs capped once per day
- ❖ Tolling Scenario D with Taxi/FHV Tolling Exemption
- ❖ Tolling Scenario G with Tolls for Taxis/FHVs capped once per day

**Table 17-[14]** shows the projected reductions in daily taxi/FHV VMT in New York City relative to the No Action Alternative for each of the tolling scenarios without modifications.<sup>22</sup> The VMT estimates shown in the table do not include cruising miles without a customer, and only reflect daily VMT for travel when the taxi/FHV has a customer. As shown in the table, the effects of the tolling scenarios would include the following:

- **Under Tolling Scenarios A, D, and G**, which would have uncapped tolls for both taxis and FHV, there would be reductions in overall daily VMT in New York City for taxis and FHV (by 5.1 percent, 8.8 percent, and 5.9 percent, respectively), and larger reductions in the Manhattan CBD, the core service area for yellow taxis, of 6.6 percent for Tolling Scenario A, 16.6 percent for Tolling Scenario D, and 8.6 percent for Tolling Scenario G. Reductions in Manhattan overall would be 10.9 percent for Tolling Scenario A, 16.7 percent for Tolling Scenario D, and 12.3 percent for Tolling Scenario G.
- **Under Tolling Scenarios B and F**, taxis and FHV would be tolled a maximum once per day. There would be a nominal overall decrease in taxi/FHV VMT in New York City; under both these tolling scenarios there would be slight increases in taxi/FHV VMT within the Manhattan CBD (due to the relatively inelastic price sensitivity of auto commuters combined with the scenarios' easing congestion, which in turn would increase the utility of commuting by taxi/FHV within the Manhattan CBD). Reductions in Manhattan overall would be less than 3 percent.
- **Tolling Scenarios C and E, which would exempt taxis but would toll FHV up to three times a day**, would result in 3.4 percent and 5.2 percent reductions in overall daily taxi/FHV VMT in New York City, respectively. In the Manhattan CBD, Tolling Scenario C would reduce VMT by 3.5 percent and Tolling Scenario E would reduce VMT by 7.9 percent; in Manhattan overall, VMT reductions would be larger.

<sup>22</sup> Taxis and FHV are a single mode in the Best Practice Model and therefore cannot be presented separately.

Given that taxis would not be tolled under Tolling Scenarios C and E, it is likely that taxis would experience increases in VMT while FHV drivers would experience greater VMT reductions. With Tolling Scenarios C and E, taxi drivers would not pay a toll, so there would be no additional toll cost for the driver or customer.

In addition, in response to concerns expressed during the public outreach process with respect to the anticipated effects of the Project on taxi and FHV drivers, the Project Sponsors considered modified Tolling Scenarios A and D with a cap on tolls of once per day for taxis and FHV drivers (like Tolling Scenarios B and F), a modified Tolling Scenario D with both taxis and FHV drivers exempt from the toll, and a variation of Tolling Scenario G (referred to as Tolling Scenario G1) with a cap on tolls of once per day for taxis and FHV drivers. The effects of the modifications would be as follows:

- Tolling Scenario A with Tolls for Taxis/FHVs Capped at Once Per Day** – The cap would result in about 22 percent more taxis and FHV drivers entering the Manhattan CBD as compared to original Tolling Scenario A. To still meet the congestion and revenue objectives of the Project, tolls would need to be raised 10 percent to 15 percent on all vehicle classes in Tolling Scenario A to offset forgone taxi and FHV revenues. This would further reduce personal vehicles and trucks at the Manhattan CBD boundary by 2 percent to 3 percent compared to Tolling Scenario A. However, the decline in personal vehicles and trucks would be mostly offset by the increase in taxis and FHV drivers entering the Manhattan CBD. As a result, the volumes of all vehicles entering the Manhattan CBD would not change overall.

**Table 17-[14]. Change in Taxi/For-Hire Vehicle Daily Vehicle-Miles Traveled in New York City vs. No Action Alternative, 2023**

GEOGRAPHIC AREA	SCENARIO A	SCENARIO B	SCENARIO C	SCENARIO D	SCENARIO E	SCENARIO F	SCENARIO G
Taxi Toll Policy			Exempt		Exempt		
FHV Toll Policy	All Entries	Once per Day	Up to 3 Times Daily	All Entries	Up to 3 Times Daily	Once per Day	All Entries
Bronx County	-8,392 (-3.1%)	-5,717 (-2.1%)	-6,426 (-2.4%)	-9,346 (-3.4%)	-3,991 (-1.5%)	-1,959 (-0.7%)	-7,831 (-2.9%)
Kings County (Brooklyn)	-33,855 (-9.1%)	-20,648 (-5.5%)	-10,247 (-2.7%)	-37,923 (-10.2%)	-27,854 (-7.5%)	-7,095 (-1.9%)	-39,183 (-10.5%)
New York County (Manhattan)	-77,843 (-10.9%)	-19,553 (-2.7%)	-51,989 (-7.3%)	-119,349 (-16.7%)	-73,223 (-10.2%)	-17,076 (-2.4%)	-87,944 (-12.3%)
Inside Manhattan CBD	-21,498 (-6.6%)	+15,020 (+4.6%)	-11,371 (-3.5%)	-54,476 (-16.8%)	-25,621 (-7.9%)	+4,962 (+1.5%)	-27,757 (-8.6%)
Outside Manhattan CBD	-56,345 (-14.4%)	-34,573 (-8.8%)	-40,618 (-10.4%)	-64,873 (-16.6%)	-47,602 (-12.2%)	-22,038 (-5.6%)	-60,187 (-15.4%)
Queens County	-3,873 (-0.4%)	+21,258 (+2.0%)	-10,804 (-1.0%)	-47,911 (-4.4%)	-19,342 (-1.8%)	+4,979 (+0.5%)	-7,812 (-0.7%)
Richmond County (Staten Island)	-4,884 (-8.6%)	-5,071 (-8.9%)	-4,940 (-8.7%)	-4,539 (-8.0%)	-6,002 (-10.5%)	-4,370 (-7.7%)	-4,917 (-8.6%)
<b>NEW YORK CITY TOTAL</b>	<b>-128,847 (-5.1%)</b>	<b>-29,731 (-1.2%)</b>	<b>-84,406 (-3.4%)</b>	<b>-219,068 (-8.8%)</b>	<b>-130,412 (-5.2%)</b>	<b>-25,521 (-1.0%)</b>	<b>-147,687 (-5.9%)</b>

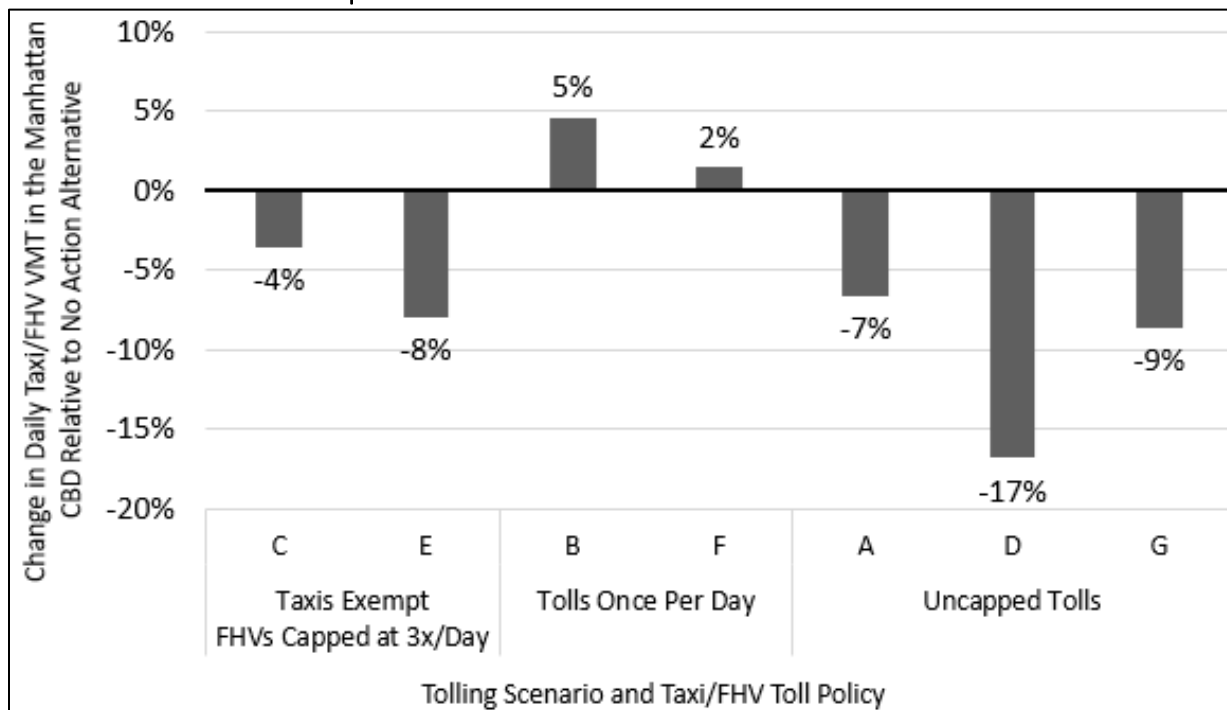
Source: Best Practice Model, WSP 2021.

Note: Projections include VMT only during fares and do not include cruising without passenger(s).

- **Tolling Scenario D with Tolls for Taxis/FHVs Capped at Once Per Day** – The cap would result in about 25 percent more taxis and FHVs entering the Manhattan CBD compared to the original Tolling Scenario D. Since original Tolling Scenario D (with uncapped tolling of taxis and FHVs) would have annual net revenue higher than the Project objectives by about \$300 million, this modified Tolling Scenario D would continue to meet the revenue objective without needing to raise toll rates from those in original Tolling Scenario D.
- **Tolling Scenario D with Taxi/FHV Tolling Exemption** – Exempting taxis and FHVs from the Manhattan CBD toll would increase the number of additional taxis and FHVs entering the Manhattan CBD by up to 50 percent compared to original Tolling Scenario D. No change in the toll rate would be required for this modified tolling scenario.
- **Tolling Scenario G with Tolls for Taxis/FHVs Capped at Once Per Day** – Capping the tolls paid by taxis and FHVs would reduce the VMT for taxis and FHVs in New York City by 1.7 percent relative to the No Action Alternative. In the Manhattan CBD, VMT for taxis and FHVs would increase relative to the No Action Alternative by 3.1 percent. Given this cap, toll rates for other vehicles would be approximately 10 percent higher than in original Tolling Scenario G. This toll increase was low enough so as not to notably affect the results from Tolling Scenario G. More importantly, with this modification Tolling Scenario G would still address the concerns regarding commercial truck traffic in the South Bronx, although the daily number of trucks on the Cross Bronx Expressway at Macombs Road would increase from 50 with original Tolling Scenario G to 251 in this modified scenario, which is still lower than every other tolling scenario except Tolling Scenario C.

**Figure 17-[13]** illustrates how the different tolling policies would affect taxi and FHV VMT. Exemptions and caps decrease the toll burden on taxi/FHV drivers, while increasing the toll rate for other drivers to meet the Project's congestion and revenue objectives. If taxis and FHVs are charged for each trip, the demand for their service would decline, particularly in New York City, reducing trips and better meeting the Project objectives, but creating new direct costs and/or potential job insecurity.

Figure 17[-13.] Changes in Daily Taxi/FHV VMT in the Manhattan CBD, CBD Tolling Alternative Tolling Scenarios Compared to the No Action Alternative



Source: Best Practice Model, WSP 2021.

Under tolling scenarios that would toll taxis and/or FHV's more than once a day, customers could choose to avoid the toll by switching to transit, walking, or biking to their destination in the Manhattan CBD, thereby reducing the frequency of taxi/FHV utilization. The potential decrease in overall demand for taxis and/or FHV's in Manhattan, ranging from 7 percent to 17 percent in tolling scenarios without a once-a-day cap on taxi/FHV tolls, could reduce employment in the taxi and/or FHV industries. This would occur in unmodified Tolling Scenarios A, D, and G; for FHV drivers, it would also occur in Tolling Scenarios C and E. The projected reductions in VMT indicate potential economic costs within an industry in flux where journeys have already been shifting from taxis to FHV's and could correlate to lost revenues for both taxis and FHV's operating in New York City. Since driver income is directly related to the miles they travel with paying customers, these reductions could result in reductions in taxi and FHV employment. Thus, tolling scenarios that toll taxis and/or FHV's more than once a day would result in an adverse effect on the drivers of those vehicles in New York City, who largely identify as minority populations.

