3.13 Environmental Justice

EPA defines Environmental Justice (EJ) as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies" (EPA 2021a). This section describes the process that OEA used to identify potential EJ populations within the study area (that is, low-income populations and minority populations, including American Indians)[1] ,document potential high and adverse human health or environmental effects from the Proposed Acquisition, and evaluate whether those effects would disproportionately impact the EJ populations in comparison to non-EJ populations.

The primary policy governing EJ is Executive Order (EO) 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" (1994), which directs federal agencies to "identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law" (EPA 2021b). When determining whether human health and environmental effects are disproportionately high and adverse, agencies are to consider, to the extent practicable, whether the effects are significant under NEPA or above generally accepted norms. Per an accompanying Presidential Memorandum to EO 12898, NEPA reviews must include an analysis of effects on minority populations and low-income populations (The White House 1994b). In 1997, CEQ issued guidance for agencies on addressing EJ in the NEPA process (CEQ 1997). The consideration, prioritization, and advancement of EJ is also emphasized in EO 13985, "Advancing Racial Equity and Support for Underserved Communities Through the Federal Government" (2021a), EO 13990, "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis" (2021b), and EO 14008, "Tackling the Climate Crisis at Home and Abroad" (2021c).

3.13.1 Approach

OEA applied the following steps to evaluate the potential for the Proposed Acquisition to cause disproportionately high and adverse impacts on EJ populations:

- OEA identified all potentially high and adverse impacts of the Proposed Acquisition. OEA defined potentially high and adverse impacts as impacts that would be significant under NEPA or above generally accepted norms.
- Based on the identified high and adverse impacts, OEA defined the study area within which the Proposed Acquisition could adversely affect potential EJ populations.
- OEA identified potential EJ populations (low-income and minority populations, including American Indians) in the study area using the best available demographic data managed by the U.S. Census Bureau and the U.S. Department of Housing and Urban

[1] Per the U.S. Census, American Indian refers to "A person having origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment."

Development (HUD), as well as through public outreach. OEA considered populations with high rates of limited English-speaking households to inform the public outreach process.

- OEA evaluated whether the Proposed Acquisition or No-Action Alternative would result in disproportionately high and adverse impacts on potential EJ populations.

Based on the assessment of the potential environmental impacts of the Proposed Acquisition, OEA determined that noise from the projected increased rail traffic would be the only type of impact that could potentially result in high and adverse impacts on EJ populations. As discussed in *Section 3.6, Noise and Vibration*, OEA found that within the noise study area, 6,307 noise-sensitive receptors (receptors), including residences, schools, hospitals, nursing homes, and places of worship, would experience an adverse noise impact under the Proposed Acquisition. An adverse noise impact occurs when the noise level at a receptor increases by 3 dBA[2] or more and reaches or exceeds a 65 Ldn when combined with the existing background noise.[3] Also as discussed in *Section 3.6, Noise and Vibration*, noise associated with adding planned capital improvements within the rail ROW would exceed annoyance thresholds for construction noise at several receptors, but this noise would be temporary and would be minimized by the Applicants' voluntary mitigation measures.

Impacts other than noise from increased rail traffic would not be above generally accepted norms, and thus do not warrant an evaluation of disproportionately high and adverse human health or environmental effects of the Proposed Acquisition on minority and low-income populations. For example, although the Proposed Acquisition would affect rail safety, those impacts would be relatively minor. As discussed in *Section 3.1, Freight and Passenger Rail Safety*, the probability of an incident, such as a derailment, collision, or other accident occurring on a particular rail line depends, in part, on the number of trains that move on that rail line. Therefore, the projected increase in rail traffic that would occur with the Proposed Acquisition would increase the predicted risk of an incident occurring on certain rail lines in the combined CPKC system. Across all of those rail lines, OEA predicts that the greatest increase in the number of incidents would occur on segment C-OTTU-02 between Muscatine, Iowa and Ottumwa, Iowa. On that segment, OEA predicts that the number of incidents would increase by approximately only 0.32 per year, from 0.11 under the No-Action Alternative to 0.43 under the Proposed Acquisition. Other rail lines in the combined CPKC system would experience smaller increases in the number of predicted incidents and OEA expects that majority of incidents would be minor and would not result in any injuries, fatalities, or damage to property. Under the Proposed Acquisition, OEA expects that the number of incidents would remain low on the affected rail line segments,

