

1 PURPOSE AND NEED FOR WEST SEATTLE AND BALLARD LINK EXTENSIONS

1.1 West Seattle and Ballard Link Extensions Project

Central Puget Sound Regional Transit Authority (Sound Transit) is proposing to expand Link light rail transit service from Downtown Seattle to West Seattle and Ballard. The West Seattle and Ballard Link Extensions (WSBLE) Project is an 11.8-mile corridor in the city of Seattle in King County, Washington, the most densely populated county of the Puget Sound region (Figure 1-1). The WSBLE Project consists of two extensions: the West Seattle Link Extension and the Ballard Link Extension. The West Seattle Link Extension would be about 4.7 miles and include stations at SODO, Delridge, Avalon, and Alaska Junction. The Ballard Link Extension would be about 7.1 miles from Downtown Seattle to Ballard's Northwest Market Street area. It would include a new 3.3-mile light rail-only tunnel from Chinatown-International District to South Lake Union and Seattle Center/Uptown. Stations would serve the following areas: Chinatown-International District, Midtown, Westlake, Denny, South Lake Union, Seattle Center, Smith Cove, Interbay, and Ballard. While both extensions are evaluated in this Draft Environmental Impact Statement, they are standalone projects that have independent utility from each other.

The WSBLE Project is part of the Sound Transit 3 Plan of regional transit system investments, funding for which was approved by voters in the region in 2016. Sound Transit and the Federal Transit Administration (FTA) are preparing this Draft Environmental Impact Statement for the WSBLE Project. The Environmental Impact Statement is a joint National Environmental Policy Act (NEPA) and State Environmental Policy Act (SEPA) document. FTA is the lead federal agency under NEPA and Sound Transit is the lead agency for SEPA.

The WSBLE Project would provide fast, reliable light rail in Seattle and connect dense residential and job centers throughout the Puget Sound region, while the new Downtown Seattle light rail tunnel would provide capacity for the entire regional system to operate efficiently. The Puget Sound Regional Council (the regional metropolitan planning organization) and the City of Seattle have designated the following regional growth centers, Manufacturing/Industrial Centers, and urban villages in the project corridor:

- **Regional Growth Centers.** The project corridor includes three regional growth centers designated by the Puget Sound Regional Council and the City of Seattle: Seattle Downtown, South Lake Union, and Uptown. The First Hill/Capitol Hill growth center is also just east of the project corridor.

Puget Sound Regional Council

Puget Sound Regional Council, the regional metropolitan planning organization, develops policies and coordinates decisions about regional growth, transportation, and economic development planning within King, Kitsap, Pierce, and Snohomish counties. Puget Sound Regional Council is composed of over 80 jurisdictions, including all four counties; cities and towns; ports; state and local transportation agencies; and tribal governments within the region.

Figure 1-1. West Seattle and Ballard Link Extensions Project Corridor



- **Manufacturing/Industrial Centers.** The project corridor includes two Manufacturing/Industrial Centers designated by the Puget Sound Regional Council: the Duwamish and Ballard Interbay Manufacturing/Industrial Centers. The City of Seattle has designated these areas as the Duwamish Manufacturing/Industrial Center and the Ballard Interbay Northend Manufacturing/Industrial Center.
- **Urban Villages.** There are two neighborhoods in the project corridor designated by the City of Seattle as urban villages: West Seattle Junction and Ballard neighborhoods.

These designations indicate that these areas will continue to increase in residential and/or employment density over the next 30 years.

Existing local transit connections in the project corridor include bus, light rail, streetcar, and monorail. The King County Metro Transit (Metro) RapidRide C bus line currently provides service between West Seattle, Downtown Seattle, and South Lake Union, while the RapidRide D bus line provides service between Ballard and Downtown Seattle. The RapidRide H bus line is planned to open in 2021 and will provide service between Burien and Downtown Seattle via Delridge. The RapidRide G bus line is planned to open in 2024 and will provide service between Downtown Seattle and First Hill, Capitol Hill, and other neighborhoods along Madison Street. Other local bus service also operates in the project corridor. The South Lake Union Streetcar connects Westlake with South Lake Union, and the First Hill Streetcar connects Pioneer Square and the Chinatown-International District with First Hill and Capitol Hill. A future Center City Connector Streetcar is proposed to travel from Westlake to Pioneer Square through Downtown Seattle along 1st Avenue and link the two existing streetcar lines. The monorail provides a connection between Westlake and Seattle Center.

Regional transit service in the project corridor includes regional bus service, ferry service, light rail, Sounder commuter rail, and Amtrak passenger rail service. Light rail currently operates between the Angle Lake Station in the city of SeaTac and Northgate Station in Seattle, traveling through the Downtown Seattle Transit Tunnel.

