1.0 Summary

This chapter summarizes the findings of this Environmental Impact Statement (EIS) with respect to environmental impacts, mitigation strategies and significant unavoidable adverse impacts for the four Seattle Comprehensive Plan alternatives. This summary provides a brief overview of the information considered in this EIS. The reader should consult Chapter 2 for more information on the alternatives and Chapter 3 for more information on the affected environment, environmental impacts and mitigation strategies for each alternative and element of the environment.

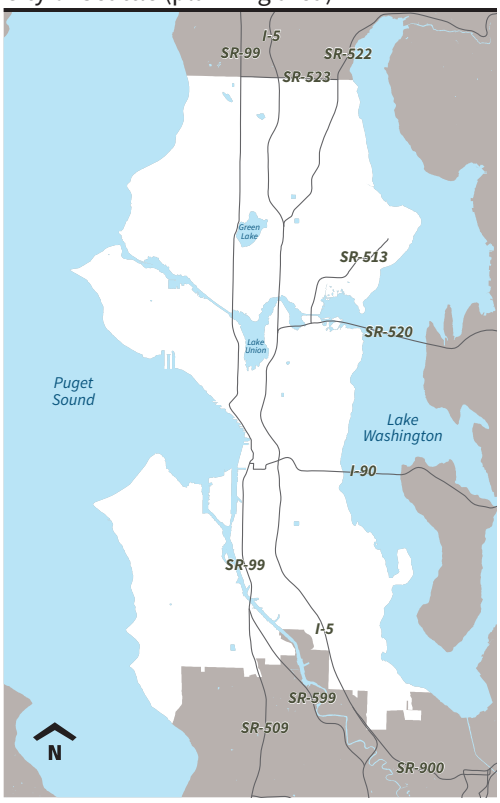
1.1 Proposal

The City is considering text and map amendments to the Seattle Comprehensive Plan that would influence the manner and distribution of projected growth of 70,000 housing units and 115,000 jobs in Seattle through 2035, and that would influence the manner in which the City conducts its operations to promote and achieve other goals such as those related to public health, safety, welfare, service delivery, environmental sustainability and equity.

All Comprehensive Plan elements will be reviewed and updated as part of the proposal. In many cases, proposed policy amendments reflect changes to state and regional guidance, incorporate language and editorial changes to policies to increase readability, clarify direction and remove redundancies; and add new or updated information since adoption of the current Comprehensive Plan. Other policy changes are intended to reflect evolving city policy.

The proposal applies to the entire City of Seattle.

Figure 1–1
City of Seattle (planning area)



1.2 Objectives of the Proposal

The City's objectives for this proposal include:

- Retaining the urban village strategy and achieving a development pattern in line with it

- Leverage growth to create housing choices and to promote healthy, complete communities
- Create jobs and economic opportunity for all City residents
- Build on regional transportation investments and balance transportation investments
- Support strategic public investment that addresses areas of need and maximizes public benefit
- Become a more climate-friendly city
- Distribute the benefits of growth more equitably

1.3 Alternatives

The City has identified four alternatives for consideration in this EIS. The alternatives assume the same level of total growth, but evaluate differing levels of growth emphases that may occur in various areas of the city, and with differing levels of resulting land use intensities. Each alternative emphasizes different patterns of projected future growth amount and intensity among the urban centers, urban villages and transit-related areas.

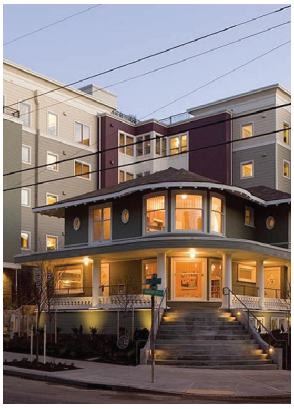
- **Alternative 1, Continue Current Trends (No Action)**, would plan for a continuation of current growth policies associated with the Urban Village Strategy along with a continuation of assumed trends that distribute growth among all of the urban centers and urban villages.
- **Alternative 2, Guide Growth to Urban Centers**, prioritizes greater growth concentrations into the six existing urban centers—Downtown, First/Capitol Hill, University District, Northgate, South Lake Union and Uptown.

The emphasis in alternatives 3 and 4 is on providing opportunity for more housing and employment growth in areas closest to existing and planned transit service. Specifically:

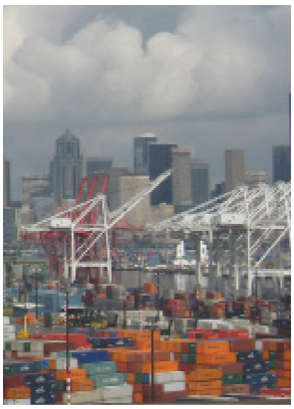
- **Alternative 3, Guide Growth to Urban Villages near Light Rail**, prioritizes greater growth concentrations around existing and planned light rail transit stations.
- **Alternative 4, Guide Growth to Urban Villages near Transit**, prioritizes greater growth concentrations around light rail stations and in specific areas along priority bus transit routes.

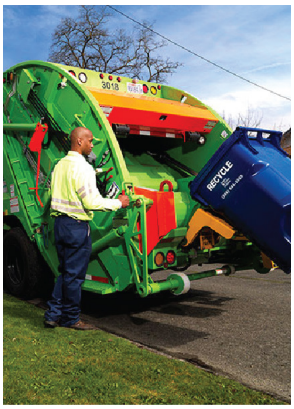
The boundaries of the existing urban villages would remain unchanged under both alternatives 1 and 2. alternatives 3 and 4 would result in expansions to some urban village boundaries and the designation of one new urban village (at NE 130th Street/Interstate 5) in order to encompass a 10-minute walkshed around existing/planned future light rail stations and priority transit routes.

Additional description of each alternative and supporting maps are provided on the following pages.



BALLARD FARMERS MARKET
STREET
CLOSED



RECYCLE

PUBLIC
MARKET
FARM



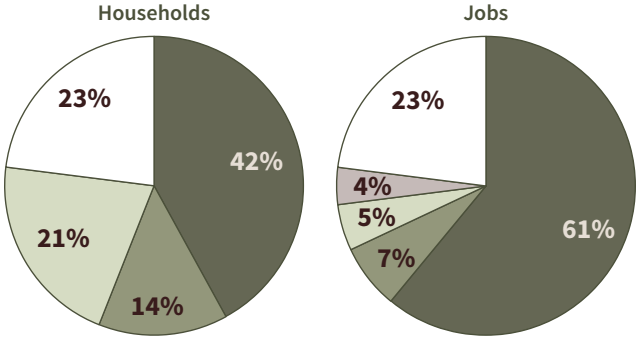



Figure 1–2 Summary of alternatives

Alternative 1

Continue Current Trends (No Action)

Growth will generally follow current market trends. Residential growth will continue in the urban village neighborhoods that have experienced significant growth in the past 20 years, with a relatively low level of change in other urban villages. New jobs would occur primarily in Downtown and South Lake Union.