**17.6.3 [Summary of] Potential Adverse Effects on Environmental Justice Populations**

Based on the information presented in the previous subsections of Section 17.6, the CBD Tolling Alternative would not result in adverse effects on environmental justice populations in most of the topic areas reviewed. Table 17-[-15] summarizes the results of the analysis.

The Project would result in the following potential adverse effects on environmental justice populations:

- *[While some environmental justice census tracts that have high pre-existing pollutant burdens or chronic disease burdens would benefit from decreases in traffic, and notably truck traffic, others may experience increases in traffic and related emissions that contribute to associated health effects as a result of the CBD Tolling Alternative and therefore would constitute a potential adverse effect on these environmental justice populations.]*
- The increased cost to drivers with the new CBD toll in all tolling scenarios would adversely affect low-income drivers who currently drive to the Manhattan CBD and do not have *[reasonable]* alternative transportation modes available.
- Tolling scenarios that would toll taxis and/or FHV drivers once or more a day (unmodified Tolling Scenarios A, D, and G; and Tolling Scenarios C and E for FHV drivers) would adversely affect taxi and/or FHV drivers in New York City, who largely identify as minority populations, as follows:
  - The cost of the new toll would adversely affect taxi and FHV drivers, who would need to pay the Manhattan CBD toll, including at the start of their workday, in tolling scenarios that toll their vehicles more than once a day.
  - The new CBD toll would reduce VMT associated with taxis and/or FHV drivers in Manhattan. Since the income of taxi and FHV drivers is directly related to the miles they travel with paying customers, this would reduce the income of taxi and FHV drivers and this reduction would be large enough that job losses could occur in tolling scenarios that toll their vehicles more than once a day.

In Tolling Scenarios B and F, and the modified Tolling Scenarios A, D, and G, these adverse effects would not occur.

*[The Project Sponsors have committed to a package of mitigation measures to address these potential adverse effects on environmental justice populations, as described in Section 17.7 later in this chapter.]*



Table 17-[15]. Summary of Potential Adverse Effects on Environmental Justice Populations

EA CHAPTER/ ENVIRONMENTAL CATEGORY TOPIC	SUMMARY OF EFFECTS	LOCATION	ADVERSE EFFECT: GENERAL POPULATION?	ANALYSIS OF ADVERSE EFFECT ON ENVIRONMENTAL JUSTICE POPULATIONS?	ANALYSIS CONCLUSION
<b>4A - Regional Transportation</b>	Traffic Results: Some diversions to different crossings to Manhattan CBD or around the Manhattan CBD altogether, depending on tolling scenario. As traffic, including truck trips, increase on some circumferential highways, simultaneously there is a reduction in traffic on other highway segments to the CBD.	Roadways throughout the 28-county study area; greatest effect closest to Manhattan CBD	No	Based on public comments, required further evaluation; see Sections 17.6.1.1 and 17.6.1.2	No adverse effect on environmental justice populations
<b>4B – Transportation: Highways and Local Intersections</b>	The introduction of the CBD Tolling Program may produce increased congestion on highway segments approaching on circumferential roadways used to avoid Manhattan CBD tolls, resulting in increased delays and queues in midday and PM peak hours on certain segments in some tolling scenarios: Westbound Long Island Expressway (I-495) near the Queens-Midtown Tunnel (midday) Approaches to westbound George Washington Bridge on I-95 (midday) Southbound and northbound FDR Drive between East 10th Street and Brooklyn Bridge (PM) Other locations will see an associated decrease in congestion particularly on routes approaching the Manhattan CBD.	Three highway segments	Yes	Yes; see Section 17.6.1.1	No adverse effect on environmental justice populations
	Shifts in traffic patterns, with increases in traffic at some locations and decreases at other locations, would change conditions at some local intersections within and near the Manhattan CBD. Of the 102 intersections analyzed, most intersections would see reductions in delay.	<b>363 locations (All Day)</b> 102 locations (AM, Midday, and PM) 57 locations (Overnight)	Yes	Yes; see Section 17.6.1.2	No adverse effect on environmental justice populations
	Potential adverse effects on four local intersections in Manhattan: Trinity Place and Edgar Street (midday); East 36th Street and Second Avenue (midday); East 37th Street and Third Avenue (midday); East 125th Street and Second Avenue (AM, PM)	Four locations with potential adverse effects that would be addressed with signal timing adjustments	Yes	Yes; see Section 17.6.1.2	No adverse effect on environmental justice populations

Table 17-[15]. Summary of Potential Adverse Effects on Environmental Justice Populations

EA CHAPTER/ ENVIRONMENTAL CATEGORY TOPIC	SUMMARY OF EFFECTS	LOCATION	ADVERSE EFFECT: GENERAL POPULATION?	ANALYSIS OF ADVERSE EFFECT ON ENVIRONMENTAL JUSTICE POPULATIONS?	ANALYSIS CONCLUSION
<b>4C – Transportation: Transit</b>	<p>The Project would generate a dedicated revenue source for investment in the transit system.</p> <p>Transit ridership would increase by 1 to 2 percent systemwide for travel to and from the Manhattan CBD, because some people would shift to transit rather than driving. Increases in transit ridership would not result in adverse effects on line-haul capacity on any transit routes.</p>	Regional public transportation system	No	Based on public comments, required further evaluation; see Section 17.6.1.5	No adverse effect on environmental justice populations
	<p>Transit Stations: Increased ridership would affect passenger flows at transit stations, with the potential for adverse effects at certain vertical circulation elements (i.e., stairs and escalators) in five transit stations</p>	Hoboken Terminal – PATH station	Yes	Yes; see Section 17.6.1.6	No adverse effect on environmental justice populations
		42 St-Times Square – subway station (Manhattan)	Yes		
		Flushing-Main St subway station (Queens)	Yes		
		Union Sq subway station (Manhattan)	Yes		
		Court Sq subway station (Queens)	Yes		
<b>4E – Transportation: Pedestrians and Bicycles</b>	<p>Pedestrian Circulation: Increased pedestrian activity on sidewalks outside transit hubs because of increased transit use. At most locations, increases not large enough to result in adverse effects. At one location in the Manhattan CBD, the increase could adversely affect pedestrian circulation.</p>	Herald Square/Penn Station NY	Yes	Yes; see Section 17.6.1.7	No adverse effect on environmental justice populations

Table 17-[15]. Summary of Potential Adverse Effects on Environmental Justice Populations

EA CHAPTER/ ENVIRONMENTAL CATEGORY TOPIC	SUMMARY OF EFFECTS	LOCATION	ADVERSE EFFECT: GENERAL POPULATION?	ANALYSIS OF ADVERSE EFFECT ON ENVIRONMENTAL JUSTICE POPULATIONS?	ANALYSIS CONCLUSION
5A – Social Conditions: Population	Community Cohesion: Changes to travel patterns, including increased use of transit, and increased cost for people who drive to the CBD	28-county study area	No	Based on public comments, required further evaluation; see Sections 17.6.1.5, 17.6.1.6, and 17.6.2.1	Potential adverse effect on low-income drivers who do not have alternative transportation modes to reach the Manhattan CBD <b>[(all tolling scenarios)]</b>
	Indirect Displacement: No notable changes in socioeconomic conditions or cost of living so as to induce potential involuntary displacement of residents	Manhattan CBD	No	Based on public comments, required further evaluation; see Section 17.6.1.8	No adverse effect on environmental justice populations
	Access to Employment: Increased cost for people who drive to work in the Manhattan CBD	28-county study area	No	Based on public comments, required further evaluation; see Section 17.6.2.1	Potential adverse effect on low-income drivers who do not have <b>[reasonable] alternative[s]</b> to reach the Manhattan CBD (all tolling scenarios)

Table 17-[15]. Summary of Potential Adverse Effects on Environmental Justice Populations

EA CHAPTER/ ENVIRONMENTAL CATEGORY TOPIC	SUMMARY OF EFFECTS	LOCATION	ADVERSE EFFECT: GENERAL POPULATION?	ANALYSIS OF ADVERSE EFFECT ON ENVIRONMENTAL JUSTICE POPULATIONS?	ANALYSIS CONCLUSION
<b>6 - Economic Conditions</b>	Price of Goods: Cost of new toll would not result in changes in the cost of most consumer goods in the Manhattan CBD	Manhattan CBD	No	Based on public comments, required further evaluation; see Section 17.6.1.9	No adverse effect on environmental justice populations
	Taxi and FHV Drivers: Depending on the tolling scenario, the toll could reduce taxi and FHV revenues for New York City drivers due to a reduction in taxi/FHV VMT with passengers within the CBD. The industry would remain viable overall, but adverse effects, including job losses, could occur to taxi and FHV drivers.	New York City	No	Yes; see Section 17.6.2.2	Potential adverse effect on New York City taxi and/or FHV drivers, who largely identify as minority populations, due to the cost of the new toll and potential job losses related to reductions in VMT in tolling scenarios that toll their vehicles more than once a day (unmodified Tolling Scenarios A, D, and G; and Tolling Scenarios C and E for FHV drivers)

Table 17-[15]. Summary of Potential Adverse Effects on Environmental Justice Populations

EA CHAPTER/ ENVIRONMENTAL CATEGORY TOPIC	SUMMARY OF EFFECTS	LOCATION	ADVERSE EFFECT: GENERAL POPULATION?	ANALYSIS OF ADVERSE EFFECT ON ENVIRONMENTAL JUSTICE POPULATIONS?	ANALYSIS CONCLUSION
10 - Air Quality	Regional Air Quality Benefits: On a regional (mesoscale) level, reductions in VMT would reduce air pollutants and greenhouse gases	28-county study area	No	Based on public comments, required further evaluation; see Section 17.6.1.3	No adverse effect on environmental justice populations
	Local Intersections: Changes in air emissions at local intersections due to traffic volume changes	Local intersections			
	Highway Segments: Changes in air emissions on highway due to traffic volume changes	Selected highway segments			
	Truck Volume Changes: Changes in emissions related to truck traffic diversions	Circumferential roadways near the CBD	No	Based on public comments, required further evaluation; see Section 17.6.1.3	<b><i>[Potential adverse effect to environmental justice populations as a result of traffic diversions in communities already potentially vulnerable due to pre-existing air pollution and chronic diseases]</i></b>
12 – Noise	Traffic-Related Noise: Imperceptible increases or decreases in noise levels resulting from changes in traffic volumes	Bridge and tunnel crossings and local streets	No	Based on public comments, required further evaluation; see Section 17.6.1.4	No adverse effect on environmental justice populations

#### 17.6.4 Offsetting Benefits

While the introduction of a new CBD toll would result in adverse effects to individuals who currently drive to the Manhattan CBD and do not have alternative transportation modes available, the CBD Tolling Alternative would also have substantial benefits associated with reduced vehicle congestion in the Manhattan CBD, a primary goal of the Project. The Project would address the demonstrated need to reduce vehicle congestion in the Manhattan CBD, which would benefit all drivers traveling to and near the Manhattan CBD, especially those who value their travel-time savings more than the toll cost. The reduced congestion would produce other related benefits in the Manhattan CBD, including travel-time savings, improved travel-time reliability, reduced vehicle operating costs, improved safety for vehicles, pedestrians, and bicyclists, and improved air quality in the Manhattan CBD and regionwide.

These congestion-reduction benefits would result in economic benefits as well. Travel-time savings associated with both work and non-work journeys are an economic benefit because they increase a person's productivity and overall utility by reducing time spent on less productive activities (i.e., traveling to a destination). In addition, reductions in vehicle volumes and VMT in the Manhattan CBD and other locations within the regional study area would benefit those who continue to drive in the Manhattan CBD, including delivery vehicles and taxi and FHV drivers. With less congestion and improved speeds, drivers can reach their customers more quickly and transport them to their destinations more quickly. By improving the trip times, the CBD Tolling Alternative could facilitate more fares during taxi and FHV drivers' shifts and increase their receipts. Reduced congestion would also facilitate the more efficient and cost-effective distribution of goods and services by truck in the Manhattan CBD. Transit riders who use buses, including minority and low-income passengers, would benefit from the CBD Tolling Alternative through congestion reduction that would result in travel-time savings, improved travel-time reliability, and improved safety.

