Appendix G Environmental Justice

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Attachment G.2 EPA EJScreen Report

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ACRONYMS AND ABBREVIATIONS

EIS Environmental Impact Statement

FTA Federal Transit Administration

L.O.S. level of service

Metro King County Metro Transit

M.O.S. minimum operable segment

NEPA National Environmental Policy Act

RET Racial Equity Toolkit

SEPA State Environmental Policy Act

TOD transit-oriented development

WSBLE West Seattle and Ballard Link Extensions

WSDOT Washington State Department of Transportation

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1 INTRODUCTION AND REGULATORY FRAMEWORK

1.1 Introduction

The environmental justice analysis in this appendix evaluates whether the West Seattle Link Extension Project (the project) would result in disproportionately high and adverse effects on minority and low-income populations. It also describes Sound Transit's engagement with these populations to encourage their active participation in the planning process. The outreach

program is inclusive of both the West Seattle and Ballad Link Extension (WSBLE) Project (prior to July 2022) and the West Seattle Link Extension Project (after July 2022).

The environmental justice analysis is conducted in compliance with Presidential Executive Order 12898, Federal Actions to Address Environmental Justice to Minority Populations and Low-Income Populations (dated February 11, 1994), as amended by Executive Order 14096, Revitalizing Our Nation's Commitment to Environmental Justice for All (dated April 21, 2023); the United States Department of Transportation Order 5610.2, Actions to Address Environmental Justice in Minority and Low-Income Populations (April 15, 1997); the United States Department of Transportation Order 5610.2C (May 16, 2021) updating the policy to consider environmental justice principles in all programs, policies, and activities. Together, these orders require the Federal Transit Administration (FTA) to follow the three guiding principles of environmental justice, as outlined in the FTA Environmental Justice Policy Guidance Circular, FTA C 4703.1:

Separation of West Seattle Link Extension and Ballard Link Extension Environmental Processes

The Draft Environmental Impact Statement (EIS) published in January 2022 evaluated both the West Seattle Link Extension and the Ballard Link Extension together as one West Seattle and Ballard Link Extensions Project. The extensions were evaluated together in the Draft EIS because of their location, schedule, and review efficiencies for partner agencies.

In July 2022, the Sound Transit Board directed that further studies be prepared for the Ballard Link Extension, to evaluate additional station options and other refinements (Motion M2022-57). Some of these project options and refinements require additional conceptual engineering and environmental review. Rather than delay completion of the environmental review process for the West Seattle Link Extension while additional review is conducted for the Ballard Link Extension, Sound Transit and FTA have decided to move forward under separate environmental reviews for each extension.

- To avoid, minimize, and mitigate disproportionately high and adverse effects
- To ensure the full and fair participation by all potentially affected communities
- To prevent the denial of, reduction in, or substantial delay in the receipt of benefits by minority and low-income populations

Executive Order 12898, provides that ". . . each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Mariana Islands." The Executive Order addresses the importance of public participation in the review process. Executive Order 14096 – "Revitalizing Our Nation's Commitment to Environmental Justice for All" was enacted on April 21, 2023. Executive Order 14096 requires agencies to "identify, analyze, and address disproportionate and adverse human health and environmental effects (including risks) and hazards of Federal activities, including those related to climate change and cumulative impacts of environmental and other burdens on communities with environmental justice concerns." Executive Order 14096 on

environmental justice does not rescind Executive Order 12898, which has been in effect since February 11, 1994, and is currently implemented through the May 14, 2021 United States Department of Transportation Order 5610.2C. This implementation will continue until further quidance is provided regarding the implementation of the new Executive Order 14096 on environmental justice.

The United States Department of Transportation Order states that "in making determinations regarding disproportionately high and adverse effects on minority and low-income populations, mitigation and enhancements 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" (United States Department of Transportation 5610.2C Section 9(b)).

Sound Transit and the City of Seattle partnered on the Racial Equity Toolkit (RET) process for the WSBLE Project. With the separation of the environmental processes for these two extensions, the RET process will also continue separately for each project. The RET process is designed as a tool to fulfill the City of Seattle's commitment to its Race and Social Justice Initiative. The City of Seattle's Race and Social Justice Initiative is consistent with federal Executive Order 12898. which is the basis for this environmental justice

City of Seattle's Race and Social Justice **Initiative**

The vision of the Seattle Race and Social Justice Initiative is to eliminate racial inequity in the community by ending individual racism, institutional racism, and structural racism. The Racial Equity Toolkit (RET) lays out a process and a set of questions to guide the development, implementation, and evaluation of policies, initiatives, programs, and budget issues to address the impacts on racial equity.

evaluation. The RET lays out a process and a set of questions to guide the development, implementation, and evaluation of the project to advance racial equity. The RET process began early in project development, informing data analysis, technical evaluation and the focus and extent of community engagement. During the environmental review phase, the RET builds on the environmental justice assessment for this project, documenting potential project impacts and benefits, and community feedback. However, given that the RET process is guided by a different framework than the Environmental Impact Statement (EIS) environmental justice requirements, the report on the RET process and findings is structured differently, and is oriented around RET outcomes for the project. A report on the RET process, requirements, outcomes, and findings is available in the Racial Equity Toolkit: Environmental Review Phase (Sound Transit 2022).

1.2 **Regulatory Framework**

1.2.1 Regulations, Plans, and Policies

The following list of federal, state, and local regulations, executive orders, plans, and policies comprise the regulatory framework that guided the environmental justice assessment for this project:1

¹ Presidential Executive Order 14091, Further Advancing Racial Equity and Support for Underserved Communities through the Federal Government (February 2023) was issued after the NEPA process for the West Seattle Link Extension project was underway. There is no published guidance from the United States Department of Transportation on Executive Order 14091 at this time. Council on Environmental Quality NEPA Implementing Regulations (Notice of Proposed rulemaking July 2023) on how to "address adverse health and environmental effects that disproportionately affect communities with environmental justice concerns" are also not finalized at the time of the writing of this document.

Federal:

- Title 49 of the Code of Federal Regulations, Part 21, Nondiscrimination in Federally Assisted Programs of the Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964
- Title 23 of the United States Code, Section 109(h), Federal Highway Administration Effectuation of Title VI of the Civil Rights Act of 1964
- Presidential Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (Executive Order 12898), February 11, 1994
- Presidential Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency (Executive Order 13166), August 11, 2000
- Presidential Executive Order 14096, Revitalizing Our Nation's Commitment to Environmental Justice for All (Executive Order 14096), April 21, 2023²
- United States Department of Transportation Order on Environmental Justice (Order 5610.2C), Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, May 16, 2021
- Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended. This act defines the federal regulations governing property acquisition and relocation for federally funded projects
- Circular FTA C 4702.1B, Title VI Requirements and Guidelines for Federal Transit Administration Recipients (FTA 2012a)
- Circular FTA C 4703.1, Environmental Justice Policy Guidance for Federal Transit Administration Recipients (FTA 2012b)
- Promising Practices for EJ [Environmental Justice] Methodologies in NEPA [National Environmental Policy Act] Reviews (United States Environmental Protection Agency 2016)

State of Washington:

- State of Washington Governor's Executive Order, 93-07, Affirming Commitment to Diversity and Equity in the Service Delivery and in the Communities of the State. September 27, 1993
- Washington Relocation Assistance Real Property Acquisition Policy Act of 1971, as amended

Sound Transit and Washington State Department of Transportation:

 Implementing Environmental Justice Pursuant to Executive Order 12898 and the Department of Transportation Order to Address Environmental Justice in Minority Populations and Low-Income Populations (Sound Transit and Washington State Department of Transportation 2001)

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² Under Executive Order 14096, agencies will continue their efforts to advance environmental justice in ways that complement and deepen prior work. Executive Order 14096 uses the term "disproportionate and adverse" as a simpler, modernized version of the phrase "disproportionately high and adverse" used in Executive Order 12898. Those phrases have the same meaning but removing the word "high" eliminates potential misunderstanding that agencies should only be considering large disproportionate effects. (White House 2023)

City of Seattle:

- Duwamish Valley Action Plan: Advancing Environmental Justice & Equitable Development in Seattle (City of Seattle 2018)
- Executive Order 2005-08: Inclusive Outreach and Public Engagement, April 4, 2008
- Council Resolution 31164, November 19, 2009; adopted November 30, 2009
- Executive Order-2014-02: Race and Social Justice Initiative, April 3, 2014
- Executive Order-2017-13: Race and Social Justice Initiative, November 28, 2017

1.2.2 Definitions

The definitions provided in this section for key terms used for this analysis (FTA 2012) are based on the United States Census Bureau's definitions of "minority." The definitions do not account for all non-White racial or ethnic groups, such as people with Middle Eastern origin who are categorized as White by the Census Bureau.

Minority persons include the following:

- Black: a person having origins in any of the Black racial groups of Africa
- Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race
- Asian: a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent
- American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through Tribal affiliation or community recognition
- Native Hawaiian and Other Pacific Islander: people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands

A minority population means any readily identifiable group or groups of minority persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed program, policy, or activity (FTA 2012). The term "minority" is used in this report for consistency with the Environmental Justice Executive Order 12898. When discussing the RET process partnership between Sound Transit and the City, the term "communities of color" is used for consistency with the RET and the City's Race and Social Justice Initiative.

A low-income person is identified as a person whose median household income is at or below two times the federal Health and Human Services poverty level; this is a local threshold that Sound Transit and other regional transit agencies have determined is appropriate for use in determining eligibility for reduced fare programs and reflects the increasingly high cost of living in the region (Sound Transit 2014b). Two times the Department of Health and Human Services 2021 poverty guideline³ for a household of one (1) is \$27,576 annual income and for a household of four (4) is \$55,480 annual income (United States Department of Health and Human Services 2021). The use of a local threshold is consistent with FTA Circular 4703.1 (FTA 2012). Those individuals considered low-income will include persons living below these thresholds.

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³ Poverty data from 2021 was used for consistency with latest available Census data.

A low-income population means any readily identifiable group 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 program, policy, or activity (FTA 2012).

A disproportionately high and adverse effect on minority and low-income populations means an adverse effect that:

- (1) is predominantly borne by a minority population and/or a low-income population, or
- (2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population (FTA 2012).

A person with limited English proficiency is defined as a person who speaks English "less than well" by the United States Census Bureau (2023). People with limited English proficiency are not an environmental justice population as defined by FTA in its circular C 4703.1, but they are considered in this analysis. Executive Order 13166 on Improving Access to Services for Persons with Limited English Proficiency directs each federal agency that is subject to its requirements to publish guidance for its representative recipients clarifying that obligation. The United States Department of Transportation published guidance in the *Federal Register* on December 14, 2005. The guidance defines a "safe harbor" for recipients to ensure that they comply with their obligation to provide written translations in languages other than English (United States Department of Transportation 2005). The guidance considers a recipient within the safe harbor if they provide the written translation of vital documents for each eligible language group that constitutes either 1,000 persons or 5 percent of the population of persons eligible to be served or likely to be affected or encountered (United States Department of Transportation 2005).

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2 METHODOLOGY AND APPROACH

Sound Transit completed the West Seattle Link Extension Project environmental justice analysis using guidance from the Sound Transit/Washington State Department of Transportation (WSDOT) Realignment Issue Paper No. 36: Implementing Environmental Justice Pursuant to Executive Order 12898 and the Department of Transportation Order to Address Environmental Justice in Minority Populations and Low-Income Populations (Sound Transit and WSDOT 2001), the 2012 FTA circular Environmental Justice Policy Guidance for Federal Transit Administration Recipients (Circular FTA C4703.1), and Promising Practices for EJ Methodologies in NEPA Reviews (United States Environmental Protection Agency 2016).

The guidance provides recommendations to state and local agencies to consider the following when implementing a plan, project, or activity:

- Engaging environmental justice populations in the public transportation decision-making process
- Determining whether environmental justice populations would be subjected to disproportionately high and adverse human health or environmental effects
- Avoiding, minimizing, or mitigating these effects

The environmental justice analysis considers potential project impacts associated with each EIS environmental resource for the No Build Alternative and Build Alternatives. Potential impacts include direct construction and operation impacts, indirect impacts, and cumulative impacts. Potential impacts are assessed according to their likelihood, severity, and duration.

The environmental justice analysis considers any mitigation measures proposed to avoid, reduce, or minimize impacts to environmental justice populations. The analysis also considers any benefits of the proposed project to environmental justice populations, so that the impact of the project on environmental justice populations is evaluated through a review of potential impacts in conjunction with benefits as well as any offsetting mitigation measures (if applicable). Based on these factors (potential impacts, benefits, and mitigation measures), a qualitative method is then used to arrive at a conclusion as to whether the project would result in potential disproportionately high and adverse effects to environmental justice populations.

This environmental justice appendix also provides information about the efforts that Sound Transit has made throughout the project to involve minority and low-income people in project planning.

Sound Transit and the City of Seattle are collaborating on the development of a RET for the project. The RET process is a tool to fulfill the City of Seattle's commitment to its Race and Social Justice Initiative. It lays out a process and a set of questions to guide the development, implementation, and evaluation of policies, initiatives, programs, and budget issues to advance racial equity in the city of Seattle (Figure 2-1). These questions or steps overlap with and complement a NEPA environmental justice analysis related to stakeholder involvement, data analysis, identification of benefits and burdens, and development of strategies and mitigation to minimize harm and unintended consequences. The City of Seattle's Race and Social Justice Initiative is consistent with and supports federal Executive Order 12898, which is the basis for this environmental justice evaluation. In addition, Sound Transit adopted its own RET process, which will be used as the project advances. As the environmental justice analysis and the RET process align in terms of focus on evaluating how a project impacts communities of color and low-income populations, the RET process was applied for this project as summarized in Section 4.3, Racial Equity Toolkit Process.

Figure 2-1. Racial Equity Toolkit

Racial Equity Toolkit

to Assess Policies, Initiatives, Programs, and Budget Issues

The vision of the Seattle Race and Social Justice Initiative is to eliminate racial inequity in the community. To do this requires ending individual racism, institutional racism and structural racism. The Racial Equity Toolkit lays out a process and a set of questions to guide the development, implementation and evaluation of policies, initiatives, programs, and budget issues to address the impacts on racial equity.

When Do I Use This Toolkit?

Early. Apply the toolkit early for alignment with departmental racial equity goals and desired outcomes.

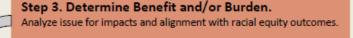
<u>How Do I Use This Toolkit?</u>

With Inclusion. The analysis should be completed by people with different racial perspectives.

Step by step. The Racial Equity Analysis is made up of six steps from beginning to completion:

Step 1. Set Outcomes.Leadership communicates key community outcomes for racial equity to guide analysis.

Step 2. Involve Stakeholders + Analyze Data. Gather information from community and staff on how the issue benefits or burdens the community in terms of racial equity.





Step 5. Evaluate. Raise Racial Awareness. Be Accountable.Track impacts on communities of color overtime. Continue to communicate with and involve stakeholders. Document unresolved issues.

Step 6. Report Back.Share information learned from analysis and unresolved issue with Department Leadership and Change Team.

Source: City of Seattle 2012.

2.1 Data Sources

The environmental justice analysis includes a description of the demographics of the project study area using the most recent United States Census data available at the time of the analysis. The analysis used 2017 to 2021 American Community Survey data at the census block group level for minority and low-income people and people with limited English proficiency in the study area (United States Census Bureau 2023). Sound Transit also conducted interviews with social service providers to better understand the populations in the study area. These interviews also informed the outreach strategy to engage populations that are traditionally hard to reach.

Elementary school data were reviewed as another source of information and used to enhance Sound Transit's understanding of the communities surrounding the project. Seattle Public School District elementary school data were used because the attendance areas are geographically smaller than middle or high school attendance areas, so they better represent the project study area with which they overlap. Data used came from the Washington State Office of Superintendent of Public Instruction 2022-2023 school year Washington State Report Card for the elementary schools in the study area (Washington Office of Superintendent of Public Instruction 2023).

2.2 Study Area

The study area geography that is used for the environmental justice analysis is the census block groups that intersect a 0.5-mile buffer from the project operational and construction footprint edge. This 0.5-mile study area is a baseline both for identifying demographics in Section 3.1, Study Area Demographics, and assessing impacts in Chapter 4, Outreach to Minority and Low-Income Populations. A 0.5-mile study area is used for this analysis for the following reasons:

- It is the geographic area most likely to receive the greatest effect, both positive and negative, as a result of the project.
- It captures the typical walking distance residents and workers might cover to access the proposed transit stations.

The study area overlaps four neighborhoods. Some of the neighborhoods are primarily residential. These study area neighborhoods have social resources, including community and senior centers, parks and recreational facilities, and religious institutions, as well as public services, including schools, government offices, fire and police stations, libraries, and hospitals and medical clinics. Many of these resources provide residents with many opportunities to interact and develop a sense of neighborhood identity and cohesion. The environmental justice analysis also considered the potential for benefits and impacts to minority and/or low-income populations in areas outside of the study area because their transit options and access could be indirectly affected by the project. Potential effects on mobility and access for these populations are also considered in the RET process.

2.3 Public Outreach

Sound Transit has provided meaningful engagement opportunities for minority and low-income people, and provided translated materials and translation services for people with limited English proficiency, early and often in the planning and development process for the project (see summary in Appendix F, Public Involvement, Tribal Consultation, and Agency Coordination). Information gathered during public involvement activities in the study area influenced project scope and design.

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3 STUDY AREA BASELINE CONDITIONS

3.1 Study Area Demographics

The West Seattle Link Extension would be approximately 4.1 miles in length and travel between four neighborhoods across SODO and West Seattle; stations would serve three neighborhoods, the Industrial District, Delridge, and West Seattle neighborhoods (see Section 4.4, Social Resources, Community Facilities, and Neighborhoods, of the Final EIS).

The minority and low-income demographics of the study area are presented in Table 3-1 and discussed in the sections that follow. Figure 3-1 and Figure 3-2 depict the percentage of minority and low-income persons within each census block group and also show the social resources and public services that serve the community and its environmental justice populations in the study area. These resources include social services (e.g., affordable housing and shelters), community facilities, and fire/emergency medical services. The social resources were identified via public data sets, internet research, community outreach, verification from local agencies and organizations, and comments received on the WSBLE Draft EIS.