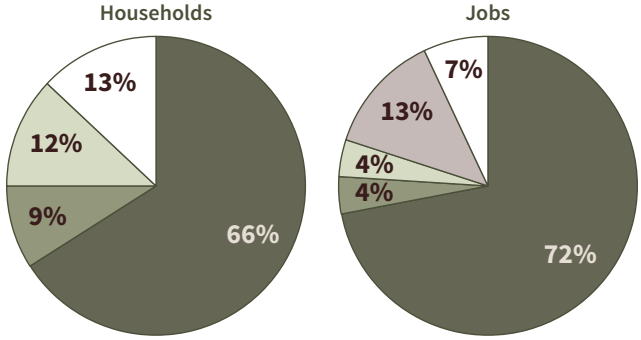


- No change in the number, designation or size of urban villages.
- Greater residential growth emphasis in hub urban villages, in selected residential urban villages and more growth outside of urban villages.
  - Hub urban village emphases: Ballard, Bitter Lake, Lake City and West Seattle Junction.
  - Residential urban village emphases: 23rd & Union-Jackson, Aurora-Licton Springs, Columbia City, Madison-Miller and Othello.
  - Nearly 1/4 of residential growth (16,000 units) to occur outside of urban villages.
- Comparatively, urban centers would have a smaller role in accommodating residential growth and a continued focus on job growth.

Alternative 2

Guide Growth to Urban Centers

Urban centers will become magnets that more strongly attract new residents and jobs, faster than over the last 20 years. This change may lead to a significant rise in the number of people walking or biking to work, and a corresponding decline in driving and car ownership. Alternative 2 represents a significantly more concentrated pattern of new growth in the urban centers compared to past trends.



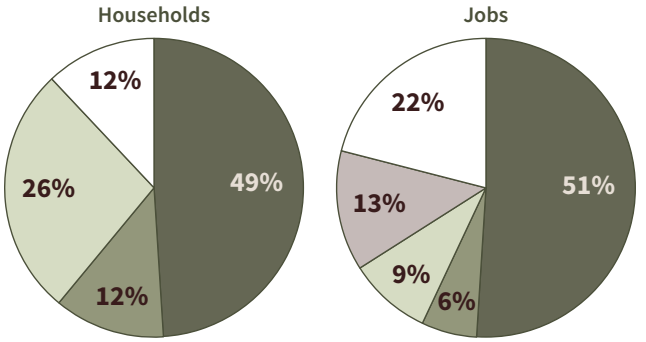
- No change in the number, designation or size of urban villages.
- More growth in urban centers, especially in Downtown, First/Capitol Hill and Northgate and South Lake Union.
- Less growth outside urban centers, including the least emphasis on hub urban village growth.
- More mid- and high-rise housing is likely to occur than under other alternatives, given the more concentrated growth patterns.
- A higher concentration of jobs in urban centers, especially Downtown, Northgate and South Lake Union.

Figure 1–1 Summary of alternatives (cont.)

Alternative 3

Guide Growth to Urban Villages near Light Rail

An emphasis on growth in urban centers, but also in urban villages near the light rail stations. Would include boundary adjustments to urban villages with light rail stations to encompass a 10-minute walk to the station. A new village could be designated at 130th St/I-5 and possible reconfiguration of the Mount Baker and 23rd & Union-Jackson urban villages near the I-90 East Link Station would occur.

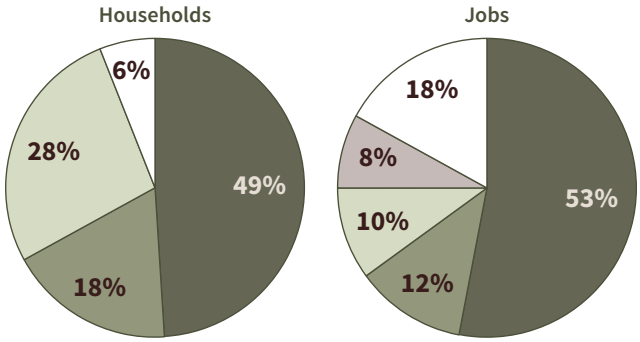


- Larger share of growth and expanded urban village boundaries near light rail stations (Mount Baker, Columbia City, North Beacon Hill, Othello, Rainier Beach, Roosevelt).
- Possible new residential urban village around the North Link 130th Street Station and possible reconfiguration of the Mount Baker and 23rd & Union-Jackson urban villages near the I-90 East Link station.
- An intermediate level of growth in urban centers that is less concentrated than assumed for Alternative 2.
- A relatively smaller share of growth in urban villages without light rail, comparable to Alternative 2.

Alternative 4

Guide Growth to Urban Villages near Transit

The greatest number of transit-oriented places—served by either bus or rail—that are preferred for growth. In addition to areas covered in Alternative 3, more growth would also be concentrated in other urban villages that currently have very good bus service. Relatively more urban villages would be subject to increased growth and possible boundary changes.



- Includes the higher-growth assumptions and expanded urban village boundaries of Alternative 3 (to capture 10-minute walksheds), and the addition of other selected areas that have very good bus service. These include areas are located in the western half of the city (Ballard, Fremont, West Seattle Junction and Crown Hill).
- Three of the four added areas are hub urban villages, which defines this alternative as having the greatest emphasis on growth in the hub urban villages.
- This assumes a smaller share of residential growth would occur outside centers and villages than all of the other alternatives.

Urban Centers
Hub Urban Villages
Residential Urban Villages
Mfg/Industrial Centers
Outside Centers & Villages