Reduced regional air pollution would provide an important benefit to all residents of the region, particularly for environmental justice populations who experience adverse health effects related to air pollution, such as asthma. Most environmental justice populations who live in the Manhattan CBD would experience lower localized pollutant emissions due to reduced traffic. Additional information on where traffic would decrease is provided in **Subchapter 4A, "Transportation: Regional Transportation Effects and Modeling,"** and described and illustrated earlier in this chapter in **Section 17.6.1.3.**

In addition, the CBD Tolling Alternative would establish a reliable, recurring local source of funding for MTA capital projects, which would allow MTA to reinvest in and improve its transportation network. As discussed earlier, approximately 76 percent of the people who travel to the Manhattan CBD for work use public transportation to make their trip and this percentage is higher for minority commuters (82 percent) and low-income commuters (79 percent). MTA's transportation network is critical for mobility in the region, and improvements to the network would allow it to absorb increasing transit ridership and further reduce vehicle congestion.

## 17.7 POTENTIAL DISPROPORTIONATELY HIGH AND ADVERSE EFFECTS

USDOT Order 5610.2C and FHWA Order 6640.23A require FHWA to identify whether its actions could have a disproportionately high and adverse effect on low-income and minority populations, after accounting for mitigation and offsetting benefits.

USDOT Order 5610.2C and FHWA Order 6640.23A both define a disproportionately high and adverse effect on an environmental justice population occurs when the following occurs:

- An adverse effect is predominantly borne by a minority population and/or a low-income population; or
- An adverse effect would occur to a minority population and/or low-income population that would be appreciably more severe or greater in magnitude than the adverse effect that would occur to the non-minority population and/or non-low-income population.

USDOT Order 5610.2C and FHWA Order 6640.23A both describe that in making determinations regarding disproportionately high and adverse effects on minority and low-income populations, mitigation and enhancement measures that will be implemented and all offsetting benefits to the affected minority and low-income populations may be taken into account, as well as the design, comparative impacts, and the relevant number of similar existing system elements in non-minority and non-low-income areas.

Based on the previous steps in this analysis, the CBD Tolling Alternative would result in *[three]* potential adverse effects on environmental justice populations: *[1] a potential adverse effect from increased air pollution due to traffic increases near environmental justice communities that are already overburdened by pre-existing air pollution and chronic diseases, relative to national percentiles; 2)]* a potential adverse effect on minority and low-income drivers due to the increased cost associated with the new toll; and *[3)]* a potential adverse effect on minority taxi and FHV drivers resulting from a decrease in employment. *[This section of the chapter describes those effects and additional mitigation the Project Sponsors will implement to avoid disproportionately high and adverse effects on environmental justice populations.]*

### 17.7.1 *[Potential Effects of Traffic on Communities with Associated Pre-Existing Air Pollutant and Health Burdens]*

*[Following release of the EA in August 2022, the Project Sponsors undertook an additional assessment of the Project effects on traffic increases, and resulting emissions and potential associated health effects. That analysis concluded that in some environmental justice census tracts that have high pre-existing pollutant burdens or chronic disease burdens where the CBD Tolling Alternative would increase traffic, these traffic increases have the potential to increase pollutant burdens and could contribute to chronic disease burdens and therefore would constitute a potential adverse effect on environmental justice populations. The specific census tracts that would experience increased or decreased traffic change slightly depending on the tolling scenario. The effects would vary in magnitude depending on the additional volume of traffic and the extent of pre-existing pollutant and chronic disease burdens.]*

*If the Project receives Federal approval, the Project Sponsors will implement mitigation measures to potential Project-related traffic diversions, related air pollutants, and associated health effects in*

*communities that are already overburdened by pre-existing air pollution and chronic diseases, relative to national percentiles. Mitigation measures will include both regional measures, which will reduce truck diversions and reduce emissions, and place-based measures, to reduce emissions and improve air quality and/or health outcomes in areas with the greatest potential effect due to the Project. To fund these mitigation measures the Project Sponsors have committed \$155 million over 5 years. The regional and place-based mitigation measures are summarized in Table 17-16. The Project Sponsors commit to these measures, regardless of the tolling structure eventually adopted. An adaptive management approach will be used which will include monitoring the efficacy of mitigation, stakeholder consultation, and adjustments as warranted. An additional \$5 million has been allocated for mitigation and enhancement measures related to monitoring across other topics, along with \$47.5 million for the low-income toll discount discussed in Section 17.7.2.*

*The specific census tracts that would experience increased or decreased traffic change slightly depending on the tolling scenario, but the communities largely remain the same across tolling scenarios.*

*As noted in Table 17-16, the Project Sponsors have committed to a toll policy that would further reduce tolls in the overnight period. Based on preliminary analysis, it is expected that this policy will avoid a substantial portion of projected truck diversions, as many of these diverted trucks are projected to occur during the overnight hours. Following the adoption of a final toll structure by the TBTA Board, which will include this reduced overnight toll rate along with the toll rates and any other potential discounts, crossing credits and/or exemptions, modeling of the adopted tolling structure will be undertaken to compare potential effects to the EA analyses.<sup>23</sup>*

*Of the seven place-based mitigation measures identified, five are flexible in where they can be implemented, while the tolling of movements into the Manhattan CBD at East Houston Street and the replacement of transport refrigeration units (TRUs) at Hunts Point Produce Market are specific to those particular locations.*

*After the actual toll rates are adopted, a process that includes both additional analyses and community input will take place to determine the sites of the other five place-based mitigation measures (e.g., in which schools to install air filtration units, or on what roadways to plant vegetation). This will require coordination between the Project Sponsors, the Environmental Justice Community Group (representing the 10-county environmental justice study area, and as described further in Table 17-18), the relevant communities receiving the place-based mitigation, and local implementing agencies, and will include needs assessments and feasibility screening to determine the range of possibilities.*

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<sup>23</sup> *As described in the EA, the adopted tolling scenario will be evaluated to determine if it could have effects that are materially different from those identified in the EA; and if so, further analysis may be required before Project implementation.]*



[Table 17-16. Regional and Place-Based Mitigation Measures]

MITIGATION MEASURES	BENEFIT AND RESULT OF MITIGATION	5-YEAR FUNDING <sup>1</sup>	RELEVANT LOCATION(S)	FUNDING SOURCE	IMPLEMENTATION LEAD
<b>Regional Mitigation</b>					
Further reduced overnight toll	Minimize/avoid truck diversions	\$30 million	10-county environmental justice study area	CBD Tolling Program	TBTA
Expand NYC Clean Trucks Program	NOx and PM <sub>2.5</sub> reductions from ~500 new clean trucks	\$20 million		CBD Tolling Program	NYCDOT
Expand NYCDOT Off-Hours Delivery Program	Safety and emissions reduction benefits resulting from reduced truck traffic during the day	\$5 million		CBD Tolling Program	NYCDOT
<b>Place-Based Mitigation</b>					
Toll vehicles traveling northbound on the FDR Drive that exit at East Houston Street and then travel southbound on FDR Drive	25 to 35 percent of the non-truck traffic increases on the FDR Drive could be mitigated	N/A	FDR Drive between the Brooklyn Bridge and East Houston Street	N/A	TBTA
Replacement of Transport Refrigeration Units (TRUs) at Hunts Point Produce Market	Major NOx and PM <sub>2.5</sub> reductions from the replacement of up to 1,000 TRUs	\$15 million <sup>2</sup>	Hunts Point	MTA CMAQ Program	NYCDOT
Implement Electric Truck Charging Infrastructure	NOx and PM <sub>2.5</sub> reductions from electric vehicles using 35 new chargers (at seven stations)	\$20 million	After toll rates are set, a process that includes both additional analyses and community input will take place to determine specific locations	\$10 million Federal CRP + \$10 million CBD Tolling Program	NYS DOT
Install Roadside Vegetation to Improve Near-Road Air Quality	Improves near-road air quality by pollutant capture from ~4,000 trees and ~40,000 shrubs	\$10 million		CBD Tolling Program	TBTA with Relevant State and Local Agencies
Renovate Parks and Greenspace in Environmental Justice Communities	Increases overall community well-being. 2-5 park/greenspace renovations depending on size and complexity.	\$25 million		CBD Tolling Program	TBTA with Relevant State and Local Agencies
Install Air Filtration Units in Schools Near Highways	Removes air pollutants from classrooms. 25-40 schools depending on school size and complexity of existing HVAC system.	\$10 million		CBD Tolling Program	TBTA with Relevant State and Local Agencies
Establish Asthma Case Management Program and Bronx Center	Reduces hospitalizations and doctor visits, decreases days and nights with symptoms and missed school days – program expansion up to 25 schools	\$20 million		CBD Tolling Program	NYC DOHMH

## Notes:

<sup>1</sup> An additional \$5 million has been allocated for mitigation and enhancement measures related to monitoring across other topics, along with \$47.5 million for the low-income toll discount discussed below. Enhancement measures include air quality monitoring that will expand NYC's existing monitoring network. Locations will be selected in consideration of the traffic and air quality analyses in the EA and in coordination with environmental justice stakeholders and relevant state and local agencies. This will complement the regional and place-based mitigation measures related to traffic diversions outlined here (see **Chapter 10, "Air Quality,"** for details).

<sup>2</sup> After three years, any remaining funds designated for TRU replacements may also be used for clean truck replacement vouchers through the NYC Clean Trucks Program.

*The specific feasibility factors and forms of engagement vary by mitigation and include:*

- *Electric Truck Charging Infrastructure: This mitigation will be implemented through the Federal Carbon Reduction Program (CRP) using funds received by NYSDOT and will therefore be limited to locations in New York. Siting considerations will include potential visual impacts, proximity to highways (to minimize travel on local roads), and the study of potential traffic and noise impacts. The NYMTC Clean Freight Corridors Study—a study developed by the metropolitan planning organization in consultation with motor carriers, utility companies, fuel infrastructure manufacturers/suppliers, truck stop operators, industrial real estate companies, and community and advocacy organizations—will be used to help identify priority locations. Such groups will be re-engaged, as warranted, along with state and local officials, to provide feedback in the course of identifying appropriate locations.*
- *Roadside Vegetation to Improve Near-Road Air Quality: The Project Sponsors will work with relevant local and state agencies to assess the availability of roadside space and the presence of existing plantings, as well as access and maintenance considerations, to identify appropriate sites near sensitive receptors (e.g., schools, day care, senior or community centers, or outdoor recreational facilities) as locations for new plantings. To align with community priorities, the Project Sponsors will engage with community stakeholders, elected officials, and the Environmental Justice Community Group.*
- *Parks and Greenspace in Environmental Justice Communities: The Project Sponsors will work with relevant state and local agencies to assess potential locations for park and greenspace investments in the affected communities, including in existing parkland where the expansion of green space, tree planting, or other upgrades is feasible. The agencies will solicit input on prioritization of locations and treatments from the Environmental Justice Community Group, local officials, and other community stakeholders.*
- *Air Filtration Units in Schools Near Highways: The Project Sponsors will work with relevant school authorities to assess needs and analyze feasibility of upgrading existing filtration systems in schools in census tracts within 300 meters of highways where truck traffic is projected to increase. Factors will include the design and performance of existing HVAC systems, the facility's proximity to highways, and the area asthma rates, as well as scheduled capital projects. The Project Sponsors will work with relevant state and local agencies and solicit input from community stakeholders to determine locations where air filtration upgrades will be most impactful.*
- *Asthma Case Management Program and Center: This mitigation will expand on the success of existing city programs operating within the five New York City counties.*
  - *Asthma Case Management Program—NYC Department of Health and Mental Hygiene (DOHMH) will conduct a needs assessment to identify schools in affected census tracts with existing high rates of asthma. Additionally, NYC DOHMH will engage with school leadership on expansion of the Asthma Care Management Program and will solicit input from the Environmental Justice Community Group, parents, and other community stakeholders on priority locations that should be prioritized and how to best reach families of children with asthma.*
  - *Asthma Center—Selection of a location in the Bronx will include consideration of asthma rates, population concentration, proximity to sensitive receptors, the location of existing facilities and*

*services, accessibility via public transportation, and availability of suitable space. NYC DOHMH will work with community stakeholders to solicit input on programming and outreach strategies to ensure that the center maximizes its benefit to people with asthma.*

*With implementation of these mitigation measures, the CBD Tolling Program would not result in adverse effects on environmental justice populations as a result of increased truck traffic. Therefore, no disproportionately high and adverse effect would occur. Further details on these investments and how they will be implemented by the Project Sponsors are provided in Table 17-17 and Table 17-18 at the end of this chapter.]*

## 17.7.2 Evaluation of Adverse Effect on Minority and Low-Income Drivers

The previous sections of this chapter describe that most people in the regional study area travel to and from the Manhattan CBD by public transportation using the region's robust transit network. With the CBD Tolling Alternative, most people, including minority and low-income populations, would continue to use public transportation to travel to and from the Manhattan CBD and would not be adversely affected by the new toll.