Extensions of light rail are under construction north to Lynnwood, east to Bellevue and Redmond, and south to Federal Way, and are anticipated to begin operation in 2024. Planned light rail extensions would continue south to the Tacoma Dome, expected to begin service in 2032, and north to Everett, planned to begin service in 2037. The West Seattle Link Extension is scheduled to open in 2032. The Ballard Link Extension is scheduled to begin service in 2037. Depending on funding availability, service from Smith Cove Station to the Ballard Station is scheduled to open in 2037 or 2039. Figure 1-2 shows the full system planned for operation in 2042 under the target schedule.

King Street Station near Pioneer Square provides Sounder commuter rail service north to Everett and south to Tacoma/Lakewood. Amtrak also provides passenger train service to King Street Station.

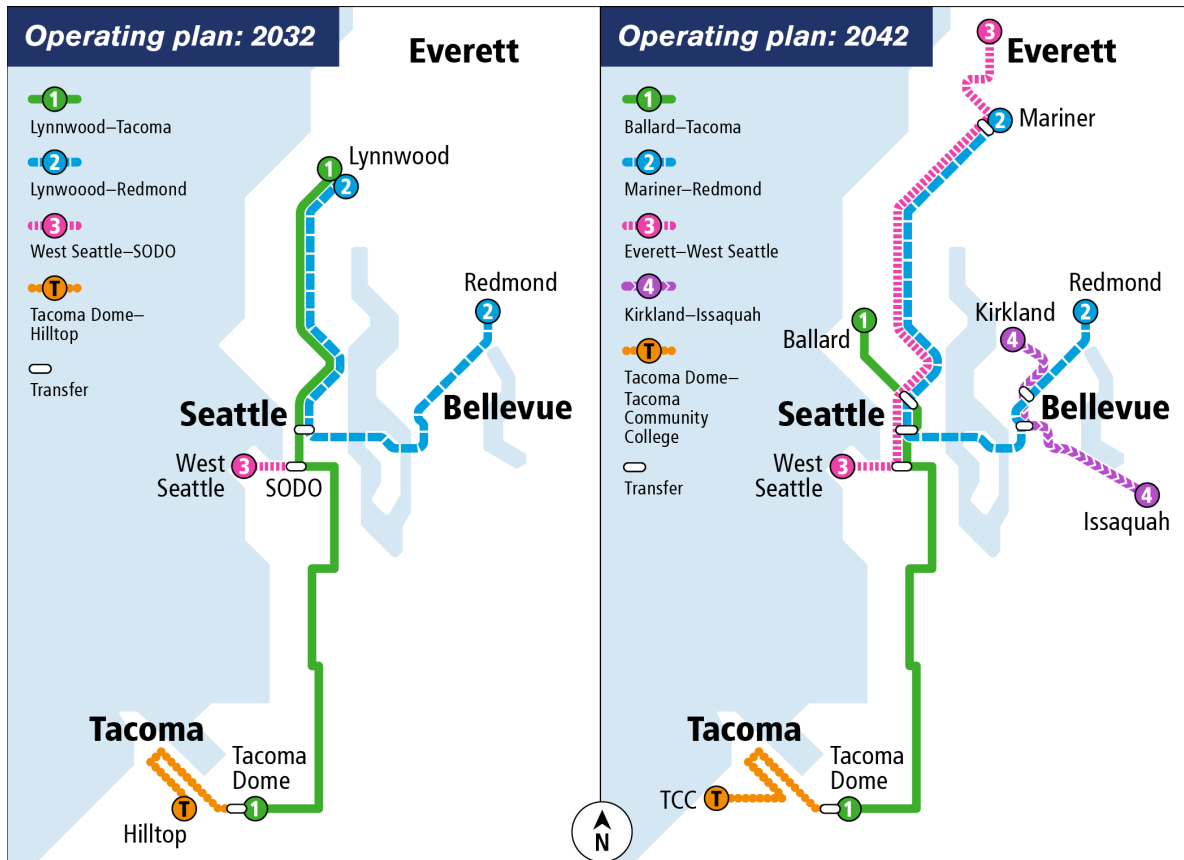
Affordable and Target Schedules

Due to steeply rising real estate prices and other construction expenses, Sound Transit projects currently in early planning and design, including the West Seattle and Ballard Link Extensions Project, are seeing cost estimate increases. To ensure that funding remains available to complete all voter-approved projects, the Sound Transit Board conducted a "realignment" process that established the following two schedules:

Affordable Schedule: a schedule that is affordable, using current financial projections and cost estimates to set the general order in which projects will advance. This "affordable" schedule established an approach to prioritize, fund, and manage program work over time (Resolution 2021-05).

Target Schedule: schedule for priority projects, as close to Sound Transit 3 Plan schedules as possible, reliant upon reductions in the affordability gap through cost savings and additional revenue.

Figure 1-2. Link Light Rail System Expansion



1.2 Purpose and Need for the WSBLE Project

1.2.1 Purpose of the WSBLE Project

The purpose of the WSBLE Project is to expand the Sound Transit Link light rail system from Downtown Seattle to West Seattle and Ballard, to make appropriate community investments to improve mobility, and to increase capacity and connectivity for regional connections in order to achieve 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 through 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)

Purpose and Need Statement

The purpose and need section describes why the agency is proposing to invest taxpayer dollars in the project. It clarifies what problems the project is addressing and justifies the expenditure needed. The purpose and need therefore drive the process for alternatives consideration, in-depth analysis, and ultimate project selection.

