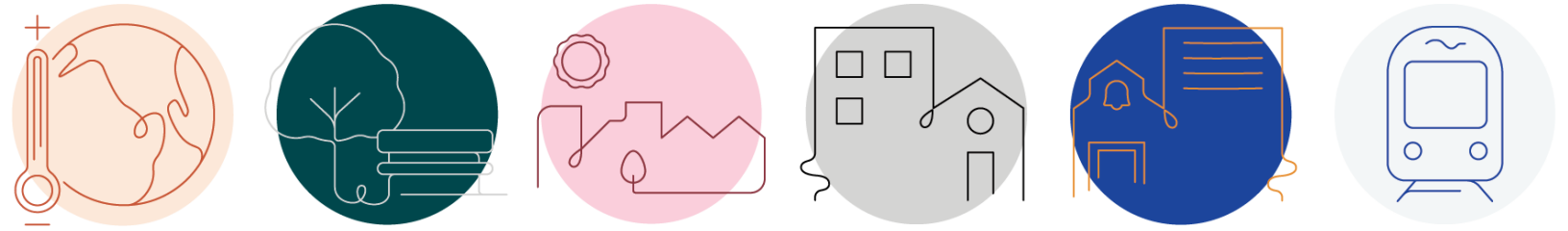
1 SUMMARY



Source: City of Seattle, 2023.