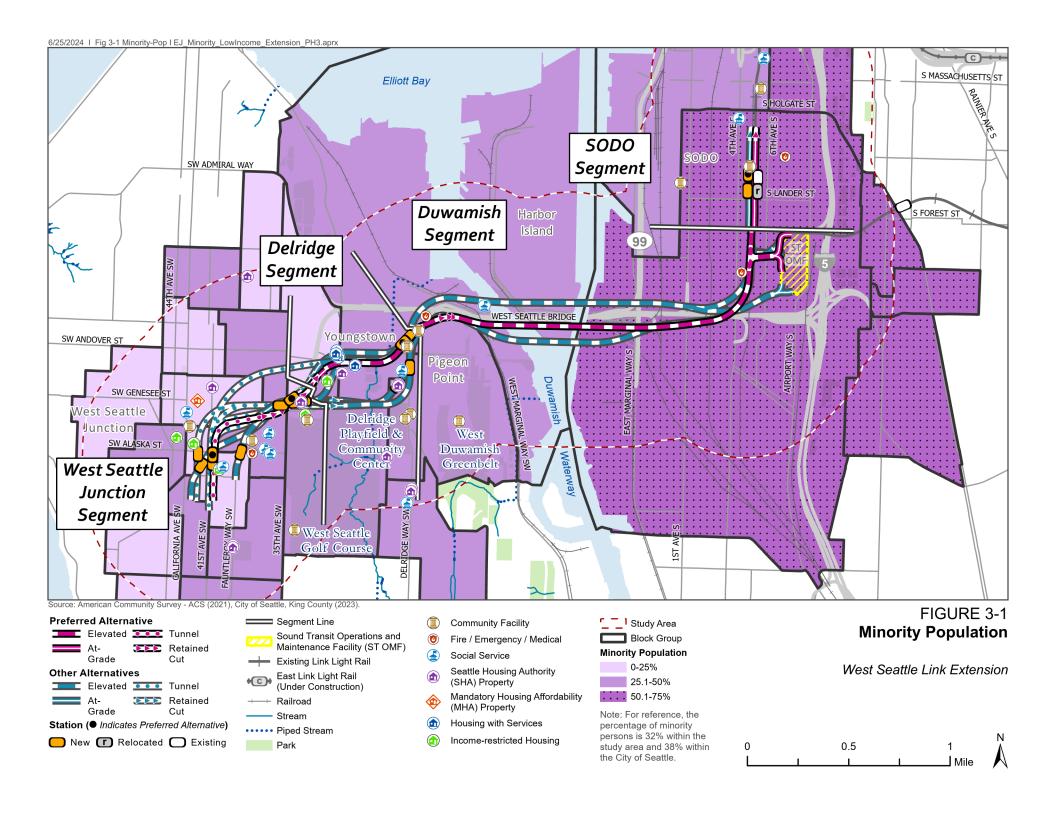
Table 3-1. Study Area Demographics

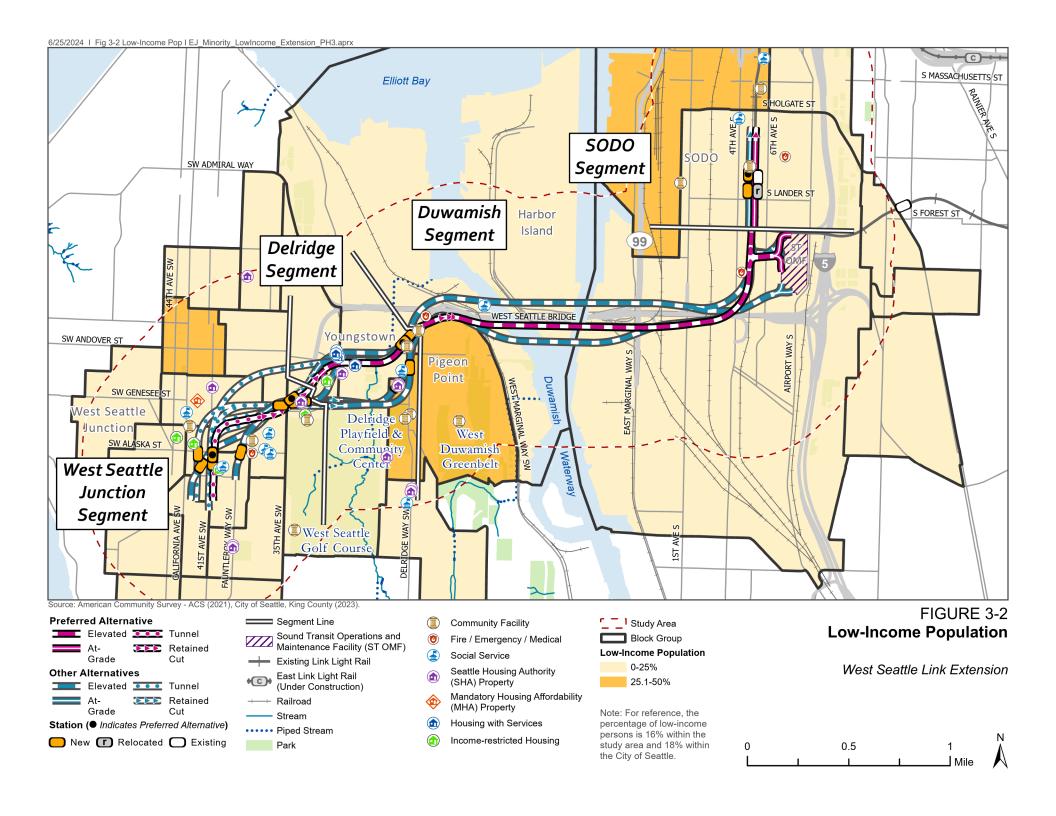
Demographic	Study Area	City of Seattle	Sound Transit Service District	SODO Segment	Duwamish Segment	Delridge Segment	West Seattle Junction Segment
Total Population	35,288	725,319	3,358,538	4,078	6,793	4,265	20,152
Minority	32%	38%	42%	49%	46%	38%	24%
Black or African American alone	6%	7%	7%	15%	5%	14%	3%
Hispanic or Latino	8%	7%	11%	14%	11%	5%	7%
Asian alone	9%	16%	16%	14%	21%	11%	4%
American Indian and Native Alaskan alone	0.2%	0.4%	1%	0.2%	0.0%	0.0%	0.3%
Native Hawaiian and Other Pacific Islander alone	0.1%	0.2%	1%	0.0%	0.0%	0.0%	0.3%
Two or more races and Some other Race alone	9%	7%	7%	8%	9%	6%	9%
Low-Income Population ^a	16%	18%	20%	19%	23%	14%	14%
Households with Limited English Proficiency ^b	6%	7%	10%	14%	10%	8%	3%
Median Household Income	\$113,717	\$109,336	\$103,824	\$92,616	\$100,867	\$107,570	\$123,554

Source: 2021 American Community Survey 5-Year Estimates (United States Census Bureau 2023).

a Low-income threshold is defined as two times the United States Department of Health and Human Services poverty level.

^b Includes populations that speak English "less than well."





The most recent (2022 to 2023) elementary school data (Table 3-2) are used as a secondary source of demographic data. There are eight elementary Seattle Public School attendance areas that overlap the study area, as follows:

- Beacon Hill International Elementary School (2025 14th Avenue South) is in the SODO Segment study area.
- Rising Star (8311 Beacon Avenue South), Kimball (3200 23rd Avenue South), and Maple (4925 Corson Avenue South) are elementary schools in the Duwamish Segment study area.
- Genesee Hill (5013 Southwest Dakota Street), Fairmount Park (3800 Southwest Findlay Street) and Lafayette (2645 California Avenue Southwest) are elementary schools in the West Seattle Junction Segment (the Lafayette attendance area also overlaps the Delridge Segment study area).
- Pathfinder K-8 (1901 Southwest Genesee Street) is an option school in the Duwamish Segment study area where students could be from outside the neighborhood. It is included, because living near the school is a priority tiebreaker for enrollment and some students do therefore live nearby.

Table 3-2. Elementary School Demographics (2022 to 2023)

Segment	School	Enrollment	Percent Race other than White	Percent Hispanic (of any Race)	Percent Free and Reduced- Price Lunch Eligible	Percent English Language Learners ^a
SODO	Beacon Hill International School	342	81%	32%	52%	47%
Duwamish	Kimball	379	74%	16%	42%	29%
Duwamish	Maple	434	82%	17%	49%	40%
Duwamish	Rising Star	330	88%	15%	65%	45%
Duwamish	Pathfinder K-8 b	464	35%	13%	15%	2%
Duwamish	Lafayette ^c	476	42%	13%	16%	5%
West Seattle Junction	Genesee Hill	521	30%	8%	8%	4%
West Seattle Junction	Fairmount Park	428	46%	10%	20%	7%
West Seattle Junction	Gatewood	372	32%	11%	15%	3%

Sources: Washington State Office of Superintendent of Public Instruction 2023.

^a English language learners are students who live in homes where another language is the primary language spoken, or who learned another language before English.

^b Pathfinder K-8 is an option school, which means parents apply for their child to attend instead of being assigned by the school district using a home address. Some students attending could be from outside the neighborhood, but living near the school is a priority tiebreaker for enrollment.

^C Lafayette boundary overlaps with Duwamish and West Seattle Junction segments.

3.1.1 Minority Populations

The overall minority population in the study area (32 percent) is lower than in the Sound Transit service district (42 percent) (Table 3-1). The highest percentage of minority population within the study area are Black or African American in the SODO and Delridge segments, Asian in the Duwamish Segment, and "Two or more races" and "some other race" in the West Seattle Junction Segment. The study area has a somewhat similar composition of minorities as the city overall. The most notable difference is the percentage of Asian people in the study area (9 percent) is less than in the city overall (16 percent). The areas with the highest percentages of minorities are found in the least populated places in the study area, the SODO Segment and the Duwamish Segment east of the Duwamish Waterway. Other than these areas, the majority of the census block groups in the study area have a minority percentage below the Sound Transit service district; the two outlier block groups are in the southern portion of the study area (one along Delridge Way Southwest and the other along 41st Avenue Southwest) and both are only partially in the study area. Figure 3-1 shows the distribution of minorities in the study area by census block group.

The elementary school data provided additional information about minority populations in the study area (Table 3-2). According to the elementary school data, Rising Star has the highest percentage of the student body that identify as non-White at 88 percent; most of the attendance area for Rising Star Elementary is outside the study area. Beacon Hill International and Maple have the second highest percentage of non-White children in their student bodies at 81 percent and 82 percent, respectively. Most of the attendance area for Maple Elementary is outside the study area.

3.1.2 Low-Income Populations

The percentage of the population defined as low-income in the study area is 16 percent, which is less than that of the Sound Transit service district at 20 percent. As shown on Figure 3-2, there are three census block groups in the 25.1 to 50 percent range: one in SODO west and north of the station (36 percent), one is in the Delridge Segment near the station and includes the Pigeon Point community (25 percent), and one is in the West Seattle Junction Segment near the new Avalon and Alaska Junction stations (25 percent). The SODO Segment has the lowest median income, and the West Seattle Junction Segment has the highest median income of all the segments (Table 3-1).

Elementary school data on National School Lunch Program free- and reduced- lunch participation rates were reviewed to provide another perspective on the low-income population in the study area (Washington Office of Superintendent of Public Instruction 2023). Eligibility for this lunch program is based on a few factors, one of which is family household income. Household incomes at or below 130 percent of the federal poverty level are eligible for free meals. Household incomes at or below 185 percent of the federal poverty level are eligible for reduced-price meals. The low-income definition used for this analysis includes both levels of lunch program eligibility.

The elementary school data (Table 3-2) showing the percentage of the student body participating in the free and reduced-priced lunch program provided additional information about low-income populations in the study area. The following four elementary schools, all east of the Duwamish Waterway, have a higher low-income population than the 16 percent low-income population percentage for the study area:

- Beacon Hill International Elementary School (52 percent)
- Kimball (42 percent)
- Maple (49 percent)
- Rising Star (65 percent)

The following four elementary schools in the study area have free and reduced-price lunch program participation rates that are lower than the low-income population percentage in their respective segments⁴:

- Pathfinder K-8 (15 percent)
- Lafayette (16 percent)
- Genesee Hill (8 percent)
- Gatewood (15 percent)

The Lafayette Elementary school attendance area overlaps with both the Duwamish and Delridge segments. The percentage of the study body participating in the free and reduced-price lunch program at this school is 16 percent, slightly higher than the low-income percentage in the West Seattle Junction Segment (14 percent) and lower than the low-income percentage in the Delridge Segment (23 percent).

There are several Seattle Housing Authority properties, income-restricted housing properties, and housing that include on-site social services within the study area (Figure 3-2). Additional developments in the area may provide below-market-rate housing, such as those that accept the Seattle Housing Authority Housing Choice Voucher Program, which provides a housing subsidy in the form of a voucher that can be used to rent a unit from any landlord in Seattle who meets the requirements. Those eligible to participate in this program earn 50 percent or less of the area median income.

Unsheltered populations are present in the study area. Permanent, year-round services for those who are unsheltered are outside the study area, although a cold-weather shelter is at the American Legion hall at 3618 Southwest Alaska Street, within the study area. The study area also may contain people who subsistence fish in the Duwamish Waterway (also known as the Duwamish River).

3.1.3 Limited English Proficiency Populations

The percentage of the study area population that has limited English proficiency (6 percent) is less than the Sound Transit service district (10 percent). According to the United States Census data, most residents of Seattle speak English better than "less than well," but there are people with limited English proficiency found throughout the city and in the study area. For people with limited English proficiency, the most common languages spoken at home (other than English) in the study area are Spanish (approximately 1 percent of the population) and Asian and Pacific Islander languages, including Korean and Chinese, at less than 1 percent each.

To further characterize the limited English proficiency population within the study area, elementary school data (Washington State Office of Superintendent of Public Instruction 2023) on "English language learners" were reviewed. English language learners are students who live in homes where another language is the primary language spoken, or who learned another language before English. The data showed that the student bodies at four elementary schools report a much higher percentage of the student body as English language learners as compared to the Census Bureau data on limited English proficiency for the study area (Table 3-2). The following four elementary schools report a higher percentage of English language learners than limited English proficiency in the study area:

- Beacon Hill International (47 percent)
- Rising Star (45 percent)

⁴ Free and reduced-price lunch program qualification is 185 percent of the federal poverty level, while Sound Transit uses 200 percent to define a low-income population.

- Maple (40 percent)
- Kimball (29 percent)

These schools are in the SODO (Beacon Hill International) and Duwamish (Rising Star, Kimball, and Maple) segments.

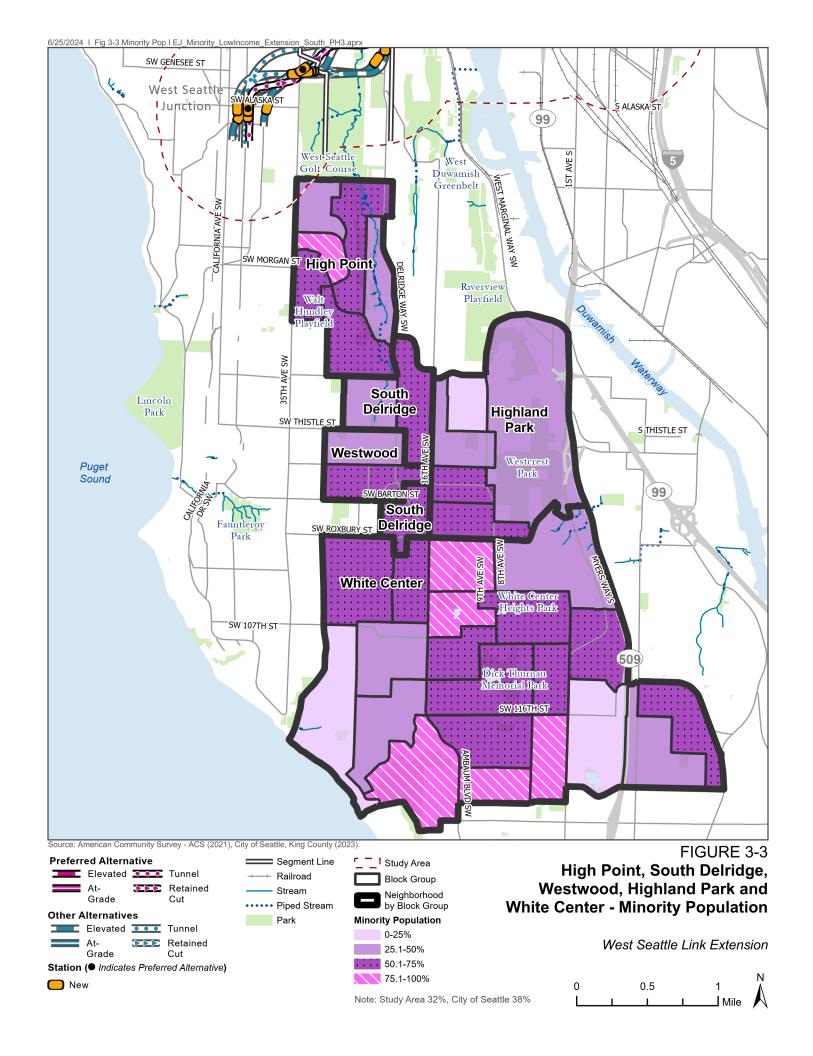
3.1.4 Environmental Justice Populations Outside of the Study Area

During the RET process, communities with environmental justice populations were identified south of the study area for which the Delridge Station, Avalon Station, or Alaska Junction Station would be a transit access or transfer point when traveling to or through downtown. These communities include South Delridge, High Point, Highland Park, Westwood, and the unincorporated King County neighborhood of White Center. Parts of the High Point community would be within the 10-minute bikeshed of the Delridge, Avalon, and Alaska Junction stations, and King County Metro Transit (Metro) RapidRide H Line would connect White Center to the Delridge Station. Metro bus transit currently provides service between these communities and the study area. Metro's RapidRide H Line would provide a transfer to light rail at the Delridge Station for residents in Highland Park and White Center. Residents in High Point would likely transfer from various Metro routes to light rail at the Avalon Station or Alaska Junction Station. Under the minimum operable segment (M.O.S.), transit riders from these communities that would have used the Avalon Station or Alaska Junction Station as a transfer point to light rail under the full project would transfer at the Delridge Station instead.

The demographics of High Point, South Delridge, Highland Park, Westwood, and White Center are shown on Figure 3-3 and Figure 3-4 and listed in Table 3-3. As shown, higher concentrations of minorities are found along the Delridge Way Southwest and 35th Avenue Southwest corridors, specifically in the High Point (60 percent), South Delridge (59 percent), Highland Park (51 percent), Westwood (46 percent), and White Center (61 percent) communities. All of these communities except Westwood have higher concentrations of low-income people than the study area. Data show 37 percent of High Point's population, 26 percent of South Delridge's population, 23 percent of Highland Park's population, and 33 percent of White Center's population are low-income. Generally, the percentages of low-income people south of the project study area are higher than those found in the study area (16 percent), city of Seattle (18 percent), and the Sound Transit service district (20 percent).

The Muckleshoot Indian Tribe is signatory to both the Treaty of Point Elliott and the Treaty of Medicine Creek and has treaty-protected fishing rights and Usual and Accustomed Areas in the Puget Sound region, which includes the project area and the Duwamish Waterway. The Suquamish Tribe of the Port Madison Reservation (the Suquamish Tribe) is signatory to the Treaty of Point Elliott and has treaty-protected fishing rights and Usual and Accustomed Areas in the Puget Sound region, which also includes the project area and the Duwamish Waterway. Tribal members use and have interests in the resources in the study area. Project construction and operation would be in the Duwamish Waterway within the Tribal treaty-protected fishing areas.

Also, there are two Tribal resources in or near the study area. The Duwamish Longhouse and Cultural Center is just outside the project study area on West Marginal Way near the Duwamish Waterway in the Duwamish Segment, and the Indian Child Welfare Office is in the Delridge Segment, visited by Native Americans from inside and outside the study area.



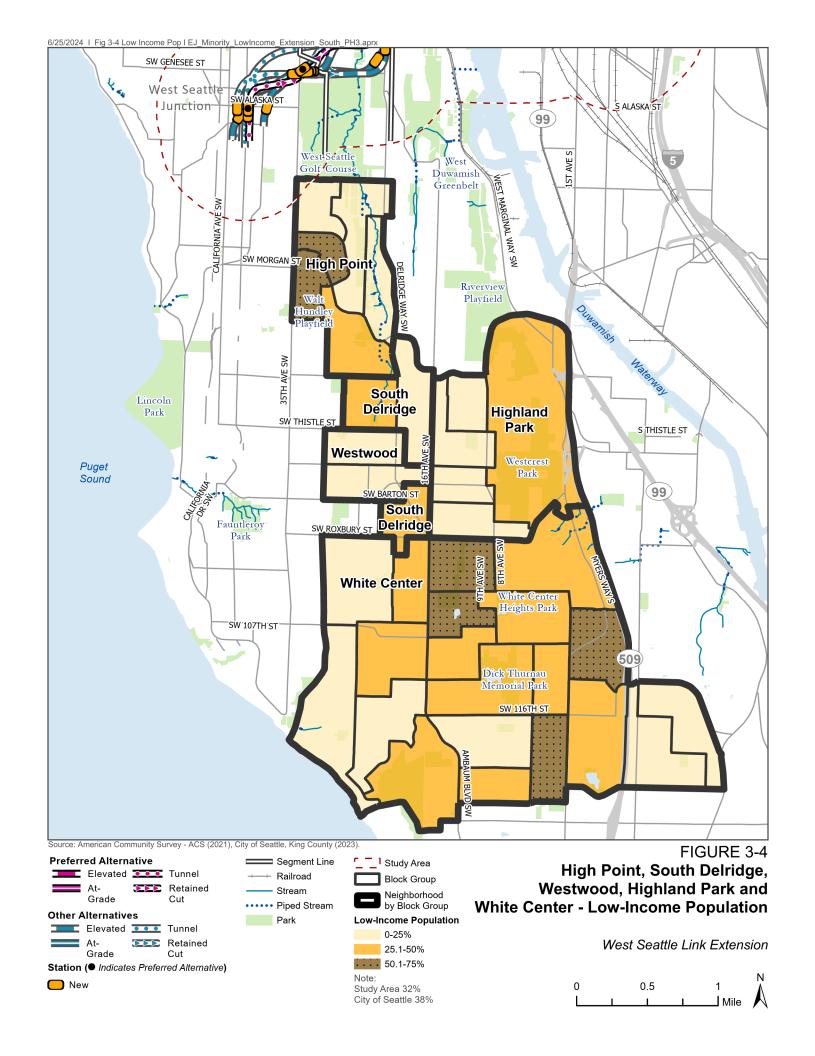


Table 3-3. High Point, South Delridge, Highland Park, Westwood, and White Center Demographics

Demographic	Study Area	City of Seattle	Sound Transit Service District	High Point	South Delridge	Highland Park	Westwood	White Center
Total Population	35,288	725,319	3,358,538	8,993	5,283	6,324	2,908	28,016
Minority Population	32%	38%	42%	60%	59%	51%	46%	61%
Black	6%	7%	7%	29%	9%	9%	12%	9%
Hispanic or Latino	8%	7%	11%	8%	22%	18%	11%	25%
Asian	9%	16%	16%	15%	20%	10%	12%	21%
American Indian and Native Alaskan	0.2%	0.4%	0.5%	0.5%	0.3%	1.0%	0.8%	0.8%
Native Hawaiian and Other Pacific Islander	0.1%	0.2%	0.9%	0.1%	0.1%	2.7%	1.9%	0.3%
Two or More Races and Other	8%	7%	7%	6%	8%	10%	8%	5%
Low-Income Population ^a	16%	18%	20%	37%	26%	23%	16%	33%
Households with Limited English Proficiency ^b	6%	7%	10%	14%	14%	11%	10%	23%
Median Household Income	\$113,717	\$109,336	\$103,824	\$78,129	\$94,080	\$76,127	\$84,625	\$83,373

Source: 2021 American Community Survey 5-Year Estimates (United States Census Bureau 2023).