Figure 1–3 Urban village boundaries under alternatives 1 and 2

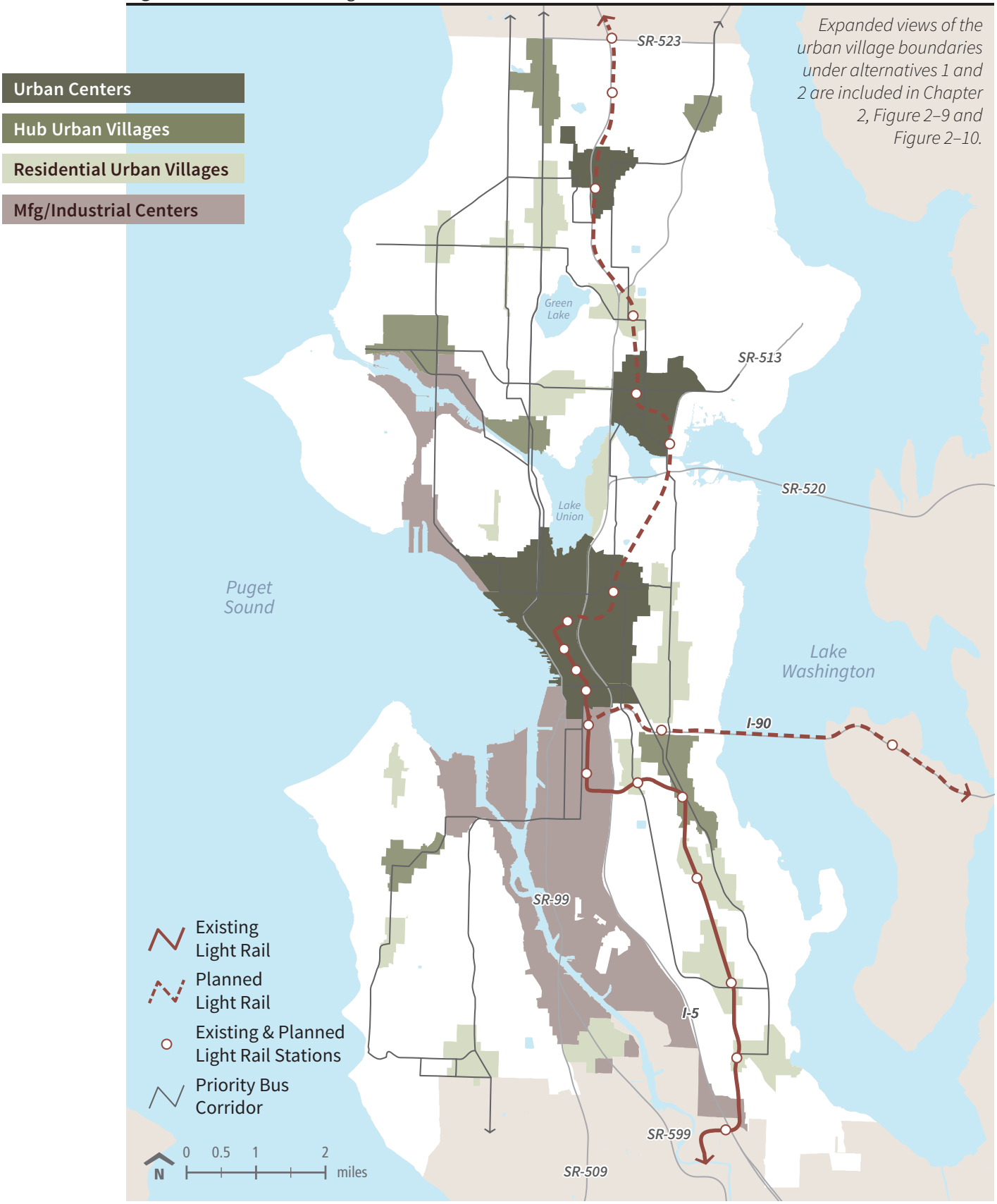


Figure 1–4 Urban village boundaries under Alternative 3

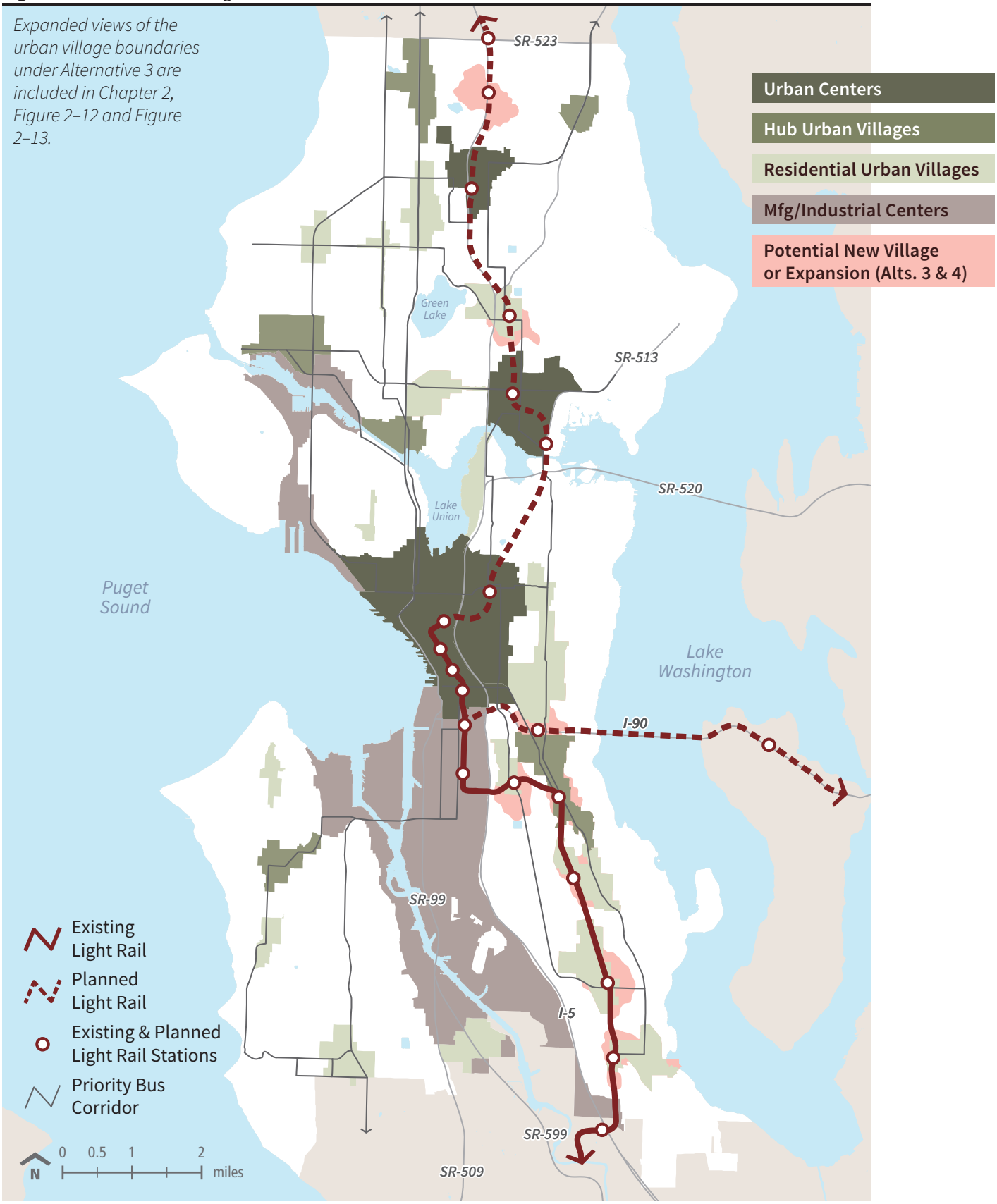
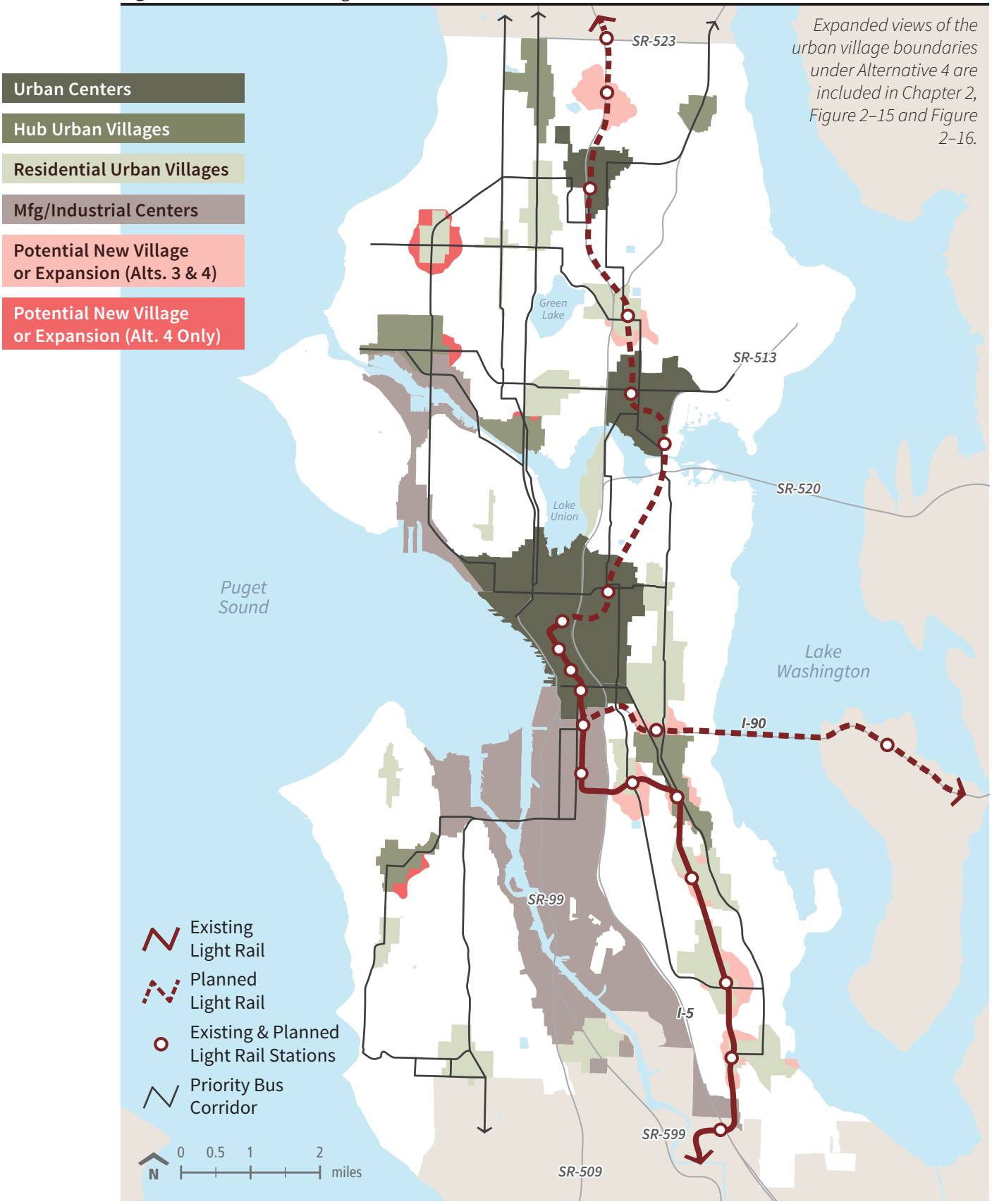