[2] The frequency of sound relates to its tone or pitch, which is determined by the rate of air pressure fluctuation and is expressed in terms of cycles per second or Hertz (Hz). The human ear can detect a wide range of frequencies, from about 20 Hz to 17,000 Hz. Because the sensitivity of human hearing varies with frequency, sound is measured for environmental noise commonly using a weighting system to provide a single-number descriptor that correlates with subjective human response. Sound levels measured using this weighting system are called "A-weighted" and are expressed in decibel notation as "dBA." Sound and noise experts widely accept the A-weighted sound level as a unit for describing environmental noise.

[3] Ldn is the day-night average sound level. The Ldn is a single value equivalent to the sound energy fluctuating over 24 hours with a 10-dB penalty applied to sound at night (10:00 p.m. to 7:00 a.m.). The Ldn accounts for how loud noise events are, how long they last, how many of them occur over a 24-hour period, and how many occur at night.

and even decrease on some segments. Systemwide, OEA expects that the CPKC incident (2.39) rate would remain well below the Class I average (2.66). The incident rates on KCS and CP respectively would continue or decline if safety trends continue. Further, because the Proposed Acquisition would result in increases in rail traffic by diverting freight from other rail lines and from truck transportation to rail transportation, OEA expects that any potential increase in rail incidents on rail lines in the combined CPKC system would be partially or entirely offset by a decrease in the number of incidents on other rail lines and on highways.

Similarly, the Proposed Acquisition would result in minor adverse impacts on safety and delay at roadway/rail at-grade crossings (grade crossings). As discussed in *Section 3.2, Grade Crossing Safety*, across all 1,134 grade crossings that OEA analyzed in the safety analysis, the predicted number of crashes would increase by an average of 0.005 crashes per crossing per year with the Proposed Acquisition. This corresponds to one additional crash approximately every 200 years, on average. Adding together all potential crashes at the 1,134 crossings resulted in a total of 24.6 predicted crashes per year, as compared to the No-Action Alternative of 18.6 total crashes per year, which is a difference of 6.0 crashes per year. The largest predicted increase in crash frequency is 0.0282 crashes per year, or one additional crash every 35 years, compared to the No-Action Alternative, which is equivalent to one additional crash every approximately 55 years. This predicted increase would occur at Crossing ID 743351B across Miller Road in Hungerford, Texas. This is also the crossing with the highest total predicted number of crashes per year, with a predicted average of 0.2067 crashes per year, or one crash approximately every five years, under the Proposed Acquisition. While OEA expects that the Proposed Acquisition would result in an increase in the number of crashes in the study area, other rail lines in the combined CPKC system would experience smaller increases in the number of predicted incidents and OEA expects that the majority of incidents would be minor and would not result in any injuries, fatalities, or damage to property. Further, because the Proposed Acquisition would result in increases in rail traffic by diverting freight from other rail lines and from truck transportation to rail transportation, OEA expects that any potential increase in rail incidents on rail lines in the combined CPKC system would be partially or entirely offset by a decrease in the number of incidents on other rail lines and on highways.

As discussed in *Section 3.3, Grade Crossing Delay*, across the 277 grade crossings with an average annual daily traffic (AADT) of 2,500 or more vehicles per day, the Proposed Acquisition would result in an average increase in delay of only approximately 0.7 additional seconds per vehicle compared to the No-Action Alternative. The Proposed Acquisition would result in a decrease in the LOS at only five of those grade crossings. OEA predicts that the Proposed Acquisition would cause the LOS to decrease from LOS A to LOS B at all five of these crossings. Because LOS B corresponds to stable flow, OEA concludes that the Proposed Acquisition would result in minor adverse delay impacts at these grade crossings but would not warrant mitigation. OEA notes that, because most of the projected increase in rail traffic on the combined CPKC network would be diverted from other rail lines outside of the study area, the Proposed Acquisition could potentially result in decreased delay at grade crossings on those other rail lines.