- 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 residents, low-income people, and communities of color
- Encourage equitable and sustainable urban growth in station areas through support of transit-oriented development 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 2018) and Sustainability Plan (Sound Transit 2019)
- 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

1.2.2 Need for the WSBLE Project

This section describes the need for the WSBLE Project. For each need statement, additional supporting information is provided along with references to sections of this Draft Environmental Impact Statement where more detailed information can be found. In brief, the need for the project is as follows:

- When measured using national standards, existing transit routes between Downtown Seattle, West Seattle, and Ballard currently operate with poor reliability. Roadway congestion in the project corridor will continue to degrade transit performance and reliability as the city is expected to add about 135,000 people and about 150,000 jobs between 2015 and 2040 (Puget Sound Regional Council 2019).
- Increased ridership from regional population and employment growth will increase operational frequency in the existing Downtown Seattle Transit Tunnel, requiring additional tunnel capacity.
- Puget Sound Regional Council (the regional metropolitan planning organization) and local plans call for high-capacity transit in the corridor consistent with VISION 2050 (Puget Sound Regional Council 2020) and the *Regional Transit Long-Range Plan* (Sound Transit 2014a).
- The region's citizens and communities, including transit-dependent residents, low-income people, and communities of color, need long-term regional mobility and multi-modal connectivity as called for in the Washington State Growth Management Act (Revised Code of Washington 36.70A.108).
- Regional and local plans call for increased residential and/or employment density at and around high-capacity transit stations, and increased options for multi-modal access. VISION 2050 has a goal for 65 percent of the region's population and 75 percent of the region's employment to occur in regional growth centers and within walking distance of transit.
- Environmental and sustainability goals of the state and region, as established in Washington state law and embodied in Puget Sound Regional Council's VISION 2050 (2020) and Regional Transportation Plan (2018), include reducing greenhouse gas emissions by prioritizing transportation investments that decrease vehicle miles traveled.

Sections 1.2.2.1 through 1.2.2.6 explain the need for the WSBLE Project in greater detail.

1.2.2.1 Increasing Roadway Congestion will Further Degrade Transit Performance and Reliability

Seattle has experienced unprecedented growth over the past two decades, a result of substantial private-sector investment in jobs and housing coupled with major public infrastructure investments. The greater Seattle region has experienced a year-over-year average growth rate between 2.3 and 2.8 percent, making it one of the top five cities for rapid population growth in the United States for several consecutive years. According to the United States Census Bureau, the population of King County grew by 5.9 percent from 2010 to 2015, while the population of the city of Seattle increased by 7.2 percent during the same time (United States Census Bureau 2017). In addition to experiencing unprecedented population growth, King County and Seattle are both net importers of workers, meaning that these jurisdictions have more jobs than workers who live in them. From a transportation perspective, this means that a large number of workers travel from cities and counties outside Seattle and King County to jobs in the county and/or city.

Rapid population and job growth has strained transportation resources in the project corridor. Interstate 5, State Route 99, and main arterial streets in the project corridor suffer from chronic congestion, even outside of peak travel periods. Most roadways in the project corridor cannot be expanded to accommodate increasing demand without substantial property acquisitions because of limited right-of-way. Although Downtown Seattle is served by heavily used commuter rail, light rail, bus, and streetcar, the surface transit system is struggling to accommodate more growth because of roadway congestion and the difficulty in acquiring new right-of-way for dedicated transit infrastructure. Seattle's topography and natural barriers, such as hills, valleys, ridges, and waterbodies, have necessitated innovative and engineering-intensive solutions like hill regrading and construction of railroad and transit tunnels, floating bridges, and highways and arterials on elevated structures. Today, congestion adds an average of 12 minutes (29 percent) to PM peak hour trips on the RapidRide C Line, which follows the course of the proposed West Seattle Link Extension, and 11 minutes (38 percent) to travel times on the D Line, which follows the course of the Ballard Link Extension (Metro 2019). Strong demand and limited system capacity have led Metro, the operator of most buses in the corridor, to rank the relief of overcrowding as its number one investment priority.

Population and employment growth is forecasted to continue over the next 20 years. According to the Puget Sound Regional Council, Seattle expects an increase of 20 percent in population and 25 percent in employment between 2015 and 2040, which would add about 135,000 people and about 150,000 jobs to the city (Puget Sound Regional Council 2019). The WSBLE Project corridor is projected to grow by 47 percent in population and 30 percent in employment during the same timeframe. The Economics sections of Chapter 4, Affected Environment and Environmental Consequences, provide additional information on projected growth.