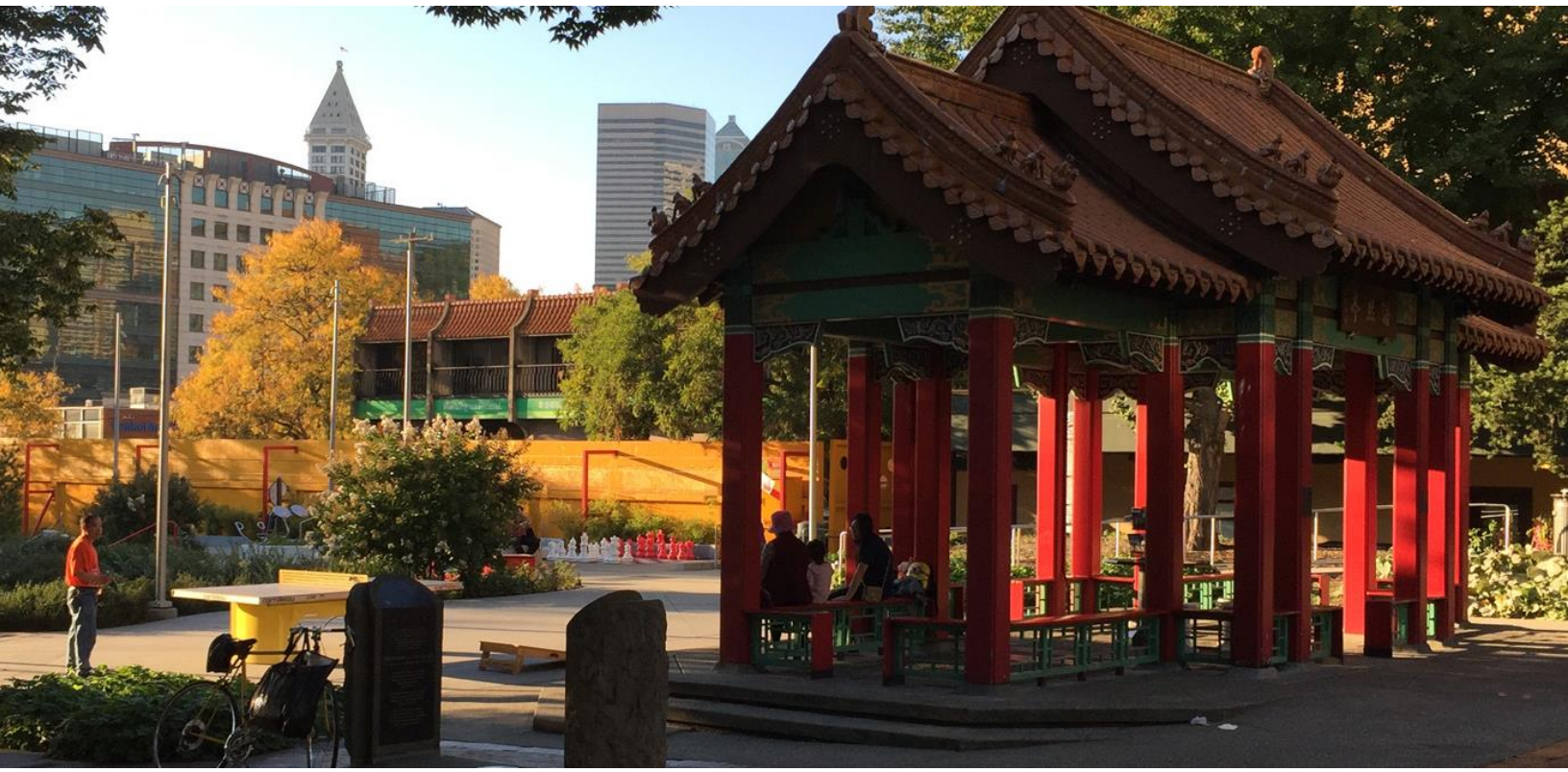
1.1 Purpose

This chapter summarizes the proposals, Alternatives, and environmental review findings in the Draft EIS. Details of the Alternatives are addressed in **Chapter 2**, and the full environmental evaluation and mitigation measures are in **Chapter 3**.

Seattle's Comprehensive Plan defines the vision for how the City will grow. The existing Plan was adopted in 2016; the next required update is due in 2024.

The Comprehensive Plan update will guide decisions about where to locate housing and jobs, and where and how to invest in transportation, utilities, parks, and other public assets. The goal of the Plan update is to make the City more equitable, livable, sustainable, and resilient for today's communities and future residents. A subarea is reviewed in greater detail at the 130th and 145th Station Area as a result of a station area planning process ongoing since 2019.

This Draft EIS identifies and examines five Alternative, which represent different ways of implementing land use concepts to achieve the City's objectives. This includes a No Action Alternative to serve as the baseline for comparing the potential impacts of the action alternatives. Each alternative is summarized below in **Exhibit 1.1-1** and described in greater detail in **Section 1.4**. The final plan and implementing legislation could implement a specific Alternative or a combination of changes analyzed in different Alternatives.



Hing Hay Park. Source: City of Seattle, 2023.

Exhibit 1.1-1 Alternatives Summary

Alternative 1: No Action

Maintains the status quo—implementing existing Seattle 2035 Comprehensive Plan and focusing housing/job growth in existing urban centers and urban villages. 80,000 new homes and 158,000 new jobs would be added over the next 20 years.

130th and 145th Station Areas: Retains current zoning. 194 new homes and 109 new jobs would be added around the 130th station area. 646 new homes and 607 new jobs would be added around the 145th station area.

Alternative 2: Focused

Creates a neighborhood center designation (like urban village, but smaller and lower intensity) around certain existing neighborhood business districts. Neighborhood centers could have a range of housing from duplexes to 7 story stacked housing.

100,000 new homes and 158,000 new jobs The additional 20,000 homes are located in neighborhood centers; 15% of new jobs would be shifted based on location of new housing.

130th/145th Station Area: Designate 3 new neighborhood centers, creating mixed-use nodes with heights up to 80 feet near transit. 1,049 new homes and 284 new jobs around 130th Street. 1,159 new homes and 695 new jobs around 145th Street.

Alternative 3: Broad

Broadens the range of low-scale housing options allowed in all Neighborhood Residential zones (which currently allow only detached homes and accessory dwelling units) as part of a new urban neighborhood place type. Housing in the urban neighborhood place type could include detached and attached homes including duplexes, triplexes, and fourplexes as well as stacked flats and sixplexes on larger lots.

100,000 new homes and 158,000 new jobs. The additional 20,000 homes are located within Neighborhood Residential zones; 15% of new jobs would be shifted based on the location of new housing.

130th/145th Station Area: No changes beyond changes to Neighborhood Residential described above.

Alternative 4: Corridor

Allows wider range of housing options in corridors to focus growth within a short walk of frequent transit and amenities. Corridors could have a range of housing options from duplexes to 5 story stacked housing or higher heights in existing multifamily/commercial areas.