3.2 Environmental Hazards and EJSCREEN Tool

EJSCREEN is a tool created by the United States Environmental Protection Agency that combines environmental indicators and demographic data to identify communities that may have a combination of high environmental burdens and vulnerable populations with increased susceptibility to the effects of exposure to environmental hazards (United States Environmental Protection Agency 2023a, 2023b). EJSCREEN highlights areas that are candidates for further review, analysis, or outreach, such as when there is a large disparity between an environmental indicator value and the average in the state or United States population. An environmental justice index for environmental indicators above the 80th percentile warrants closer consideration (United States Environmental Protection Agency 2023a).

^a Low-income threshold is defined as two times the United States Department of Health and Human Services poverty level.

^b Includes populations that speak English "less than well."

The EJSCREEN Community Report indicates the study area⁵ has an overall demographic index in the 22nd percentile, which means this community's health status is less susceptible to the types of environmental exposures included in the screening tool. However, the study area contains numerous sources of environmental hazards, which indicates a high risk of exposure. Nearly all environmental variables in the study area are greater than the state average (Attachment G.2, EPA EJScreen Report, and Table 3-4). However, there is not a large disparity in the high risk of exposure to environmental pollution when compared to the entire city of Seattle. Seattle also has a slightly higher demographic index, in the 28th percentile.

In some scenarios, finding EJSCREEN tool environmental indicators above the 80th percentile would result in further study for potential environmental justice concerns related to new sources of environmental pollution or contamination. However, the study area's socioeconomic indicators⁶ are below the 80th percentile. This data does not suggest further study, such as a community needs assessment or health impact assessment, is needed to understand the potential impacts of the project on community health and wellbeing.

3.3 Washington Tracking Network

Washington State Department of Health developed the Washington Tracking Network to better understand how the environment affects people's health. The Washington Tracking Network "Information by Location" mapping tool is a source for geospatial environmental and health data (Washington State Department of Health 2023). Environmental Health Disparity ranking is a way to compare health and social factors (for example, collections of environmental and socioeconomic data) that may contribute to disparities in a community (defined as a census tract). Health and social factors that can contribute to disparities in environmental health between communities include environmental exposures, environmental effects, socioeconomic factors, and sensitive populations. The Washington Tracking Network tool organizes a collection of indicators into those four categories. Maps displaying the overall rankings for each environmental health risk factor from the Washington Tracking Network tool are provided in Attachment G.3, Washington Department of Health, Environmental Health Disparities Maps and Data. Table G.3-1 summarizes some key data about the census tracts that comprise the study area.

Each number from 1 to 10 represents 10 percent of communities (or census tracts). For example, Census tract 010500 in West Seattle Junction has a rank of 9 for Environmental Exposures, which means 90 percent of communities in Washington have a lower health disparity (or are less affected by environmental exposures) and 10 percent have a greater level of disparity (or are more affected by environmental exposures). The indicators are averaged within each theme or Environmental Health Risk Factor. Deciles⁸ (like ranking) only show that there is a difference in risk but not how much risk.

⁵ The EJScreen tool allows the user to draw a generalized rail corridor. It calculates and displays data at the Census block group level using the same American Community Study 2017 to 2021 5-Year data (United States Environmental Protection Agency 2023b, 2023c). This analysis selected a 0.5-mile buffer to generally mirror the Final EIS study area.

⁶ Socioeconomic indicators: Demographic Index, Supplemental Demographic Index, People of Color, Low Income, Unemployment Rate, Limited English Speaking Households, Less than High School Education, Under Age 5, Over Age 64, and Low Life Expectancy.

⁷ Information by Location Mapping Tool, Washington Tracking Network at https://fortress.wa.gov/doh/wtn/WTNIBL/.

⁸ "Deciles" are ten equal groups into which a population can be divided according to the distribution values of the particular variable. The Information by Location tool ranks each Environmental Health Risk factor from 10, the highest, to 1, the lowest. 1 = 10%. Communities in Washington are ranked in comparison to other Washington communities.

Table 3-4. Environmental Indicators from EJSCREEN Tool V2.2

Environmental Justice Index Variables for Pollution and Sources	Washington Average Value	Seattle	Study Area
PM _{2.5}	7.02 micrograms per cubic meter	59th percentile	52nd percentile
Ozone	49.8 parts per billion	13th percentile	6th percentile
NATA Diesel Particulate Matter	0.355 micrograms per cubic meter	96th percentile ^a	97th percentile ^a
NATA Air Toxics Cancer Risk	27.0 lifetime risk per million	37th percentile	97th percentile ^a
NATA Respiratory Hazard Index	0.39	94th percentile ^a	98th percentile ^a
Toxic Releases in Air	1,800	96th percentile a	99th percentile ^a
Traffic Proximity and Volume	190 daily traffic count/distance to road	94th percentile a	88th percentile ^a
Lead Paint Indicator	0.23% pre-1960s housing	78th percentile	73rd percentile
Superfund Proximity (site count/kilometer distance)	0.18 sites/kilometer	86th percentile ^a	98th percentile ^a
Risk Management Plan Proximity	0.4 facility count/kilometers distance	69th percentile	82nd percentile ^a
Hazardous Waste Facility Proximity	1.6 facility count/kilometers distance	94th percentile ^a	89th percentile ^a
Underground Storage Tanks	6.3 count/square kilometer	93rd percentile a	93rd percentile ^a
Wastewater Discharge Indicators	1.8 tanks/square kilometer	74th percentile	80th percentile ^a

Source: EPA 2023; EJSCREEN version 2.2 uses demographic data from American Community Study 2017 to 2021 5-year data.

Note: NATA is a hazard index using the ratio of exposure concentration in the air to a health-based reference concentration.

NATA = National Air Toxics Assessment

 $PM_{2.5}$ = fine particulate matter smaller than 2.5 microns

The overall rankings for the SODO, Duwamish, and Delridge segments of the study area are high (10 is the highest and 1 is the lowest rank). Table G.3-1 highlights the risk factors present in the study area for representative census tracts. For example, the SODO, Duwamish and Delridge segments census tracts have similar overall Environmental Health Disparities rankings of 9 and 10, respectively. They share the highest rankings for environmental exposures from diesel exhaust particulate matter (PM) 2.5 emissions, PM_{2.5} concentration, and toxic releases from facilities. They also share the highest rankings for environmental effects from proximity to hazardous waste treatment storage and disposal facilities, Superfund sites⁹, and risk management plan facilities.

^a Indicates percentiles over 80 percent.

⁹ There are three reported Superfund sites in Seattle. The closest Superfund site near the study area is the "lower reach" of the Lower Duwamish Waterway Superfund Site, which maintains an active community involvement plan while the cleanup of sources of contamination (known as source control) is underway (United States Environmental Protection Agency 2016, Washington State Department of Ecology 2023).

In contrast, the socioeconomic factors and sensitive populations for the SODO, Duwamish and Delridge segments census tracts do not receive high scores. The highest-ranking indicators are the percentage of people of color and low birth weights. The representative census tract for West Seattle Junction area has an overall Environmental Health Disparities rank of 5 because it shares some of the same environmental exposures and environmental effects as SODO, Duwamish and Delridge segments tracts. However, its socioeconomic factors and sensitive population rankings are very low.

Similar to the findings of EJSCREEN, the Washington Tracking Network "Information by Location" mapping tool indicates that the study area has high environmental exposure rates, as do many census tracts adjacent to the study area. The socioeconomic factors and sensitive populations are not high-risk factors when compared to the rest of the state. It is worth noting that demographic data displayed in the Washington Tracking Network tool are at the census tract level. This generates a larger study area and less precise socioeconomic data than looking at the Census block group level.

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4 OUTREACH TO MINORITY AND LOW-INCOME POPULATIONS

Outreach activities prior to July 2022 that are described in this chapter were conducted as part of the WSBLE Project, and activities and events described were either designed for the entire WSBLE Project corridor or were specific to the West Seattle Link Extension project corridor. Outreach activities and events after July 2022 described in this chapter were focused on the West Seattle Link Extension.

Members of the public have had the opportunity to review and comment during Alternatives Development and environmental review processes, starting in fall of 2017. Through early scoping, Alternatives Development, scoping, and the environmental review process, Sound Transit has sought to provide for meaningful engagement of historically underrepresented populations, including minorities and people with low income or limited English proficiency. As the project planning and design have progressed, Sound Transit continues to reach out to those who could be impacted (positively and negatively) by the project.

Sound Transit and the City of Seattle employed the City's RET process throughout the alternative evaluation and screening process. Considerations from each level of alternatives evaluation helped Sound Transit better define and compare project alternatives by using a racial equity framework, in addition to other evaluation criteria, to inform the Alternatives Development process.

Sound Transit has developed a public outreach plan in tandem with the RET process that outlines how the agency provides project information to and receives feedback from residents, businesses, and other stakeholders in the study area. In addition, the agency developed a *Community Engagement Guide* for the public (Sound Transit 2019a). The *Community Engagement Guide* presents Sound Transit's goals for public engagement, how the public can get involved, how the public's feedback will shape the project, and the methods Sound Transit will use to gather feedback. The guide also outlines Sound Transit's plan to engage historically underrepresented communities using a suite of engagement opportunities including: interviews with social service providers to better understand the populations they serve in the project vicinity, using interpreters at public meetings and community gatherings, translating key materials into languages spoken within the project corridor, holding meetings targeted to reach historically underrepresented communities, and meeting communities where they gather.

The United States Census and elementary school data indicate that the study area does not meet the threshold triggering the need for written translation of vital documents into other languages, in compliance with Executive Order 13166. However, the project outreach team has translated materials into other languages, including Vietnamese, Chinese (Simplified and Traditional), and Spanish; these are the most common non-English languages spoken in the study area.

4.1 State Environmental Policy Act Early Scoping Meetings

Sound Transit initiated the environmental review for the WSBLE Project under the State Environmental Policy Act (SEPA) with early scoping on February 2, 2018. This initiated the Alternatives Development phase of the project and provided an opportunity for the public to learn about the project and provide their comments at the early planning stage. Comments were accepted by mail, email, voicemail (transcribed), and online comment forms, and on comment boards, maps, and forms at the open houses (both in-person and online) through March 5, 2018.

Three public SEPA early scoping meetings were held in the study area: in West Seattle on February 13, 2018; in Ballard on February 15, 2018; and in Downtown Seattle on February 20, 2018. An online open house was held from February 12 through March 5, 2018.

For SEPA early scoping public outreach efforts, Sound Transit conducted a preliminary demographic analysis to identify low-income, minority, and limited English proficiency populations. Based on this analysis, Sound Transit used the following strategies to engage these populations during SEPA early scoping:

- Provided translated contact information on posters and postcards
- Provided translated meeting guide handouts
- Publicized events online and in print with ethnic newspapers and community calendars
- Provided interpreters at the Downtown Segment open house (Mandarin, Chinese, and Vietnamese)
- Provided translated contact information on the online open house webpages, as well as the embedded Google Translate tool

4.2 EIS Scoping Meetings

The WSBLE Project Draft EIS public scoping period was from February 15 through April 2, 2019. The FTA and Sound Transit held three public scoping meetings. One public scoping meeting was held in the West Seattle Link Extension study area on February 27, 2019. There was also an online open house, which had translation available, from February 15 through April 2, 2019. The FTA and Sound Transit asked for comments on the draft Purpose and Need statement for the project; the alternatives that should be evaluated in the Draft EIS; and on the environmental resources to evaluate in the Draft EIS, including social, economic, and transportation.

Sound Transit advertised the scoping meetings using a variety of methods, including postcards mailed to 118,000 homes and businesses within 0.5-mile of the project, listserv emails to over 7,000 email addresses, print and online advertising, a media advisory, social media posts, online community calendars, and notification through the project website. Sound Transit also hung posters at community gathering places throughout the project vicinity.

Around 470 people attended the three public scoping meetings, and 11,730 people accessed the online open house during the comment period. The FTA and Sound Transit received over 2,800 individual communications (each communication contained one or more comments) from the public. Comments were accepted by mail, email, online comment forms, transcribed phone messages, and through paper comment forms and a court reporter at the scoping meetings. Meeting guides, project folios, and comment forms were translated into Simplified Chinese, Vietnamese, Amharic, and Spanish. Interpreters were available at the Downtown Segment open house for Mandarin, Cantonese, and Vietnamese speakers.

In addition to the public, FTA invited six federally recognized Tribes to participate in the environmental review process during project scoping through letters sent on February 25, 2019. The invited Tribes are Confederated Tribes and Bands of the Yakama Nation, Muckleshoot Indian Tribe, Snoqualmie Indian Tribe, Stillaguamish Tribe of Indians of Washington, the Suquamish Tribe, and Tulalip Tribes of Washington. These Tribes were invited to participate in a separate agency and Tribal scoping meeting for the project. Sound Transit also invited the non-federally recognized Duwamish Tribe and Snohomish Tribe, to participate in the scoping process and attend public scoping meetings.

More detail about the public outreach conducted as part of the project scoping effort is in the *Scoping Summary Report* (Sound Transit 2019b).

4.3 Racial Equity Toolkit Process

The RET process began early in the project's Alternatives Development process, providing a racial equity framework to inform project development and the focus and extent of community engagement. The process has continued through the EIS process and will continue through construction. Sound Transit and the City of Seattle applied the RET during each of the three levels of alternative evaluation and screening for the WSBLE Project, as described in the following sections. Applying the RET to the project informed the technical evaluation and the focus and extent of community engagement, elevating project issues and considerations that affect communities of color and low-income communities to inform decision-making. The RET also informed the WSBLE Project's Stakeholder Advisory Group and Elected Leadership Group that made recommendations to the Sound Transit Board regarding the project, and the Sound Transit Board's identification of a preferred alternative(s) and other alternatives to evaluate in an EIS in 2019. Although the RET was applied to the entire project, the discussion in this section focuses on findings relevant to the West Seattle Link Extension.

Because the RET process began before the Draft EIS alternatives were determined, it evaluated the demographics of the Sound Transit 3 representative alignment, which was the general project as described in the Sound Transit 3 System Plan for this corridor (Sound Transit 2016). The Sound Transit 3 System Plan outlines the next phase of high-capacity transit improvements for central Puget Sound, and is Sound Transit's guide for the development of its planned projects.

4.3.1 Level 1 Alternatives Development Racial Equity Toolkit

The Level 1 RET established racial equity outcomes and looked at the racial and ethnic composition of the communities within a 0.5-mile area around the new stations along the Sound Transit 3 representative alignment, which was the starting point for the Alternatives Development process, to give Sound Transit an idea of what types of communities this project would touch.

Racial equity outcomes established were as follows:

- Enhance mobility and access for communities of color and low-income populations.
- Create opportunities for equitable development.
- Avoid disproportionate impacts on communities of color and low-income populations.
- Meaningfully involve communities of color and low-income populations in the project.

Analysis of the demographics data led the RET team to these findings related to the West Seattle Link Extension part of the WSBLE corridor:

- Dense communities of color populations lie within the bikeshed (the distance a person can bike in 10 minutes, approximately 1.5 miles) and transit-shed (the distance a person can travel in 15 minutes on high-frequency transit) of the Delridge and Avalon station locations but are outside of those stations' immediate walksheds (the distance a person can walk in 10 minutes, approximately 0.5 mile).
- Many stations in the representative project corridor would be in high or relatively high
 opportunity areas that are strongly correlated to higher household incomes and a lower
 share of minority populations, suggesting a disproportionate travel burden for more distant
 minority populations (Sound Transit 2018b).

 The RET process also resulted in considerations for Sound Transit as the agency continued to develop the project in Level 2. The Racial Equity Toolkit: Level 1 Data Analysis and Findings has information about the considerations developed for Level 2 Alternatives Evaluation (Sound Transit 2018b).

4.3.2 Level 2 Alternatives Development and Screening Racial Equity Toolkit

The RET information gathered during the Level 2 Alternatives Evaluation and screening informed the work of the project's Stakeholder Advisory Group and Elected Leadership Group. The Level 2 RET information included community feedback gathered during targeted community engagement events in the Delridge neighborhood for the West Seattle Link Extension; for more detail see Section 3.4 of the West Seattle Ballard Link Extensions Racial Equity Toolkit Report: Alternatives Development Phase (Sound Transit 2019c).

In the Delridge community, the concerns were about enhancing access to transit for communities of color and low-income communities through methods such as increasing transit service to the new light rail Delridge Station and employing equitable methods for fare pricing and collection. There was interest in making sure equitable development occurs in the redevelopment of station areas, like affordable housing and neighborhood amenities.

This feedback was coupled with the recommendations that Sound Transit continue to explore how the project might impact the environmental justice populations south of the Delridge Station. The *Level 2 RET Memo* has more information about the findings provided to Sound Transit as the agency moved into the Level 3 evaluation (Sound Transit 2018c).

4.3.3 Level 3 Alternatives Development and Screening Racial Equity Toolkit

The Level 3 RET for the West Seattle Link Extension addressed the development and screening of the Delridge Station alternatives and looked at the project corridor-wide for differentiators related to potential project impacts on communities of color and low-income populations.

Based on community feedback in prior levels, the RET team identified specific racial equity outcomes for the Delridge Station as follows:

- Provide an excellent transfer experience including bus and rail integration and options for RET community-desired amenities provided at the station.
- Equitable transit-oriented development (TOD) serving the community.

Building on lessons learned and feedback received during the Level 1 and 2 RET processes, Sound Transit's community engagement approach for this RET process included, among other things, providing interpreters at public meetings and community gatherings, community workshops focused on the Delridge Station, translating key materials into languages spoken in the station area community, door-to-door business outreach in the appropriate language, interviews with social service providers and rotating a project kiosk around public gathering places in the neighborhood with panels in the predominantly spoken languages.

The Level 3 RET documented the results of the Level 3 Alternatives Evaluation as well as community feedback and questions for further consideration in future phases of the project and the ongoing iterative RET process.

For the Delridge Station alternatives, the RET found that the station included as part of the Sound Transit 3 Representative Project provided the fewest benefits to communities of color and low-income populations because the station location would not offer the best environment for those transferring from bus to light rail, the station location is farther from social service providers and community destinations, and the station would offer the least opportunity to support agency TOD. Corridor-wide, the RET found that the key differentiators, with respect to racial and social equity, were transit integration and access, opportunities for equitable development, residential unit displacements, and business impacts. Alternatives that have positive results in these key areas are those that would most benefit communities of color and low-income populations within the study area.

The RET was shared with the public and the project's Stakeholder Advisory Group and Elected Leadership Group before they made recommendations to the Sound Transit Board regarding the project which helped inform the Sound Transit Board's identification of a preferred alternative(s) and other alternatives to evaluate in an EIS. Building from the findings of the RET and the alternatives evaluation process, the Sound Transit Board did not identify the Sound Transit 3 Representative Project for the Delridge Station to be studied in the WSBLE Draft EIS, consistent with the RET findings that the station alternative offered the fewest benefits to communities of color and low-income populations.

4.3.4 WSBLE Draft EIS Racial Equity Toolkit

The RET process conducted in parallel with the Draft EIS preparation built upon the Level 1, 2, and 3 RET process and the environmental justice assessment for this project, documenting potential project impacts and benefits, and community feedback. A key component of the RET process was creating a report to transparently share findings with all stakeholders in the project. The report is structured around RET outcomes and elevates opportunities, issues and other considerations that affect communities of color and low-income populations for the public and decision-makers, informing the environmental process and project outcomes. These RET outcomes are iterative in nature and capture a snapshot in time and may evolve based on community feedback as the project progresses.

During the Draft EIS phase, racial equity outcomes were updated as follows:

- Advance environmental and economic justice to improve economic and health outcomes for communities of color.
- Enhance mobility and access for communities of color and low-income populations.
- Create opportunities for equitable development that include expanding housing and community assets for communities of color.
- Avoid disproportionate impacts on communities of color and low-income populations.
- Create a sense of belonging for communities of color at all stations, making spaces where everyone sees themselves as belonging, feeling safe, and welcome.
- Meaningfully involve communities of color and low-income populations in the project.

During this phase of the WSBLE Project, the community engagement approach was designed to meet the unique needs of communities of color, low-income populations, and those that are less likely to be engaged by traditional approaches to engaging with government and public sector entities. The approach focused on accessibility in terms of materials, format and content and included the following:

- Conducting interviews with social service providers to better understand various populations in the study area
- Using translators at public meetings, community gatherings, and, alternatively, with virtual meetings in response to the COVID-19 pandemic
- Translating key materials, including an online open house, into languages spoken along the project corridor
- Holding smaller meetings or listening sessions focused on individual communities, with presentations and facilitated discussion in language as appropriate
- Meeting communities where they gather, like community events or meetings, community centers, fairs and festivals, or in organized online spaces
- Conducting door-to-door business outreach and providing notifications in the appropriate language
- Engaging trusted community members, partnering with community-based organizations, and/or engaging Department of Neighborhoods Community Liaisons in outreach efforts and planning

As part of capacity-building efforts with environmental justice populations, during this phase, the WSBLE Project expanded on a partnership with the City of Seattle's Department of Neighborhoods Community Liaisons program to support community engagement efforts leading up to publication of the WSBLE Draft EIS and to encourage broad awareness and participation in the public comment period when the Draft EIS was published. Sound Transit, in partnership with the City of Seattle, engaged a cohort of over ten Department of Neighborhoods Community Liaisons, six specifically assigned to the West Seattle Link Extension project corridor, who have strong community connections and have adapted their engagement strategies and techniques to maintain their connections with community members during the COVID-19 pandemic. The WSBLE Project provided a series of six training sessions with the cohort, developed engagement work plans and supported implementation.