This projected growth is the basis for ridership forecasts, projected vehicle trips and non-motorized activities.¹ Because of the projected population and employment growth and the limitations on expanding the capacity of the surface transportation network due to limited right-

¹ Puget Sound Regional Council's VISION 2050 anticipates population and employment in the Puget Sound region will continue to grow over the next 30 years. The current long-range growth forecasts from Puget Sound Regional Council inform elements of the Draft Environmental Impact Statement analyses, such as ridership forecasts, projected vehicle trips, and non-motorized activities. Puget Sound Regional Council acknowledges that the current pandemic may have effects on the economy that could alter long-range forecasts. Puget Sound Regional Council's next regional forecast is anticipated no earlier than 2023. For the purposes of this Draft Environmental Impact Statement, the Puget Sound Regional Council's current forecasts are applied to the analysis.

of-way, topography, and natural barriers, there is a need for future investments in high-capacity transit systems to serve future transit needs in the project corridor.

1.2.2.2 Downtown Seattle Transit Tunnel Capacity Constraints

The Downtown Seattle Transit Tunnel is a 1.3-mile-long light rail tunnel under Downtown Seattle that currently serves stations at International District/Chinatown, Pioneer Square, University Street, and Westlake. At the north end, the Downtown Seattle Transit Tunnel connects to University Link, which serves the Capitol Hill Station and the Northgate Station. From the University of Washington Station, light rail will eventually extend north to serve Northgate (in 2021), Lynnwood (in 2024), and Everett (in 2037). An extension to Bellevue and Redmond (formerly known as East Link) is currently under construction and will also use the Downtown Seattle Transit Tunnel, connecting at the existing International District/Chinatown Station and continuing on to Northgate (in 2023) (Figure 1-2).

To the south, the Downtown Seattle Transit Tunnel connects to a light rail line serving nine stations between the Downtown Seattle Transit Tunnel and the current terminus at Angle Lake Station in SeaTac. In the future, light rail will extend south to serve Federal Way (in 2024) and Tacoma Dome (in 2032).

Sound Transit studied the operational feasibility of connecting a Ballard light rail line directly to the Downtown Seattle Transit Tunnel rather than constructing a new downtown tunnel. The agency concluded that once all Sound Transit light rail extensions are operational, the Downtown Seattle Transit Tunnel will not have enough capacity to reliably serve downtown because of operational headway (service frequency) requirements and future passenger volumes. A connection from a Ballard line to the Downtown Seattle Transit Tunnel would also be difficult to construct and would require lengthy system closures and/or service disruptions.

To address these challenges, the operating assumptions in the Sound Transit 3 Plan included routing the extensions to Ballard, Federal Way, and Tacoma through a new downtown tunnel. Extensions to West Seattle, Redmond, Lynnwood, and Everett would use the existing Downtown Seattle Transit Tunnel. The new tunnel provides additional capacity by distributing passengers and trains in two downtown tunnels. This would also improve system reliability and provide shorter running times for train operators compared with running service on one line between Everett and Tacoma Dome.

The City of Seattle also recognized the capacity constraints of the Downtown Seattle Transit Tunnel and called for the construction of a new downtown transit tunnel in the *City of Seattle Transit Master Plan* (City of Seattle 2016). The plan states “Sound Transit’s examination of Ballard to downtown and West Seattle light rail alignments has included options that operate on surface streets. SDOT [Seattle Department of Transportation] does not support surface street options due to highly constrained street capacity in the Center City, lower transit performance provided by surface running high-capacity transit, and the many competing demands for arterial street space. As such, the City of Seattle places investment in a new downtown transit tunnel as a high priority Sound Transit 3 investment” (City of Seattle 2016, page 3-18).

1.2.2.3 Regional and Local Plans Call for High-Capacity Transit

Regional and local agencies have been planning for high-capacity transit in the WSBLE corridor for almost 40 years. Table 1-1 lists the plans that have called for high-capacity transit in this corridor since 1996. As the population grows, the need for regional mobility remains vital to maintain a healthy economy.

Table 1-1. History of High-capacity Transit/Light Rail Planning in the WSBLE Corridor