100,000 new homes and 158,000 new jobs. The additional 20,000 homes are located in corridor areas; 15% of new jobs would be shifted based on location of new housing.

130th/145th Station Area: No changes beyond changes to corridors described above.

Alternative 5: Combined

Allows the largest increase in supply and diversity of housing across Seattle by including strategies from Alternatives 2, 3, and 4 plus designating Ballard as a regional center, expanding boundaries of seven existing urban centers (formerly called urban villages), and designating the 130th Station Area as an urban center.

Distribution of housing units and jobs is a combination of other Alternatives but accommodates a total of 120,000 new homes and 158,000 new jobs.

130th/145th Station Area: Adds 1,644 new homes and 356 new jobs around a new urban center at 130th Street and 1,059 new homes and 648 new jobs around a new neighborhood center at 145th Street.

Sources: City of Seattle, 2023; BERK, 2023.

1.2 SEPA Process

This document is a non-project EIS that analyzes a range of legislative changes that will implement the One Seattle Plan across the study area. Under the State Environmental Policy Act (SEPA), agencies conduct environmental review of actions that could affect the environment—including policy and regulation changes like the One Seattle Plan. Preparation of an EIS is required for actions that have potentially significant impacts so that the public, agencies, tribes, and City decision-makers have information about the environmental effects of changes before a decision is made.

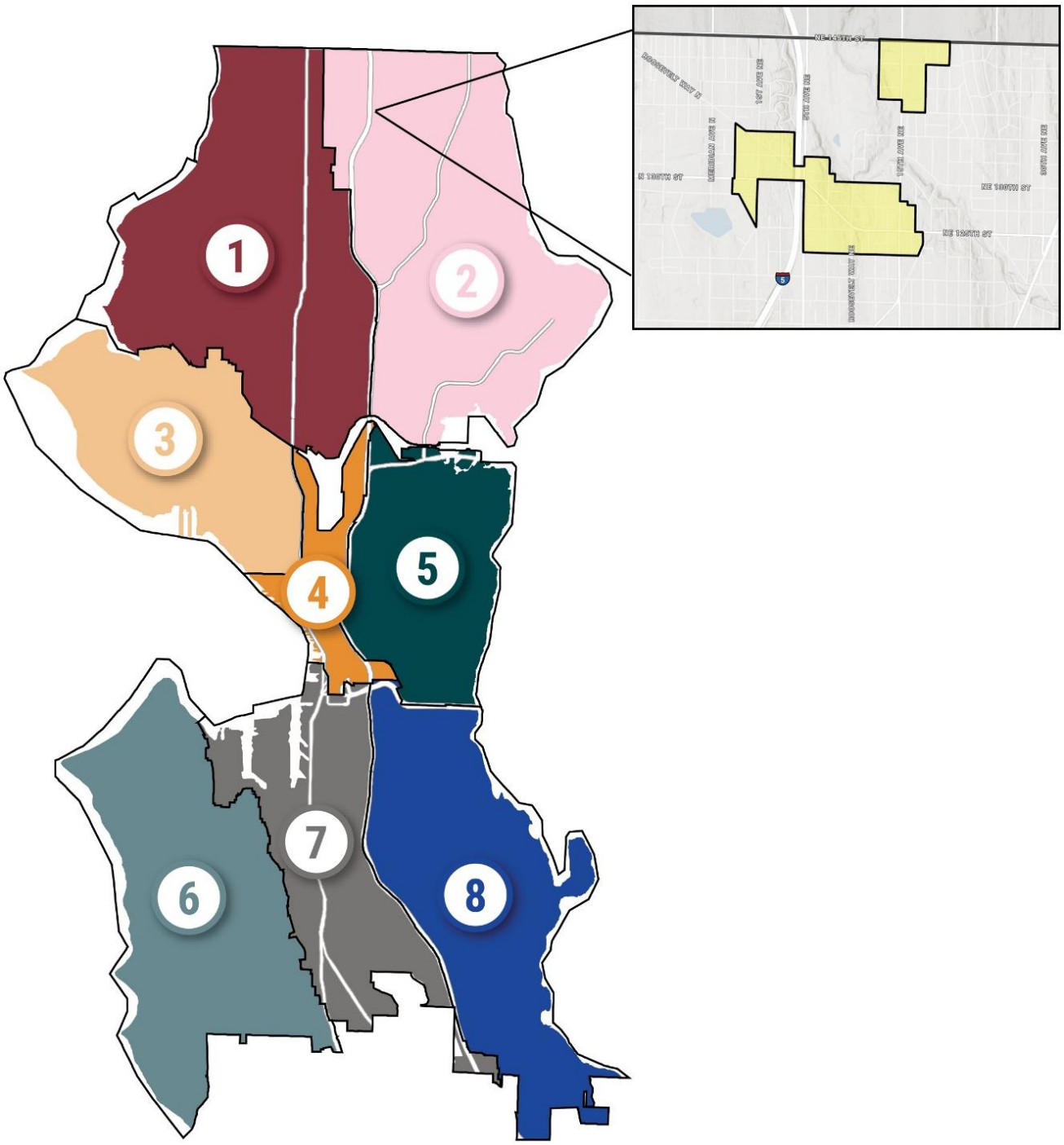
As part of scoping, the City identified a range of elements of the environment that should be analyzed in the EIS: earth & water quality, air quality/greenhouse gas (GHG), plants & animals, energy & natural resources, noise, land use patterns, historic resources, population, employment, & housing, transportation, and public services & utilities. This document is a Draft EIS that is being provided in order to solicit public feedback. It is anticipated that the Final EIS will come out with the Mayor's Recommended Plan in Fall of 2024.