The Proposed Acquisition would also not result in adverse impacts related to truck-to-rail diversion (*Section 3.4*), intermodal facility traffic (*Section 3.5*), air quality and climate change (*Section 3.7)*, energy (*Section 3.8*), cultural resources (*Section 3.9*), hazardous material release sites (*Section 3.10*), biological resources (*Section 3.11*), or water resources (*Section 3.12*) that would be significant or above generally accepted norms. Therefore, the analysis of potential impacts on EJ populations is focused on potential adverse noise impacts from increased rail traffic resulting from the Proposed Acquisition.

OEA defined an EJ study area to include area in which OEA identified adverse noise impacts, as described in *Section 3.6, Noise and Vibration*. To assess whether adverse noise impacts would disproportionately affect potential EJ populations, OEA expanded the noise impact areas for the EJ study area to include all intersecting U.S. Census block groups.[4] As part of a system-wide analysis, OEA conducted a desktop analysis of U.S. Census Bureau data from the American Community Survey (ACS) 2019 Five-Year Estimates (2015-2019) to determine whether each intersecting block group had the potential to include an EJ population. In addition to data on minority populations and low-income populations, OEA also reviewed data from ACS on limited English-speaking households for the purpose of supporting the public outreach component of this EIS to maximize opportunities for engagement. As described in *Section 3.6, Noise and Vibration*, increased activities at rail yards and intermodal facilities caused by the Proposed Acquisition would not result in adverse noise impacts; therefore, rail yards and intermodal facilities were not included in the EJ study area.

OEA used ACS data on minority status to determine whether each block group in the study area could include minority populations. In this context, minority status means that an individual identified themselves as being "Black or African American alone," "American Indian and Alaska Native alone," "Asian alone," "Native Hawaiian and Other Pacific Islander alone," "Some Other Race alone" (non-white), and/or "Hispanic or Latino." Consistent with EPA guidance and past OEA practice, OEA identified a block group as potentially containing minority populations when one or both of the following conditions was met:

- At least 50 percent of the people in the block group self-identify as being of minority status; or
- The percentage of the population of minority status in the block group is at least 10 percentage points higher than for the entire county in which the population is located.

OEA used ACS data on income and poverty levels to determine whether each block group in the study area could include low-income populations. Consistent with EPA's definition of low-income (EPA 2016), OEA defined low-income to mean individuals with an income less than 200 percent of the federal poverty level (less than or equal to twice the federal poverty level). Consistent with EPA's guidance (EPA 2016) and OEA's practice in past railroad

[4] A block group is a geographical unit defined by the U.S. Census Bureau. Census block groups generally contain between 600 and 3,000 people and are the smallest geographical units for which the Census Bureau publishes sample household data, such as data on racial and ethnic identification and income level.

merger cases, OEA identified a block group as potentially containing low-income populations when one or both of the following conditions was met:

- At least 50 percent of the population for whom poverty status is determined in the block group qualifies as low-income; or
- The percentage of the population for whom poverty status is determined in the block group that qualifies as low-income is at least 10 percentage points higher than for the entire county in which the population is located.

Although it was not a threshold applied to identify potential EJ populations, OEA also identified households that may need English-language assistance to support the outreach process. Identifying potential populations in the study area with limited English proficiency enables OEA to facilitate meaningful engagement and informed participation, and to determine where it may be appropriate for OEA to provide interpretation and translation services. Per the U.S. Census Bureau ACS definition, "[a] 'limited English-speaking household' is one in which no member 14 years old and over (1) speaks only English at home or (2) speaks a language other than English at home and speaks English 'very well'" (U.S. Census 2021). Note that previous U.S. Census Bureau data products referred to these households as "linguistically isolated." The definition and data tables compiled for both terms ("limited English-speaking households" vs. "linguistically isolated") are directly comparable. OEA applied similar thresholds for the identification of minority and low-income populations to determine where limited English-speaking populations exist in the study area. OEA identified a census block group as limited English speaking when one or both of the following conditions were met:

- At least 50 percent of households in the block group are limited English speaking; or
- The percentage of limited English-speaking households in the block group is at least 10 percentage points higher than for the entire country in which the block group is located.