Most people who currently drive to the Manhattan CBD have alternative travel options to avoid the CBD toll. However, for some people, switching to transit is not a *[reasonable]* option because they have poor access to transit, commuting by transit is inefficient with long travel times, they have work hours during times of limited transit service, or they need access to a private automobile for their work. Individual drivers who do not have viable alternatives *[would be subject to the new CBD toll, unless otherwise exempt. For low-income drivers]*, the increased cost of travel to the Manhattan CBD due to the new toll would represent an adverse effect *[in the context of their existing income]*. The size of cost increase would depend on the tolling scenario and each driver's specific route and travel patterns.

### 17.7.2.1 Minority Drivers

The effect of the cost associated with the new CBD toll on minority drivers who have no *[reasonable]* alternative mode for reaching the Manhattan CBD other than private vehicle would be the same effect as experienced by the general population. This effect would not be predominantly borne by a minority population. As discussed earlier, approximately 52 percent of the region's population identifies as minority, and slightly less than half of the people who travel to the Manhattan CBD for work identify as minority. About 10 percent of the minority commuters to the Manhattan CBD, or approximately 73,000 commuters, commute by private vehicles. This is approximately 5 percent of all commuters to the Manhattan CBD. In addition, the effect on minority drivers would not be more severe or greater in magnitude for the minority population than for the general population. Consequently, the effect on minority drivers associated with the cost of the new toll would not be a disproportionately high and adverse effect.

### 17.7.2.2 Low-Income Drivers

The cost of the new CBD toll would not be predominantly borne by low-income drivers. As described earlier, approximately 14 percent of the commuters to the Manhattan CBD are low-income and 9 percent of the people who drive to the Manhattan CBD are low-income.

However, for low-income drivers who have no *[reasonable]* alternative to reach the Manhattan CBD other than private vehicle, the effect of that cost would be appreciably more severe than the effect on the non-low-income population, because the cost of the toll would represent a larger proportion of each driver's available income. The specific cost associated with the new toll would vary for each driver, depending on the route, time of day, frequency of the trip, and the tolling scenario. In addition, while the lowest tolls would be available to drivers who use E-ZPass, some low-income drivers may have difficulty maintaining an E-ZPass account. There is no fee for setting up an E-ZPass account and TBTA already offers a Pay-Per-Trip option and a Reload Card for cash customers to replenish their E-ZPass. However, there is a \$10 refundable deposit required for customers who do not have a credit card account linked to their account.

For low-income travelers, a wide variety of discounted and lower cost transportation options are currently available in the New York City metropolitan region, including:

- **Transit Fare Discount for Individuals in Low-Income Households.** Beyond the Manhattan CBD, New York City residents between the ages of 18 and 64 who reside in a household with an income below the Federal poverty threshold, and are not receiving full carfare from the Department of Social Services/Human Resources Administration or any other New York City agency, are eligible for the Fair Fares program, which allows travel at half the full fare cost on MTA subway; local, limited, and SBS buses; and Access-A-Ride paratransit. *[As of January 2023, there were more than 275,500 people enrolled in the Fair Fares program.]*
- **Transit Fare Discount for Persons with Disabilities and Those 65 Years of Age and Older.** Even broader geographically, MTA subway, bus, and rail riders who are 65 and older or are persons with disabilities are eligible for a Reduced Fare program, which allows travel on transit at half the full fare cost. This program is not restricted to New York City residents. *[Nearly 1.4 million MTA customers are enrolled in the Reduced Fare program and, as of January 2023, more than 925,000 of those enrolled have been active in the past 18 months.]*
- **Student Transit Fare Discount.** MTA works with the New York City Department of Education so that students have access to education. Student MetroCards<sup>24</sup> are distributed by schools to students whose home is one-half mile or farther from their school. These MetroCards allow three free rides each school day between 5:30 a.m. and 8:30 p.m., including free transfers between buses or between the subway and local, limited, and SBS buses. *[For the 2021–2022 school year, NYCT distributed more than 3,425,000 Student MetroCards to the NYC Board of Education. These cards are provided for students for transportation to and from school (one MetroCard per semester) and for school-approved extracurricular activities.<sup>25</sup>]*
- **Free Ferry Service.** The Staten Island Ferry, which operates 24 hours a day, seven days a week, every day of the year, runs free ferry service from Staten Island to the Manhattan CBD. *[The ferry carries approximately 25 million passengers annually.<sup>26</sup>]*

<sup>24</sup> MetroCard is the primary payment method for the New York City subway and New York City and MTA buses.

<sup>25</sup> MTA NYCT analysis, 2022.]

<sup>26</sup> NYCDOT, "Staten Island Ferry Facts." <https://www.nyc.gov/html/dot/html/ferrybus/ferry-facts.shtml#:~:text=The%20Ferry%20carries%20approximately%2025,day%2C%20365%20days%20a%20year.>]

- **Reduced-Fare Bike Share.** Citi Bike, in partnership with Healthfirst and NYCDOT, provides reduced cost membership of \$5/month (roughly one-third the typical membership) for low-income individuals 16 years and older who are residents of New York City Housing Authority facilities or receive Supplemental Nutrition Assistance Program (SNAP) benefits. *[For those who cannot bike for their entire commute, Citi Bike can serve as a “first-mile/last-mile” mode to access transit. In 2022, there were more than 15,000 people enrolled in Citi Bike’s low-fare membership program, and those enrolled took 50 percent more rides than full-priced members, a testament to its utility for low-income people.<sup>27</sup>]*
- **24-Hour Public Transportation Widely Available.** As described in other chapters of this EA, New York City and the surrounding region has an extensive regional transportation network that operates seven days a week all year long. The services within New York City operate 24 hours a day.
- **E-ZPass Payment Options.** To make the convenience of E-ZPass available for as many customers as possible, TBTA offers a Pay-Per-Trip option and a Reload Card for customers without credit cards to replenish their E-ZPass. *[About 250,000 accounts, or 6 percent of all MTA E-ZPass accounts, are Pay-Per-Trip accounts. Establishing an E-ZPass account ensures customers pay the lowest applicable tolls and can qualify for resident rebates on existing facilities. For example, there are more than 200,000 transponders associated with more than 135,000 accounts enrolled in the Staten Island Resident Rebate program, which provides drivers with an effective toll rate of \$2.75 (the cost of a one-way MTA transit fare) in each direction on the Verrazzano-Narrows Bridge.<sup>28</sup>]*
- *[MTA City Ticket Program. MTA established the reduced-cost, flat-fare City Ticket to encourage travel on Long Island Rail Road and Metro-North Railroad between stations within New York City. Currently, City Tickets cost \$5.00 and are good for one-way travel during off-peak hours. MTA will soon expand the City Ticket program to include peak hours with a modestly higher peak rate, to be adopted by the MTA Board. By comparison, peak hour travel tickets currently can cost as much as \$10.75 on Long Island Rail Road and \$9.75 on Metro-North Railroad. This change will make faster travel between the Manhattan CBD and neighborhoods in the Bronx, Brooklyn, and Queens more affordable, and will benefit more than 10,000 trips on an average weekday.<sup>29</sup>]*

*[In addition to] these [existing] programs offered or supported by the Project Sponsors, the Project Sponsors will implement the following mitigation measures [to address the potential adverse effect of the CBD Tolling Program on low-income drivers]:*

- *[New in the Final EA – TBTA will ensure that for the first five years of the Project, the final tolling structure includes a discounted toll rate for low-income frequent drivers, who could include, for example, commuters to the Manhattan CBD or people who travel regularly to the CBD for medical appointments. The discounted toll rate will be in place for drivers who have either a Federal adjusted*

<sup>27</sup> The Better Bike Share Partnership, “This Summer, NYC Youth Rode Citi Bike to Work.” [https://betterbikeshare.org/2022/09/27/this-summer-nyc-youth-rode-citi-bike-to-work/.](https://betterbikeshare.org/2022/09/27/this-summer-nyc-youth-rode-citi-bike-to-work/)

<sup>28</sup> TBTA analysis, 2022.]

<sup>29</sup> Office of New York Governor Kathy Hochul. 2023. “Governor Hochul Announces Public Transit Expansions to Increase Access, Affordability and Safety.” Jan. 10, 2023. <https://www.governor.ny.gov/news/governor-hochul-announces-public-transit-expansions-increase-access-affordability-and-safety>]

*gross income reported on their income tax return for the prior calendar year in the amount of no more than \$50,000 or proof of enrollment in a qualifying government-provided income-based program (such as the Supplemental Nutrition Assistance Program (SNAP) or the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)).<sup>30</sup> Through the use of their E-ZPass tag and an associated Low-Income Discount Plan on their E-ZPass account, qualifying drivers will benefit from a 25 percent discount on the full CBD E-ZPass toll rate for the applicable time of day after the first 10 trips in each calendar month. (This discount will not include the overnight period, which will already be deeply discounted.) For more information on development of this mitigation, see Appendix 17E, “Approach to Mitigating the Effect of CBD Tolls on Low-Income Frequent Drivers.”*

- *New in the Final EA – Further Reduced Overnight CBD Toll. All tolling scenarios in the EA included an overnight toll rate of either 50 or 60 percent of the peak rate. TBTA will ensure the overnight toll rate for all vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final toll structure; this will benefit low-income drivers who travel during that time and who may have limited opportunities to take transit because of reduced frequency or service during the overnight hours.]*
- **Tax Credit for Tolls Paid:** The Project will include a tax credit for CBD tolls paid by residents of the Manhattan CBD whose New York adjusted gross income for the taxable year is less than \$60,000. (As shown in **Figure 17-[14]**, 33 percent of the households in the Manhattan CBD have household incomes below \$60,000.) TBTA will coordinate with the New York State Department of Taxation and Finance (NYS DTF) so that documentation that may be needed for those eligible for the New York State tax credit is available.<sup>[31]</sup>
- **Education/Outreach/Coordination on the Tax Credit:** TBTA will post information on the Project website related to the tax credit and a link to the appropriate location on the NYS DTF website that guides eligible drivers to information on filing their taxes.
- **Elimination of the E-ZPass Tag Deposit Fee:** For all drivers, the best way to reduce toll costs associated with the CBD Tolling Program would be to use E-ZPass, since toll rates would be lower for those who use E-ZPass than for those who do not. As noted, TBTA already offers a Pay-Per-Trip option and a Reload Card for cash customers to replenish their E-ZPass. However, there is a \$10 refundable deposit required for customers who do not have a credit card account linked to their account. Recognizing that these tend to be low-income customers, TBTA, as one of the Project Sponsors, will eliminate the required refundable deposit for customers who want E-ZPass but do not have a credit card connected to their account. This will benefit all TBTA E-ZPass tag holders who do not have a credit card connected to their account, whether or not they drive to the Manhattan CBD. *[Importantly, in many cases, once customers have an E-ZPass, they will also benefit from lower toll rates (compared to Tolls by Mail) on other facilities, including but not limited to the Port Authority of NY & NJ tunnels and bridges, TBTA’s bridges and tunnels, the New York State Bridge Authority bridges, and the New York State Thruway, thus*