For a summary of public comment opportunities, please see the Fact Sheet and the project website: https://www.seattle.gov/opcd/one-seattle-plan.

1.3 Study Area

The study area includes the full city limits and has been divided into analysis areas. A subarea is also reviewed in greater detail at the 130th and 145th Station Area as a result of a station area planning process ongoing since 2019. See **Exhibit 1.3-1**.

Exhibit 1.3-1. Analysis Areas and 130th/145th Station Study Area



Source: City of Seattle, BERK 2023.

1.4 Objectives, Proposal, & Alternatives

1.4.1 Objectives

The State Environmental Policy Act (SEPA) requires a statement of proposal objectives and the purpose and need to which the proposal for the Comprehensive Plan Update is responding. Alternatives are different means of achieving objectives.

The objectives of the update include:

- Equity:
  - Provide equitable access to housing, jobs and economic opportunities, services, recreation, transportation, and other investments.
  - Center the work with an intersectional, race-conscious lens, informed by a history of racial discrimination and disinvestment.
- Livability: Foster complete neighborhoods where more people can walk or bike to everyday destinations such as local shops, parks, transit, cultural amenities, and services.
- Affordability: Increase the supply of housing to ease increasing housing prices caused by competition for limited supply and create more opportunities for income-restricted affordable housing.
- Inclusivity:
  - Increase diversity of housing options in neighborhoods throughout Seattle to address exclusivity and allow more people to live and stay in a variety of neighborhoods.
  - Reduce residential displacement and support existing residents, particularly low-income households, who are struggling to stay in their neighborhoods.
- Climate resiliency: Reduce emissions from buildings and transportation and promote adaptations to make our city more capable of withstanding the impacts of climate change.
- Consistency with other Plans and Policies: Meet state and regional policies and requirements for the Comprehensive Plan Update including, but not limited to growth and housing affordability targets.

In addition to the citywide objectives, the vision statement in the "130th & 145th Station Area Planning Plan for Public Review", July 2022 serves as an objective for that study area:

> *The 130th and 145th Station Area is a lively, walkable, and welcoming North Seattle neighborhood. Major streets have roomy, tree-lined sidewalks, and other green infrastructure. Bicycle infrastructure makes everyday trips to transit stations, schools, and neighboring urban villages enjoyable and safe. An array of housing offers options affordable to a broad range of incomes and lifestyles. Small shops and cafes near the station cater to locals, commuters, students, and visitors. Local and citywide lovers of nature, recreation and culture treasure the abundant greenspaces and unique cultural events so easily reached by walking, biking, or transit.*