3.13.2 Affected Environment

The study area for EJ analysis intersects block groups in more than 31 counties across five states, including Illinois, Iowa, Louisiana, Missouri, and Texas. In total, OEA collected and analyzed data for 217 different block groups, encompassing a total population of more than 296,000 people.

Table 3.13-1 summarizes the block group data by state, including details on those block groups with potential EJ populations. As shown in this table and based on the thresholds established in *Section 3.13.1, Approach*:

- OEA identified potential EJ populations in approximately 38 percent of the block groups in the study area. Collectively, those block groups include more than 106,000 people.
- OEA identified less than one-fourth (approximately 23 percent) of block groups as areas with potential minority populations.
- The block groups that OEA identified as potential minority populations included "Black or African American alone" (approximately 5 percent of block groups in the study area),

followed by "Asian alone" (3 percent of the block groups in the data set), and "Some Other Race alone" (approximately 2 percent of the block groups in the study area).

- OEA identified approximately 14 percent of the block groups in the study area as having potential "Hispanic or Latino" populations.
- OEA identified less than one percent of the block groups as potential "American Indian and Alaska Native alone" populations.
- OEA identified approximately 29 percent of the block groups as potential low-income populations.
- OEA identified approximately 13 percent of the block groups as potentially both low-income and minority populations.

Appendix P lists the block groups within the study area that met the thresholds established for identifying potential EJ populations. **Table P.1-1** in **Appendix P** lists the block groups that met the thresholds established for identifying potential minority populations and **Table P.1-2** lists the block groups that met the thresholds established for identifying potential low-income populations.

With respect to limited English-speaking households, OEA identified 12 block groups (or approximately six percent of the total block groups) as potentially needing English-language assistance, located in Illinois (eight block groups), Iowa (two block groups), and Texas (two block groups). Among these block groups, the predominant language spoken is Spanish, with some concentrations of households speaking "Other Indo-European Languages" and "Asian and Pacific Island Languages." **Table P.1-3** lists the block groups that met the thresholds established for identifying potential limited English-speaking populations.

Table 3.13-1. Summary of Potentially Affected Environmental Justice Populations by State

State [1]	Block Groups in Study Area	Block Groups in Study Area with Potential EJ Populations (% of Total Block Groups)	Potential Minority Block Groups in Study Area with EJ Populations [2]	Potential Low-Income Block Groups in Study Area with EJ Populations [3]	Potential Minority & Low-Income (Both) Block Groups in Study Area with EJ Populations	Potential EJ Populations
IL	71	26 (37%)	23 (32%)	11 (15%)	8 (11%)	Populations in Elgin (Kane County), Hanover Park, Itasca, and Wood Dale (DuPage County), and south and west of O'Hare Airport (Cook and DuPage County) in Bensenville. Populations also present along the border with IA/the Mississippi River in the cities of Savanna and Lanark (Carroll County), and Rock Island (Rock Island County).
IA	85	34 (40%)	17 (20%)	32 (38%)	15 (18%)	Populations on the east side of IA along the Mississippi River/border with IL including in Clinton and Camanche (Clinton County), Davenport and Bettendorf (Scott County), and Muscatine (Muscatine County). Additional populations in Fredonia (Louisa County) and in southern IA along the border with MO in Wayne County.
LA	6	3 (50%)	1 (17%)	2 (33%)	0 (0%)	Populations in the city of Dequincy in Calcasieu Parish in the southwest side of the state.
MO	37	10 (27%)	3 (8%)	9 (24%)	2 (5%)	Populations in and around Kansas City (Jackson County), including to the northeast in Liberty and Excelsior Springs (Clay County), and Chillicothe (Livingston County).
TX	18	10 (56%)	5 (28%)	8 (44%)	3 (17%)	Populations in east TX in and near Beaumont (Jefferson County), Rose City, Vidor, and Mauriceville (Orange County), and close to LA in Deweyville (Newton County).
TOTAL	**217**	**83 (38%)**	**49 (23%)**	**62 (29%)**	**28 (13%)**	