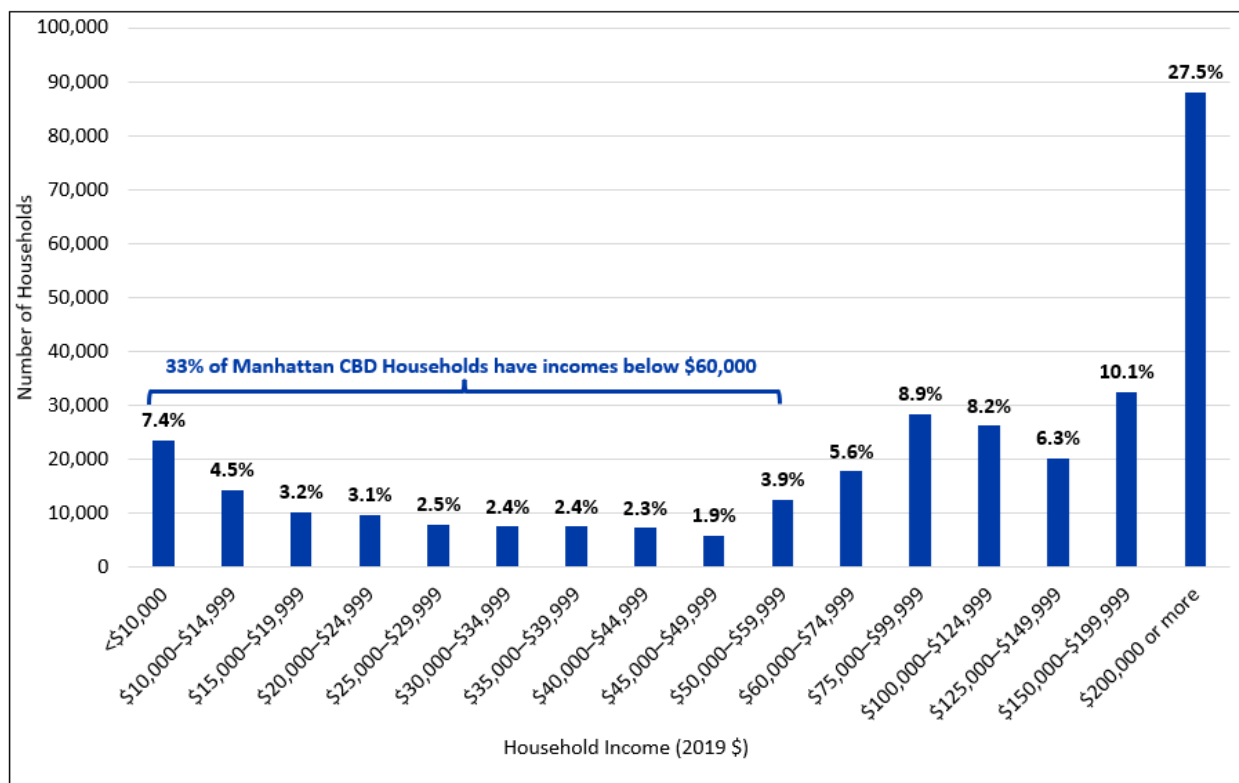
<sup>[30]</sup> *The Project Sponsors commit to a five-year period for the discounted toll rate to allow time for frequent low-income drivers to try alternatives and/or adjust their travel habits as capital projects increase reliability and access.]*

<sup>[31]</sup> *Although some people might not earn enough annually to have to file a tax return, they may still opt to submit a tax return to claim the credit. Free tax filing programs are available for qualifying individuals through the NYS Department of Taxation and Finance and the NYC Department of Consumer and Worker Protection (DCWP).]*

*reducing their overall toll expenditure. There are over 815,000 MTA E-ZPass accounts that are not linked to a credit card and require the tag deposit.<sup>32]</sup>*

- **Enhanced Promotion of Existing E-ZPass Payment and Plan Options:** TBTA will provide enhanced promotion of existing E-ZPass payment and plan options, including the ability for drivers to pay per trip (rather than a pre-load [ed] balance) and refill their accounts with cash at participating retail partners.
- **Education/Outreach on Transit Discounts:** TBTA will coordinate with MTA to provide outreach and education on eligibility for existing discounted transit fare products and programs, including those for individuals 65 years of age and older, those with disabilities, and those with low incomes, about which many may not be aware.

**Figure 17-[14]. Income Distribution for Households in the Manhattan CBD**



Source: U.S. Census Bureau, ACS 2015-2019 5-Year Estimates.

- **Establishment of an Environmental Justice Community Group:** The Project Sponsors commit to establishing an Environmental Justice Community Group that [will] meet on a [quarterly] basis, with the first meeting [taking place prior to] Project implementation. *The Project Sponsors will continue to provide meaningful opportunities for participation and engagement related to environmental justice concerns by sharing updated data and analysis, listening to concerns and seeking feedback on the toll setting process].*

In addition, the Project Sponsors are committed to implementing the following enhancement:

<sup>32]</sup> TBTA analysis, 2023.]

- **Enhancement: Prioritizing Equity in Improving Bus Service in New York City.** New York City's buses serve a greater share of low-income and minority households compared to other modes of transportation, including subways. *[MTA NYCT, when redesigning its bus networks, took into consideration areas with higher rates of low-income and minority households.]* The recently implemented Bus Network Redesigns in Staten Island and the Bronx have been well-received. *[Since implementation of the redesigns, bus speeds in Staten Island have increased by 5 percent on weekdays overall, with the AM peak weekdays speeds 9 percent faster. And on Bronx bus routes speeds are now the highest in the system, outperforming the systemwide average by 7 percent. Not only are customers reporting satisfaction with these changes, but the routes are also attracting new riders, with increased ridership on many of the changed routes.<sup>33</sup>]* Network redesigns in Queens and Brooklyn are progressing. TBTA commits to working with NYCT to address areas identified in the EA where bus service could be improved as the Brooklyn and Manhattan Bus Network Redesigns move forward.

*[The additional mitigation measures will help to address the adverse effect of the new toll on low-income drivers who have no reasonable alternative to driving to the Manhattan CBD. With the additional mitigation measures, the CBD Tolling Program would not have a disproportionately high and adverse effect on low-income drivers.]*

### 17.7.3 Evaluation of Adverse Effect on Taxi and FHV Drivers

A potential adverse effect would occur to taxi and/or FHV drivers in New York City, who largely identify as minority populations, in tolling scenarios that toll their vehicles more than once a day. This would occur in unmodified Tolling Scenarios A, D, and G; for FHV drivers it would also occur in Tolling Scenarios C and E. The adverse effect would be related to the cost of the new CBD toll and the reduction of VMT for taxis and/or FHVs, which would result in a decrease in revenues that could lead to losses in employment. This adverse effect would occur predominantly to a minority population and therefore would be a disproportionately high and adverse effect.

*[To address this adverse effect, the Project Sponsors have committed to a toll structure of no more than once per day toll for taxis or FHVs in the final CBD toll structure. With this mitigation, no disproportionately high and adverse effect would occur to taxi and FHV drivers.<sup>34</sup>]*

## 17.8 CONCLUSION

Consistent with USDOT Order 5610.2C and FHWA Order 6640.23A, the environmental justice analysis included a review of Project effects to identify appropriate study areas, identification of existing minority and low-income populations in the study areas, identification of potential adverse effects of the Project on

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<sup>33</sup> MTA NYCT analysis, 2022.]

<sup>34</sup> This commitment would not preclude New York City taxi and FHV drivers from benefiting from the low-income driver mitigation measures, including the Low-Income Discount Plan for their vehicles that are not licensed as taxis or FHVs, provided that they can demonstrate eligibility.]



environmental justice populations, and consideration of whether the CBD Tolling Alternative would result in disproportionately high and adverse effects on environmental justice populations.

Public engagement is a critical component of USDOT's and FHWA's policies and practices related to environmental justice. FHWA and the Project Sponsors conducted an extensive early public outreach program for the Project during preparation of *[the]* EA with a specific focus on coordinating with and obtaining feedback environmental justice populations and representatives of environmental justice communities that could be affected by the Project.

*[USDOT Order 5610.2C and FHWA Order 6640.23A state that FHWA will ensure that any actions that have the potential for a disproportionately high and adverse effect on minority or low-income populations will only be carried out if:*

- 1. "Further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effect are not practicable."*
- 2. "A substantial need for the program, policy or activity exists, based on the overall public interest."*
- 3. "Alternatives that would have less adverse effects on protected populations have either: (a) adverse social, economic, environmental, or human health impacts that are severe; or (b) would involve increased costs of extraordinary magnitude."*

*USDOT Order 5610.2C and FHWA Order 6640.23A further explain, "In determining whether a mitigation measure or an alternative is 'practicable,' the social, economic (including costs) and environmental effects of avoiding or mitigating the adverse effects will be taken into account."*

The environmental justice analysis *[presented in this chapter]* conclude[s] that the CBD Tolling Alternative would not result in adverse effects on environmental justice populations in most of the topic areas reviewed, *and that with the implementation of mitigation the Project would not result in any potentially disproportionately high and adverse effects on environmental justice populations.]*

The Project would address the demonstrated need to reduce vehicle congestion in the Manhattan CBD, which would benefit all drivers traveling to and near the Manhattan CBD, especially those who value their travel-time savings more than the toll cost. The reduced congestion would produce other related benefits, including travel-time savings, improved travel-time reliability, reduced vehicle operating costs, improved safety for vehicles, pedestrians, and bicyclists, and improved air quality in the Manhattan CBD and regionwide.

Reductions in vehicle volumes and VMT in the Manhattan CBD and other locations within the regional study area would benefit those who continue to drive in the Manhattan CBD, including delivery vehicles and taxi and FHV drivers. Transit riders who use buses, including minority and low-income passengers, would benefit from the CBD Tolling Alternative through congestion reduction that would result in travel-time savings, improved travel-time reliability, and improved safety.

Reduced regional air pollution would provide an important benefit to all residents of the region, particularly for environmental justice populations who experience adverse health effects related to air pollution, such as asthma. Most environmental justice populations who live in the Manhattan CBD would experience lower localized pollutant emissions due to reduced traffic.

In addition, the CBD Tolling Alternative would establish a reliable, recurring local source of funding for MTA capital projects, which would allow MTA to reinvest in and improve its transportation network. Most people throughout the region use public transportation to travel to and from the Manhattan CBD. As discussed earlier, approximately 76 percent of the people who travel to the Manhattan CBD for work use public transportation and this percentage is higher for minority commuters (82 percent) and low-income commuters (79 percent). MTA's transportation network is critical for mobility in the region, and improvements to the network would allow it to absorb increasing transit ridership and further reduce vehicle congestion.

**Table 17-[17]** summarizes the effects of the environmental justice analysis presented in this chapter[, *and Table 17-18 provides a summary of how mitigation and enhancement measures will be implemented by the Project Sponsors*].

Table 17-[17]. Summary of Effects of the CBD Tolling Alternative Related to Environmental Justice

TOPIC	SUMMARY OF EFFECTS	[LOCATION]	DATA SHOWN IN TABLE	TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
				A	B	C	D	E	F	G		
Low-income drivers	<i>[The EA as published in August 2022 found t]he increased cost to drivers with the new CBD toll would disproportionately affect low-income drivers to the Manhattan CBD who do not have [a reasonable] alternative for reaching the Manhattan CBD. [With further analysis of the population affected and the addition of new mitigation, the Final EA concludes there would not be a disproportionately high and adverse effect on low-income drivers.]</i>	<i>[28-county study area]</i>	Narrative	The increased cost to drivers would <i>[occur under]</i> all tolling scenarios.							Yes	<p><b>Mitigation needed.</b> The Project will include a tax credit for CBD tolls paid by residents of the Manhattan CBD whose New York adjusted gross income for the taxable year is less than \$60,000. TBTA will coordinate with the New York State Department of Taxation and Finance (NYS DTF) to ensure availability of documentation needed for drivers eligible for the New York State tax credit.</p> <p>TBTA will post information related to the tax credit on the Project website, with a link to the appropriate location on the NYS DTF website to guide eligible drivers to information on claiming the credit.</p> <p>TBTA will eliminate the \$10 refundable deposit currently required for E-ZPass customers who do not have a credit card linked to their account, and which is sometimes a barrier to access.</p> <p>TBTA will provide enhanced promotion of existing E-ZPass payment and plan options, including the ability for drivers to pay per trip (rather than a pre-load[ed] balance) and refill their accounts with cash at participating retail locations, and discount plans already in place, about which they may not be aware.</p> <p>TBTA will coordinate with MTA to provide outreach and education on eligibility for existing discounted transit fare products and programs, including those for individuals 65 years of age and older, those with disabilities, and those with low incomes, about which many may not be aware.</p> <p>The Project Sponsors commit to establishing an Environmental Justice Community Group that <i>[will]</i> meet on a <i>[quarterly]</i> basis, with the first meeting <i>[taking place prior to]</i> Project implementation, to share updated data and analysis and hear about potential concerns. <i>[As it relates to environmental justice, the Project Sponsors will continue providing meaningful opportunities for participation and engagement by sharing updated data and analysis, listening to concerns and seeking feedback on the toll setting process.]</i></p> <p><b>New in Final EA –TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final CBD toll structure; this will benefit low-income drivers who travel during that time.</b></p> <p><b>New in the Final EA – For five years, TBTA commits to a Low-Income Discount Plan for low-income frequent drivers who will benefit from a 25 percent discount on the full CBD E-ZPass toll rate for the applicable time of day after the first 10 trips in each calendar month (not including the overnight period, which will already be deeply discounted).</b></p> <p><b>Enhancement</b>  <i>TBTA will coordinate with MTA NYCT to improve bus service in areas identified in the EA as the Brooklyn and Manhattan Bus Network Redesigns move forward.]</i></p>