Figure 1–5 Urban village boundaries under Alternative 4



1.4 Significant Areas of Controversy and Uncertainty, and Issues to be Resolved

Key environmental issues and options facing decision-makers include:

- Where forecast growth should be guided, including continuation of current trends, focused within urban centers or guided toward urban villages that are well served by light rail and bus service;
- Effect of alternative growth patterns on housing affordability, displacement of residents and businesses, and demand for public services and transportation infrastructure investment; and
- Review and refinement of draft goals and policies

1.5 Summary of Impacts and Mitigation Strategies

The following pages summarize impacts of the alternatives and mitigation strategies for each element of the environmental analysis.

Please see Chapter 3 for a complete discussion of impacts and mitigation strategies for each element of the environment.

Earth and Water Quality

IMPACTS COMMON TO ALL ALTERNATIVES

Future construction activities will generate the potential for disturbed soil on construction sites to be conveyed to nearby drainage systems. On construction sites that are close to natural vegetated areas and/or Environmentally Critical Areas (ECAs), there may be increased potential for disturbance to generate adverse impacts, such as when potentially unstable steep slopes or poor quality soils are present. This could occur in places that drain to natural streams, or via drainage utility systems that are designed to outfall to natural receiving waterbodies, if soils and other pollutants are washed off and conveyed far enough away from construction sites.

Increased density and activity levels and the associated use of automobiles and other activities, could contribute to additional increments of adverse water quality impacts in ECAs such as wetlands and streams due to wash-off of pollutants from street surfaces and discharge of pollutants into drains.

ALTERNATIVES 1–4

Each alternative growth strategy described in this EIS may generate different levels or distributions of potential adverse critical area impacts. Potential differences are summarized below.

Alternative 1: Continue Current Trends (No Action)

Steep Slope/Landslide Prone Soils. Most or all of the steep slopes present in South Lake Union are likely to be affected due to their central locations within the neighborhood and within properties that are likely to be developed within the next twenty years.

In the portions of Uptown/Queen Anne where steep slopes are located in the most accessible and developable places, disturbance of steep slopes is relatively likely.

Comparatively high projected levels of growth in Eastlake could increase the total amounts of future disturbance of existing steep slope edges in this neighborhood.

Peat and Settlement Prone Soils. In Mount Baker, Greenwood-Phinney Ridge, Rainier Beach and South Park, peat and settlement prone soils are relatively widespread in the neighborhoods' core areas. For Greenwood-Phinney Ridge, Rainier Beach and South Park, the projected amounts of growth are relatively similar for all alternatives.

For Mount Baker, compared to the other alternatives, the residential and employment growth projected under Alternative 1 is less than the other alternatives, meaning a lesser exposure of the neighborhood's settlement prone soils to potential adverse impacts.

Comparatively, Northgate has a lesser overall presence of these potentially unstable soils than the other neighborhoods, but several of the properties with such soils could be subject to future development under any alternative. The residential and employment growth

projected under Alternative 1 is less than the other alternatives, meaning a lesser exposure of the neighborhood's settlement prone soils to potential adverse impacts.

Presence of Streams or Wetland ECAs. Given the combination of proximity of these natural features to future development, and the amount of projected residential and employment growth, the neighborhoods facing a greater risk of adverse impacts on these ECAs under Alternative 1 are: Northgate, Lake City and Columbia City.

Alternatives 2, 3 and 4: Guide Growth to Urban Centers, Guide Growth to Urban Villages near Light Rail and Guide Growth to Urban Villages near Transit

Compared to Alternative 1, the potential adverse impacts related to alternatives 2, 3 and 4 are (1) a somewhat elevated risk of peat/settlement-prone soil ECA disturbances with future development in Northgate and Rainier Beach, given amounts of projected growth; (2) elevated risks of peat/settlement-prone soil ECA disturbances in Mount Baker and Rainier Beach, and; (3) a somewhat elevated risk of downstream creek or wetland ECA disturbances in Northgate (alternatives 2, 3 and 4), Columbia City (alternatives 3 and 4) and Westwood-Highland Park (alternatives 3 and 4).

MITIGATION STRATEGIES

None of these identified impacts are concluded to be significant adverse impacts. The continued application of the City's existing policies, review practices and regulations, including the operational practices of Seattle Public Utilities, would help to avoid and minimize the potential for significant adverse impacts to critical areas discussed in this section.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

No significant unavoidable adverse impacts to earth and water quality are anticipated.