Year	History
1996	Sound Transit adopts the Long-Range Vision, which identifies a potential rail extension to Ballard; voters approve funding for Sound Move, the initial package of high-capacity transit investment. Sound Move identifies West Seattle as a candidate for regional bus service.
2005	Sound Transit publishes the <i>Regional Transit Long-Range Plan</i> Supplemental Environmental Impact Statement and updates the Long-Range Plan, which include planning studies for high-capacity transit in the project corridor.
2008	Sound Transit adopts and voters approve funding for the Sound Transit 2 plan that designates the Downtown Seattle-West Seattle-Burien corridor for specific high-capacity transit studies.
2010	Puget Sound Regional Council adopts <i>VISION 2040</i> and <i>Transportation 2040</i> . <i>Transportation 2040</i> identifies candidate corridors for additional transportation investments to increase connections between urban centers, including areas in the project corridor.
2012	Puget Sound Regional Council approves Central Puget Sound Regional 2010-2013 Transportation Improvement Program, which includes light rail extensions in the corridor.
2013	Puget Sound Regional Council publishes <i>The Growing Transit Communities Strategy</i> report, which includes International District/Chinatown and Westlake stations.
2014	Sound Transit publishes the <i>Regional Transit Long-Range Plan Final Supplemental Environmental Impact Statement</i> (2014b) and updates the Long-Range Plan, which continue to identify light rail extensions in the WSBLE corridor. This update adds the West Seattle to Downtown high-capacity transit corridor. Sound Transit completes the <i>Ballard to Downtown Seattle Transit Expansion Study</i> and the <i>South King County Corridor High Capacity Transit Corridor Study</i> .
2016	Metro publishes an update to the 2011-2021 Strategic Plan recognizing the need for the bus system to adapt to high-capacity transit investments (Metro 2016a). City of Seattle publishes an update to the City's <i>Transit Master Plan</i> that identifies extensions of light rail to Ballard and West Seattle as priority projects and includes them in the long-range high-capacity transit vision. Sound Transit adopts the Sound Transit 3 Plan, which outlines the next phase of high-capacity transit improvements for central Puget Sound including the West Seattle and Ballard Link Extension projects; funding is approved by voters. Metro's METRO CONNECTS plan outlines a network of services designed around high-capacity transit routes, including light rail.
2018	The City of Seattle Comprehensive Plan identifies light rail as a critical transportation resource and includes policies and goals aimed at enhancing connections between neighborhoods and existing or future light rail stations. Puget Sound Regional Council's Regional Transportation Plan is adopted, which promotes sustainable transportation to support the region's growing population and economy and encourages transit-oriented communities in areas of high-capacity transit. The plan includes the West Seattle and Ballard Link Extensions.
2019	In anticipation of this project, the City of Seattle Comprehensive Plan was updated to encourage transit-oriented development and enhance connections between neighborhoods and existing or future light rail stations.
2020	Puget Sound Regional Council adopts VISION 2050, which identifies light rail in the project corridor and incorporates a renewed focus on locating growth near current and future high-capacity transit facilities.

1.2.2.4 Long-term Regional Mobility and Multi-modal Connectivity for the Region's Citizens and Communities including Transit-Dependent Residents, Low-Income People, and Communities of Color

Households that have to pay for high housing costs in King County can have difficulty paying for other household needs, such as transportation. According to the 2017 American Community Survey 5-Year data estimates, about 30 percent of King County households with mortgages are cost-burdened and 46 percent of households with rent are cost-burdened (United States Census Bureau 2019a).

Cost-Burdened Households

The United States Department of Housing and Urban Development has identified households paying over 30 percent of their gross income on housing as "cost-burdened" because their housing costs can make it difficult to pay for daily necessities such as food, clothing, medical care, and transportation.

Many people commute to Seattle and King County from outside the county in the greater Sound Transit service area, where housing is more affordable. King County has among the highest number of commuters coming from another county in the nation. According to census data, workers who commute from outside of the county fill approximately 34 percent of jobs (455,000 jobs) in King County (United States Census Bureau 2019b). This trend is likely to continue as employment forecasts from Puget Sound Regional Council for both King County and Seattle suggest strong job growth between 2020 and 2040. The WSBL Project corridor contains major regional employment opportunities, including some of the largest employers in the region such as Amazon, Starbucks, City and King County government, Expedia, and hospitals and medical offices on First Hill in addition to many smaller companies concentrated in Downtown Seattle. The WSBL Project would also provide regional light rail connections to other large education and employment centers such as the University of Washington, Northgate, Bellevue, and Redmond. WSBL would connect employment opportunities in Downtown Seattle to existing light rail lines and light rail extensions currently under construction in King, Pierce, and Snohomish counties, where more affordable housing is available. Improving mobility in the WSBL corridor will help improve access to employment and educational opportunities for communities of color and low-income people around the region.

In addition, transportation costs continue to rise. Tolls are being implemented on major freeways in the region, such as State Routes 99, 520, and 167 and Interstate 405. While the price of fuel fluctuates, it generally increases over time. Parking in the downtown core of Seattle is also a substantial transportation cost. During a typical work day, parking costs range from about \$15 per day to about \$35 per day. All these expenses increase burdens on low-income residents and impede access to employment, educational opportunities, and health-care services. Effective transit can help avoid or reduce the expense of automobile ownership and provide critical access to economic opportunity for disadvantaged populations.

The project corridor also contains many regional activity centers and regional attractions. Seattle sports stadiums in the corridor include Lumen Field, which hosts Seahawks football games and Seattle Sounders FC for soccer, and T-Mobile Park, which hosts the Seattle Mariners. A National Hockey League team will begin playing at Climate Pledge Arena at Seattle Center in 2021. Downtown Seattle's Westlake area is a principal shopping area, while Pike and Pine streets provide a popular connection between the Washington State Convention Center and Pike Place Market. Seattle Center annually hosts hundreds of thousands of visitors for performing arts performances, athletic events, music festivals, and other recreational activities,

and contains museums, meeting spaces, and performance venues. The WSBLE Project would improve access to these regional destinations for all populations.