An important aspect of the RET is understanding the history and context of the communities the project will serve and potentially impact. Data has shown that the COVID-19 pandemic disproportionately impacted communities of color, from greater rates of infection and lack of access to treatment to instances of explicit racial bias and xenophobia. This understanding further underscores the need to center communities of color and low-income populations in the analysis and engagement on the WSBLE Project. The WSBLE Project has focused on being creative and thoughtful in the community engagement approach and being responsive to community needs.

The Environmental Review Phase RET Report process and findings¹⁰ were shared with the Sound Transit Board and the public in July 2022.

¹⁰ The report is available at https://www.soundtransit.org/sites/default/files/documents/WSBLE-racial-equitytoolkit-report-environmental.pdf

4.4 Targeted Outreach Prior to Publication of WSBLE Draft EIS

Targeted outreach prior to publication of the WSBLE Draft EIS provided Sound Transit with opportunities to engage with service providers, community-based organizations, community members, and other stakeholders. The primary purpose of these outreach events was to share information about the project, gather information about how environmental justice populations could be affected, build relationships, and learn how best to engage these communities moving forward. All notices for outreach events included translated language (Chinese, Vietnamese, and Spanish) blocks which notified people that translated materials can be obtained from Sound Transit. If Sound Transit staff are contacted by a non-English speaking person, they have a translation service available that provides over the phone translation services in 150 languages, 24 hours a day, 7 days a week. Sound Transit has used several types of targeted outreach over the course of this project. Targeted outreach events conducted for the project include:

- Briefings: A briefing is a smaller meeting focused on an individual community or organization, during which the project outreach staff provided an update about the project and responded to questions.
- Open houses, neighborhood forums and community workshops: At these events, the project outreach staff conducted facilitated conversations among community members, responded to questions and often gathered community feedback. A presentation was often provided at these events to provide project background.
- Fair or festival booths: Project outreach staff attended many fairs and festivals in the project study area to provide project information and answer questions from the public. The outreach staff hosted a booth with project materials at these events.
- Property owner meetings: members of the project outreach staff met with property owners to discuss the project and their specific concerns.
- Social service provider interviews: Project outreach staff conducted interviews of social service providers in the study area to gather information about the community, its needs, and how to most effectively engage and gather feedback about the project.

4.4.1 City of Seattle Department of Neighborhoods Community Liaison Program

Early on in project development, Sound Transit engaged the City of Seattle's Department of Neighborhoods Community Liaisons to provide engagement insights and support in-language listening sessions, door-to-door outreach, and neighborhood forums. Building on that foundation, Sound Transit and the City of Seattle have engaged Department of Neighborhoods Community Liaisons who have connections in the RET neighborhoods of the Delridge Segment corridor to build awareness and capacity to engage in the Draft EIS process and encourage broad awareness and participation in the comment period. Department of Neighborhoods Community Liaisons serve as advocates and embedded community leaders to better reach immigrant and refugee communities, communities of color, and communities of seniors, youth, and people with disabilities.

4.4.2 Community Advisory Groups

Building on the variety of ways Sound Transit traditionally engages the public leading up to and during the Draft EIS comment period, Sound Transit formed Community Advisory Groups to provide another forum to share information and to collaborate with community members around issues and tradeoffs and the feedback from these groups was provided to the Sound Transit Board before it confirmed and modified the preferred alternative in July 2022. Members brought a diversity of experiences and perspectives from communities along the project corridor, including but not limited to, income level, race, age, physical and cognitive abilities, and lived experience. Each group was comprised of 10 to 15 community members organized by geographic area. Members served as ambassadors to their communities and brought forth community values, concerns, and ideas.

A list of all the targeted outreach that Sound Transit conducted for the West Seattle Link Extension to date is in Attachment G.1, Targeted Outreach. All outreach prior to July 2022 was for the WSBLE Project, and therefore this list also includes events along the Ballard Link Extension project corridor. All WSBLE Project events had information available for both extensions.

4.4.3 Other Community Engagement

Interviews with social service providers and community organizations helped Sound Transit better understand the environmental justice populations within the project study area. Based on these interviews, and other demographic research, Sound Transit decided to conduct focused outreach in the Delridge Segment because minority and low-income populations that live south of the project corridor in the White Center neighborhood are anticipated to access the light rail system at the Delridge Station, thereby making it an important transit resource for those populations.

Community engagement efforts that targeted the Delridge Segment included the following:

- Conducting interviews with social service providers and community organizations to better understand populations in the study area, including how minority and low-income populations might relate to the project
- Holding smaller meetings focused on individual communities or organizations
- Attending community and neighborhood meetings
- Rotating a project kiosk around public gathering spaces in the neighborhood
- Meeting communities where they gather, like fairs and festivals, community centers, and community events or meetings
- Holding a community workshop focused on the new Delridge Station, including presentation and facilitated table discussions
- Conducting door-to-door business outreach and providing notifications to increase project and process awareness, build relationships, gather feedback, and answer questions

Section 4.4.3.1, Community Engagement Event Summary, presents a sample of the community engagement events Sound Transit organized and participated in that were focused on the Delridge Station area; a full list of events held prior to publication of the WSBLE Draft EIS is provided in Table G.1-1 in Attachment G.1.

4.4.3.1 Community Engagement Event Summary

Briefings

- Delridge Neighborhood and Development Association (November 16, 2017, October 9 and 24, 2018, and February 21 and March 20, 2020)
- Nucor Steel (March 17, 2018)
- West Seattle Transportation Coalition (May 25 and November 30, 2017, April 26 and September 27, 2018, September 26, 2019, July 23 and November 19, 2020, January 28 and August 26, 2021)
- Drink and Link briefing at Ounces (August 8, 2018)
- Pigeon Point Neighborhood Council briefing (June 11, 2018, March 11, 2019, February 10 and November 9, 2020, and June 22, 2021)
- Youngstown Neighborhood (January 16, 2019, and October 20, 2020)
- Youngstown Neighborhood Tour (February 21, 2020)

Social Service Provider Interviews

- Neighborhood House at High Point (July 26, 2018)
- Southwest Youth and Family Services (June 29, 2018)
- West Seattle Food Bank (June 28, 2018)
- Downtown Emergency Service Center, Cottage Grove Commons (August 28, 2018)
- WestSide Baby (December 6, 2018)
- Delridge Community Center (January 9, 2019)
- White Center Community Development Association (January 16, 2019)

Festivals

- Delridge Day (August 11, 2018, and August 10, 2019)
- Chief Sealth International High School Student Career Fair (March 5, 2020)
- Neighborhood House/Somali Health Fair (August 14 and October 30, 2021)
- Delridge Farmers Market (October 9, 2021)

Door-to-door Outreach with Department of Neighborhoods Community Liaisons

Sound Transit worked with Department of Neighborhoods Community Liaisons, who performed door-to-door outreach in Delridge along the project corridor and engaged with the local businesses. Sound Transit and Department of Neighborhoods Community Liaisons spent 3 days doing this type of outreach and visited over 15 businesses and faith facilities.

4.4.3.2 Delridge Community Workshop

Sound Transit held a community workshop on March 12, 2019, for the Delridge Station during the scoping period (Sound Transit 2019d). The purpose of the community workshop was to learn more about the community's vision for their neighborhoods, how they get around in the community, and where they go. The workshop also was an opportunity for Sound Transit to share the preliminary alternatives in this neighborhood and solicit feedback. Throughout the workshop, attendees had the opportunity to provide verbal (through a court reporter), written (by comment forms), and online (through an online open house) comments for the project's formal scoping period. Ninety-four people attended the Delridge community workshop.

Comments specific to the proposed project included the following:

- General interest in improving integration of all modes: walking, biking, buses, and light rail.
- Some interest in more small businesses, restaurants, a grocery store, and family friendly amenities in the station area.
- Concern about the height, visual aesthetics, and size of the new station and guideway;
 many preferred a lower and smaller structure.
- Concern by many residents about potential residential and business displacement.
- General interest from participants in minimizing impacts to the Delridge neighborhood and encouraging development that fits with current character of the community.

4.4.3.3 Neighborhood Forums

Sound Transit held neighborhood forums during each phase of project planning to share information and solicit input on the development and assessment of alternatives at that phase (Sound Transit 2018a). These forums served to educate and engage communities, provide participants with an opportunity to work with their neighbors to identify priorities specific to their neighborhoods, and discuss project issues and concerns. The neighborhood forums included aspects such as: presentations covering project overview and timeline; conversations about project alternatives with respect to neighborhood needs and values as well as opportunities and concerns about the various alternatives; and small group discussion with attendee tables reporting out on the key themes from their group.

Sound Transit staff recorded key themes and takeaways that they heard to inform Alternatives Development. More information on neighborhood forums can be found in Appendix F.

The following sections list locations and dates of the neighborhood forums held in the West Seattle Link Extension area over the course of the project.

Level 1 Neighborhood Forums

Alki Masonic Center (May 5, 2018)

Level 2 Neighborhood Forums

Seattle Lutheran High School (September 8, 2018)

Level 3 Early Scoping Neighborhood Forums

- Alki Masonic Center (February 27, 2019)
- Youngstown Cultural Arts Center (March 12, 2019)

WSBLE Draft EIS Neighborhood Forums

- Alki Masonic Center (November 21, 2019)
- Delridge Community Center (December 7, 2019)

4.4.3.4 Themes from Community Engagement

The following summarizes comments and themes that Sound Transit heard from the Delridge community during outreach and community engagement activities leading up to publication of the WSBLE Draft EIS, particularly engagement with social service providers and community-based organizations in the area.

Low-income families from neighborhoods south of Delridge, many of whom are immigrants, refugees, and people of color, rely heavily on public transportation to access services, jobs, and schools. More frequent and improved bus service to a Delridge light rail station could benefit low-income populations and communities of color who live farther south.

Many shared advice for how to better serve communities of color and low-income communities when the West Seattle Link Extension comes online, noting that factors such as cost, payment method, and presence of security and fare enforcement could be barriers. Community members also shared that education will be essential for many immigrant and refugee families that are new to the area and do not understand how local public transportation operates. Providing language-neutral wayfinding and signage and announcements in languages other than English would improve accessibility for people who speak limited or no English.

Community members shared concerns about residential and business displacement and that increasingly residential development in the area is not affordable. Some expressed concerns that the trend may increase with light rail coming to the neighborhood.

Many shared interests in redevelopment occurring in the station area that includes affordable housing and neighborhood amenities such as a grocery store.

In light of recent experiences related to the West Seattle Bridge closure and construction for the RapidRide H Line, community members shared feedback about the importance of reliable regional transportation connections and interest in minimizing disruptions to local businesses, especially maintaining business operations during construction.

4.4.4 Targeted Outreach – Corridor-wide

4.4.4.1 Community Engagement and Outreach Goals

As part of community engagement across the WSBLE project corridor during the Alternatives Development phase, Sound Transit conducted 27 interviews with community organizations and social service providers in 2018 and early 2019. These interviews were one of many strategies used to better understand community needs and preferred methods of engagement and communication. Other goals of the interviews included the following:

- Sharing early information about the project and planning process
- Building awareness and understanding of community concerns, interests, and ideas
- Establishing relationships and fostering trust between the project team and community stakeholders
- Supporting development of project outcomes that are racially and socially equitable

At each interview, Sound Transit asked a series of questions that focused on transit usage, particularly the benefits and barriers of using the existing (and future) light rail system and whether that varied based on race, income, or some other factor.

4.4.4.2 Themes from Community Engagement

The following summarizes the comments and themes Sound Transit heard in conversations with community members, social service providers, and other organizations during the interviews.

Access to Opportunity/Using Light Rail and Transit

- Many homeless and low-income populations depend on transit. More public transportation is always a good thing, with additional light rail allowing for people to access different parts of the city and the services they need.
- People receiving social services have a range of abilities. Locating light rail stations close to social service providers and housing is critical, and Americans with Disabilities Act access should be maintained or enhanced.
- There are challenges for communities of color, low-income communities and particularly
 those that experience homelessness to using the system, including discomfort with fare
 enforcement, language barriers, and cost. One service provider shared that many must
 choose between buying a meal or paying for transit.
- It is important to make stations feel safe for all users, with ideas about activating stations and keeping pedestrian routes and stations well lit.

Affordability and Community Cohesion

- There is concern that new light rail extensions in neighborhoods will spur development and push low-income families out of their homes as well as farther away from transit. It is important to incorporate affordable housing into the project so low-income populations and communities of color do not get left out.
- There are concerns about small business displacement and potential gentrification.
- There are concerns about elevated alignments and impacts, including residential and business displacement, noise, and traffic impacts.
- Some feedback noted that elevated alignments are built in lower-income and diverse neighborhoods while tunnels are built in more affluent neighborhoods.

Ensure Meaningful, Timely, and Effective Engagement

- Interest in how project decisions are made and how to ensure all voices are heard, particularly those from traditionally underrepresented communities
- Concern that project decisions around the city are not equitable and agencies need to better consider how to incorporate voices from people with low incomes, people of color and non-English speakers

4.5 WSBLE Draft EIS Comment Period

The WSBLE Draft EIS was published on January 28, 2022. Comments were accepted during a 90-day comment period that ended April 28, 2022. Comments were accepted via letter, comment form, email, online submittal form, or voicemail. Comments received in languages other than English were translated. Approximately 5,200 comment submittals were received. Chapter 7, Comment Summary, of the West Seattle Link Extension Final EIS provides more information on comments received related to the West Seattle Link Extension and pertaining to both the West Seattle Link Extension and the Ballard Link Extension, including common themes.

Sound Transit held four virtual public open house public hearings for the WSBLE Draft EIS. Each event was focused on a specific geographic area, but comments on any part of the project were welcomed at all events. Each event included a presentation and opportunity for public comment recorded by a court reporter. Dates and times of the events are listed below:

- March 15, 2022, 5:30 p.m. to 7:30 p.m.; focused on Interbay/Ballard
- March 22, 2022, 5:30 p.m. to 7:30 p.m.; focused on Downtown Seattle
- March 24, 2022, 5:30 p.m. to 7:30 p.m.; focused on Chinatown-International District and SODO
- March 30, 2022, 5:30 p.m. to 7:30 p.m.; focused on West Seattle

In addition, one in-person drop-in open house was held at the Union Station Plaza from 12 p.m. to 7 p.m. on March 17, 2022. Information was available on both the West Seattle Link Extension and Ballard Link Extension at this event, and attendees could provide comments on paper or via computer. This event did not include a public hearing, but a court reporter was available to take verbal comments. Spanish and Vietnamese translators were available for the West Seattle-, Chinatown-International District-, and SODO-focused open houses, as well as the in-person open house. Cantonese and Mandarin translators were also available for the Chinatown-International District- and SODO-focused and in-person open houses.

Additional engagement during this comment period included virtual "office hours," wherein people could set up 15-minute virtual meetings to talk with technical staff about their questions. 19 office hour meetings were held during the comment period. Sound Transit also conducted a series of property owner webinars, with an invitation to the webinars included in letters sent in October 2021 notifying those whose property might be affected. Information tables were also set up at locations throughout the community where people could drop by to get information. These locations are listed in Table G.1-2 in Attachment G.1, along with other targeted outreach since publication of the WSBLE Draft EIS to potential users of the Delridge Station. Events that would also be likely to be attended by minority or low-income populations are also listed.

City of Seattle's Department of Neighborhoods Community Liaisons continue to support outreach for the project as design and the environmental process advance.

5 PROJECT IMPACTS AND POTENTIAL MITIGATION

For reference purposes related to the discussion of impacts and mitigation in this chapter, Table 5-1 provides the names and abbreviations for the West Seattle Link Extension alternatives.

Table 5-1. West Seattle Link Extension Alternative Names and Abbreviations

Segment	Alternative Name	Abbreviation
SODO	Preferred At-Grade Lander Access Station Option	SODO-1c
SODO	At-Grade Alternative	SODO-1a
SODO	At-Grade South Station Option	SODO-1b
SODO	Mixed Profile Alternative	SODO-2
Duwamish (DUW)	Preferred South Crossing Alternative	DUW-1a
Duwamish (DUW)	South Crossing South Edge Crossing Alignment Option	DUW-1b
Duwamish (DUW)	North Crossing Alternative	DUW-2
Delridge (DEL)	Preferred Andover Street Station Lower Height South Alignment Option	DEL-6b
Delridge (DEL)	Dakota Street Station Alternative	DEL-1a
Delridge (DEL)	Dakota Street Station North Alignment Option	DEL-1b
Delridge (DEL)	Dakota Street Station Lower Height Alternative	DEL-2a
Delridge (DEL)	Dakota Street Station Lower Height North Alignment Option	DEL-2b
Delridge (DEL)	Delridge Way Station Alternative	DEL-3
Delridge (DEL)	Delridge Way Station Lower Height Alternative	DEL-4
Delridge (DEL)	Andover Street Station Alternative	DEL-5
Delridge (DEL)	Andover Street Station Lower Height Alternative	DEL-6a
Delridge (DEL)	Andover Street Station Lower Height No Avalon Station Tunnel Connection Alternative	DEL-7
West Seattle Junction (WSJ)	Preferred Medium Tunnel 41st Avenue Station West Entrance Station Option	WSJ-5b
West Seattle Junction (WSJ)	Elevated 41st/42nd Avenue Station Alternative	WSJ-1
West Seattle Junction (WSJ)	Elevated Fauntleroy Way Station Alternative	WSJ-2
West Seattle Junction (WSJ)	Tunnel 41st Avenue Station Alternative	WSJ-3a
West Seattle Junction (WSJ)	Tunnel 42nd Avenue Station Option	WSJ-3b
West Seattle Junction (WSJ)	Short Tunnel 41st Avenue Station Alternative	WSJ-4
West Seattle Junction (WSJ)	Medium Tunnel 41st Avenue Station Alternative	WSJ-5a
West Seattle Junction (WSJ)	No Avalon Station Tunnel Alternative	WSJ-6

A summary of project impacts and potential mitigation measures with the West Seattle Link Extension is provided in Table 5-2. Potential benefits of the project, including those identified outside of the 0.5 -mile study area, are also shown in Table 5-2 and discussed further in Chapter 6, Project Benefits.

The No Build Alternative would not have any construction impacts on adjacent communities, nor displace any businesses or residences. The No Build Alternative also would not allow communities to experience the benefits of light rail transit, such as increased connectivity throughout the city and the region, faster transit travel times, and improved reliability. The No Build Alternative would not provide a new rail transfer point at Delridge Station for minority and low-income populations in High Point, Highland Park, South Delridge, Westwood, and White Center.

As shown in Table 5-2, many elements of the environment would have no impacts or impacts would be mitigated. However, property acquisitions and displacements could affect minority and low-income populations and could also have economic and social impacts. Some alternatives in the Delridge and West Seattle Junction segments would displace affordable housing, including Seattle Housing Authority property. Changes in bus transit operation, such as route changes, would impact transit-dependent populations. The impacts of each alternative would vary by resource as described in Table 5-2. There would also be potential for cumulative impacts on businesses and the community from the project in combination with other past, present, and future projects.

As previously mentioned, several communities south of the study area have environmental justice populations (see Figures 3-3 and 3-4) that could benefit from the project. Although these communities are not in the project study area, Metro bus transit would connect them to the West Seattle light rail stations. Transit riders headed downtown from south of the study area would transfer from bus transit to light rail. Metro's RapidRide H Line would provide a transfer to light rail at the Delridge Station for residents in Highland Park and White Center, and residents in High Point would likely transfer from multiple Metro bus routes to light rail at the Avalon Station or Alaska Junction Station.

Transit riders from these communities that would use the Avalon Station or Alaska Junction Station would transfer at the Delridge Station instead under the M.O.S. The transfer requirement would be an impact for those who currently have a one seat bus ride as it costs time and mobility effort to make a transfer. However, the benefit of travel time savings and the increased reliability of light rail compared to bus service operating in road right-of-way could offset the impact; see Chapter 6 for details about the travel time savings expected. This travel time saving includes the transfer time and wait for the next light rail train. The difference between station location options for various alternatives would be less than 1 minute because of the short distance between where buses would drop off and pick-up between the station locations. The distance between these bus transfer areas and the station entrance would be similar for all alternatives.