Source: U.S. Census Bureau, American Community Survey, 5-Year Estimates Data Profiles (2015-2019).

[1] IL = Illinois, IA = Iowa, LA = Louisiana, MO = Missouri, TX = Texas

[2] OEA assumed minority populations exist when either a) at least 50 percent of the people in a block group self-identify as being of minority status; or b) the percentage of the population of minority status in the block group is at least 10 percentage points higher than for the entire county in which the population is located.

[3] OEA assumed low-income populations exist when either a) at least 50 percent of the population for whom poverty status is determined in the block group qualifies as low-income; or b) the percentage of the population for whom poverty status is determined in the block group that qualifies as low-income is at least 10 percentage points higher than for the entire county in which the population is located.

3.13.2.1 Additional Investigation of Potential EJ Populations

In addition to identifying potential EJ populations through a desktop analysis of ACS data, OEA identified concentrations of potential EJ populations through agency and public outreach during the scoping process for this EIS, direct outreach to community leaders, and through a review of public and subsidized housing data managed by HUD.

Project Scoping

During the scoping period for this EIS (from November 12, 2021, to January 3, 2022), OEA encouraged agencies and the public to submit comments on the range of issues and potential alternatives that the EIS would address. OEA held six online public scoping meetings and multiple agency meetings during the scoping period, receiving both oral and written comments (all comments received during the scoping comment period are publicly available on the Board's website at www.stb.gov). Several commenters identified specific areas in Illinois, Iowa, Missouri, and Texas, where the commenters expressed concerns that the Proposed Acquisition could adversely affect EJ populations. Commenters raised numerous concerns beyond potential impacts on EJ populations in their scoping comments, including truck traffic around intermodal facilities, grade crossing safety and delay, delays in emergency response times at grade crossings, pedestrian accessibility and safety, noise and vibration, economic development, water resources, hazardous materials transport, quality of life, air quality, and parking accessibility. As discussed above, however, OEA determined that noise would be the only impact that could result in high and adverse impacts on EJ populations.

Among the potential EJ populations identified through scoping, only one—the City of Dubuque, Iowa—was not identified as an area with potential EJ populations through the desktop analysis summarized above. Although the City of Dubuque contains potential EJ populations, as explained in this EIS, the projected increases in rail traffic through Dubuque from the Proposed Acquisition do not meet the Board's environmental analysis thresholds. Associated rail segments were therefore not included in the EJ study area. There is no potential for the Proposed Acquisition to cause disproportionately high and adverse impacts on EJ populations in this community.

Direct Outreach to Community Leaders

Beyond the scoping process for this EIS, OEA conducted direct outreach to local, county, and regional planning organizations and government representatives to identify local concentrations of potential minority and low-income populations at the scale of neighborhoods or specific developments. Among the local concentrations of potential EJ populations that OEA identified through this process, only five were located outside of block groups that OEA identified as potentially containing EJ populations. Only one of these concentrations (neighborhood at 936 Williams Street in Missouri) was located within the EJ study area.

1. 291 North Street, Singer, Louisiana (community)
2. 100 First Avenue, Bartlett, Illinois (mobile home park)

3. 936 Williams Street, Excelsior Springs, Missouri (neighborhood of single-family homes)
4. 201 West Mill, Liberty, Missouri (elementary school)
5. Neighborhood between West Mississippi Street, North Morse Avenue, and Gallatin Street, Liberty, Missouri (single-family homes)

Table P.2-1 lists all the local concentrations of potential EJ populations identified by local, county, and regional planning organizations and government representatives.