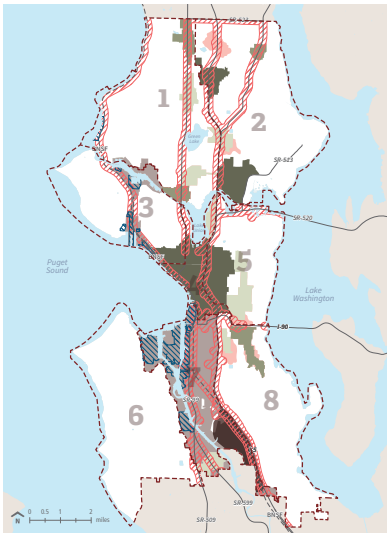
Air Quality and Greenhouse Gas Emissions

CONSTRUCTION-RELATED EMISSIONS

Development of new residential, retail, light industrial, office, and community/art space would generate construction phase air emissions, such as exhaust emissions from heavy duty construction equipment and trucks, as well as fugitive dust emissions associated with earth-disturbing activities. For construction equipment, the primary emissions of concern are NO_x and $PM_{2.5}$. NOx contributes to regional ozone formation and $PM_{2.5}$ is associated with health and respiratory impacts. Construction-related NO_x and $PM_{2.5}$ emissions are not expected to generate significant adverse air quality impacts nor lead to violation of standards under any of the alternatives. Given the transient nature of construction-related emissions, construction related emissions associated with all four alternatives of the Comprehensive Plan are identified as a minor adverse air quality impact.

LAND USE COMPATIBILITY AND PUBLIC HEALTH CONSIDERATION

Comprehensive Plan growth strategies may affect future growth and development patterns in ways that could increase exposure to mobile and stationary sources of air toxics and $PM_{2.5}$. A health risk assessment conducted by the Washington State Department of Health found that on-road mobile sources contribute to the highest cancer and non-cancer risks near major roadways over a large area of south Seattle and that risks and hazards are greatest near major highways. Portions of Seattle located within 200 meters of major highways are exposed to relatively high cancer risk values of up to 800 in one million. A similar phenomenon occurs near rail lines that support diesel locomotive operations as well as stationary sources, such as industrial areas



Thumbnail of Figure 3.2–5, 200 meter buffer around major freeways, rail lines and major port terminals.

Portions of several growth areas are within 200 meters of these pollution sources. Under any alternative, increased residential development within this buffer area could potentially expose future sensitive receptors to relatively high increased cancer risks. The percentage of growth areas within the 200 meter buffer is highest (52 percent) under Alternative 2 and lowest (36 percent) under Alternative 1.

CONSTRUCTION-RELATED GREENHOUSE GAS EMISSIONS

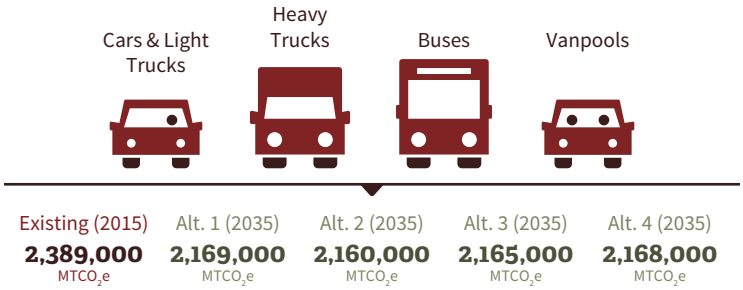
GHGs would be emitted during construction activities from demolition and construction equipment, trucks used to haul construction materials to and from sites, and from vehicle emissions generated during worker travel to and from construction sites. An estimated 22 million metric tons of CO_2E over the 20-year period would be expected to result from con-

struction activities. Because of the combination of regulatory improvements and Climate Plan Actions under way, construction related GHG emissions associated with all four alternatives of the Comprehensive Plan would be considered a minor adverse air quality impact.

OPERATION-RELATED GREENHOUSE GAS EMISSIONS

Operational GHG emissions associated with development under all alternatives would change due to a number of factors. Under all alternatives, projected improvements in fuel economy outweigh the projected increase in vehicle miles traveled. For this reason, all of the alternatives are expected to generate lower GHG emissions than current emissions in 2015 and all would generate roughly the same annual GHG emissions, ranging between 2,160,000 to 2,169,000 $MTCO_2e$ annually. As a result, no significant adverse impacts are identified with respect to GHG emissions.

Road Transportation GHG Emissions



MITIGATION STRATEGIES

To address potential land use compatibility and public health impacts, the City could consider separating residences and other sensitive uses (such as schools) from freeways, railways and port facilities by a buffer of 200 meters. Where separation by a buffer is not feasible, consider filtration systems for such uses.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS.

No significant unavoidable adverse impacts to air quality and greenhouse gas emissions are anticipated.

Noise

The proposed comprehensive plan alternatives envision future residential and job growth primarily within areas where transit infrastructure either exists or is planned. As such, implementation of the alternatives would result in a concentration of development within existing infill development areas. Resulting construction activities associated with development of new residences and commercial and retail land uses would have the potential to temporarily affect nearby sensitive receivers such as existing residences, schools and nursing homes.

From a regional perspective, temporary construction noise and vibration within these infill development areas would occur in urban areas where ambient noise and vibration levels are already affected by roadway traffic and other transportation sources and would therefore be less noticeable to receivers than if these activities were to occur on the edges of existing development areas.

CONSTRUCTION NOISE AND VIBRATION IMPACTS

Construction noise standards established in the Seattle Municipal Code limit construction activities to times when construction noise would have the least effect on adjacent land uses, and also restrict the noise generated by various pieces of construction equipment. Development under the four alternatives would range from high intensity development (high-rise and mid-rise offices and residences) in urban centers to low intensity development (low-rise development) both within and outside of urban villages. Consequently, depending on the extent of construction activities involved and background ambient noise levels, localized construction-related noise effects could range from minor to significant.

Pile driving or similar invasive foundation work are the construction activities with the greatest potential for significant construction-related noise or vibration impacts. Generally speaking these types of construction activities are associated with high-rise development which all alternatives envision to occur within the city's urban centers. Pile driving adjacent (closer than 50 feet) to occupied buildings construction noise impacts are identified as a potential moderate noise impact.

Pile driving can also result in vibration levels that can damage adjacent sensitive structures (within 50 feet), such as historic buildings, and result in interference or annoyance impacts for land uses where people sleep, such as homes, hotels and hospitals. However, time restrictions in the Seattle Municipal Code are sufficient to avoid sleep interference impacts during times that most people sleep.

LAND USE COMPATIBILITY

All alternatives generally seek to locate residential uses in places where transit service is good in order to help reduce single occupant vehicle use. If an active industrial operation would locate adjacent to sensitive land uses, noise compatibility problems could also arise. This would be a moderate noise impact.

For all alternatives, roadside noise levels would increase by less than 0.5 dBA at all locations which is considered a minor impact on environmental noise. While the impacts of additional noise would not be discernible from background noise levels, all of the alternatives would increase noise levels that in some areas are already above levels considered healthy for residential and other sensitive land uses.

MITIGATION STRATEGIES

If residences or other sensitive receptors are located close to major roadway or noisy industrial operations, additional insulation or window treatments may be warranted to reduce interior noise levels to generally acceptable levels. To address the potential impact for impact pile driving on noise and vibration, best practices for noise control are recommended, including "quiet" pile-driving technology and cushion blocks to dampen impact noise from pile driving.

To address the potential for exposure of residences and other sensitive land uses to incompatible environmental noise, the comprehensive plan could include a policy that recommends that residences and other sensitive land uses (i.e., schools, day care) be separated from freeways or that such development achieve an interior noise performance standard of 45 dBA L_{dn}.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

No significant unavoidable adverse impacts to noise are anticipated.