TOPIC	SUMMARY OF EFFECTS	[LOCATION]	DATA SHOWN IN TABLE	TOLLING SCENARIO						POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS	
				A	B	C	D	E	F			G
Taxi and FHV drivers	<p><b>[The EA as published in August 2022 found a]</b> potential disproportionately high and adverse effect would occur to taxi and FHV drivers in New York City, who largely identify as minority populations, in tolling scenarios that toll their vehicles more than once a day. This would occur in unmodified Tolling Scenarios A, D, and G; for FHV drivers, it would also occur in Tolling Scenarios C and E. The adverse effect would be related to the cost of the new Manhattan CBD toll and the reduction of VMT for taxis and FHV, which would result in a decrease in revenues that could lead to losses in employment. <b>[With the addition of new mitigation, the Final EA concludes there would not be a disproportionately high and adverse effect on taxi and FHV drivers.]</b></p>	[New York City]	<p>Narrative</p> <p>Change in daily taxi/FHV VMT with passengers in the CBD relative to No Action Alternative: Scenarios included in EA</p> <p>Net change in daily taxi/FHV trips to CBD relative to scenarios included in EA: Additional analysis to assess effects of caps or exemptions</p>	<p>Potential adverse effect would occur in Tolling Scenarios A, D, and G, which would not have caps or exemptions for taxis and FHV drivers.</p>						Yes	<p><b>[New in Final EA - Mitigation needed. TBTA will ensure that a toll structure with tolls of no more than once per day for taxis or FHV is included in the final CBD toll structure.]</b></p>	
				-21,498 (-6.6%)	+15,020 (+4.6%)	-11,371 (-3.5%)	-54,476 (-16.8%)	-25,621 (-7.9%)	+4,962 (+1.5%)	-27,757 (-8.6%)		
				Tolls capped at 1x / Day: +2%	—	—	Tolls capped at 1x / Day: +3% Exempt: +50%	—	—	Tolls capped at 1x / Day: +2%		

TOPIC	SUMMARY OF EFFECTS	[LOCATION]	DATA SHOWN IN TABLE	TOLLING SCENARIO							POTENTIAL ADVERSE EFFECT	MITIGATION AND ENHANCEMENTS
				A	B	C	D	E	F	G		
[Increases or decreases in traffic, as a result of traffic diversions, in communities already overburdened by pre-existing air pollution and chronic diseases]	Certain environmental justice communities would benefit from decreased traffic; some communities that are already overburdened by pre-existing air pollution and chronic diseases could see an adverse effect as a result of increased traffic.	The specific census tracts that would experience increased or decreased traffic change slightly depending on the tolling scenario. The following communities could have census tracts that merit place-based mitigation: High Bridge, Morrisania and Crotona, Tremont, Hunts Point, Mott Haven, Pelham, Throgs Neck, Northeast Bronx, East Harlem, Randall's Island, Lower East Side/Lower Manhattan, Downtown Brooklyn, Fort Greene, South Williamsburg, Orange, East Orange, Newark, and Fort Lee. (See Note 1.)	Narrative								Yes	<p><b>New in Final EA - Mitigation needed.</b></p> <p><b>Regional Mitigation</b>                      TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final toll structure; this will reduce truck diversions.</p> <p>NYCDOT will expand NYC Clean Trucks Program to accelerate the replacement of eligible old diesel trucks, which travel on highways in certain environmental justice communities where the Project is projected to increase truck traffic, to lower-emission electric, hybrid, compressed natural gas, and clean diesel vehicles.</p> <p>NYCDOT will expand its off-hours delivery program in locations where the Project is projected to increase truck diversions to reduce daytime truck traffic and increase roadway safety in certain environmental justice communities.</p> <p><b>Place-based Mitigation</b>                      TBTA will toll vehicles traveling northbound on the FDR Drive that exit at East Houston Street and then turn to immediately travel south on FDR Drive; this will mitigate modeled non-truck traffic increases on the FDR Drive between the Brooklyn Bridge and East Houston Street.</p> <p>NYCDOT will coordinate to replace diesel-burning TRUs at Hunts Point with cleaner vehicles.</p> <p>NYSDOT will coordinate to expand electric truck charging infrastructure.</p> <p>The Project Sponsors will coordinate to install roadside vegetation to improve near-road air quality.</p> <p>The Project Sponsors will renovate parks and greenspaces.</p> <p>The Project Sponsors will install or upgrade air filtration units in schools.</p> <p>The Project Sponsors will coordinate to expand existing asthma case management programs and create new community-based asthma programming through a neighborhood asthma center in the Bronx.]</p>

[Note:  
 1 The Project Sponsors have committed to a toll policy that will reduce the overnight toll rate from at least 12:00 a.m. to 4:00 a.m. Based on the modeling undertaken for the tolling scenarios analyzed in the EA, it is expected that this policy will avoid a substantial portion of projected truck diversions, as many of these diverted trucks were projected to occur during the overnight hours. Following the adoption of the CBD tolling structure by the TBTA Board, which will include this overnight exemption/discount, modeling of the adopted tolling structure will be undertaken to determine where truck diversions are expected to occur. After the communities and census tracts are confirmed through the analysis of the adopted toll schedule, specific siting of place-based mitigation measures will require further coordination between the Project Sponsors, the Environmental Justice Community Group (representing the 10-county environmental justice study area), the relevant communities receiving the place-based mitigation, and relevant local and state implementing agencies.]

[Table 17-18. Summary of the CBD Tolling Alternative Implementation Approach for Mitigation and Enhancement Measures Related to Environmental Justice]

TOPIC	RELEVANT LOCATION(S)	DESCRIPTION OF MITIGATION OR ENHANCEMENT	TIMELINE FOR PRE- AND POST-PROJECT IMPLEMENTATION DATA COLLECTION FOR SPECIFIC MEASURES	THRESHOLD FOR DETERMINING WHEN NEXT STEP(S) WILL BE IMPLEMENTED	TIMING FOR SPECIFIC MEASURES	LEAD AGENCY
Low-income drivers	28-county study area	The Project will include a tax credit for CBD tolls paid by residents of the Manhattan CBD whose New York adjusted gross income for the taxable year is less than \$60,000. TBTA will coordinate with the New York State Department of Taxation and Finance (NYS DTF) to ensure availability of documentation needed for drivers eligible for the NYS tax credit.	N/A – No early monitoring required; implemented under any adopted tolling structure. Data on the utilization of tax credits for CBD tolls paid will be collected by NYS DTF.		Coordination with NYS DTF will begin immediately after project approval, if approved.	TBTA will lead and coordinate with the NYS DTF.
		TBTA will post information related to the tax credit on the Project website, with a link to the appropriate location on the NYS DTF website to guide eligible drivers to information on claiming the credit.	N/A – No early monitoring required; implemented under any adopted tolling structure.	N/A – No threshold required; implemented under any adopted tolling structure.	Information will be made available to the public about the tax credit during the public information campaigns at least 60 days prior to Project implementation. Information will be provided through a combination of methods which may include print publications, radio, billboards, websites, social media, and existing MTA assets such as digital subway station signs and bus advertising. Information will be provided in multiple languages and targeted geographically.	TBTA will lead and coordinate with the NYS DTF.
		TBTA will eliminate the \$10 refundable deposit currently required for E-ZPass customers who do not have a credit card linked to their account, and which is sometimes a barrier to access.	N/A – No early monitoring required; implemented under any adopted tolling structure.	N/A – No threshold required; implemented under any adopted tolling structure.	60 days prior to Project implementation.	TBTA will lead.
		TBTA will provide enhanced promotion of existing E-ZPass payment and plan options, including the ability for drivers to pay per trip (rather than a pre-loaded balance), refill their accounts with cash at participating retail locations, and discount plans already in place, about which they may not be aware.	N/A – No early monitoring required; implemented under any adopted tolling structure. Information on the scope and reach of promotion efforts will be documented, and data on E-ZPass account type and volume is collected in an ongoing manner.	N/A – No threshold required; implemented under any adopted tolling structure.	Promotion will be part of the public information campaigns at least 60 days prior to Project implementation.	TBTA will lead.
		TBTA will coordinate with MTA to provide outreach and education on eligibility for existing discounted transit fare products and programs, including those for individuals 65 years of age and older, those with disabilities, and those with low incomes, about which many may not be aware.	N/A – No early monitoring required; implemented under any adopted tolling structure. Information on the scope and reach of outreach efforts will be documented.	N/A – No threshold required; implemented under any adopted tolling structure.	Outreach will be part of the public information campaigns at least 60 days prior to Project implementation.	TBTA will lead in partnership with MTA.
		The Project Sponsors commit to establishing an Environmental Justice Community Group that will meet on a quarterly basis, with the first meeting taking place prior to Project implementation. As it relates to environmental justice, the Project Sponsors will continue providing meaningful opportunities for participation and engagement by sharing updated data and analysis, listening to concerns and seeking feedback on the toll setting process.	N/A – No early monitoring required; implemented under any adopted tolling structure.	N/A – No threshold required; implemented under any adopted tolling structure.	Membership will be confirmed six months prior to Project implementation, with the first meeting taking place prior to implementation, the second meeting within the six months after implementation, and meetings quarterly thereafter.	TBTA will lead, in partnership with NYSDOT and NYCDOT.
		<b>New in Final EA:</b> TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final CBD toll structure; this will benefit low-income drivers who travel during that time.	N/A – No early monitoring required; implemented under any adopted tolling structure.	N/A – No threshold required; implemented under any adopted tolling structure.	Concurrent with Project implementation.	TBTA will lead.
		<b>New in Final EA:</b> For five years, TBTA commits to a Low-Income Discount Plan for frequent low-income drivers who will benefit from a 25 percent discount on the full CBD E-ZPass toll rate for the applicable time of day after the first 10 trips in each calendar month (not including the overnight period, which will already be deeply discounted).	N/A – No early monitoring required; implemented under any adopted tolling structure; application process will begin several months in advance of the commencement of tolling operations.	N/A – No threshold required; implemented under any adopted tolling structure.	Concurrent with Project Implementation.	TBTA will lead.

TOPIC	RELEVANT LOCATION(S)	DESCRIPTION OF MITIGATION OR ENHANCEMENT	TIMELINE FOR PRE- AND POST-PROJECT IMPLEMENTATION DATA COLLECTION FOR SPECIFIC MEASURES	THRESHOLD FOR DETERMINING WHEN NEXT STEP(S) WILL BE IMPLEMENTED	TIMING FOR SPECIFIC MEASURES	LEAD AGENCY
Low-income drivers (Cont'd)	New York City	TBTA will coordinate with MTA NYCT to improve bus service in areas identified in the EA as the Brooklyn and Manhattan Bus Network Redesigns move forward.	N/A – No early monitoring required; implemented under any adopted tolling structure.	N/A – No threshold required; implemented under any adopted tolling structure.	Coordination between TBTA and NYCT is ongoing and will increase after toll rates are set. The Brooklyn Bus Network Redesign Draft Plan was published in December 2022 and will be refined in 2023. The next step in the Manhattan Bus Network Redesign is an Existing Conditions Report.	TBTA will coordinate with NYCT.
Taxi and FHV drivers	New York City	<b>New in Final EA:</b> TBTA will ensure that a toll structure with tolls of no more than once per day for taxis or FHVs is included in the final CBD toll structure to avoid a disproportionately high and adverse effect on taxi and FHV drivers from the Project.	N/A – No early monitoring required; implemented under any adopted tolling structure.	N/A – No threshold required; implemented under any adopted tolling structure.	Concurrent with Project implementation.	TBTA will lead.
Traffic diversion to certain communities already overburdened by pre-existing air pollution and chronic diseases (See Note 1)	Multiple throughout the environmental justice study area	<b>New in Final EA:</b> TBTA will ensure the overnight toll for trucks and other vehicles is reduced to at or below 50 percent of the peak toll from at least 12:00 a.m. to 4:00 a.m. in the final structure; this will reduce truck diversions.	N/A – No early monitoring required; implemented under any adopted tolling structure.	N/A – No threshold required; implemented under any adopted tolling structure.	Concurrent with Project implementation.	TBTA will lead.
		<b>New in Final EA:</b> NYCDOT will expand NYC Clean Trucks Program to accelerate the replacement of eligible old diesel trucks, which travel on highways in certain environmental justice communities where the Project is projected to increase truck traffic, to lower-emission electric, hybrid, compressed natural gas, and clean diesel vehicles.	N/A – No early monitoring required; implemented under any adopted tolling structure.	N/A – No threshold required; implemented under any adopted tolling structure.	Engagement with truck-owning companies will start after toll rates are set; implementation will begin within six months of start of tolling operations.	NYCDOT will lead.
		<b>New in Final EA:</b> NYCDOT will expand its off-hours deliveries program in locations where the Project is projected to increase truck traffic to reduce daytime truck traffic and increase roadway safety in certain environmental justice communities.	N/A – No early monitoring required; implemented under any adopted tolling structure.	N/A – No threshold required; implemented under any adopted tolling structure.	Engagement with shippers and receivers will start after the toll rates are set; implementation will begin within six months of start of tolling operations.	NYCDOT will lead.
	FDR Drive between the Brooklyn Bridge and East Houston Street	<b>New in Final EA:</b> TBTA will toll vehicles traveling northbound on the FDR Drive that exit at East Houston Street and then turn to immediately travel south on FDR Drive; this will mitigate modeled non-truck traffic increases on the FDR Drive between the Brooklyn Bridge and East Houston Street.	N/A – No early monitoring required; implemented under any adopted tolling structure.	N/A – No threshold required; implemented under any adopted tolling structure.	Concurrent with Project implementation.	TBTA will lead.
	Hunts Point Produce Market	<b>New in Final EA:</b> The Project Sponsors will coordinate to replace diesel-burning TRUs with cleaner vehicles at the Hunts Point Produce Market.	N/A – No early monitoring required; implemented under any adopted tolling structure.	N/A – No threshold required; implemented under any adopted tolling structure.	Engagement with TRU owners and lessees for TRU replacement will start immediately after receiving Project approval.	NYCDOT will lead.