Additionally, OEA conducted direct outreach to the community members representing community centers, food pantries, shelters, police stations, fire stations, worship leaders, principals and other school representatives within areas with minority and low-income populations. The list of these members and their contact information were primarily obtained from the local, county, and regional planning organizations and government representatives discussed above. OEA attempted to contact 225 community leaders from Illinois to Texas. The aim of these engagements was to make sure the leaders were familiar with the Proposed Acquisition, to inform them of the environmental review process, and to collect information on their concerns about the potential impacts of the Proposed Acquisition.

Subsidized and Public Housing

OEA also collected data on public and subsidized housing from HUD. OEA collected these data for areas within the study area to determine if any public and subsidized housing facilities exist outside of the block groups already determined to meet the EJ thresholds identified under *Section 3.13.1, Approach*.

According to HUD housing inventory data, there is one property categorized as a subsidized housing unit that is located within the study area. This property is located within a block group that OEA identified as a potential EJ population. Two properties categorized as public housing units were also identified within the study area. These two properties, both located in Iowa, are outside of block groups that OEA identified as potential EJ populations.

3.13.3 Environmental Consequences

This section describes how noise from rail traffic under the Proposed Acquisition and the No-Action Alternative could impact EJ populations, as compared to non-EJ populations.

3.13.3.1 Proposed Acquisition

As discussed in *Section 3.6, Noise and Vibration*, OEA expects that the Proposed Acquisition would result in an adverse noise impact on a total of 6,307 receptors. The predominant source of noise under the Proposed Acquisition would be train horn noise, due to the combination of higher noise levels near roadway/rail at-grade crossings (grade crossings) and the greater number of receptors near grade crossings, particularly in more rural towns.

As noted in **Table 3.13-1**, OEA identified 83 block groups in the study area as containing potential EJ populations, which is approximately 38 percent of the 217 total block groups in

the study area. Among the 217 total block groups in the EJ study area, 165 contain receptors that would experience adverse noise impacts under the Proposed Acquisition. Out of these 165 block groups, 51 (or approximately 31 percent) are block groups containing potential EJ populations and 114 (or approximately 69 percent) were not identified as potential EJ populations. Further, out of the total 6,307 additional receptors that would experience adverse noise impacts under the Proposed Acquisition, 1,774 (or approximately 28 percent) are located within block groups with potential EJ populations, while 4,533 (or approximately 72 percent) are in non-EJ block groups.

OEA also examined the distribution of receptors that would experience adverse noise impacts as a result of the Proposed Acquisition at the community scale.[5] OEA identified a total of 70 incorporated areas within the EJ study area and then determined the percentage of adversely affected receptors in each of those 70 communities that were located within EJ block groups. For some communities—including Bensenville, Elgin, Savanah, and Lanark in Illinois; Columbus Junction, Fredonia, Muscatine, Seymour, and Washington in Iowa; Chillicothe and Excelsior Springs in Missouri; and Deweyville, Rose City, and Vidor in Texas—most of the adversely affected receptors are located within EJ block groups. However, for the vast majority of communities (56 out of 70 communities or 80 percent of the total), most of the adversely affected receptors are located in non-EJ block groups. **Table P.3-1** in **Appendix P** provides a table showing the 70 communities with receptors subject to adverse noise impacts under the Proposed Acquisition and the distribution of adversely affected receptors within each community in EJ and non-EJ block groups.

With respect to the additional areas identified as potential EJ populations through public outreach via the scoping process, direct outreach to community leaders, and/or through a review of public and subsidized housing data managed by HUD, the following was identified:

- Among the 17 local concentrations of potential EJ populations identified through direct outreach to community leaders, all but five are in areas that were already identified as potential EJ populations through the desktop analysis. Among the five, only the neighborhood of homes around 936 Williams Street in Excelsior Springs, Missouri (a portion of the homes within this neighborhood) would experience adverse noise impacts with the Proposed Acquisition (refer to **Table P.2-1**).
- OEA identified two subsidized housing facilities subject to an adverse noise impact with the Proposed Acquisition that are not within a block group that OEA identified as a potential EJ population. These facilities are 301 West Chariton Street, Moravia, Iowa, 52571 (two units) and 223 North Fairview Avenue, Ottumwa, Iowa, 52501 (four units).