1.2.2.5 Increased Density at High-Capacity Transit Stations and Increased Multi-modal Access

Regional and local plans call for increased residential and/or employment density at and around high-capacity transit stations, and increased options for multi-modal access. The City of Seattle Comprehensive Plan (2018), King County's METRO CONNECTS plan (2016b), and Puget Sound Regional Council's VISION 2050 (2020) call for increased densities in the city and multi-modal access. These plans are described below.

1.2.2.5.1 City of Seattle Comprehensive Plan

The City of Seattle Comprehensive Plan (2018) outlines the City's growth and development strategy. The plan envisions the creation of urban centers and urban villages with commercial centers connected via transit, pedestrian and bicycle networks, and streets. The City desires to increase densities, create public spaces, and make transit and public services more convenient.

Within the project corridor, Downtown Seattle, South Lake Union, and Uptown are designated as Urban Centers, while Ballard and West Seattle Junction are identified as Hub Urban Villages. Ballard Interbay and the Duwamish (including SODO) areas are identified as Manufacturing/Industrial Centers.

Public transportation features prominently in many of the comprehensive plan's goals. The plan specifies Urban Villages as strategic locations in the local and regional transportation network, with 15-minute or better peak hour transit headways and the possibility of improved connections to future high-capacity transit stations. The plan includes targets for trips to Seattle and urban centers made by travel modes other than automobiles.

While the plan does not identify the WSBLE Project specifically, it identifies light rail as a critical transportation resource for its ability to move people and leverage other land use goals to support increased development and land intensification. The plan includes policies and goals aimed at enhancing connections between neighborhoods and existing or future light rail stations.

City of Seattle Comprehensive Plan Urban Centers

The plan identifies four types of urban centers, defined as follows:

- **Urban Centers:** As the densest city neighborhoods, Urban Centers act as both regional centers and local neighborhoods, offering a mixture of land uses including housing, retail commercial, and employment opportunities.
- **Hub Urban Villages:** These communities offer a balance between housing and employment but are generally less dense than urban centers. These areas provide goods, services, and employment to nearby neighborhoods.
- **Residential Urban Villages:** These are areas of lower-density residential development than Hub Urban Villages and have limited employment opportunities.
- **Manufacturing/Industrial Centers:** These areas are the industrial cores of the city.

1.2.2.5.2 King County METRO CONNECTS Plan

The METRO CONNECTS plan (Metro 2016b) is a 25-year vision for improved transit service for all of King County. The plan emphasizes the goals of frequent, reliable, and fast service all day every day throughout King County. The plan outlines a network of frequent, express, local, and flexible services designed around a system of high-capacity transit routes including light rail

transit and bus rapid transit (such as RapidRide) services that extend north, south, and east of Downtown Seattle.

1.2.2.5.3 Puget Sound Regional Council VISION 2050

VISION 2050 (Puget Sound Regional Council 2020) identifies Seattle as one of five metropolitan cities in the region that are focal points for population and employment growth. These metropolitan cities are expected to accommodate the largest share of their respective county's population and employment growth, such as Seattle is expected to do for King County. VISION 2050 encourages this growth to take place near high-capacity transit stations.

1.2.2.6 State and Regional Environmental and Sustainability Goals

Environmental and sustainability goals of the state and region, as established in Washington state law and embodied in Puget Sound Regional Council's VISION 2050 (2020) and Regional Transportation Plan (2018), include reducing greenhouse gas emissions by decreasing vehicle miles traveled.

Washington has the goal of reducing overall greenhouse gas emissions in the state to 95 percent below 1990 levels and achieving net zero emissions by 2050.

Washington State Executive Order 14-04 calls on state agencies to assist regional and local jurisdictions in implementing "measures to improve transportation efficiency, and to update their comprehensive plans to produce travel and land use patterns that maximize efficiency in movement of goods and people, and reduce costs and greenhouse gases." With 74 percent of regional transportation greenhouse gas emissions coming from passenger vehicles (Cascadia Consulting Group 2018), Puget Sound Regional Council's VISION 2050 (2020) calls for developing a more sustainable transportation system. The greenhouse gas strategy in VISION 2050 calls for reducing greenhouse gas by investing in multi-modal transportation improvements, including light rail, to create a transit network as identified in the Regional Transportation Plan, which includes the West Seattle and Ballard Link Extensions. Washington state law sets goals to decrease the annual per capita vehicle miles traveled by 30 percent by 2035 and 50 percent by 2050.

Greenhouse Gases

Greenhouse gases are gaseous compounds (such as carbon dioxide) that absorb infrared radiation, trap heat in the atmosphere, and contribute to the greenhouse effect and climate change.