Table 5-2. Summary of Project Impacts and Potential Mitigation

Resources by Segment	Build Alternatives Impacts	Best Management Practices and Mitigation	Impacts on Minority and Low-income Populations	Benefits to Minority and Low-income Populations
Transportation – Common to All Segments	 Local and arterial intersections affected (below acceptable level of service). Changes in bus transit operation (e.g., new stops or modified routes) to accommodate transit integration would occur for new stations. During construction, bus reliability could degrade along arterials with road closures. Temporary construction impacts from reduced roadway capacity, truck traffic, loss of parking, road closures and associated detours, changes in bus routes and freight routes, and changes to property access. Available parking supply could be affected if construction workers park where parking is unrestricted and in offstreet pay parking lots/garages. During construction, sidewalks could be closed or their width reduced. Riders from West Seattle would need to disembark at the SODO Station and transfer to the existing light rail system to travel north to Lynnwood or south to Tacoma Dome or use another mode to reach their destination until the Ballard Link Extension is complete. 	 Measures to address increased a.m. and p.m. peak intersection delays and meet L.O.S. thresholds or to attain the same or better vehicle delay for intersections operating below L.O.S. thresholds in the No Build Alternative include signal technology upgrades, intelligent transportation system strategies, traffic movement and turn restrictions. Information on impacts to access or disruptions to service posted at transit stops before construction at bus stops and layovers. Preparation of Traffic Control Plans to coordinate how all modes of transportation would be maintained and address pedestrian and bicycle access and safety. Additional information on measures to minimize construction traffic impacts to be coordinated with the City are provided in Chapter 3, Transportation Environment and Consequences, of the Final EIS. 	Changes in bus transit operation, such as route changes, and the new transfer from bus to light rail to travel downtown could impact low-income, transit-dependent populations by increasing trip duration and mobility effort.	 New access to regional light rail system destinations. Substantially improved transit service reliability in the corridor and increased frequency throughout the day (6-minute headways during peak periods). Almost 50% travel time savings during peak periods between Downtown Seattle and West Seattle. Support of concentrating growth in growth centers can help reduce potential for increased traffic congestion in areas with high environmental risk factors related to PM_{2.5}, a pollutant from diesel vehicles.
Transportation – SODO Segment	 All alternatives would include full closures on South Lander Street during construction. The closure would be longer with Preferred Option SODO-1c, Alternative SODO-1a, and Option SODO-1b because of constructing an overpass. Under Preferred Option SODO-1c, Alternative SODO-1a, and Option SODO-1b, light rail would permanently displace buses from the SODO Busway. Alternative SODO-2 would close the SODO Busway during construction only. For all alternatives, a long-term (greater than 1 year) closure of the existing SODO Station may be needed while the 1 Line operates on a temporary track around the construction area. For all alternatives, short-term service interruptions of the 1 Line for may be needed. These short-term service interruptions could result in longer headways during single-track operations or complete service interruptions during nights/weekends. For all alternatives, closure of the SODO Trail for the duration of construction from South Stacy Street and South Forest Street. 	 See Impacts Common to All Segments. Sound Transit has coordinated with the City of Seattle and King County Metro on mitigation strategies for full closure of the SODO Busway to address transit speed and reliability, revised access to Ryerson Bus Base, and replacement layover space (see Section 3.4, Potential Mitigation Measures, of Appendix N.1, Transportation Technical Report, for additional detail). For closure of the existing SODO Station during construction, Sound Transit is committed to maintaining the regional transit access provided by the SODO Station. Mitigation measures to maintain this access are still being identified by Sound Transit and agency partners but could include building an interim station, implementing transit shuttles between SODO Station and Stadium Station, and/or rerouting buses to connect to the Stadium or Beacon Hill stations instead of SODO Station. The SODO Trail would be detoured to 6th Avenue South, and Sound Transit will work with the City of Seattle to identify and implement a design on 6th Avenue South that achieves, to the extent feasible, a similar level of protection and comfort as the affected facility. 	Temporary closure of the SODO Station could have a greater impact on minority and/or low-income transit-dependent populations due to the higher percentages of these populations in the SODO Segment compared to the study area and the city overall.	No additional benefits.

Resources by Segment	Build Alternatives Impacts	Best Management Practices and Mitigation	Impacts on Minority and Low-income Populations	Benefits to Minority and Low-income Populations
Transportation – Duwamish Segment	 All alternatives would require short-term closures of the navigation channel and could impact vessel movement outside the channel during construction. Netting and scaffolding under the new guideway bridge during construction of all Build Alternatives would temporarily reduce the vertical clearance on both waterways. Preferred Alternative DUW-1a and Option DUW-1b would detour a portion of the Delridge Connector Trail and close the staircase through the West Duwamish Greenbelt during construction. Preferred Alternative DUW-1a and Option DUW-1b would require full closures on Delridge Way Southwest on nights/weekends while building the guideway over the roadway when connecting to Preferred Option DEL-6b and Alternatives DEL-5, DEL-6a, and DEL-7. Alternative DUW-2 would require partial closure of Chelan Avenue Southwest west of the West Marginal Way/Spokane Street/Chelan Avenue intersection for 3 months. 	 See Impacts Common to All Segments. Alternative DUW-2 would require coordination with the Port of Seattle and Northwest Seaport Alliance on construction management measures to maintain adequate port access. Potential measures include ensuring adequate terminal driveway widths and restricting some construction activities to times when the terminals have low or no gate activity. Sound Transit would determine mitigation actions in coordination with the Muckleshoot Indian Tribe, the Suquamish Tribe, and the United States Coast Guard during final design and the bridge permitting process. This would include identifying specific aids to navigation, such as signage and lighting. Sound Transit would develop a construction navigation management plan in consultation with the United States Coast Guard, the Army Corps of Engineers, and Port of Seattle to mitigate impacts to navigation during construction. 	Night and weekend closures of Delridge Way Southwest could have a greater impact on minority and/or low-income transit-dependent populations that use transit to travel through this area compared to the study area and the city overall.	No additional benefits.
Transportation - Delridge Segment	 Two intersections impacted during operations during a.m. and p.m. peak hours, all can be mitigated. Preferred Option DEL-6b would result in permanent culde-sacs on 32nd Avenue Southwest to the north and south of the tracks. Alternative DEL-7 would require 32nd Avenue Southwest to end in a cul-de-sac and no longer connect to Southwest Andover Street. Alternative DEL-2a and Option DEL-2b would permanently close 25th Avenue Southwest between Southwest Dakota Street and Southwest Genesee Street. Option DEL-1b and Option DEL-2b would result in permanent closure of access to Southwest Genesee Street from 30th Avenue Southwest. Alternatives DEL-1a, DEL-2a, DEL-3, and DEL-4 and Options DEL-1b and DEL-2b would require full closures on Delridge Way Southwest on nights/ weekends. Alternative DEL-1a, Option DEL-1b, and Alternative DEL-3 would require a full closure on Southwest Genesee Street for 2 years during construction. Alternative DEL-2a, Option DEL-2b, and Alternative DEL-4 would require a full closure on Southwest Genesee Street on nights/weekends during construction. Alternative DEL-5 and would require full closure of Southwest Avalon Way for 1 year during construction. Alternative DEL-6a would have a full closure of Southwest Avalon Way on nights/weekends. Alternatives DEL-5 and DEL-6a would require a full closure of Southwest Avalon Way on nights/weekends. Alternatives DEL-5 and DEL-6a would require a full closure of Southwest Avalon Way on Street between 26th and 28th avenues Southwest for 2 years. 	See Impacts Common to All Segments. Alternative DEL-5 and Alternative DEL-6a would require coordination with the Seattle Department of Transportation prior to freight movements on construction management measures to accommodate oversized trucks or suitable alternative routes during full closure of Southwest Avalon Way, which is part of the City of Seattle's Over-Legal Network.	Night and weekend closures of Delridge Way Southwest could have a greater on impact minority and/or low-income transit-dependent populations that use transit to travel through this area compared to the study area and the city overall.	New light rail transfer point at Delridge Station for minority and low-income populations in Highland Park and White Center. Transit riders that transfer from RapidRide H Line to light rail at Delridge Station would experience an estimated 12 to 15-minute, or 17 to 24 percent, travel times savings compared to staying on the RapidRide H Line into downtown; this includes the time to transfer.

Resources by Segment	Build Alternatives Impacts	Best Management Practices and Mitigation	Impacts on Minority and Low-income Populations	Benefits to Minority and Low-income Populations
Transportation – West Seattle Junction Segment	 Local streets and arterials would have extended closures during construction. All alternatives except Alternative WSJ-6 would have partial or full closures of Fauntleroy Way Southwest for a period of time. Alternative WSJ-6 would have a partial closure of the West Seattle Bridge where it connects to Fauntleroy Way Southwest for 3 months to 6 months. Several intersections would be affected and can be mitigated. Preferred Option WSJ-5b and Alternative WSJ-5a would permanently close Southwest Genesee Street to the east of 35th Avenue Southwest. 	 See Impacts Common to All Segments. Coordination with the Seattle Department of Transportation prior to freight movements on construction management measures to accommodate oversized trucks or suitable alternative routes during construction closures of Fauntleroy Way Southwest, which is part of the City of Seattle's Over-Legal Network (all alternatives). 	 Distribution of most impacts to minority and low-income populations would be similar to the distribution of impacts to the general population. Closures of Fauntleroy Way Southwest and 35th Avenue Southwest could result in traffic diversion through South Delridge and Highland Park neighborhoods. 	New light rail transfer points at Avalon and Alaska Junction stations for minority and low-income populations in High Point. Transit riders would experience an estimated 14-minute, or 29 percent, savings compared to staying on a bus; this includes the time to transfer. As the project advances, Sound Transit will continue to refine its construction approach and seek ways to limit impacts on traffic operations.
Acquisitions, Displacements, and Relocations - Common to All Segments	 All segments would have alternatives with property acquisition. All segments except the SODO Segment would have alternatives with residential displacements. All segments would have alternatives with business displacements. 	 Displaced residents and businesses would receive compensation and relocation assistance in accordance with Sound Transit's adopted real estate property acquisition and relocation policy, procedures, and guidelines (Sound Transit 2017). These policies and procedures comply with the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and the State of Washington's relocation and property acquisition requirements, and in some cases may provide services above the minimum requirements of federal and state law, including rent or mortgage differential payments for a period of time. Potential residential and business relocation assistance would include a variety of advisory services, moving expenses, rent supplements, and/or down payment assistance. There are opportunities for relocation of residents and most businesses in the vicinity. Sound Transit would attempt to help displaced residents and businesses remain in the same general area. This may include identifying replacement housing that considers proximity to community facilities, schools, place of employment, and accessibility to transit. 	Properties that would be acquired are in areas where minority and/or low-income people are present, and some individuals from these populations would likely be affected. Sound Transit relocation agents will consider special needs and requirements when identifying replacement housing for displaced people.	• None.
Acquisitions, Displacements, and Relocations – SODO Segment	 No residential displacements. Business displacements discussed under Economics. Option SODO-1b and Alternative SODO-2 would displace the United States Postal Service Carrier Annex and Distribution Center/Terminal Post Office at 4th Avenue South and South Lander Street. Relocation of the facility could be challenging due to its size, functions and the service area that it would need to be within. Impacts of relocating the United States Postal Service facility are yet undefined and should an alternative that triggers relocation of the facility move forward, additional environmental review would be conducted to evaluate and disclose impacts of relocating the facility. The Preferred Option SODO-1c and Alternative SODO-1a would avoid these impacts. 	 See Impacts Common to All Segments. For Option SODO-1b and Alternative SODO-2, Sound Transit would identify a replacement property for the Carrier Annex and Distribution Center/Terminal Post Office at 4th Avenue South and South Lander Street. Sound Transit would be responsible for future environmental review, design, and construction of a replacement facility. The replacement facility would meet siting criteria and requirements identified by the United States Postal Service. Operations would be relocated prior to the project impacting the existing facility. 	No additional impacts.	• None.
Acquisitions, Displacements, and Relocations – Duwamish Segment	 Residential displacements would range from 0 (Alternative DUW-2) to 28 (Preferred Alternative DUW-1a). Business displacements discussed under Economics. 	See Impacts Common to All Segments. No additional mitigation required.	No additional impacts.	None.

Resources by Segment	Build Alternatives Impacts	Best Management Practices and Mitigation	Impacts on Minority and Low-income Populations	Benefits to Minority and Low-income Populations
Acquisitions, Displacements, and Relocations - Delridge Segment	 Residential displacements would range from 14 (Alternative DEL-7) to 197 (Option DEL-2b) Business displacements discussed under Economics. 	See Impacts Common to All Segments. No additional mitigation required.	Displacements of low-income and supportive housing and social resources discussed under Social Resources, Community Facilities, and Neighborhoods.	None.
Acquisitions, Displacements, and Relocations - West Seattle Junction Segment	 Residential displacements would range from 109 (Alternative WSJ-6) to 493 (Alternative WSJ-2). Business displacements discussed under Economics. 	See Impacts Common to All Segments. No additional mitigation required.	No additional impacts.	None.
Land Use - Common to All Segments	 The project would be consistent with regional and local land use plans. The project is a "regional transit authority facility," which means that the local jurisdiction must accommodate the project in their land use plans and zoning (development regulations). Most property acquired for this project would be converted to a transportation use. Property acquired only for construction could be surplused after the project is complete. The project could result in TOD or redevelopment near stations. This type of development could increase availability and density of housing options, including affordable housing units. Alternately, this could result in the indirect effect of increased housing prices and business rent around desirable station areas. 	No mitigation would be required.	If the potential indirect effect of increased housing prices around station areas takes place, low-income populations in these areas could be negatively impacted by rental prices that become unaffordable.	 TOD could increase availability and density of housing options, including affordable housing units consistent with Sound Transit's Equitable TOD Policy (Sound Transit 2018d) and the City's Mandatory Housing Affordability zoning, where applicable. All station alternatives within the Delridge Segment have some TOD potential based on current zoning and project footprints, except Alternatives DEL-3 and DEL-4. Tunnel alternatives in the West Seattle Junction Segment have higher potential for future TOD.
Economics - Common to All Segments	 Direct economic impacts would include business and employee displacements. A niche business with a specific clientele could have difficulty finding a new suitable location. Business relocation could impact employees. During construction, some businesses could experience hardship because patrons might choose to avoid the construction area and construction employment may affect parking supply used by business patrons. Businesses in areas that have had multiple construction projects over time or that would be concurrent with the West Seattle Link Extension could experience cumulative impacts from construction. 	 Relocation benefits as described under Acquisitions. Sound Transit will develop a Construction Management Plan that could include measures such as: Provide a 24-hour construction telephone hotline. Provide business cleaning services on a case-by-case basis. Provide detour, open for business, and other signage as appropriate. Establish effective communications with the public through measures such as meetings, construction updates, alerts, and schedules. Implement promotion and marketing measures to help affected business districts maintain their customer base, consistent with Sound Transit policies, during construction. Maintain access as much as possible to each business and coordinate with businesses during times of limited access. Provide a community ombudsman consistent with Sound Transit policy. 	Based on the types of businesses displaced and the demographic characteristics of the corridor, some displaced businesses may be minority-owned and some employees of displaced businesses could be minority and/or low-income persons. Loss of on-street parking could adversely affect minority-owned businesses. Minority-owned businesses near stations could experience increased rent.	Heavier pedestrian activity near stations could increase the number of potential customers to retail businesses in the area, including minority-owned businesses. Federal expenditures associated with construction could result in annual employment of approximately 8,300 people in the region (preferred alternative estimate). Sound Transit's Disadvantaged Business Program, and Project Labor Agreement promote opportunities for women and minorities in construction. Some of these jobs could go to minority-owned businesses via Sound Transit's Disadvantaged Business Enterprise program. Improved access to minority-owned businesses near station locations.
Economics - SODO Segment	 Business displacements would range from 31 (Alternative SODO-2) to 35 (Option SODO-1b). Employee displacements would range from 240 (Preferred Option SODO-1c and Alternative SODO-1a) to 280 (Alternative SODO-2). 	See Impacts Common to All Segments. No additional mitigation required.	 Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population. Properties that would be acquired are in areas where minority and/or low-income people may be present, and some minority-owned businesses would likely be affected. 	No additional benefits.

Resources by Segment	Build Alternatives Impacts	Best Management Practices and Mitigation	Impacts on Minority and Low-income Populations	Benefits to Minority and Low-income Populations
Economics - Duwamish Segment	 Business displacements would range from 29 (Option DUW-1b) to 37 (Preferred Alternative DUW-1a). Employee displacements would range from 380 (Option DUW-1b and Alternative DUW-2) to 620 (Preferred Alternative DUW-1a). Maritime businesses along the Duwamish Waterway would be displaced. If the businesses have waterfront-dependent functions, they could be difficult to relocate. During construction, nights/ weekend road closures for Preferred Alternative DUW-1a when connecting to Preferred Option DEL-6b or Alternatives DEL-5, DEL-6a, or DEL-7 in the Delridge Segment could affect businesses in Delridge. Alternatives could impact Tribal treaty-protected fishing in the Duwamish Waterway by the Muckleshoot Indian Tribe and the Suquamish Tribe during operations and construction. Option DUW-1b could not be constructed with a bridge type to avoid in-water work and therefore could have a greater impact to Tribal treaty-protected fishing than the other alternatives. All alternatives would require short-term closures of the navigation channel and could impact vessel movement outside the channel during construction. Commercial vessels that use the West Waterway could be affected by a reduction in vertical clearance from netting and scaffolding during construction. Preferred Alternative DUW-1a and Option DUW-1b would temporarily close/restrict Harbor Island Marina commercial dock, temporarily displacing commercial vessels. Freight movement could be affected by partial road closures with all alternatives. 	 See Impacts Common to All Segments. Where feasible, Sound Transit would explore ways to maintain water-dependent business operations. Understanding that it may be challenging to relocate water-dependent uses due to their unique needs, Sound Transit would develop a plan identifying potential additional strategies that could be used to help support these unique needs for a successful relocation of these businesses. Potential strategies may include identifying federal, state, and local programs and leveraging Sound Transit relocation assistance with these programs and organizations. Because project design could affect Tribal treaty-protected fishing rights and access to the Usual and Accustomed Areas of the Muckleshoot Indian Tribe, Sound Transit and the FTA would: Continue working with the Muckleshoot Indian Tribe to avoid and mitigate impacts to treaty-protected fishing rights and access to the Usual and Accustomed Areas from construction of the Duwamish crossing through ongoing government to government consultation. Sound Transit will not authorize construction of the Duwamish Waterway crossing prior to reaching agreement with the Tribe on these measures. Because project design could affect Tribal treaty-protected fishing rights and access to the Usual and Accustomed Areas of the Suquamish Tribe, Sound Transit and the FTA would: Continue working with the Suquamish Tribe to avoid and mitigate impacts to treaty-protected fishing rights and access to the Usual and Accustomed Areas from construction of the Duwamish crossing through ongoing government to government consultation. Sound Transit will not authorize construction of the Duwamish Waterway crossing before reaching agreement with the Tribe on these measures. 		No additional benefits.
Economics - Delridge Segment	 Business displacements would range from 13 (Option DEL-1b) to 19 (Preferred Option DEL-6b and Alternative DEL-7). Employee displacements would range from 110 (Alternative DEL-6a) to 160 (Alternative DEL-1a). During construction, road closures for Alternative DEL-1a, Option DEL-1b, and Alternative DEL-3 could affect businesses in Delridge. Alternative DEL-2a, Option DEL-2b, Alternative DEL-4, Preferred Option DEL-6b, and Alternative DEL-7 would require partial closures or nights/ weekend closures that could also affect businesses. Nucor Steel could be affected for about 2 years by partial and full road closures associated with Alternatives DEL-3, DEL-4, DEL-5, and DEL-6a. 	See Impacts Common to All Segments. No additional mitigation required.	 Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population. Properties that would be acquired are in areas where minority and/or low-income people may be present, and some minority-owned businesses would likely be affected. 	

Resources by Segment	Build Alternatives Impacts	Best Management Practices and Mitigation	Impacts on Minority and Low-income Populations	Benefits to Minority and Low-income Populations
Economics - West Seattle Junction Segment	 Business displacements would range from 6 (Alternative WSJ-6) to 57 (Alternative WSJ-1). Employee displacements would range from 70 (Alternative WSJ-6) to 290 (Alternative WSJ-1). Preferred Option WSJ-5b, Alternative WSJ-3a, Option WSJ-3b, and Alternative WSJ-5a would impact businesses along Fauntleroy Way Southwest because of the duration of closures along this roadway. 	See Impacts Common to All Segments. No additional mitigation required.	 Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population. Properties that would be acquired are in areas where minority and/or low-income people may be present, and some minority-owned businesses would likely be affected. 	No additional benefits.
Social Resources, Community Facilities, and Neighborhoods – Common to All Segments	 During construction, increases in noise, dust, and traffic congestion would occur along the project alignment and at staging areas and could affect people's ability to access the services and resources in their neighborhood. During construction in areas and neighborhoods where major truck routes are not available, arterial and local streets could be used. People living, working, and traveling through these neighborhoods would experience construction traffic. Neighborhoods adjacent to the project could experience cut-through traffic due to road or lane closures and detours. Neighborhoods that have had multiple construction projects over time or that would be concurrent with the West Seattle Link Extension could experience cumulative impacts from construction. 	Mitigation measures to address project impacts to neighborhoods are discussed in Transportation; Acquisitions, Displacements, and Relocations; Economics; Visual and Aesthetic Resources; Noise and Vibration; Public Services, Safety, and Security; and Parks and Recreation.	 The project could displace low-income housing that is unknown to Sound Transit (for instance, rental units that accept housing vouchers). Unsheltered people living near the project construction areas would experience increases in noise, dust, and vehicle exhaust; project construction may result in the need for them to move elsewhere. 	Improved access to neighborhoods served by the Link system via transit transfer points at light rail stations. Improved access to employment centers and expanded employment opportunities for minority and lowincome persons residing in the project corridor (because convenient light rail access could attract more employees who rely on using public transportation instead of other modes such as driving).
Social Resources, Community Facilities, and Neighborhoods – SODO Segment	SODO Track mural displacements would range from 14 (Preferred Option SODO-1c, Alternative SODO-1a, and Option SODO-1b) to 15 (Alternative SODO-2).	 See Impacts Common to All Segments. No additional mitigation required. Sound Transit would coordinate with the SODO Business Improvement Area, 4Culture, and other community organizations to mitigate for the loss of the SODO Track murals with replacement murals or other public art in the area (where appropriate and feasible). 	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	Improved access to employment opportunities within 30 minutes of SODO would increase by an estimated 12,000 jobs with the project. Improved access to regional destinations would benefit the 45% minority population and 22% low-income population living within a 30-minute transit ride of the SODO Station.
Social Resources, Community Facilities, and Neighborhoods – Duwamish Segment	 Preferred Alternative DUW-1a and Option DUW-1b would displace the 22nd Avenue Southwest Street-end and result in increased traffic in the Pigeon Point community during construction. SODO Track mural displacements would range from six (Alternative DUW-2) to nine (Preferred Alternative DUW-1a). 	 See Impacts Common to All Segments. No additional mitigation required. Sound Transit would coordinate with the SODO Business Improvement Area, 4Culture, and other community organizations to mitigate for the loss of the SODO Track murals with replacement murals or other public art in the area (where appropriate and feasible). 	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	No additional benefits.