Based on the distribution of adverse noise impacts throughout the study area, OEA concludes that adverse noise impacts would not be borne disproportionally by EJ populations. Most of the block groups in which adverse noise impacts would occur do not include EJ populations, and most of the receptors that would experience adverse noise impacts are in non-EJ block groups. Although the Proposed Acquisition would affect low-income populations and minority populations, including Native American tribes,

[5] Incorporated areas were the unit of analysis in this community-based analysis; unincorporated areas were not included.

impacts on those populations would be similar to or less than the impacts experienced by non-EJ populations.

3.13.3.2 No-Action Alternative

Under the No-Action Alternative, CP would not acquire KCS and rail traffic on rail lines and activities at rail yards and intermodal facilities would not increase as a result of the Proposed Acquisition. However, rail traffic could increase on CP and KCS lines as a result of changing market conditions, such as general economic growth, and activities at rail yards and at intermodal facilities could also increase. These changes would not involve authorization from the Board or environmental review by OEA under NEPA.

As discussed in *Section 3.6, Noise and Vibration*, OEA estimates that a total of 15,197 receptors in the study area would experience a noise level of 65 dBA or above under the No-Action Alternative. This is more than the estimated number of receptors in the study area that currently experience a noise level of 65 dBA or above (12,385), but less than the number of estimated receptors that would experience that noise level under the Proposed Acquisition (23,742). For reference purposes, among the estimated 2,812 receptors that would experience a noise level of 65 dBA or above due to organic growth in rail traffic under the No-Action Alternative, approximately 56 percent are within block groups potentially containing EJ populations and 44 percent are within non-EJ block groups. However, most of those receptors would not experience a 3 dBA increase in train noise under the No-Action Alternative and therefore would not meet OEA's definition of an adverse noise impact.

3.13.4 Conclusion

Based on OEA's analysis of the different types of potential adverse environmental impacts that could result from the Proposed Acquisition, OEA found that only noise impacts had the potential to be high and adverse. Under the Proposed Acquisition, there would be a total of 6,307 adversely affected receptors located in 165 block groups throughout the study area.

Among these 165 block groups, OEA identified 51 (or approximately 31 percent) as potentially containing EJ populations and 114 (or approximately 69 percent) as likely non-EJ populations. Further, an analysis of the 6,307 receptors that would experience adverse noise impacts under the Proposed Acquisition found that approximately 1,774 (or approximately 28 percent) are within block groups potentially containing EJ populations and 4,533 (or approximately 72 percent) are within non-EJ block groups.

Based on the distribution of adverse noise impacts throughout the study area, including the fact that most adversely affected receptors are located in block groups that are not majority low-income or minority, OEA concludes that those impacts would not be borne disproportionally by EJ populations.

OEA is recommending mitigation that would require the Applicants to conduct targeted outreach to minority and low-income communities that would experience adverse noise impacts to provide information about the process for establishing Quiet Zones and to assist interested communities in identifying supplemental or alternative safety measures, practical

operational methods, or technologies that may enable the community to establish Quiet Zone (see *Chapter 4, Mitigation*, Mitigation Measure [MM]-EJ-01). Additionally, the Applicants have volunteered mitigation measures to minimize impacts to EJ populations. These measures include a commitment to making Operation Lifesaver programs available to affected communities, including schools and other organizations (Voluntary Mitigation [VM]-EJ-02). Operation Lifesaver is a non-profit education and awareness program that helps increase the public's awareness of the dangers around rail lines. The Applicants also committed to allocate a minimum of 15 percent of contractor bid evaluation weighting to the inclusion of minority and tribal owned businesses and employees on the proposed project team for the planned capital improvement contracts (VM-EJ-03).