Land Use: Patterns, Compatibility, Height, Bulk and Scale

IMPACTS COMMON TO ALL ALTERNATIVES

Land Use Patterns. All alternatives would focus the majority of future residential and job growth into urban centers and urban villages, which are characterized by higher densities and a more diverse mix of uses. Areas outside of the urban centers and villages would continue to be comprised of low-density predominantly single-family residential uses.

Land Use Compatibility. Future growth is likely to increase the frequency of different land use types locating close to one another often with differing levels of intensity, particularly in urban centers and villages.

Height, Bulk and Scale. Increased height, bulk and overall development intensity would occur primarily in the designated urban centers and urban villages with specific levels and locations of development varying in distribution by alternative. New development would likely expand low-rise, midrise and high-rise districts currently observed in urban villages and centers.

Alternative 1: Continue Current Trends (No Action)

Alternative 1 is projected to lead to the greatest amount of housing and job growth in areas outside urban centers or villages.

Land use incompatibilities could occur as a result of infill development of vacant lots and redevelopment of existing properties at higher intensities. Some localized incompatibilities could also occur on the edges of urban centers and villages where more intense development could occur near low-intensity uses outside urban centers and villages.

Alternative 2: Guide Growth to Urban Centers

Alternative 2 would result in the most concentrated development pattern of the four alternatives. Growth in urban centers is likely to result in the construction of more mid-rise and high-rise commercial and mixed-use buildings. There would be little effect on land use patterns outside urban centers or villages.

As urban centers within the Downtown core are already-intensely developed, new development would tend to be relatively compatible with existing forms and uses. However, the Northgate and University District urban centers would have increased potential for compatibility issues as these centers still contain areas of relatively low-intensity development. However, on a citywide basis, Alternative 2 is likely to result in fewer potential occurrences of incompatible uses in urban villages compared to other alternatives.

Alternative 3: Guide Growth to Urban Villages near Light Rail

Alternative 3 would include expansions of some urban villages and could also create a new urban village around the possible NE 130th Street transit station. Land use patterns in these areas would convert to higher levels of intensity as future growth occurs. As a result, Alter-

native 3 has the potential to result in localized compatibility issues within these villages as existing lower intensity uses transition to higher-intensity development forms.

Alternative 4: Guide Growth to Urban Villages near Transit

Similar to Alternative 3, Alternative 4 would result in new and expanded urban villages, converting existing lower-intensity land uses to higher-intensity development forms as future growth occurs. Impacts to land use patterns and compatibility would be similar to Alternative 3, but would occur in a greater number of locations.

MITIGATION STRATEGIES

Impacts identified in the land use analysis are not identified as probable significant adverse impacts, meaning that no mitigation strategies are required. The City would continue to rely upon use of regulations in its municipal code, including Land Use Code (Title 23), SEPA rules and policies (Title 25), the design review program (SMC 23.41 and related guidelines), and documents such as Urban Design Frameworks that address design intent in various subareas.

Although not required, other possible strategies that the City could pursue include:

- Consideration of transitions between urban centers and villages and surrounding ares through ongoing neighborhood planning efforts and/or amendments to zoning regulations.
- Additional station area planning efforts in new or expanded urban villages.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Under all alternatives, additional growth would occur in Seattle, leading to a generalized increase in building height and bulk and development intensity over time, as well as the gradual conversion of low-intensity uses to higher-intensity development patterns. This transition would be unavoidable and is an expected characteristic of urban population and employment growth.

In addition, future growth is likely to create localized land use compatibility issues as development occurs. However, the City's adopted development regulations, zoning requirements and design guidelines are anticipated to sufficiently mitigate these impacts. Therefore, no significant unavoidable adverse impacts to land use are anticipated.

Relationship to Plans, Policies and Regulations

GROWTH MANAGEMENT ACT

Seattle's adopted Comprehensive Plan contains the elements (i.e., chapters) required by the Growth Management Act (GMA), and the City has adopted development regulations that implement the plan. Focusing growth in urban villages, which is the Comprehensive Plan's basic strategy, is consistent with GMA planning policies that seek to prevent urban sprawl and preserve rural areas and resource lands. The City has sufficient zoned, developable land to accommodate the twenty-year population and employment targets; the Draft EIS is examining different ways that forecast growth could be distributed throughout the City.

VISION 2040

The Comprehensive Plan's Urban Village strategy is consistent with *Vision 2040*'s regional growth strategy, which seeks to focus the majority of the region's growth in designated centers. *Vision 2040* designates Seattle as a Regional Growth Center/Metropolitan Center, and the City is planning to accommodate the majority of its projected growth within identified urban centers, urban villages and manufacturing/industrial centers (MICs).

KING COUNTY COUNTYWIDE PLANNING POLICIES

The City is planning to accommodate the housing and employment growth targets in the King County Countywide Planning Policies (CPPs). The majority of that growth under all Draft EIS alternatives would be distributed to designated urban centers, urban villages and MICs. The Update will include quantitative growth targets/planning estimates for urban centers and MICs at a minimum.

SEATTLE COMPREHENSIVE PLAN

Urban Village Strategy. All Draft EIS alternatives would continue and reinforce the City's adopted Urban Village Strategy, which accommodates the majority of anticipated housing and employment growth in designated urban centers, urban villages and MICs. The Draft EIS alternatives examine the effects of distributing varying amounts of growth to designated urban centers, ranging from 42 percent of housing and 61 percent of jobs in Alternative 1, to 66 percent of housing and 75 percent of jobs in Alternative 2. Alternatives 3 and 4 distribute relatively more housing and jobs to urban villages to examine the effects of locating more growth within a ten-minute walk of light rail transit stations and frequent bus service.

Designation of Urban Villages. The boundaries of some designated urban villages could be modified somewhat under alternatives 3 or 4, to help focus villages on locations within a ten-minute walk of existing or planned light rail stations or frequent bus service corridors. To respond to planned light rail stations, a new urban village could be designated at 130th/I-5, and the boundary of the existing villages near the I-90 station could be reconfigured.

Land Use Element. A change in the land use designations used on the Future Land Use Map (FLUM) for urban villages is being considered. A single designation may be applied to each type of urban village, and this would be accompanied by policies that clearly describe the desired mix of uses and density. This change would be consistent with existing Comprehensive Plan policy (LU1 and LU2). A redundant policy containing criteria for rezones of single-family properties could also be eliminated; these criteria are currently contained in the Land Use Code (SMC 23.34), and this simplification would be consistent with adopted policy (LU3).

MITIGATION STRATEGIES

Because no significant adverse impacts are identified with respect to consistency with plans and policies, no mitigation strategies are required or proposed.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

No significant unavoidable adverse impacts are anticipated.

Population, Employment and Housing

IMPACTS COMMON TO ALL ALTERNATIVES

Population and Housing. Under all four alternatives, urban centers and urban villages have sufficient development capacity to accommodate planned levels of residential growth during the planning period. All four alternatives guide growth toward urban centers and urban villages over other areas.