The WSBLE Project is expected to reduce dependency on single-occupancy vehicles, slow down growth in vehicle miles traveled, conserve energy, and reduce greenhouse gas emissions. As detailed in Section 3.3, Regional Context and Travel, the project is anticipated to reduce daily vehicle miles traveled by approximately 117,000 by 2042, helping to achieve Washington state's greenhouse gas emissions goals.

1.3 Planning History of WSBLE Corridor

Regional and local agencies have been planning for high-capacity transit in the WSBLE corridor for over a decade (see Section 1.2.2.3). The transportation mode and corridor served by the WSBLE Project were identified through the multi-year planning process for Sound Transit's *Regional Transit Long-Range Plan* (2014a) and Sound Transit 3 (2016). The *Regional Transit Long-Range Plan* represents Sound Transit's goals, policies, and strategies to guide the long-term development of the high-capacity transit system. It is based on years of intensive planning, environmental analysis, and public outreach. It is intended to guide how the Sound Transit system can best address the region's mobility needs and support growth management

objectives. Sound Transit periodically updates the *Regional Transit Long-Range Plan* and used the updated 2014 plan as the basis for developing the current phase of high-capacity transit system investments documented in Sound Transit 3.

The City of Seattle has been coordinating with Sound Transit and planning for an expanded light rail system to support anticipated economic and population growth. The City has been planning for the expansion of high-capacity transit and studying potential land use changes in areas where high-capacity transit improvements are anticipated.

1.3.1 West Seattle Link Extension

Sound Transit's *South King County High Capacity Transit Corridor Study* evaluated several candidate corridors in central and south King County, including West Seattle, for high-capacity transit improvements (Sound Transit 2014d). Three high-capacity transit improvement options carried into the final study phase included extending light rail transit to the Alaska Junction area of West Seattle, and a fourth option would extend bus rapid transit to Alaska Junction. The South King County study did not recommend an alignment but did predict that light rail transit ridership would be higher than bus rapid transit ridership. This study also informed the definition of the West Seattle Link Extension project included in the 2014 *Regional Transit Long-Range Plan* and in Sound Transit 3.

The *City of Seattle Transit Master Plan* (City of Seattle 2016) identified extension of light rail to West Seattle as a top-priority project and included it in the long-range high-capacity transit vision. The plan specifically calls for a mixed surface and elevated alignment connecting to Alaska Junction or High Point, with the possibility for future phases to extend farther south.

1.3.2 Ballard Link Extension

The *South King County High Capacity Transit Corridor Study* (Sound Transit 2014d), which influenced the projects included in the *Regional Transit Long-Range Plan* and Sound Transit 3, introduced the concept of a new transit tunnel in Downtown Seattle. It identified 5th and 6th avenues as candidate tunnel corridors. The study also mentioned an elevated light rail transit guideway along Alaskan Way, 1st Avenue, or 2nd Avenue.

The *Ballard to Downtown Seattle Transit Expansion Study* (Sound Transit 2014c) evaluated several high-capacity transit alternatives to serve the study area, with a goal of screening alternatives to identify a Sound Transit 3 Representative Project. The alternatives extended north from Downtown Seattle and included light rail and rapid streetcar as potential modes. The alternatives did not assume use of the existing Downtown Seattle Transit Tunnel. The study did not recommend a specific corridor, but the results informed the Sound Transit 3 Representative Project in the Sound Transit 3 Plan, approved by the Sound Transit Board in June 2016. Figures showing the Sound Transit 3 Representative Project are provided in Appendix M, Summary of Alternatives Development and Initial Assessment Process.

The *City of Seattle Transit Master Plan* (City of Seattle 2016) identified a corridor between Ballard and Downtown as the highest-demand transit corridor in Seattle. The alignment included in the *City of Seattle Transit Master Plan* would start in Ballard at Northwest Market Street and 15th Avenue Northwest; cross the Ship Canal on a new multi-modal bridge; pass west of Queen Anne Hill through Interbay with stops near West Dravus Street, West Newton Street, and the planned Expedia campus; and enter a tunnel west of Uptown, running east and south to make subway station stops near Mercer Street and 1st Avenue North, Harrison Street and 7th Avenue

North, and Westlake and Denny, to serve Uptown and South Lake Union. The *City of Seattle Transit Master Plan* also supports a new transit tunnel in downtown.

1.4 Applying the Purpose and Need to the Project

The purpose and need statement has helped Sound Transit define the Draft Environmental Impact Statement alternatives described in Chapter 2, Alternatives Considered. In Chapter 6, Alternatives Evaluation, Sound Transit and the FTA evaluate how well the alternatives would serve the purpose and need and compare other factors such as environmental impacts, costs, and constructability.

1.5 Next Steps and Schedule

1.5.1 Draft Environmental Impact Statement Review and Comments

Sound Transit and FTA are circulating the Draft Environmental Impact Statement to affected local jurisdictions, state and federal agencies, Tribes, community organizations and other interest groups, and interested individuals. The document is available at Sound Transit offices, public libraries in the City of Seattle, and online. A 90-day formal public comment period from the date of issuance of the document is being provided. Sound Transit will provide project information and take written comments and oral testimony at upcoming public hearings. Please see the Fact Sheet at the beginning of this Draft Environmental Impact Statement for details.