TOPIC	RELEVANT LOCATION(S)	DESCRIPTION OF MITIGATION OR ENHANCEMENT	TIMELINE FOR PRE- AND POST-PROJECT IMPLEMENTATION DATA COLLECTION FOR SPECIFIC MEASURES	THRESHOLD FOR DETERMINING WHEN NEXT STEP(S) WILL BE IMPLEMENTED	TIMING FOR SPECIFIC MEASURES	LEAD AGENCY
Traffic diversion to certain communities already overburdened by pre-existing air pollution and chronic diseases (See Note 1) (Cont'd)	The specific census tracts that would experience increased or decreased traffic change slightly depending on the tolling scenario. The following communities could have census tracts that merit place-based mitigation: High Bridge, Morrisania and Crotona, Tremont, Hunts Point, Mott Haven, Pelham, Throgs Neck, Northeast Bronx, East Harlem, Randall's Island, Downtown Brooklyn, Fort Greene, South Williamsburg, Orange, East Orange, Newark, and Fort Lee (See Note 1).	<b>New in Final EA:</b> NYSDOT will coordinate to expand electric truck charging infrastructure through the Federal Carbon Reduction Program.	After toll rates are set, analyses of the adopted toll structure will be undertaken as outlined in <b>Appendix 17D</b> to determine where truck diversions are expected to occur. With this analysis and through continued engagement with the Environmental Justice Community Group and other stakeholders, specific locations for place-based mitigation will be determined.  Data on the scope and impact of mitigation measures implemented will be collected in an ongoing manner.	N/A – No threshold required; implemented under any adopted tolling structure.	Specific locations will be determined after toll rates are set; implementation will begin within six months of start of tolling operations.	NYSDOT will lead.
		<b>New in Final EA:</b> The Project Sponsors will coordinate to install roadside vegetation to improve near-road air quality.			Specific locations will be determined with the affected communities after toll rates are set; implementation will begin within six months of start of tolling operations.	The Project Sponsors will coordinate with relevant state and local agencies.
		<b>New in Final EA:</b> The Project Sponsors will renovate parks and greenspaces.			Specific locations will be determined with the affected communities after toll rates are set; implementation timing will be determined after locations are confirmed.	The Project Sponsors will coordinate with relevant local agencies.
		<b>New in Final EA:</b> The Project Sponsors will install or upgrade air filtration units in schools.			After the toll rates are set, a site/needs assessment will take place prior to start of tolling operations; implementation timing will be determined after locations are confirmed.	The Project Sponsors will coordinate with relevant local agencies.
		<b>New in Final EA:</b> The Project Sponsors will work with NYC DOHMH to expand their asthma case management program and create new community-based asthma programming through a neighborhood asthma center in the Bronx.			After the toll rates are set, a site/needs assessment will take place prior to start of tolling operations; implementation timing will be determined after locations are confirmed.	The Project Sponsors will coordinate with NYC DOHMH.

Notes:

- 1 To fund the mitigation measures for this topic the Project Sponsors have committed \$155 million over five years. The Project Sponsors commit to these measures, regardless of the tolling structure eventually adopted. The allocation of funding is described in greater detail in **Chapter 17, "Environmental Justice."** An additional \$5 million has been allocated for mitigation and enhancement measures related to monitoring across other topics, along with \$47.5 million for the low-income toll discount.
- 2 The Project Sponsors have committed to a toll policy that will reduce the overnight toll rate at least from 12:00 a.m. to 4:00 a.m. Based on the modeling undertaken for the tolling scenarios analyzed in the EA, it is expected that this policy will avoid a substantial portion of projected truck diversions, as many of these diverted trucks were projected to occur during the overnight hours. Following the adoption of the CBD tolling structure by the TBTA Board, which will include this overnight exemption/discount, modeling of the adopted tolling structure will be undertaken to determine where truck diversions are expected to occur. Following this analysis, specific siting of place-based mitigation measures will require further coordination between the Project Sponsors, the Environmental Justice Community Group (representing the 10-county environmental justice study area), the relevant communities receiving the place-based mitigation, and relevant local and state implementing agencies.



## 17.9 ENVIRONMENTAL JUSTICE PUBLIC ENGAGEMENT

Public engagement is a critical component of USDOT's and FHWA's policies and practices related to environmental justice. FHWA and the Project Sponsors conducted an extensive early public outreach program for the Project during preparation of this EA with a specific focus on coordinating with and obtaining feedback from environmental justice populations and representatives of environmental justice communities that could be affected by the Project. This section describes the extensive environmental justice public outreach program that FHWA and the Project Sponsors developed for the Project. See **Chapter 18, "Agency Coordination and Public Participation"** for additional details on outreach methods and general public involvement efforts for the Project.

FHWA and the Project Sponsors used comments and feedback provided during this early public outreach to inform the environmental justice analysis and overall preparation of this EA as described throughout this chapter. A summary of issues raised and how they were addressed in the environmental justice analysis is provided in **Section 17.4** of this chapter.

FHWA and the Project Sponsors began outreach for the Project to environmental justice populations in August 2021. Using preliminary data and analyses collected during development of this EA, the Project Sponsors identified social media and traditional media outlets that would reach a wide audience of minority and low-income populations in the 28-county regional study area. The Project Sponsors relied on contact information from MTA's Office of Diversity, NYCDOT, and Metropolitan Planning Organizations and Councils of Government that represent counties within the study area to begin a contact list and have updated that list as members of the public have expressed interest in the Project. The Project Sponsors used the contact list to circulate information about the Project and public meeting opportunities. In addition, FHWA and the Project Sponsors corresponded with Federally recognized and state recognized Native American tribes with current or historical presence within the regional study area to inform them about the Project and to offer an opportunity to meet with them to provide further information and discuss any concerns.

### 17.9.1 Environmental Justice Webinars

The Project Sponsors held webinars to engage with environmental justice populations throughout the regional study area. Promotional materials and the Project website (<https://new.mta.info/project/CBDTP>) described that the purpose of these meetings was to provide information to and get input from environmental justice populations. The Project Sponsors targeted sessions to the three states in the study area, Connecticut, New Jersey, and New York, but people were welcome to attend any session. Although advertised as environmental justice webinars, any member of the public could attend and speak at the sessions.

The Project Sponsors advertised the environmental justice webinars through social media, traditional media, signs and posters on public transportation and at stations, and announcements on the Project Sponsors' websites. As described in **Chapter 18, "Agency Coordination and Public Participation,"** the Project Sponsors advertised meetings on 33 media outlets including English and foreign language publications throughout the 28-county region. The meetings were also advertised on radio stations, and the Project

Sponsors conducted digital advertising through Geo Fencing, Twitter, and World Journal. Advertisements for the webinars were translated to Spanish, Chinese, Haitian Creole, Bengali, Korean, Italian, Portuguese, and Russian, which are the most prominent non-English languages used by residents of the regional study area.

The Project Sponsors hosted six environmental justice webinars in October 2021 (October 7, 12, 13, 26, 27, and 28) and three environmental justice webinars in December 2021 (December 7, 8, and 9, 2021). The meetings began at 6:00 p.m. **Table 17-[19]** lists the dates and times of each webinar and provides an overview of the participation at each webinar.

**Table 17-[19.]Environmental Justice Webinars**

MEETING	LOCATION	DATE	MEETING START TIME	MEETING END TIME	TOTAL UNIQUE ZOOM WEBINAR VIEWERS	TOTAL YOUTUBE LIVE VIEWERS	TOTAL ORAL COMMENTS	TOTAL Q&A
Webinar 1	New York	10/7/2021	6:00 p.m.	6:54 p.m.	31	14	11	20
Webinar 2	New Jersey	10/12/2021	6:00 p.m.	6:37 p.m.	10	13	4	27
Webinar 3	Connecticut	10/13/2021	6:00 p.m.	8:07 p.m.	12	12	3	17
Webinar 4	New York	10/26/2021	6:00 p.m.	8:09 p.m.	23	25	4	18
Webinar 5	New Jersey	10/27/2021	6:00 p.m.	8:08 p.m.	9	10	4	18
Webinar 6	Connecticut	10/28/2021	6:00 p.m.	8:11 p.m.	18	9	10	55
Webinar 7	New York	12/7/2021	6:00 p.m.	8:02 p.m.	32	15	6	20
Webinar 8	New Jersey	12/8/2021	6:00 p.m.	8:01 p.m.	7	10	1	13
Webinar 9	Connecticut	12/9/2021	6:00 p.m.	8:00 p.m.	3	8	0	9
<b>TOTALS</b>					<b>145</b>	<b>116</b>	<b>43</b>	<b>197</b>

The webinars were targeted to different geographic areas; however, the webinars were open to anyone who wished to participate regardless of where they lived or worked. Meeting attendees were able to participate via computer or telephone. Meeting attendees could sign up to speak for two minutes either in advance of or during the meeting. Attendees also had the opportunity to communicate via the Question-and-Answer function of the web platform. The webinars continued beyond the two-hour duration as necessary to accommodate all speakers.

American Sign Language interpretation and closed captioning were available at each webinar. Additional language interpretation in any language were made available upon advance request. Individuals who are hearing impaired could dial 711 to be connected free of charge with a communications assistant. To provide additional accessibility, the Project Sponsors live-streamed public webinars and posted recordings of all public presentations for on-demand viewing in multiple languages via YouTube.

The participation in the environmental justice webinars is shown in **Table 17-[19]** and described below. It should be noted that environmental justice populations also participated in the 10 public webinars held in September and October 2021. There were approximately 1,150 participants in these public webinars. As

part of these webinars, attendees could take an optional survey, which included questions about their demographic characteristics. Based on the results received, approximately one-third of meeting attendees identified as environmental justice populations. (Refer to **Chapter 18, “Agency Coordination and Public Participation,”** for more information about the public webinars.)

#### ***17.9.1.1 Environmental Justice Webinars 1 through 6***

The Project Sponsors held Environmental Justice Webinars 1 through 6 in October 2021. The webinars introduced the participants to the Project, using the same presentation at each webinar. The webinars began with a live introduction and overview of attendees from the Project Sponsors. This was followed by a recorded presentation. The first half of the presentation was the same as for the early outreach public webinars (see **Chapter 18, “Agency Coordination and Public Participation”**). It provided an overview of the Project’s purpose, needs, and objectives; identified the two alternatives studied in detail in this EA (No Action Alternative and CBD Tolling Alternative); described the tolling scenarios and range of potential tolls; and identified the topics to be studied in the EA. The second half of the presentation focused specifically on the environmental justice analysis for this EA. It described the regulatory framework for this environmental justice analysis, the methodology for preparing the analysis, an overview of identified environmental justice populations in the regional study area; and a preliminary list of the Project’s potential benefits to and effects on environmental justice populations. The presentation also described the Environmental Justice Technical Advisory Group and the Environmental Justice Stakeholder Working Group, and the Project Sponsors explained how participants could sign up to participate in the Environmental Justice Stakeholder Working Group. The presentation concluded with the Project schedule, a description of future public engagement opportunities, and information on the Project website.