Resources by Segment	Build Alternatives Impacts	Best Management Practices and Mitigation	Impacts on Minority and Low-income Populations	Benefits to Minority and Low-income Populations
Social Resources, Community Facilities, and Neighborhoods - Delridge Segment	 Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, and Option DEL-2b would have the greatest impact on the character in the Youngstown neighborhood due to the location of the guideway and station and the larger number of displacements and greater visual change compared to other alternatives. All Delridge Segment alternatives would displace a small business center that houses a neighborhood coffee shop, sandwich shop, deli-mart, and Mode Music and Performing Arts. Preferred Option DEL-6b and Alternatives DEL-5, DEL-6a, and DEL-7 would displace the full Frye Commerce Center, which includes a daycare. There are limited resources like this in the Delridge neighborhood. The M.O.S. would result in a noticeable change in the number of people traveling through the Youngstown community. 	See Impacts Common to All Segments. No additional mitigation required.	 Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, Option DEL-2b, Alternative DEL-3, and Alternative DEL-4 would displace the Washington State Department of Children, Youth, and Families office building, which includes an Indian Child Welfare Office. Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, and Option DEL-2b would displace some Seattle Housing Authority residences. Alternative DEL-5 would displace a duplex owned by Transitional Resources, a non-profit organization that provides mental health services and supportive housing. Preferred Option DEL-6b and Alternative DEL-7 would impact one single-family residence owned by Transitional Resources. Alternative DEL-6a would displace the Transitional Resources main office, on-site supportive housing, and adjacent apartment building. 	 Increased transit access and reliability to the Washington State Department of Children, Youth, and Families office building for those living outside the study area with Preferred Option DEL-6b, Alternative DEL-5, Alternative DEL-6a, and Alternative DEL-7. Access to employment opportunities within 30 minutes of the Delridge Station would increase by an estimated 190,000 jobs with the project. Improved access to regional destinations would benefit the 47% minority population and 23% low-income population living within a 30-minute transit ride of the Delridge Station.
Social Resources, Community Facilities, and Neighborhoods – West Seattle Junction Segment	 Preferred Option WSJ-5b, Alternative WSJ-1, and Option WSJ-3b would displace Jefferson Square which includes a Safeway grocery store; Alternative WSJ-1 and Alternative WSJ-2 would displace a Trader Joe's grocery store. Option WSJ-3b would displace Junction Plaza Park. 	 See Impacts Common to All Segments. No additional mitigation required. Junction Plaza Park would be replaced with an equivalent property thus avoiding neighborhood character impacts under Option WSJ-3b. 	 Alternative WSJ-1 would displace 44 rent- and income-restricted housing units, and Alternative WSJ-2 would displace 80 rent- and income-restricted housing units. These income-restricted units in each building are commitments through their participation in the Multi-Family Tax Exemption program and are assumed to expire 12 years after the building was constructed, but there is an option for 12-year extensions. These alternatives would affect these tenants and the inventory of income-restricted housing at the time the displacements occur. Alternative WSJ-3a, Option WSJ-3b, Alternative WSJ-4, and Alternative WSJ-5a would displace an affordable housing apartment building. All alternatives would displace one Seattle Housing Authority single-family residence. 	 Access to employment opportunities within 30 minutes of West Seattle Junction would increase by an estimated 290,000 jobs with the project. Improved access to regional destinations would benefit the 46% minority population and 22% low-income population within a 30-minute transit ride of both the Avalon and Alaska Junction stations.
Visual and Aesthetic Resources – Common to All Segments	 The elevated alternatives would lower the visual quality for sensitive viewers in the vicinity of the project in all segments except the SODO Segment, where there are no sensitive viewers. Visual impacts during construction would include exposed soils, glare, light associated with nighttime work, storage of construction materials, and construction equipment. 	 Sound Transit would coordinate with the City of Seattle and adjacent communities through design review to promote visual unity in station areas. When possible, Sound Transit would preserve existing vegetation, and where removed, plant appropriate vegetation within and adjoining the project right-of-way, and/or provide screening for sensitive visual environments and/or sensitive viewers, consistent with Sound Transit operations and maintenance requirements. Exterior lighting of facilities would be designed to minimize height and use source shielding to avoid lighting (bulbs) that would being directly visible from residential areas, streets, and highways. Light rail facility design and use of landscaping would be used to soften or screen visual impacts. Use temporary visual screening along some areas where construction activities would be seen by nearby sensitive viewers. Nighttime construction lighting would be shielded and directed downward. 	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	• None.

Resources by Segment	Build Alternatives Impacts	Best Management Practices and Mitigation	Impacts on Minority and Low-income Populations	Benefits to Minority and Low-income Populations
Visual and Aesthetic Resources – SODO Segment	No sensitive viewers.	Not applicable.	Not applicable.	Not applicable.
Visual and Aesthetic Resources – Duwamish Segment	 Preferred Alternative DUW-1a and Option DUW-1b would require the removal of trees in the West Duwamish Greenbelt and residences on the northwestern slope of Pigeon Point would be impacted by the lower visual quality. All alternatives could affect views from the West Seattle Bridge, a City of Seattle Designated Scenic Route. 	 See Impacts Common to All Segments. See Section 4.5.7, Mitigation Measures, in Section 4.5, Visual and Aesthetic Resources, of the Final EIS regarding mitigation measures for areas with visual impacts. 	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	• None.
Visual and Aesthetic Resources – Delridge Segment	 Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, Option DEL-2b, Alternative DEL-3, and Alternative DEL-4 would impact the largest amount of sensitive viewers (1.0 mile of sensitive viewers) and would include impacts to parks (Delridge Playfield, West Seattle Golf Course, and Longfellow Creek Natural Area). Preferred Option DEL-6b, Alternative DEL-5, Alternative DEL-6a, and Alternative DEL-7 would impact fewer sensitive viewers due to their lower heights and adjacent land uses. 	 See Impacts Common to All Segments. See Section 4.5.7 of the Final EIS regarding mitigation measures for areas with visual impacts. 	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	• None.
Visual and Aesthetic Resources – West Seattle Junction Segment	 Alternatives WSJ-1 and WSJ-2 would impact sensitive residential viewers. No other alternatives would result in visual impacts. 	 See Impacts Common to All Segments. See Section 4.5 of the Final EIS regarding mitigation measures for areas with visual impacts. 	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	None.
Air Quality - Common to All Segments	The overall regional vehicle emissions are expected to decrease with the project; therefore, the project is expected to have long-term benefits to regional air quality by reducing pollutant emissions.	 During construction, best management practices would be used to minimize related air pollutants. Traffic that could potentially diverted through South Delridge and Highland Park neighborhoods during construction closures of Fauntleroy Way Southwest are not expected to result in localized air quality impacts because the percent of heavy vehicles that would emit diesel particulate matter are expected to be less than 5 percent of diverted traffic, or less than 10 vehicles in the peak hour. 	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population. These impacts would occur in some areas ranked high for environmental exposure to diesel particulate matter and PM _{2.5} concentrations (see Sections 3.2, Environmental Hazards and EJSCREEN Tool and 3.3, Washington Tracking Network).	Distribution of benefits to minority and low-income populations would be similar to the distribution to the general public.
Noise and Vibration — Common to All Segments	 There are noise- and vibration-sensitive properties that would be impacted during operation, in all segments except in the SODO Segment. Construction activities would have noise and vibration impacts on residential areas and other noise sensitive uses. 	 All operational noise and vibration impacts would be mitigated to levels below FTA impact thresholds through noise abatement measures (such as sound walls) or special trackwork, for vibration. Construction noise mitigation would likely be required for construction activities to comply with Seattle Municipal Code or variance sound level limits. For the construction staging areas near tunnel portals, mitigation measures could include construction of temporary noise barriers adjacent to the staging area. A detailed Construction Vibration Control Plan would be prepared. 	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	• None.
Noise and Vibration – SODO Segment	No noise- and vibration-sensitive properties.	Not applicable.	Not applicable.	Not applicable.

Resources by Segment	Build Alternatives Impacts	Best Management Practices and Mitigation	Impacts on Minority and Low-income Populations	Benefits to Minority and Low-income Populations
Noise and Vibration – Duwamish Segment	 Residential noise impacts would range from 1 unit (Alternative DUW-2) to 47 units (Preferred Alternative DUW-1a). A severe impact was identified at the Fire Station 14 with Preferred Alternative DUW-1a and Option DUW-1b. The impact at Fire Station 14 would be moderate under Alternative DUW-2. Preferred Alternative DUW-1a would have vibration impacts at a residence and at Fire Station 14 during operation. Alternative DUW-2 would have construction vibration impacts at one Category 1 land use (Harbor Island Machine Works). 	See Impacts Common to All Segments. No additional mitigation required.	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	• None.
Noise and Vibration - Delridge Segment	 Residential noise impacts would range from 68 units (Alternative DEL-6a) to 251 (Alternative DEL-5). All alternatives except Preferred Option DEL-6b, Alternative DEL-5, Alternative DEL-6a, and Alternative DEL-7 would have a moderate impact at the Category 1 land use, Secret Studio Records/Studio 1208, which specializes in music recording. Residential vibration or groundborne noise impacts would range from 0 (Option DEL-1b, Alternative DEL-2a, Alternative DEL-2b, and Alternative DEL-4) to 12 (Alternative DEL-1a and Alternative DEL-3). 	See Impacts Common to All Segments. No additional mitigation required.	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	• None.
Noise and Vibration - West Seattle Junction Segment	 Residential noise impacts would range from 0 (Alternative WSJ-3a, Option WSJ-3b, and Alternative WSJ-6) to 414 (Alternative WSJ-1). Residential vibration or groundborne noise impacts during operation would range from 0 (Alternative WSJ-2) to 430 (Option WSJ-3b). 	See Impacts Common to All Segments. No additional mitigation required.	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	None.
Water Resources - Common to All Segments	 Total new impervious surface area in square feet: SODO Segment: 5,400 (Preferred Option SODO-1c and Alternative SODO-1a) to 7,100 (Option SODO-1b). Duwamish Segment: 4,800 (Alternative DUW-2) to 60,100 (Option DUW-1b). Delridge Segment: 21,900 (Option DEL-2b) to 56,700 (Preferred Option DEL-6b). West Seattle Junction Segment: 30,700 (Alternative WSJ-2 and Option WSJ-3b) to 98,300 (Preferred Option WSJ-5b and Alternative WSJ-5a). The project would provide water quality treatment to some impervious surface areas that currently do not receive water quality treatment. All alternatives except Alternative DEL-5 and Alternative DEL-6a would place guideway columns in the 100-year floodplain for Longfellow Creek. A hydraulic analysis for Preferred Option DEL-6b found that the guideway columns would increase the base flood elevation by 0.01 foot. 	 To minimize impacts to groundwater, Sound Transit would use stormwater management facilities to manage runoff from the project. In order to maintain the existing base flood elevation, additional floodplain storage may be needed for Longfellow Creek. 	Distribution of water resource impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	Distribution of benefits to minority and low-income populations would be similar to the distribution to the general public.

Resources by Segment	Build Alternatives Impacts	Best Management Practices and Mitigation	Impacts on Minority and Low-income Populations	Benefits to Minority and Low-income Populations
Ecosystems - Common to All Segments	 Some elevated guideway columns would be in forested habitat. Street trees and vegetation would need to be removed. Shading from elevated guideway and other features would change the amount of light and rainfall reaching street trees and vegetation underneath. Based on the urban environment of the study area, the operation of any of the light rail alternatives has low potential to adversely affect the viability of local wildlife populations. 	Where impacts cannot be avoided or minimized, compensatory mitigation would be provided to achieve no net loss of ecosystem function and acreage.	Distribution of ecosystem impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	• None.
Ecosystems - SODO Segment	No additional impacts.	No additional mitigation.	No additional impacts.	None.
Ecosystems – Duwamish Segment	 Preferred Alternative DUW-1a and Option DUW-1b would impact forested habitat that is classified as City of Seattle Biodiversity Area Environmentally Critical Area. This area includes Great Blue Heron Management Areas. Option DUW-1b would have permanent guideway columns in the Duwamish Waterway for all bridge types, while Preferred Alternative DUW-1a and some bridge types of Alternative DUW-2 would avoid in-water construction impacts to benthic surfaces. 	See Impacts Common to All Segments. No additional mitigation required.	Potential for cumulative impact to aquatic habitat in Duwamish Waterway, which is used for Tribal treaty- protected fishing, when considered with past alterations and ongoing development in shoreline areas.	• None.
Ecosystems - Delridge Segment	 Preferred Option DEL-6b and Alternative DEL-7 would impact less than 0.1 acre of wetlands and 0.2 acre of biodiversity corridor adjacent to Longfellow Creek. They would also cross Longfellow Creek where it is in an open channel, at a height of approximately 70 feet. Impacts to wetland buffers would range from 0 acre (Alternatives DEL-5 and DEL-6a) to 0.8 acre (Option DEL-1b). 	 See Impacts Common to All Segments. On-site mitigation could occur adjacent to Longfellow Creek for impacts to wetlands, wetland buffer, and biodiversity corridor with Preferred Option DEL-6b and Alternative DEL-7. 	No additional impacts.	• None.
Ecosystems - West Seattle Junction Segment	No additional impacts.	No additional mitigation.	No additional impacts.	None.
Energy - Common to All Segments	 No long-term impacts from the project because the Build Alternatives would consume less energy than the No Build Alternative. Construction activities would temporarily consume energy. 	 During construction, best management practices would be implemented to minimize energy consumption. No long-term mitigation required. 	No impacts.	None.
Geology and Soils - Common to All Segments	 Alternatives would travel through City of Seattle Environmentally Critical Area geologic hazard areas such as steep slopes, landslide-prone areas, seismic hazards (such as liquefaction), settlement, and groundwater. During construction, erosion would be managed using best management practices. 	Risks would be avoided or minimized using engineering design standards and best management practices.	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	None.

Resources by Segment	Build Alternatives Impacts	Best Management Practices and Mitigation	Impacts on Minority and Low-income Populations	Benefits to Minority and Low-income Populations
Hazardous Materials - Common to All Segments	 Long-term operational impacts could occur if Sound Transit acquires properties that are a source of contamination, possibly requiring ongoing cleanup responsibility. There are high-risk sites potentially encountered during construction of the alternatives in all segments. Most alternatives have one high-risk site in their study area. Construction activities could discover contamination that was otherwise unknown. Construction activities could use hazardous materials that could spill. Cleanup of existing contaminated sites by the project before and during construction, and indirectly during redevelopment of adjacent properties, could remove contamination in areas where cleanup is not otherwise scheduled to happen. 	 Environmental due diligence (including a Phase 1	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	Cleanup of existing contaminated sites in areas identified as high risk for environmental exposure (see Sections 3.2 and 3.3) by the project could remove contamination in areas where minority and low-income populations could be exposed to contamination.
Hazardous Materials – SODO, Delridge, West Seattle Junction segments	No additional impacts.	No additional mitigation.	No additional impacts.	No additional benefits.
Hazardous Materials – Duwamish Segment	The Duwamish Segment contains the most high-risk sites within the study area (5 sites for Preferred Alternative DUW-1a and Option DUW-1b, and 7 sites for Alternative DUW-2), including the Lower Duwamish Waterway and Harbor Island Superfund Sites.	See Impacts Common to All Segments. No additional mitigation required.	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	No additional benefits.
Electromagnetic Fields - Common to All Segments	There would be no long-term or construction-related electromagnetic field impacts as a result of construction and operation of the West Seattle Link Extension.	No mitigation required.	No impacts.	No additional benefits.
Public Services - Common to All Segments	Emergency medical and police could have difficulty responding to calls at elevated or tunneled sections of guideway. The response times of emergency service vehicle and other public services vehicles (school buses, solid waste/recycling vehicles) could be impacted during construction due to road closures and detours.	 Sound Transit would coordinate with public service providers before and during construction to maintain reliable emergency access and alternative plans or routes to minimize delays in response times. Sound Transit would coordinate with solid waste and recycling companies and schools, should rerouting of collection or school bus routes need to occur. 	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	• None.
Public Services – SODO Segment	 Option SODO-1b and Alternative SODO-2 would require relocation of the United States Postal Service Carrier Annex and Distribution Center/Terminal Post Office at 4th Avenue South and South Lander Street. Preferred Option SODO-1c and Alternative SODO-1a would avoid permanent impacts. Impacts of relocating the United States Postal Service facility are yet undefined, and should an alternative that triggers relocation of the facility move forward, additional environmental review will be conducted to evaluate and disclose impacts of relocating the facility. Preferred Option SODO-1c and Alternative SODO-1a would require the existing driveway at the United States Postal Service Carrier Annex and Distribution Center/Terminal Post Office's southern access point to be connected under the new South Lander Street overpass to 4th Avenue South. 	See Impacts Common to All Segments. For Option SODO-1b and Alternative SODO-2, Sound Transit would identify a replacement property or replacement parking adjacent to the existing facility acceptable to the United States Postal Service, or if full relocation is required, replacement property. The replacement facility would meet siting criteria and requirements that would be identified by the United States Postal Service. Sound Transit would be responsible for environmental review, design, and construction of a replacement parking or a replacement facility. Postal parking or operations would be relocated to the replacement facility prior to the project impacting the existing facility.	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	• None.

Resources by Segment	Build Alternatives Impacts	Best Management Practices and Mitigation	Impacts on Minority and Low-income Populations	Benefits to Minority and Low-income Populations
Public Services – Duwamish Segment	 When connected with Alternatives DEL-3 or DEL-4, Preferred Alternative DUW-1a and Option DUW-1b would require temporary relocation of Fire Station 36 during construction and could potentially require permanent relocation. Alternative DUW-2 would displace a Department of Social and Health Services community transition facility that has specific siting requirements and would be difficult to relocate. 	 See Impacts Common to All Segments. Sound Transit would work closely with Seattle Fire Department officials to identify a suitable property within the surrounding area and ensure operations continue with minimal impacts to their operations during relocation. Relocation would occur in accordance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970 and the Sound Transit Real Estate Property Acquisition and Relocation Policy, Procedures and Guidelines (2017). 	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	• None.
Public Services - Delridge Segment	No additional impacts.	No additional mitigation.	No additional impacts.	None.
Public Services - West Seattle Junction Segment	No additional impacts.	No additional mitigation.	No additional impacts.	None.
Utilities - Common to All Segments	Utility relocations would be necessary during construction, but there would be no long-term impacts on utility providers.	 Sound Transit would coordinate with utility providers to establish temporary connections before construction begins. Sound Transit would work with utility providers to minimize any potential service interruptions and perform outreach to notify the community of planned or potential service interruptions. No long-term mitigation required. 	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	• None.
Historic and Archaeological – Common to All Alternatives	All segments fall within a zone defined by the archaeological predictive model as high risk or very high risk for archaeological resources, except the West Seattle Junction Segment where there is a moderately low risk.	Where adverse effects to National Register-eligible or - listed resources cannot be avoided or minimized, FTA and Sound Transit would develop a memorandum of agreement or programmatic agreement in consultation with the State Historic Preservation Officer, Tribes, and other consulting parties under Section 106.	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	None.
Historic and Archaeological – SODO Segment	One historic property would be adversely affected under all segment alternatives.	See Impacts Common to All Segments. No additional mitigation required.	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	None.
Historic and Archaeological – Duwamish Segment	Total number of historic properties that would be adversely affected would range from five (Preferred Alternative DUW-1a and Option DUW-1b) to nine (Alternative DUW-2). Preferred Alternative DUW-1a and Option DUW-1b would adversely affect two recommended historic districts.	See Impacts Common to All Segments. No additional mitigation required.	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	• None.
Historic and Archaeological – Delridge Segment	Total number of historic properties that would be adversely affected would range from 0 (Alternative DEL-6a) to 7 (Option DEL-1b).	See Impacts Common to All Segments. No additional mitigation required.	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	None.
Historic and Archaeological – West Seattle Junction Segment	Total number of historic properties that would be adversely affected would range from 0 (Alternative WSJ-5a, and Alternative WSJ-6) to 7 (Alternative WSJ-4).	See Impacts Common to All Segments. No additional mitigation required.	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	None.