Housing affordability is an issue of concern under all four alternatives and is identified as a probable significant impact in this EIS. A significant portion of Seattle's households are burdened by housing costs and over 60 percent of the lowest income renter households are estimated to pay more than one-half of their income for rent and basic utilities. Ultimately, housing prices are likely to be driven by demand generated as a result of Seattle's strong job market and attractive natural and cultural amenities. The city's limited land base will likely contribute to upward pressure on housing costs. Low vacancy rates and tight inventory is also likely to contribute to higher rent trends.

Employment. Anticipated future employment growth would occur predominantly in Seattle's urban centers, manufacturing-industrial centers and hub urban villages. All alternatives provide sufficient capacity to accommodate assumed employment growth in the City's centers, villages and manufacturing-industrial centers. Transit access, demographic trends and various market factors will influence which industry sectors locate in various locations.

Displacement. As growth continues in Seattle and development accelerates to meet increasing demands for housing as well as commercial and retail space, some existing uses are likely to be redeveloped to accommodate new growth, creating a potential for displacement of existing homes, businesses and cultural institutions. Displacement of housing and jobs that anchor communities of vulnerable populations could have negative impacts on neighborhoods.

Alternative 1: Continue Current Trends (No Action)

Alternative 1 would result in a more distributed growth pattern compared to the other alternatives and would likely result in patterns of development relatively consistent with the current development pattern. Projected growth under Alternative 1 (No Action) would generate moderate potential for displacement in those urban villages with the greatest amount of vulnerable populations, relative to the other alternatives.

Alternative 2: Guide Growth to Urban Centers

Alternative 2 would result in the most concentrated growth pattern, with the Downtown and South Lake Union urban centers absorbing the most growth. Growth in areas outside urban villages would be limited. Among the alternatives, Alternative 2 would direct the least additional housing and employment growth to those urban villages with the highest risk of displacement impacts on vulnerable populations.

Alternative 3: Guide Growth to Urban Villages near Light Rail

Alternative 3 guides future growth to areas around light rail transit stations. Because Alternative 3 would concentrate growth in urban villages served by light rail stations, most of which are located in South Seattle, it has a high overall potential to displace vulnerable populations in these areas.

Alternative 4: Guide Growth to Urban Villages near Transit

Similar to Alternative 3, Alternative 4 would guide growth toward urban villages with light rail or enhanced bus service. Potential for displacement of existing residents in urban villages with the greatest amount of vulnerable populations under Alternative 4 would be relatively high and similar to Alternative 3.

MITIGATION STRATEGIES

The following mitigation strategies are identified to address significant housing affordability issues and potential risk of vulnerable resident and business displacement:

- Tailor housing strategies to meet specific objectives and provide a balanced approach of public and private funding, incentives and regulations.
- Continue to preserve existing affordable housing through existing programs, including the Federal low-income housing tax credit program, programs funded through the voter-approved Seattle Housing Levy funds, developer contribution through the incentive zoning program, and the Multifamily Property Tax Exemption program.
- Mitigate projected impacts of growth by implementing a robust housing agenda that includes low-income housing preservation and tenant protection strategies. As an example, the Housing Affordability and Livability Agenda (HALA) is an initiative that was launched in late 2014 and is ongoing. The City is currently evaluating the impacts to affordable housing through the development of a needs assessment that will inform HALA's work.
- Address potential business displacement through tools and programs that the City already offers, including Community Development Block Grants, New Market Tax Credits, Section 108 loads, and contracts with community organizations, such as Washington CASH and Community Capital Development.
- Consider implementing a combination of strategies identified in the City's Equity Analysis that is a parallel effort to this EIS.
- Continue to conduct inclusive outreach through Seattle's Race and Social Justice Initiative (RSJI) as a platform for continuing to work towards equity in the City.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Seattle will face housing affordability challenges under all four alternatives. Rental costs can be expected to be highest in urban centers and hub urban villages—especially Downtown, First/Capitol Hill, South Lake Union, Ballard, Fremont and West Seattle Junction—and to rise the most in neighborhoods where existing rents are low.

Transportation

Four types of impacts were considered in this evaluation: auto and transit, pedestrian and bicycle, safety and parking. Other metrics were prepared in this analysis, including traffic operations on state highways, and travel times, walksheds and trip length for sub-areas of Seattle. These metrics are provided for informational purposes and are not used to determine significant impacts.

IMPACTS COMMON TO ALL ALTERNATIVES

Thumbnail of Figure 3.7–16 on page 3.7–32, 2035 screenline v/c ratios. A screenline is an imaginary line across which the number of passing vehicles is counted.

Auto and Transit. The City uses "screenlines" to evaluate auto (including freight) and transit operations. A screenline is an imaginary line across which the number of passing vehicles is counted. Each of those screenlines has a level of service (LOS) standard in the form of a volume-to-capacity (v/c) ratio: *the number of vehicles crossing the screenline compared to the designated capacity of the roadways crossing the screenline*. All of the screenlines are projected to meet the LOS standard for the PM peak hour under all alternatives. Therefore, no auto, freight[1] or transit impacts are expected under any of the alternatives.

Pedestrian and Bicycle Network. The City has identified plans to improve the pedestrian and bicycle network through its *Move Seattle, Pedestrian Master Plan, Bicycle Master Plan* and other planning efforts. These plans are being implemented and are expected to continue to be implemented under all alternatives. No significant impacts are expected to the pedestrian and bicycle system.

Safety. The City's safety goals, and the policies and strategies supporting them, will be pursued regardless of the land use alternative selected. The overall variation in vehicle trips is very small among alternatives (less than two percent). At this programmatic level of analysis, there is no substantial difference in safety among the alternatives, and no significant safety impacts are expected.

Parking. There are currently some areas of the city where on-street parking demand likely exceeds parking supply. Given the projected growth in the city and the fact that the supply of on-street parking is unlikely to increase by 2035, an on-street parking deficiency is expected under all alternatives.

1 This refers to impacts related to freight operations on city arterials. Freight loading and business access are addressed subsequently.

MITIGATION STRATEGIES

The recommended mitigation strategy focuses on five main themes:

Seattle has prioritized reducing vehicular demand rather than increasing capacity and reduced single occupant vehicle travel is key to the city's transportation strategy.

Improving the Pedestrian and Bicycle Network. The City has developed *Move Seattle*, a citywide *Pedestrian Master Plan* (PMP) and citywide *Bicycle Master Plan* (BMP) along with other plans focused on particular neighborhoods. Implementation of the projects in these plans would improve the pedestrian and bicycle environment. Also, ongoing safety programs are aimed at reducing the number of collisions, benefiting both safety and reliability of the transportation system.

Implementing Transit Speed and Reliability Improvements. The Seattle Transit Master Plan (TMP) has identified numerous projects, including Intelligent Transportation Systems (ITS), to improve transit speed and reliability throughout the city.

Implementing Actions Identified in the Freight Master Plan. The City is preparing a revised Freight Master Plan, which may include measures to increase freight accessibility and travel time reliability. These projects could be implemented on key freight corridors to improve conditions for goods movement.

Expanding Travel Demand Management and Parking Strategies. The City has well-established Commute Trip Reduction (CTR) and Transportation Management Programs (TMPs), which could be expanded to include new parking-related strategies. CTR and TMP programs could expand to include smaller employers, residential buildings and other strategies.