Following the presentation, the Project Sponsors moderated the oral testimony. Although the Project Sponsors gave speakers an opportunity to sign up in advance, anyone in attendance could speak. Comments and questions could be submitted via the Question-and-Answer function of the webinar as well. The Project Sponsors responded to questions sent via the Question-and-Answer function, providing factual and technical responses, along with logistical information. There were 36 speakers and 155 Question- and-Answer submissions during the October webinars. Each webinar was recorded, and the public could view the YouTube recording on the Project’s website at any time following the meeting. The oral and written comments were logged in the Project’s record.

#### ***17.9.1.2 Environmental Justice Webinars 7 through 9***

The Project Sponsors hosted Environmental Justice Webinars 7 through 9 in December 2021. These webinars followed the same format as Environmental Justice Webinars 1 through 6 and included a live introduction followed by a recorded presentation. The presentation reviewed the purpose, need, and objectives for the Project and the approach to the environmental justice analysis. Then, the presentation identified the demographic characteristics of the regional study area and identified environmental justice populations. The presentation continued with a description of travel characteristics of environmental justice populations with a focus on travel to and from the Manhattan CBD. It followed with an overview of the tolling scenarios and travel demand forecasting, including preliminary results for changes in automobile

trips, transit ridership, and taxi/FHV trips. The presentation concluded with an overview of the MTA 2020–2024 Capital Program.

Following the presentation, the Project Sponsors moderated the oral testimony. Although the Project Sponsors gave speakers an opportunity to sign up in advance, anyone in attendance could speak. Comments and questions could also be submitted via the Question-and-Answer function of the webinar. The Project Sponsors responded to questions sent via the Question-and-Answer function, providing factual and technical responses, along with logistical information. There were 7 speakers and 42 Question-and-Answer function submissions during the December webinars. Each meeting was recorded, and the public could view the YouTube recording through the Project’s website at any time following the meeting. The oral and written comments were logged in the Project’s record.

### 17.9.2 Environmental Justice Technical Advisory Group

The Project Sponsors invited community leaders, advocacy groups, industry groups, and community members from the regional study area with expertise in environmental justice considerations to participate in an Environmental Justice Technical Advisory Group. The Project Sponsors invited 37 groups to participate in the Environmental Justice Technical Advisory Group. The following 16 groups accepted the invitation to participate:

- ALIGN
- Chhaya
- Community Voices Heard
- Connecticut Coalition for Environmental Justice
- El Puente
- Good Old Lower East Side (GOLES)
- Hispanic Federation
- NAACP Metropolitan Council Region
- National Action Network
- New Jersey Environmental Justice Alliance
- New York City Environmental Justice Alliance
- South Bronx Unite
- UPROSE
- Urban League of Greater Hartford
- WE ACT for Environmental Justice
- Youth Ministries for Peace and Justice (YMPJ)

Representatives of 14 groups participated in the first meeting of the Environmental Justice Technical Advisory Group, which was held on October 13, 2021, from 1:00 p.m. to 3:00 p.m. Following introductions by the Project Sponsors and the participants, the Project Sponsors presented Project information. Meeting participants were invited to interject with questions or comments during the presentation. The presentation included a Project overview (purpose and need, alternatives studied in this EA, the environmental topics covered in this EA, and schedule), identification of the potential benefits and effects of the Project on environmental justice populations, the process to assess potential effects on environmental justice populations, an overview of the race and income characteristics of the regional study area, the initial identification of environmental justice populations in the regional study area, and an overview of public engagement activities, including targeted outreach to environmental justice populations. *[The Project Sponsors prepared a summary]* to document the meeting, including questions and comments raised by the participants and the responses provided by the Project Sponsors.

Following the meeting, the Project Sponsors prepared a summary of the topics raised by the meeting participants and topics for which additional information was requested. The Project Sponsors circulated the list of topics with the members of the Environmental Justice Technical Advisory Group and requested their input on the list as well as any additional topics or concerns that would like to discuss further. The Project Sponsors developed the materials for the second meeting of the Environmental Justice Technical Advisory Group based on these requests.

A second meeting of the Environmental Justice Technical Advisory Group was held on November 3, 2021, from 10:00 a.m. to 12:00 p.m., and representatives of 11 groups participated. The presentation provided more information on topics raised at the first meeting using the list of topics and input from members described above. The topics included modes of travel to the Manhattan CBD by environmental justice populations, demographic characteristics of Manhattan CBD residents, access to transit within the regional study area, an overview of the tolling scenarios, the process for travel demand forecasting, preliminary traffic analysis results, preliminary findings on indirect displacement and changes in air quality emissions, and an overview of the MTA 2020–2024 Capital Program. *[The Project Sponsors prepared a summary]* to document the meeting, including questions and comments raised by the participants and the responses provided by the Project Sponsors.

The Project Sponsors held a third meeting of the Environmental Justice Technical Advisory Group on February 9, 2022, from 6:00 p.m. to 8:00 p.m. Representatives of seven groups attended. The presentation included additional information to respond to previous questions and concerns raised in the second meeting, including how the Project would change traffic volumes in environmental justice areas, changes in traffic at local intersections, potential effects on air quality, effects of the Project on bus ridership levels, and concerns related to the potential for indirect displacement because of the Project. *[The Project Sponsors prepared a summary]* summary to document the meeting, including questions and comments raised by the participants and the responses provided by the Project Sponsors.

*[The Project Sponsors held a fourth meeting of the Environmental Justice Technical Advisory Group on August 22, 2022, from 1:00 p.m. to 2:40 p.m. Representatives of 10 groups attended. At the meeting, the Project Sponsors provided a draft of the presentation planned for the upcoming public hearings. The Project Sponsors invited participants to provide feedback on the draft presentation and stressed the importance of submitting comments formally in addition to the discussion at this meeting. The Project Sponsors prepared a summary to document the meeting, including questions and comments raised by the participants and the responses provided by the Project Sponsors.]*

*The Project Sponsors held a fifth meeting of the Environmental Justice Technical Advisory Group on October 10, 2022, from 3:30 p.m. to 6:00 p.m. Representatives of six groups attended. The presentation included reviewing the comments and suggestions made by the Environmental Justice Technical Advisory Group during the public comment period. These comments included concerns regarding potential Project effects on areas already overburdened in terms of air quality pollution and associated health effects, traffic, noise, and new costs and associated economic effects. The suggestions included measures related to emissions initiatives; health and community programs; street and traffic improvements; toll and fare policy; and*

*transit improvements. Other measures also being considered by the Project Sponsors were also discussed. The Project Sponsors prepared a summary to document the meeting, including questions and comments raised by the participants and the responses provided by the Project Sponsors.*

*The Project Sponsors held a sixth meeting of the Environmental Justice Technical Advisory Group on January 5, 2023, from 2:00 p.m. to 3:30 p.m. Representatives of eight groups attended. Slides presented during the meeting were shared with members afterwards. The Project Sponsors prepared a summary to document the meeting, including questions and comments raised by the participants and the responses provided by the Project Sponsors.*

*The Project Sponsors held a seventh meeting of the Environmental Justice Technical Advisory Group on January 12, 2023, from 2:00 p.m. to 3:30 p.m. Representatives of five groups attended. Slides presented during the meeting were shared with members afterwards. The Project Sponsors prepared a summary to document the meeting, including questions and comments raised by the participants and the responses provided by the Project Sponsors.]*

### 17.9.3 Environmental Justice Stakeholder Working Group

The Project Sponsors established an Environmental Justice Stakeholder Working Group. This group comprises interested members of the public with a focus on environmental justice concerns. The Project Sponsors provided information about the Environmental Justice Stakeholder Working Group during the initial, broad public outreach any person or group could request to join. People could suggest themselves or others as participants in this group. Members requested participation in the Environmental Justice Stakeholder Working Group using a form on the Project website or by contacting the Project Sponsors using the telephone hotline.

When expressing interest in the Environmental Justice Stakeholder Working Group, interested members of the public provided information about the purpose of their participation and their expertise or interest in environmental justice considerations. Some people expressed an interest in the study itself or on topics that are more general than or not germane to environmental justice considerations. Twenty-seven people expressed interest in participating in the Environmental Justice Stakeholder Working Group, and the Project Sponsors invited these 27 people to each meeting. Some of these people represented particular interest groups or industries, including people representing bus advocacy groups or bus companies and people representing motorcycle riders.

The first meeting of the Environmental Justice Stakeholder Working Group was held on November 9, 2021, from 6:00 p.m. to 8:05 p.m. Nineteen of the 27 members participated in the meeting. Following introductions by the Project Sponsors and the participants, the Project Sponsors presented Project information. Participants were invited to interject with questions or comments during the presentation. The presentation included the Project overview (purpose and need, alternatives studied in detail in this EA, the environmental topics covered in this EA, and schedule), the regulatory framework on environmental justice and the process to assess potential effects on environmental justice populations, the definitions of minority and low-income populations and charts and maps showing the identification of environmental justice populations in the regional study area, preliminary results on the Project's potential effects on traffic

and the taxi/FHV industry, an overview of comments received during the early public outreach for this EA, and potential topics of discussion for the group. *[The Project Sponsors prepared a summary]* to document the meeting, including questions and comments raised by the participants and the responses provided by the Project Sponsors.

Following the meeting, the Project Sponsors prepared a summary of the topics raised by the meeting participants and topics for which additional information was requested. The Project Sponsors circulated the list of topics with the members of the Environmental Justice Stakeholder Working Group and requested their input on the list as well as any additional topics or concerns that they would like to discuss further. The Project Sponsors developed the materials for the second meeting of the Environmental Justice Stakeholder Working Group based on these requests.

A second meeting was held on November 30, 2021, from 6:00 p.m. to 8:15 p.m., and 19 of the 27 members participated. The presentation provided more information on topics raised at the first meeting based on the list of topics and member input described above. The topics included information on the race of residents of the regional study area, a more detailed description of the travel demand modeling process, predicted changes in vehicular and transit trips with the CBD Tolling Alternative (including patterns of travel by low-income individuals), preliminary results of the traffic analysis (including potential effects in the South Bronx and the Lower East Side), and changes in transit ridership by mode and at regional transit hubs. *[The Project Sponsors prepared a summary]* to document the meeting, including questions and comments raised by the participants and the responses provided by the Project Sponsors.

*[A third meeting was held on August 19, 2022, from 1:00 p.m. to 3:00 p.m., and 14 of the 27 members participated. At the meeting, the Project Sponsors provided a draft of the presentation planned for the upcoming public hearings. The Project Sponsors invited participants to provide feedback and stressed the importance of submitting comments formally in addition to the discussion at this meeting. The Project Sponsors prepared a summary to document the meeting, including questions and comments raised by the participants and the responses provided by the Project Sponsors.]*

#### 17.9.4 *[EA Public Review and]* Future Outreach to Environmental Justice Populations

During the public review of this EA, FHWA and the Project Sponsors *[held]* additional meetings with the Environmental Justice Technical Advisory Group and Environmental Justice Stakeholder Working Group.

In addition, the Project Sponsors conduct *[ed]* outreach targeted to taxi and FHV drivers. Working with the TLC, the Project Sponsors distribute *[d]* information *[in 13 languages]* to TLC's industry-wide email distribution list of nearly 200,000 industry contacts. This list includes nearly 175,000 drivers and thousands of other industry contacts working for yellow taxi, green cab, livery, and black car owners; FHV companies; luxury limousine companies; commuter van companies; paratransit drivers; medallion brokers; leasing agents; and base owners.

FHWA and the Project Sponsors *[have]* consider *[ed]* comments raised about environmental justice considerations and address *[ed]* the comments as part of FHWA's NEPA decision document.

Following completion of the NEPA process, so that ongoing concerns related to environmental justice can be addressed, the Project Sponsors will establish an Environmental Justice Community Group that will meet on a *[quarterly]* basis, with the first meeting *[prior to]* implementation of the Project, to share updated data and analysis and hear about potential concerns.