Resources by Segment	Build Alternatives Impacts	Best Management Practices and Mitigation	Impacts on Minority and Low-income Populations	Benefits to Minority and Low-income Populations
Parks and Recreational Resources – Common to All Segments	 Parks and recreational resources would be impacted during construction in all segments, except the SODO Segment. Access to some parks and recreational facilities would be affected. Park users would be able to see construction in the background. If trees and vegetation were removed during construction, it would take years for the new plantings to become visually similar to what was removed. 	 According to City of Seattle Ordinance 118477, any City park land acquired by the project would need to be replaced with land of equivalent or better size, value, location, and usefulness. Sound Transit would work with the City of Seattle to identify adequate replacement property for permanently acquired park property. Temporarily impacted land would be replaced, and disturbed resources would be restored after construction in cooperation with the resource owner. 	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	The project would improve public access, including to minority and low-income populations, to most of the park resources within 0.5 mile of light rail stations, particularly those closest to new stations. Underutilized parks could experience activation as the parks continue to see increasing numbers of visitors.
Parks and Recreational Resources – SODO Segment	No parks and recreational resources.	Not applicable.	Not applicable.	Not applicable.
Parks and Recreational Resources – Duwamish Segment	Preferred Alternative DUW-1a and Option DUW-1b would remove some habitat and visual buffer functions of the West Duwamish Greenbelt and displace the 22nd Avenue Southwest Street-end.	See Impacts Common to All Segments. No additional mitigation required.	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	No additional benefits.
Parks and Recreational Resources – Delridge Segment	There would be minor impacts to Longfellow Creek Natural Area, Longfellow Creek Legacy Trail, and Delridge Playfield during operations and construction by one or more alternatives on Southwest Genesee Street, but they would not affect the use or function of these resources. A signed detour of the Longfellow Creek Legacy Trail would be provided for alternatives with road closures on Southwest Genesee Street. Alternative DEL-1a, Option DEL-1b, Option DEL-2b, and Alternative DEL-3 would have temporary impacts to the golf course and only require reconfiguration during construction. Alternatives DEL-2a and DEL-4 would impact the West Seattle Golf Course, thus requiring permanent shortening and reconfiguration of at least five holes.	 See Impacts Common to All Segments. For Alternative DEL-1a and Alternative DEL-3, the golf course playable area impacted could be reconfigured to minimize some of the construction impacts. The current configuration of holes and the pathway would be restored following guideway construction. Growth of new permanent turf can take up to 1 year. For Alternatives DEL-2a and DEL-4, Sound Transit would work with the City to reconfigure the playable area of at least the holes impacted by long-term operation and construction or make other improvements deemed appropriate to restore the function of the golf course. 	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	No additional benefits.
Parks and Recreational Resources – West Seattle Junction Segment	 Alternatives WSJ-1 and WSJ-2 would displace Fauntleroy Place park. Option WSJ-3b would displace Junction Plaza Park. 	See Impacts Common to All Segments. No additional mitigation required.	Distribution of impacts to minority and low-income populations would be similar to the distribution of impacts to the general population.	No additional benefits.

L.O.S. = level of service

6 PROJECT BENEFITS

Under United States Department of Transportation Order 5610.2C, the benefits of a proposed transportation project should be considered when determining whether there are disproportionately high and adverse effects on minority and low-income populations. The project would provide benefits to all populations in the study area. While all populations in the project service area would benefit, studies have shown that minority and low-income people tend to make greater use of transit service than other groups. As described in Chapter 1, Introduction and Regulatory Framework, several of the project's purpose statement objectives include benefits that are relevant to environmental justice populations, including the following:

- Provide high-quality rapid, reliable, and efficient light rail transit service to communities in the project corridor as defined through the local planning process and reflected in the Sound Transit 3 Plan (Sound Transit 2016).
- Improve regional mobility by increasing connectivity and capacity to Downtown Seattle to meet the projected transit demand.
- Connect regional centers as described in adopted regional and local land use, transportation, and economic development plans and Sound Transit's Regional Transit Long-Range Plan (Sound Transit 2014a).
- Implement a system that is technically and financially feasible to build, operate, and maintain.
- Expand mobility for the corridor and the region's residents, which include transit-dependent people, low-income people, and communities of color.
- Encourage equitable and sustainable urban growth in station areas through support of TOD and multi-modal integration in a manner that is consistent with local land use plans and policies, including Sound Transit's Equitable Transit Oriented Development Policy (Sound Transit 2018d) and Sustainability Plan (Sound Transit 2019e).
- Encourage convenient and safe non-motorized access to stations, such as bicycle and pedestrian connections, consistent with Sound Transit's System Access Policy (Sound Transit 2013).
- Preserve and promote a healthy environment and economy by minimizing adverse impacts on the natural, built, and social environments through sustainable practices.

For those reliant on private transportation, costs continue to rise for fuel, tolls, and paid parking; transit service improvements are therefore generally beneficial to low-income and minority populations. While the project may potentially result in increases in property taxes and rents around stations, thus negatively affecting some low-income populations, improved access to transit may allow some residents to reduce transportation costs. This would be a greater benefit to neighborhoods south of the study area, where transit options are more limited.

Increased transit access and new development could also improve overall neighborhood quality. Stations could provide improved neighborhood cohesion by providing new opportunities to interact.

The City of Seattle has been developing an Equitable Transit-Oriented Development Strategy & Implementation Plan with the support of an FTA grant. This comprehensive approach to advancing racial equity and community agency in development around light rail stations includes: Station Access and Public Realm investments, establishing a citywide Community Advisory Group, supporting place-based groups in Delridge, and comprehensive planning for underutilized land adjacent to future light rail alignments. The Sound Transit Board adopted the Equitable Transit Oriented Development Policy in 2018 (Board Resolution No. R2018-10).

The policy addresses how the agency should consider potential for TOD near transit facilities being planned and studied, and provides guidance on implementing and integrating equitable TOD throughout transit projects.

The above benefits would not occur with the No Build Alternative. In fact, it is anticipated that transportation unreliability and travel times would continue to worsen as population growth continues in the region.

6.1 Improved Access to Transit

Access to transit would improve for all populations within the project vicinity, especially for people living and working within the walkshed of the project (within 0.5 mile of the stations). Improved access to transit leads to a number of economic and social benefits. For instance, light rail allows people to avoid the costs of owning, maintaining, and parking a car. Light rail systems reduce air pollution and, with community planning, light rail can increase commercial activity from new businesses attracted to the region. Minority and low-income populations living within walking distance of the stations would receive the same transit benefits brought by the project as others in the community; these benefits would be spread throughout the project corridor. For individuals who do not have regular access to private transportation, the improvements in access to transit and expanding connections can have a notable positive impact. Studies have shown that minority and low-income populations tend to make greater use of transit service than other groups (Anderson 2016; Tomer 2011); this indicates the importance of access to transit for minority and low-income populations.

Neighborhoods served by light rail stations would benefit from increased transit access to Downtown Seattle and other areas in the Puget Sound region accessible by light rail. The project would provide increased transit access to locations around the city for pedestrians, bicyclists, and those with mobility challenges. The station areas would include bus bays on adjacent streets, which would facilitate transfers between buses and light rail for people who live outside of the station's walkshed. People who live farther away would have the benefit of using the expanded light rail system in the Puget Sound region, using bus transit to connect to light rail when necessary.

Neighborhoods close to light rail stations could experience increased social activity due to the improved access, residential and business redevelopment, and/or TOD projects. Local businesses could experience greater patronage and provide an increased employment base. In addition, improved access to jobs via transit would be especially important to environmental justice populations, as described at the beginning of this section.

In addition to increased access throughout Seattle, the project would improve broader regional transit access for minority and low-income populations to destinations along both the existing and planned parts of the light rail system. The project would improve transit access for more affordable areas of the region south of the study area, including South Delridge, High Point, Highland Park, Westwood, and the unincorporated King County neighborhood of White Center to important opportunities for employment, healthcare, education, and culture focused in Seattle. The project would provide more and better access to social services, medical services, employment, education, cultural resources, and other resources with the project's study area, as well as access to destinations within the larger Link light rail service area.

Table 6-1 shows percentages of minority and low-income people within 0.5 mile of the new light rail stations. This table illustrates that the project would provide improved access to transit service to the minority and low-income populations within the study area.

For the West Seattle Link Extension, the percentage of minorities ranges from 24 to 47 percent within 0.5 mile of the station areas (Table 6-1), with the highest concentration near the SODO Station. The low-income population ranges from 14 to 25 percent within 0.5 mile of the station areas, with the highest concentration in the Delridge Station area. Approximately 3 percent of the owner households and 19 percent of renter households in the study area rely on transit as they do not have a vehicle (United States Census Bureau 2023).

Table 6-1. Minority and Low-Income Populations within 0.5 Mile of Proposed Light Rail Stations

Project Alternative	Number of Proposed Stations	Total Population Near Station(s)	Minority Population Near Station(s)	Low-Income Population ^a Near Station(s)
Preferred Option SODO-1c	1	400	220 (47%)	90 (20%)
SODO-1a	1	480	220 (47%)	90 (20%)
SODO-1b	1	400	190 (47%)	80 (19%)
SODO-2	1	480	190 (47%)	80 (19%)
Preferred Option DEL-6b	1	2,260	760 (34%)	530 (23%)
DEL-1a	1	2,830	1,010 (36%)	680 (24%)
DEL-1b	1	2,830	1,010 (36%)	680 (24%)
DEL-2a	1	2,830	1,010 (36%)	680 (24%)
DEL-2b	1	2,840	1,010 (36%)	680 (24%)
DEL-3	1	2,500	890 (36%)	630 (25%)
DEL-4	1	2,500	890 (36%)	630 (25%)
DEL-5	1	2,100	720 (34%)	510 (24%)
DEL-6a	1	2,090	720 (34%)	510 (24%)
DEL-7	1	2,260	760 (34%)	530 (23%)
Preferred Option WSJ-5b	2	12,690	3,260 (26%)	1,770 (14%)
WSJ-1	2	13,280	3,430 (26%)	1,850 (14%)
WSJ-2	2	11,130	2,970 (27%)	1,540 (14%)
WSJ-3a	2	12,520	3,210 (26%)	1,770 (14%)
WSJ-3b	2	13,020	3,290 (25%)	1,820 (14%)
WSJ-4	2	12,840	3,340 (26%)	1,790 (14%)
WSJ-5a	2	12,690	3,260 (26%)	1,770 (14%)
WSJ-6	1	10,140	2,440 (24%)	1,520 (15%)

Source: United States Census Bureau 2023.

All of the proposed West Seattle Link Extension stations except the SODO Station are potential transfer points to the light rail system for communities to the south of the station and project vicinity, such as South Delridge, High Point, Highland Park, Westwood, and the unincorporated King County neighborhood of White Center. Riders from High Point would likely transfer at the Avalon or Alaska Junction stations, depending on their bus route, while riders from Highland Park and White Center would likely transfer at the Delridge Station. As described in Section 3.1, these communities are composed of a diverse (racially and economically) population.

^a Low-income threshold is defined as two times the United States Department of Health and Human Services poverty level.

The Delridge Station design includes bus bays, which would facilitate transit rider transfers from bus routes, including the planned RapidRide H Line serving these communities. Safe and direct transfers will enhance these communities' access to key destinations served by the regional light rail system, including jobs, shopping, social services, and medical centers. Efficient bus operations through the station area support overall transit service reliability.

Transit riders traveling on the RapidRide H Line to downtown from the Delridge area, including areas south such as South Delridge, Highland Park and White Center, would need to transfer to light rail at the Delridge Station. Even with the need to transfer to continue their trip to downtown, these transit riders would experience a time savings of approximately 12 to 15 minutes, or 17 to 24 percent, with light rail compared remaining on the RapidRide H Line into downtown under the no build condition. This time savings includes the time to transfer. In addition to time savings, the transfer to light rail also would result in a much more reliable travel time compared to the RapidRide H Line.

Sound Transit is considering three locations for the Delridge Station: one north of Southwest Andover Street and west of Delridge Way Southwest (Preferred Option DEL-6b, Alternative DEL-5, Alternative DEL-6a, and Alternative DEL-7); one on Delridge Way Southwest between Southwest Andover and Southwest Dakota streets (Alternatives DEL-3 and DEL-4); and one between Southwest Dakota and Southwest Genesee streets west of Delridge Way Southwest (Alternative DEL-1a, Option DEL-1b, Alternative DEL-2a, and Option DEL-2b). A station located on Delridge Way Southwest would provide the most direct and most operationally efficient passenger transfers, while the other locations would require some deviation of buses from current planned pathways. The travel times savings would range from approximately 12 minutes for the station north of Southwest Andover Street to 15 minutes for the station on Delridge Way Southwest.

Similarly, transit riders from High Point and Westwood traveling on various Metro routes on 35th Avenue Southwest to downtown would need to transfer to light rail at the Avalon or Alaska Junction stations. Even with the need to transfer to continue their trip to downtown, these transit riders would experience a time savings of approximately 14 minutes, or 29 percent, with light rail compared remaining on the bus into downtown under the no build condition. This time savings also includes the time to transfer, and the transfer to light rail also would result in a much more reliable travel time compared to bus routes. The travel times savings of approximately 14 minutes applies to all the Avalon and Alaska Junction station locations because each alternatives' bus zone would be less than 800 feet of each other, which would be less than 1 minute of bus drive time between them.

6.2 Transit Reliability and Service Benefits

The project would provide high-quality rapid, reliable, and efficient light rail transit service to West Seattle, and it would improve regional mobility by increasing connectivity to/from Downtown Seattle. The project would increase transit reliability for populations that depend on transit for transportation. Bus service can be affected by increasing congestion even when using high-occupancy vehicle lanes. The project would operate in an exclusive right-of-way, so it would not be impacted by roadway congestion or at-grade vehicle crossing conflicts. This would result in improved transit reliability in the corridor, which means better on-time performance.

As stated in Chapter 3, Transportation Environment and Consequences, of the Final EIS, the primary benefits of the project include the following:

- More access to jobs As a consequence of improved travel times and the restructured bus network that would accompany the project's light rail improvements, the project would improve the ability of transit riders to access destinations within the community:
 - In the study area, the number of jobs in 2042 reachable on transit within 30 minutes of the Alaska Junction and Delridge stations (when compared to the No Build Alternative) would increase by approximately 290,000 and 190,000 jobs, respectively.
 - The biggest changes to job accessibility would be realized at the western terminus of the project, as a result of the new, fast connection to the concentration of employment opportunities in Downtown Seattle, replacing slower surface routes.
- Improved access to social services and medical care More and better transit
 connectivity within the Puget Sound region facilitates better access to social service and
 medical care in Seattle, where these services are concentrated, for the low-income
 populations that are outside of the city due to more affordable housing.
- Travel time and reliability Transit travel time is expected to improve by about 50 percent compared to the No Build Alternative. The reliability of bus service in the project corridor would be poor in the 2042 no build condition, but the project's light rail service reliability is expected to be similar to the high reliability of existing light rail service.
- Increased ridership Because of improved reliability, additional capacity, and increased service levels, approximately 26,000 riders are forecasted to use the project each day by 2042. As described in greater detail earlier in this section, transit service improvements are more positively impactful to environmental justice populations than to others. As such, a future condition that entails more transit access to jobs, decreased times and increased reliability, and increased ridership is seen as a beneficial improvement for minority and low-income people.

7 CONCLUSION

When making an environmental justice determination, the FTA must consider the impacts of a project and who may be affected, then consider the mitigation proposed for these impacts, and finally consider any offsetting benefits to minority and low-income populations.

The environmental justice study area was defined to identify populations that would be directly affected by the project alternatives. The study area captures populations that would experience both direct and indirect impacts, as well as benefits the project would provide. The populations in the study area are not predominantly minority or low-income, and the percentages of both minority and low-income people in the study area are mostly lower than the percentages of these populations in the city of Seattle and the Sound Transit service district as a whole. As shown in Table 5-2 in Section 5, Project Impacts and Potential Mitigation, most project impacts like impacts to air quality, hazardous materials, and utilities would be limited in scope. Other adverse impacts like acquisitions and displacements, noise and vibration impacts, and impacts to visual resources, water resources, ecosystem resources, and parks would be mitigated through the implementation of effective mitigation measures. The distribution of impacts to minority and low-income people would be similar to impacts to the general population in the study area and the West Seattle Link Extension would not result in disproportionately high and adverse effects on minority and low-income populations. Not improving the transit system (the No Build Alternative) would have other adverse social, economic, and environmental effects.

The West Seattle Link Extension would include benefits within and beyond the study area such as improved transit access and more efficient and reliable transportation system. The racially and economically diverse communities of High Point, Highland Park, and White Center, south of the project, would benefit from the transit transfer point at the Delridge Station; travel time savings of approximately 12 to 15 minutes is expected for travel between the Delridge area and downtown with a transfer to light rail. The reliability of transit service would also increase. The Delridge Station would be connected to these communities by Metro bus transit routes, including a new RapidRide line. Minority and low-income people in the study area, as well the neighborhoods south of the study area, would experience the improved access to transit benefits and travel time savings along with everyone else in the study area. The project would increase access to and from all of West Seattle. These benefits would offset some of the adverse effects, including displacement of public services, social resources, and businesses that would occur with some alternatives. The high magnitude of the offsetting benefits of transit support the conclusion that the West Seattle Link Extension would not result in disproportionately high and adverse effects on environmental justice populations as defined in Executive Order 12898 and the United States Department of Transportation Order 5610.2C.