After review of the Draft Environmental Impact Statement and comments received, the Sound Transit Board will confirm or modify the preferred alternatives, which will be included in the Final Environmental Impact Statement along with other alternatives.

1.5.2 Final Environmental Impact Statement and Project Decision

Sound Transit and FTA will prepare a Final Environmental Impact Statement that will include and respond to the comments received on the Draft Environmental Impact Statement. It will also describe the potential measures to mitigate project impacts. The Sound Transit Board will then decide on the project alternative to be built. FTA is also anticipated to publish a Record of Decision (ROD) for the project, which will document its findings that the project has met the requirements of NEPA and related environmental regulations. The ROD will describe FTA's environmental determination on the project, the alternatives considered, the basis for the decision to approve the project, and the required mitigation measures. Issuance of the ROD completes FTA's NEPA process and is a prerequisite for federal funding or approvals.

FTA is directed to issue a combined Final Environmental Impact Statement and ROD document pursuant to Code of Federal Regulations Title 23, Part 771, Section 771.124. For this project, the Environmental Impact Statement is a joint NEPA and SEPA document that will support decision-making by Sound Transit, FTA, and other agencies. Because SEPA requires that the Board's final decision on the project be informed by the Final Environmental Impact Statement, the Final Environmental Impact Statement must be issued independent of the ROD, so that Sound Transit's decision can later be incorporated into the ROD. As a result of these regulatory requirements under SEPA, it will not be practical to issue a combined Final Environmental Impact Statement and ROD, and they will be issued as separate documents.

After the Sound Transit Board selects the project to be built and the FTA issues a ROD, Sound Transit will initiate final design, begin property acquisition, conduct construction planning, and apply for permits and approvals needed to construct and operate the project. During final design, project elements will be further defined, including, but not limited to, guideway and station height and location of bus facilities, traction power substations, stormwater facilities, bicycle storage, utility relocations, and staging areas. Local and state jurisdictions issuing permits for the project may rely on the Final Environmental Impact Statement to satisfy their SEPA requirements.

1.5.3 Project Schedule

Figure 1-3 shows the anticipated schedule milestones for the project from early scoping and Alternatives Development through the start of service.

Figure 1-3. Project Milestones



1.5.4 Benefits and Disadvantages of Delaying Implementation

As required by SEPA, this section discusses the benefits and disadvantages of delaying the proposed project instead of approving it now.

Delaying the project would postpone impacts associated with project construction but would also postpone realizing a major component of the region's long-range plans for managing

growth and transportation and the opportunity to link neighborhoods with Puget Sound regional employment centers. Delay would limit economic development from the movement of people and goods and allow projects to develop that might preclude or increase the cost of the WSBLE.

A substantial delay in implementing WSBLE would inhibit the region's ability to accommodate growth, as articulated in local and regional plans. This would lead to several other consequences, including changed development patterns, steadily increasing corridor roadway congestion, and deteriorating transit performance and reliability. With implementation of the Sound Transit 3 program, the Downtown Seattle Transit Tunnel would not have enough capacity to reliably serve downtown because of operational headway (service frequency) requirements and future passenger volumes. Increased congestion and deteriorating transit performance would result in air quality issues and higher energy usage.

1.5.5 The Coronavirus Pandemic and the Continuing Importance of Transit

FTA and Sound Transit acknowledge the current impacts of the recent social response to the Coronavirus (COVID-19) pandemic and the resulting decline in travel demand. At this time, it is impossible to predict future changes to the project purpose and need, schedule, and impacts that may result from a COVID-19 response of an unpredictable nature and length. Should substantial changes in the planning assumptions, project schedule, project scope, or surrounding project environment result because of a prolonged COVID-19 response, FTA and Sound Transit will consider additional project evaluation and public input consistent with NEPA and SEPA.

Puget Sound Regional Council also acknowledges the pandemic in VISION 2050 (Puget Sound Regional Council 2020, page 124), stating:

Over the last decade, transit ridership has experienced robust growth, with the central Puget Sound region being one of only four regions across the county with consistent growth in transit boardings. While COVID-19 has caused sudden and dramatic drops in transit ridership and revenue and has perhaps accelerated the acceptance of remote work environments, transit will continue to be a critical element for mobility as the region grows over the next 30 years.

The region's historic investment in transit, and continued investments across modes, are critical due to the increases in congestion and travel delay seen in the region over the past decade. Since 2010, the region has grown by over 440,000 residents and 381,000 jobs. Prior to the COVID-19 pandemic, delay on the region's freeway corridors had increased more than 50% since 2014, and the average travel time to work had continued to steadily increase across all modes, averaging around 30 minutes. Notably, the share of commuters with travel times over 60 minutes increased steeply and was higher than the share of commuters with travel times less than 10 minutes.

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