Working With Partner Agencies. WSDOT, King County Metro, Sound Transit and PSRC all provide important transportation investments and facilities for the City of Seattle. The City should continue to work with these agencies. Key issue areas include regional roadway pricing and increased funding for transit operations.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

No significant unavoidable adverse impacts to transportation and parking are anticipated.

Public Services

IMPACTS ON POLICE SERVICES

Since population and employment growth do not directly correlate to an increased demand for police services, none of the four growth alternatives would necessarily result in proportional increases in call volumes or incidence of major crimes. Therefore, no specific findings of adverse effects on response times or criminal investigations volumes are made. Demand for police services varies over time and by neighborhood, population growth and shifts in composition could influence the characteristics of crime as neighborhoods change. Although hiring under the Seattle Police Department's (SPD's) Neighborhood Policing Staffing Plan has been delayed, additional officers are expected to be on staff in the next several years. Increased staffing levels may require expanded precinct facilities in the future.

IMPACTS ON FIRE AND EMERGENCY MEDICAL SERVICES (EMS)

The impacts of additional growth over the next twenty years would be gradual, distributing increased call volumes across many fire station coverage areas, but with an anticipated level of increased call concentration in urban centers and urban villages where the greatest levels of employment and residential growth would occur. Such increases in citywide call volumes would be considered an adverse impact of future growth.

IMPACTS TO PARKS AND RECREATION

Population and job growth over the 20-year planning period would generate more demand for parks, recreation facilities and open space across the city. As an illustration of possible demand to serve projected 20-year growth in a way that meets an aspirational goal of 1 acre per 100 residents, the City would need to add 1,400 acres of "breathing room" open space to its current park inventory of 6,200 acres.

Downtown, First/Capitol Hill, Greenwood-Phinney Ridge and Morgan Junction do not currently meet the 1 acre of usable open space per 1,000 households goal. Under all EIS alternatives, adding more households would widen these existing gaps. Under Alternative 2, the Downtown and First/Capitol Hill urban centers would have the highest level of demand for added space and facilities to meet the household-based goal among all urban centers and villages under all alternatives. Open space goals would likely also not be met in the Northgate and South Lake Union urban centers under Alternative 2, unless additional actions are pursued to address those needs. Population growth in a possible growth emphasis area near the future I-90/East Link station and in the Mount Baker and 23rd & Union-Jackson urban villages could also contribute to increased demand for parks and recreation, up to 1.50 acres of usable open space under alternatives 3 and 4.

IMPACTS TO SEATTLE PUBLIC SCHOOLS

The latest Seattle Public Schools capital program, BEX IV, ensures adequate capacity to meet enrollment projections for the 2021/21 school year, 13 years short of the comprehensive plan update planning horizon of 2035 (Wolf 2014). Student enrollment would likely continue to grow as population increases in Seattle, affecting school capacity in the long run.

Because only 34 of 117 schools (30 percent) are located in urban villages where all alternatives propose the most population growth, demand for Seattle Public Schools transportation services would likely increase. Focusing growth near light rail stations under Alternative 3 and 4 would provide better transit access to middle schools and high schools. Focusing population growth in urban villages with deficient sidewalk infrastructure in or near school walking boundaries would increase potential safety risks, which may burden some families with driving children to school who could otherwise walk if sidewalks were available. Residential areas that currently lack sidewalks are mostly concentrated in Northwest Seattle and Northeast Seattle north of N 85th Street, Southeast Seattle, South Park and Arbor Heights.

Currently no policies direct the district to purchase new property or to increase capacity in schools within urban villages, with the exception of a possible investment in a downtown school, currently under exploration.

MITIGATION STRATEGIES

Although future growth would contribute to increased demand for services and each has already-identified needs that the City anticipates addressing in coming years, the alternatives evaluated in this EIS would largely avoid generating significant adverse impacts. Future growth could cause adverse impacts relating to the availability or distribution of park/recreation facilities/amenities and open space in certain areas of the city. Mitigation strategies for parks/recreation are proposed to address the identified range of potentially significant adverse impacts.

Given that future growth would continue to generate additional demands upon parks/recreation and open spaces in relation to its per-capita goals, Parks would strive through the 20-year planning period to address possible shortfalls by continuing to leverage funds allocated in the Parks District to match state funding grants. The areas identified with probable outstanding needs include the following:

- ***Urban Centers.*** Downtown, First/Capitol Hill, Northgate and South Lake Union
- ***Hub Urban Villages.*** Ballard, Bitter Lake, Fremont, Mount Baker and West Seattle Junction
- ***Residential Urban Villages.*** Greenwood-Phinney Ridge, Morgan Junction, Westwood-Highland Park and portions of North Rainier and 23rd & Union-Jackson urban villages in the vicinity of the future I-90/East Link light rail station
- ***Other Neighborhoods.*** Whittier, Wedgewood and Beach Drive

Additional possible mitigation strategies included in EIS Section 3.8 offer advisory guidance on actions that could be taken to support improvements to public services to address potential impacts that are not identified as significant adverse impacts.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

No significant unavoidable adverse impacts to public services are anticipated.

Utilities

IMPACTS COMMON TO ALL ALTERNATIVES

The city-wide demand for utilities would be similar for all of the alternatives including the No Action Alternative. Depending on whether or not development occurs in concentrated areas, there potentially could be cumulative adverse impacts to localized portions of the utility system. However, both Seattle Public Utilities (SPU) and Seattle City Light (SCL) currently employ a variety of strategies to anticipate and adjust to changing demands. Both potential impacts and strategies employed by the utilities to respond to changing demand are discussed below.

SPU—Water. Currently total water system usage is declining and the water system has excess capacity. However design fire flow demands can be much greater than the average daily usage for a building. Under all alternatives, there will be greater demands on localized areas of the water supply and distribution system due to redeveloped buildings being brought up to current fire codes. SPU currently employs and will continue to employ management strategies (water availability certificates, developer improvements, etc.) to meet customer needs.

SPU—Sewer and Drainage. Under all alternatives, development could result in greater demands on the local sanitary sewer, combined sewer and stormwater collection systems, the downstream conveyance and the treatment facilities. There will be a greater overall need for sewage capacity with increased density. Increases in peak flow and total runoff caused by conversion of vegetated land area to impervious surfaces also create increased demand on drainage system capacity. SPU currently employs and will continue to employ management strategies (stormwater code updates, developer improvements, etc.) to meet customer needs.

SCL—Electric Power. Under all alternatives, future growth and development will increase demand for electrical energy. Despite recent population and economic growth, Seattle City Light's load is fairly stable since its service territory is well established and it has administered an aggressive energy conservation program for nearly 40 years. There is no significant variation in impacts between the alternatives. SCL currently employs and will continue to employ management strategies (energy code updates, advanced meter infrastructure, etc.) to meet customer needs.

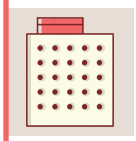
MITIGATION STRATEGIES

None of these identified impacts are concluded to be significant adverse impacts. The continued application of the City's existing practices, including those described above, would help to avoid and minimize the potential for significant adverse impacts.

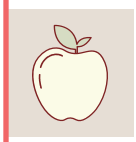
SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

No significant unavoidable adverse impacts to services provided by Seattle Public Utilities or Seattle City Light are anticipated.





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