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Attachment G.1 Targeted Outreach

Attachment G.1. Targeted Outreach

Table G-1. Targeted Outreach for the West Seattle Link Extension Prior to Publication of the WSBLE Draft EIS

Date	Outreach Type	Organization	Neighborhood
11/16/17	Briefing	Delridge Neighborhoods Development Association	Delridge
5/2/2018	Open House/ Neighborhood Forum	Downtown Level 1 Neighborhood Forum	Downtown, Chinatown- International District, SODO, Stadium, Pioneer Square
6/11/2018	Briefing	Pigeon Point Neighborhood Council	Delridge
6/29/2018	Service Provider Interview	Southwest Youth and Family Services Social Service Providers Interview	Delridge, West Seattle
7/26/2018	Service Provider Interview	Neighborhood House at High Point Social Service Provider Interview	High Point, West Seattle
8/8/2018	Briefing	Drink and Link	Delridge
8/11/2018	Fair/Festival	Delridge Day	Delridge, West Seattle
8/28/2018	Service Provider Interview	Downtown Emergency Service Center, Cottage Grove Commons Social Service Provider Interview	Delridge, West Seattle
9/11/2018	Open House/ Neighborhood Forum	Downtown Level 2 Neighborhood Forum/Open House	Downtown, Chinatown- International District, SODO, Stadium, Pioneer Square
10/9/2018	Briefing	Delridge Neighborhoods Development Association	Delridge
10/10/2018	Fair/Festival	Seattle Department of Transportation Metro RapidRide H Open House	Delridge
10/24/2018	Briefing	Delridge Neighborhoods Development Association	Delridge
10/24/2018	Briefing	El Centro de la Raza	Downtown, Chinatown- International District, SODO, Pioneer Square
1/9/2019	Service Provider Interview	Delridge Community Center	Delridge
1/16/2019	Service Provider Interview	White Center Community Development Association	White Center
1/16/2019	Briefing	Youngstown Neighborhood	Delridge
2/6/2019	Briefing	Delridge Neighborhoods Development Association Tour	Delridge
3/1/2019	Fair/Festival	Destination Delridge	Delridge
3/9/2019	Fair/Festival	Delridge Community Center Tabling	Delridge
3/12/2019	Open House/ Neighborhood Forum	Delridge Station Community Workshop Delridge	
5/30/2019	Fair/Festival	Seattle Department of Transportation/ Metro RapidRide H Line Open House	Delridge, West Seattle

Date	Outreach Type	Organization	Neighborhood
6/29/2019- 6/30/2019	Fair/Festival	Delridge Neighborhoods Development Association Arts in Nature Festival	Delridge
7/20/2019	Fair/Festival	White Center Jubilee Days	White Center
7/28/2019	Fair/Festival	Pista sa Nayon	Corridor-wide
8/10/2019	Fair/Festival	Delridge Day	Delridge
12/7/2019	Open House/ Neighborhood Forum	Delridge Station Neighborhood Forum	Delridge
2/21/2020	Briefing	Delridge Neighborhoods Development Association	Delridge
3/5/2020	Fair/Festival	Chief Sealth International High School	Delridge
1/19/2021	Briefing	Community Liaison Focus Group	Corridor-wide
5/5/2021	Briefing	City of Seattle Community Liaison Training #1: Overview	Chinatown-International District, Pioneer Square, Delridge
5/12/2021	Briefing	City of Seattle Community Liaison Training #2: Alternatives	Chinatown-International District, Pioneer Square, Delridge
5/19/2021	Briefing	City of Seattle Community Liaison Training #3: Environmental Review	Chinatown-International District, Pioneer Square, Delridge
5/26/2021	Briefing	City of Seattle Community Liaison Training #4: Station Planning	Chinatown-International District, Pioneer Square, Delridge
6/2/2021	Briefing	City of Seattle Community Liaison Training #5: Racial Equity Toolkit	Chinatown-International District, Pioneer Square, Delridge
6/7/2021	Briefing	Jackson HUB Workshop #1	Chinatown-International District, Pioneer Square
6/9/2021	Briefing	City of Seattle Community Liaison Training #6: Recap and Work Plan Creation	Chinatown-International District, Pioneer Square, Delridge
7/14/2021	Briefing	Community Liaison Work Plan Report Out	Chinatown-International District, Delridge
8/14/2021	Fair/Festival	Neighborhood House Health Fair	Delridge
8/18/2021	Briefing	Community Liaison Meet-up: Delridge/ Chinatown International District Cohort	Chinatown-International District, Delridge

Table G-2. Targeted Outreach for the West Seattle Link Extension After Publication of the WSBLE Draft EIS

Date	Outreach Type	Organization	Neighborhood	
2/5/2022	Vietnamese Community Information Share	Vietnamese Community (Virtual)	Corridor-wide	
2/12/2022	Door-to-door	Door-to-door Business Outreach	Delridge corridor, Chinatown International District, Pioneer Square	
2/13/2022	Peer-to-peer Information Share	Vietnamese Community (Virtual)	Corridor-wide	
2/19/2022	Peer-to-peer Information Share	Vietnamese Community (Virtual)	Corridor-wide	
2/26/2022	Briefing/Tour	Tabor 100	Tukwila	
3/3/2022	Information Share Tabling	SeaTac and Tukwila Community Markets	South Seattle	
3/4/2022	Information Booth Tabling	Latino Town's Viernes de Fiesta	White Center	
3/4/2022	Information Booth Tabling	The Salvation Army Seattle White Center Corps & Community Center	White Center	
3/6/2022	Information Booth Tabling	Co Lam Temple Celebration	Corridor-wide	
3/6/2022	White Center Door-to-door Business Outreach	White Center Door-to-door Business Outreach	White Center	
3/9/2022	Peer-to-peer Outreach	Vietnamese Community (Virtual)	Corridor-wide	
3/11/2022	Information Booth Tabling	The Salvation Army Seattle White Center Corps & Community Center	White Center	
3/12/2022	Peer-to-peer Information Share	Vietnamese Community (Virtual)	Corridor-wide	
3/16/2022	Briefing/Tour	Puget Sound Sage, Community Leadership Institute, Transit Justice Panel	Corridor-wide	
3/18/2022	Briefing/Tour	Transit Access Coalition	Corridor-wide	
3/19/2022	Information Booth Tabling	Co Lam Temple Retreat	Corridor-wide	
3/19/2022	Delridge Corridor Neighbors Door-to-door	Delridge Corridor Neighbors Door-to-door	Delridge	
3/19/2022	Peer-to-peer Information Share	Vietnamese Community (Virtual)	Corridor-wide	
3/22/2022	Briefing/Tour	Southwest Early Learning	Delridge	
3/22/2022	Briefing/Tour	Southwest Early Learning Bilingual Preschool	Delridge	
3/25/2022	Information Booth Tabling	West Seattle Food Bank	West Seattle	
3/26/2022	Peer-to-peer Information Share	Vietnamese Community (Virtual)	Corridor-wide	
3/28/2022	Information Share	Chinese Radio Seattle (Virtual)	Corridor-wide	
3/30/2022	Draft Environmental Impact Statement Public Hearing	Virtual Public Hearing	West Seattle, Delridge, Duwamish, SODO	

Date	Outreach Type	Organization	Neighborhood
4/1/2022	Briefing/Tour	Delridge Neighborhood Development Association	Delridge
4/6/2022	Peer-to-peer Information and Materials Share	Vietnamese Community (Virtual)	Corridor-wide
4/7/2022	Briefing/Tour	Seattle Design Commission: Delridge Station and Duwamish crossing (Virtual)	Duwamish, Delridge
4/16/2022	Peer-to-peer Information Share	Vietnamese Community (Virtual)	Corridor-wide
4/16/2022	Information Booth Tabling	Duwamish Alive! Earth Month Celebration	West Seattle, South Seattle
4/17/2022	Information Booth Tabling	High Point and West Seattle Mosque	High Point, West Seattle
4/17/2022	Information Booth Tabling	West Seattle Halal Market	West Seattle
4/18/2022	Information Booth Tabling (Day 2)	High Point and West Seattle Mosque	High Point, West Seattle
4/18/2022	Information Booth Tabling	West Seattle Halal Market Business	West Seattle
4/19/2022	Radio Information	V Negocios y Finanzas (Virtual)	Corridor-wide
4/20/2022	Peer-to-peer Information Share	Vietnamese Community (Virtual, 2 Days)	Corridor-wide
4/20/2022	Information Booth Tabling	Delridge Library	Delridge
4/22/2022	Information Booth Tabling	El Salvadorean Bakery	White Center
4/22/2022	Information Booth Tabling	Hope Academy Mosque	White Center
4/23/2022	Information Booth Tabling	High Point Earth Day	High Point
4/26/2022	Briefing/Tour	Duwamish Alive Coalition (Virtual)	West Seattle, South Seattle
4/28/2022	Peer-to-peer Information Share	Vietnamese Community (Virtual)	Corridor-wide
4/28/2022	Peer-to-peer Information Share	Spanish Community (Virtual)	Corridor-wide
5/1/2022	Briefing	Delridge Neighborhoods Development Association Board Retreat (Virtual)	Delridge
8/28/2022	Fair/Market	White Center Block Party	White Center
10/22/2022	Fair/Market	South Delridge Farmers Market	Delridge
6/24/2023	Fair/Market	South Delridge Farmers Market	Delridge
8/26/2023	Fair/Market	White Center Block Party	White Center
9/9/2023	Tabling	SODO Flea Market	SODO
10/23/2023	Briefing	Duwamish Tribe	Corridor-wide
11/4/2023	Tabling	Dia de los Muertos Tabling	White Center
11/16/2023	Door-to-door	SODO door-to-door outreach	SODO
11/19/2023	Tabling	Delridge Library	Delridge

Date	Outreach Type	Organization	Neighborhood
11/20/2023	Briefing	Delridge Neighborhoods Development Association	Delridge
12/5/2023	Briefing	South Seattle College	Delridge, West Seattle
12/9/2023	Tabling	Hope Central Tabling	White Center
12/12/2023	Tabling	West Seattle Food Bank	West Seattle
12/13/2023	Focus Group	WSLE Station Planning (Vietnamese)	West Seattle, Delridge
12/16/2023	Focus Group	WSLE Station Planning (Somali)	West Seattle, Delridge
1/28/2024	Tabling	Tet Celebration in White Center	White Center
2/1/2024	Briefing	Highland Park Action Coalition (HPAC)	Highland Park, Delridge
2/12/2024	Door-to-door	White Center door-to-door outreach	White Center
3/23/2024	Tabling	Roxhill Community Day	Delridge, White Center
3/25/2024	Tour	North Delridge Site Visit	Delridge

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Attachment G.2 EPA EJScreen Report

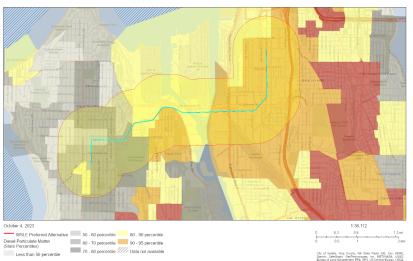
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EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Seattle, WA



0.5 miles Ring around the Corridor Population: 19,398 Area in square miles: 4.76

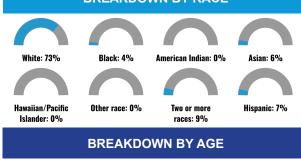
COMMUNITY INFORMATION



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	85%
Spanish	5%
French, Haitian, or Cajun	1%
German or other West Germanic	1%
Russian, Polish, or Other Slavic	2%
Korean	1%
Chinese (including Mandarin, Cantonese)	1%
Other Asian and Pacific Island	2%
Arabic	1%
Other and Unspecified	1%
Total Non-English	15%

BREAKDOWN BY RACE





LIMITED ENGLISH SPEAKING BREAKDOWN



Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2017 -2021. Life expectancy data comes from the Centers for Disease Control.

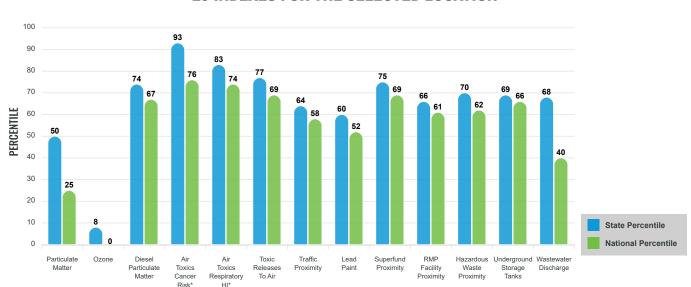
Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

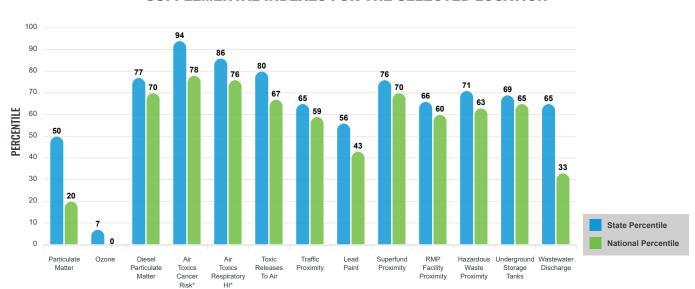
EJ INDEXES FOR THE SELECTED LOCATION



SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

 \equiv

Report for 0.5 miles Ring around the Corridor

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES	POLLUTION AND SOURCES				
Particulate Matter (µg/m³)	7.06	7.02	52	8.08	21
Ozone (ppb)	45.4	49.8	6	61.6	0
Diesel Particulate Matter (µg/m³)	1.31	0.355	97	0.261	99
Air Toxics Cancer Risk* (lifetime risk per million)	50	27	97	25	94
Air Toxics Respiratory HI*	0.73	0.39	97	0.31	92
Toxic Releases to Air	19,000	1,800	99	4,600	96
Traffic Proximity (daily traffic count/distance to road)	380	190	88	210	87
Lead Paint (% Pre-1960 Housing)	0.35	0.23	73	0.3	62
Superfund Proximity (site count/km distance)	1.2	0.18	98	0.13	98
RMP Facility Proximity (facility count/km distance)	0.63	0.4	82	0.43	80
Hazardous Waste Proximity (facility count/km distance)	4.2	1.6	89	1.9	86
Underground Storage Tanks (count/km²)	23	6.3	93	3.9	96
Wastewater Discharge (toxicity-weighted concentration/m distance)		0.024	80	22	40
SOCIOECONOMIC INDICATORS					
Demographic Index	22%	28%	41	35%	36
Supplemental Demographic Index	9%	12%	36	14%	27
People of Color	27%	32%	48	39%	46
Low Income	17%	24%	42	31%	32
Unemployment Rate	4%	5%	53	6%	52
Limited English Speaking Households	3%	4%	64	5%	67
Less Than High School Education	3%	8%	32	12%	24
Under Age 5	6%	6%	64	6%	64
Over Age 64	12%	16%	39	17%	37
Low Life Expectancy	17%	18%	39	20%	29

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Carazir indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	4
Water Dischargers	65
Air Pollution	11
Brownfields	10
Toxic Release Inventory	22

Other community features within defined area:

Schools 6	
Hospitals	
Places of Worship	

Other environmental data:

Air Non-attainment	Yes
Impaired Waters	Ves

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	Yes
Selected location contains an EPA IRA disadvantaged community	Yes

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS								
INDICATOR	INDICATOR HEALTH VALUE STATE AVERAGE STATE PERCENTILE US AVERAGE US PERCENTILE							
Low Life Expectancy	17%	18%	39	20%	29			
Heart Disease	3.8	5.3	15	6.1	9			
Asthma	9.2	10.5	12	10	27			
Cancer	6.3	6.3	48	6.1	50			
Persons with Disabilities	8.4%	13.1%	22	13.4%	21			

CLIMATE INDICATORS								
INDICATOR	HEALTH VALUE STATE AVE		STATE PERCENTILE	US AVERAGE	US PERCENTILE			
Flood Risk	3%	11%	36	12%	29			
Wildfire Risk	0%	12%	0	14%	0			

CRITICAL SERVICE GAPS									
INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE				
Broadband Internet	6%	9%	48	14%	31				
Lack of Health Insurance	4%	6%	35	9%	29				
Housing Burden	No	N/A	N/A	N/A	N/A				
Transportation Access	No	N/A	N/A	N/A	N/A				
Food Desert	No	N/A	N/A	N/A	N/A				

Footnotes

Report for 0.5 miles Ring around the Corridor

Attachment G.3 Washington Department of Health, Environmental Health Disparities Maps and Data

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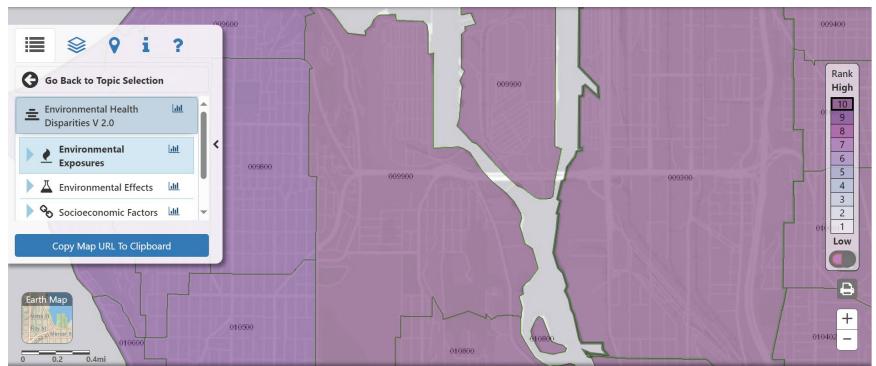


Figure G.3-1. Environmental Health Risk Factors: Environmental Exposures in West Seattle Link Extension Study Area

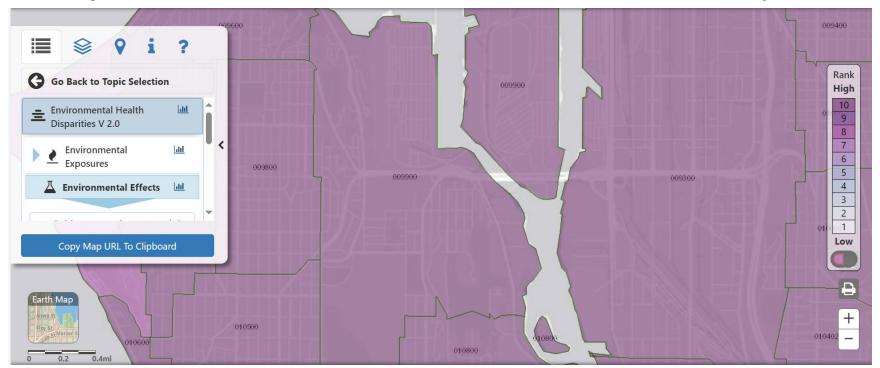


Figure G.3-2. Environmental Health Risk Factors: Environmental Effects in West Seattle Link Extension Study Area

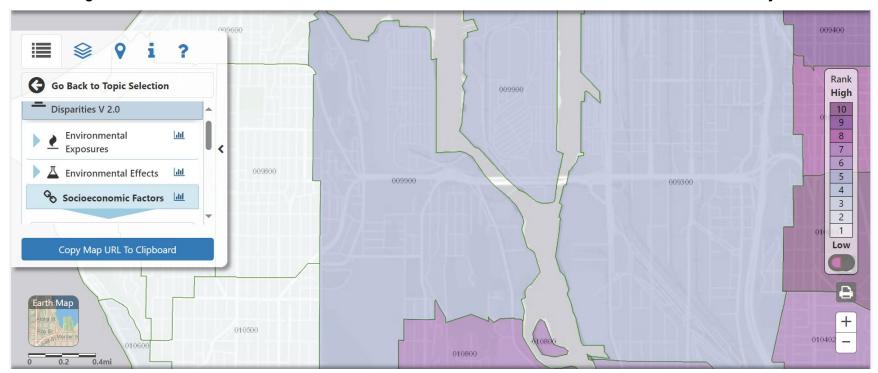


Figure G.3-3. Environmental Health Risk Factors: Socioeconomic Factors in West Seattle Link Extension Study Area

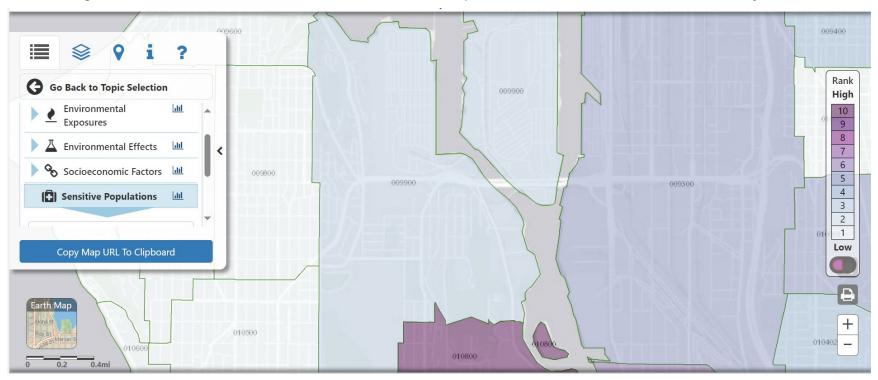


Figure G.3-4. Environmental Health Risk Factors: Sensitive Populations in West Seattle Link Extension Study Area

Table G.3-1. Washington Tracking Network Environmental Health Risk Factors

Environmental Risk Factors	SODO Segment (Census Tract 09300)	SODO/DUW Segments (Census Tract 010002)	DUW Segment (Census Tract 010001)	DUW/DEL Segments (Census Tract 009900)	DUW/DEL Segments (Census Tract 010800)	WSJ Segment (Census Tract 09800)	WSJ Segment (Census Tract 010500)	WSJ Segment (Census Tract 009702)	WSJ Segment (Census Tract 010600)
Environmental Health Disparities Overall Rank	9	8	10	9	10	4	5	3	5
Environmental Exposures Rank	10	10	10	10	10	9	9	9	9
Diesel exhaust PM _{2.5} emissions	10	10	10	10	10	10	10	10	10
Ozone concentration	1	1	1	5	5	3	5	5	5
PM _{2.5} concentration	10	10	10	10	10	7	7	7	7
Proximity to heavy traffic roadways	10	10	10	9	9	6	6	5	6
Toxic releases from facilities	10	10	10	10	10	10	10	10	10
Environmental Effects Rank	10	10	10	10	10	10	10	10	10
Lead risk from housing	9	10	9	8	7	10	8	10	10
Proximity to hazardous waste treatment storage and disposal facilities	10	10	10	10	10	9	9	7	9
Proximity to Superfund sites	10	10	10	10	10	10	10	10	10
Proximity to risk management plan facilities	10	10	10	10	10	9	9	8	8
Wastewater discharge	10	10	9	9	9	9	8	8	6
Socioeconomic Factors Rank	5	8	10	5	7	1	1	1	2
Limited English proficiency	8	10	10	6	8	2	5	2	6
No high school diploma	5	9	10	3	4	2	3	1	3
People of color (race/ethnicity)	10	10	10	8	10	4	5	4	5
Population living in poverty <185%	5	7	9	4	5	1	3	1	2
Transportation expense	1	1	1	1	3	1	1	3	2
Unaffordable housing	3	8	8	6	7	5	4	5	6
Unemployed	5	2	10	7	5	5	3	1	2

Attachment G.3 Washington Department of Health, Environmental Health Disparities Maps and Data

Environmental Risk Factors	SODO Segment (Census Tract 09300)	SODO/DUW Segments (Census Tract 010002)		DUW/DEL Segments (Census Tract 009900)	DUW/DEL Segments (Census Tract 010800)	WSJ Segment (Census Tract 09800)	WSJ Segment (Census Tract 010500)	WSJ Segment (Census Tract 009702)	WSJ Segment (Census Tract 010600)
Sensitive Populations Rank	5	1	5	3	10	1	1	1	1
Death from Cardiovascular Disease	1	2	1	1	8	1	2	1	1
Low birth weights	10	3	10	8	10	4	3	4	4

Source:

Washington Department of Health. 2023. Washington Tracking Network. Information by Location Mapping Tool. Version 2.0. https://fortress.wa.gov/doh/wtn/WTNIBL/. Accessed October 5, 2023.

 $PM_{2.5}$ = particulate matter less than 2.5 micrometers