1.4.2 Proposal

Seattle's Comprehensive Plan is the vision for how Seattle grows and makes investments. The Plan's goals and policies and land use plan guide decisions about where the City should expect and support new housing and jobs, and where the City invests in transportation, utilities, parks, and other public assets. The Plan must be updated by 2024 to address state and regional goals and requirements. The Plan will also address racial inequities, housing costs, access to economic opportunity and education, and climate change. As part of the Comprehensive Plan Update, the City will consider updates to zoning and development regulations to implement the Plan. Draft EIS Alternatives vary levels, types, and locations of growth. Five Alternatives are described further in **Section 1.4** and **Chapter 2**:

- **Alternative 1: No Action**—The No Action Alternative is required under the State Environmental Policy Act (SEPA). It would continue implementation of the current Seattle 2035 Comprehensive Plan. The No Action Alternative for the One Seattle Plan maintains the status quo of focusing most housing and jobs within existing urban centers and villages with no change to land use patterns. It also incorporates changes recently adopted by the Seattle City Council to implement the Industrial and Maritime Strategy. It would meet regionally set growth targets by adding 80,000 new homes and 158,000 jobs during the period 2024-2044.
- **Alternative 2: Focused**—Alternative 2 includes the creation of additional areas of focused growth called neighborhood centers to create more housing around shops and services dispersed across the city. Neighborhood centers would be similar to urban villages in that they would allow a wide range of housing types and commercial space, but with a smaller geographic size and lower intensity of allowed development. This Alternative would result in a greater range of housing options with amenities and services in many neighborhoods. For the period 2024-2044, Alternative 2 includes more housing than Alternative 1 at 100,000 new homes. Jobs would be similar to Alternative 1 at 158,000 new jobs. While the number of total new jobs would be the same for each of the Alternatives, their distribution would vary. Compared to Alternative 1, about 15% of new jobs in each action Alternative are assumed to be located in proportion to the location of new housing. This assumption would account for the desire of many businesses such as local retail, eating places, and services, to locate near housing. Eighty thousand new homes would be located in a similar distribution to Alternative 1, with the additional 20,000 accommodated in neighborhood centers.
- **Alternative 3: Broad**—Alternative 3 allows a wider range of low-scale housing options, like duplexes, triplexes, fourplexes and stacked flats, in all Neighborhood Residential (NR) zones as part of a new urban neighborhood place type. Alternative 3 proposes a total housing growth of 100,000 housing units (20,000 more than the No Action Alternative) to account for the potential additional housing demand that could be met with broad zoning changes. Eighty thousand new homes would be located in a similar distribution to Alternative 1, with the additional 20,000 accommodated in new housing types within urban neighborhood areas. Jobs would be similar to Alternative 1 in number with distribution of 15% of jobs proximate to new housing.

- **Alternative 4: Corridor**—Alternative 4 allows a wider range of housing options only in corridors to focus growth near transit and amenities. This Alternative would increase production of housing in various neighborhoods and support city and regional investment in transit. Eighty thousand new homes would be located in a similar distribution to Alternative 1, with an additional 20,000 accommodated in new housing types within the corridors, for a total of 100,000 new dwellings. New jobs would be similar to Alternative 1 at 158,000, but 15% of new jobs would be located in proximity to the new housing to provide local shopping and services.
- **Alternative 5: Combined**—Alternative 5 has the largest increase in supply and diversity of housing across Seattle. It includes the strategies for encouraging housing growth in Alternatives 2, 3, and 4 plus designating Ballard as a regional center, expanding boundaries of seven existing urban centers (formerly called urban villages), and designating the 130th Station Area as an urban center. Alternative 5 would assume 120,000 new homes (40,000 more than the No Action Alternative) to account for the potential additional housing demand that could be met within the areas of change identified in Alternatives 2, 3, and 4 as well as changes to existing and new centers and villages. Eighty thousand new homes would be located in a similar distribution to Alternative 1, with the additional 40,000 units accommodated across multiple areas of change. The distribution of jobs and housing would be a combination of the other Alternatives.

In addition to reviewing conditions and impacts citywide, this EIS also provides a focused review of the 130th and 145th Street Station Area Plan and options for the City to streamline future environmental review in that area, which may include a planned action (RCW 43.21c.440), infill exemption (RCW 43.21C.229), or other tools available under state legislation (e.g., SB 5818).

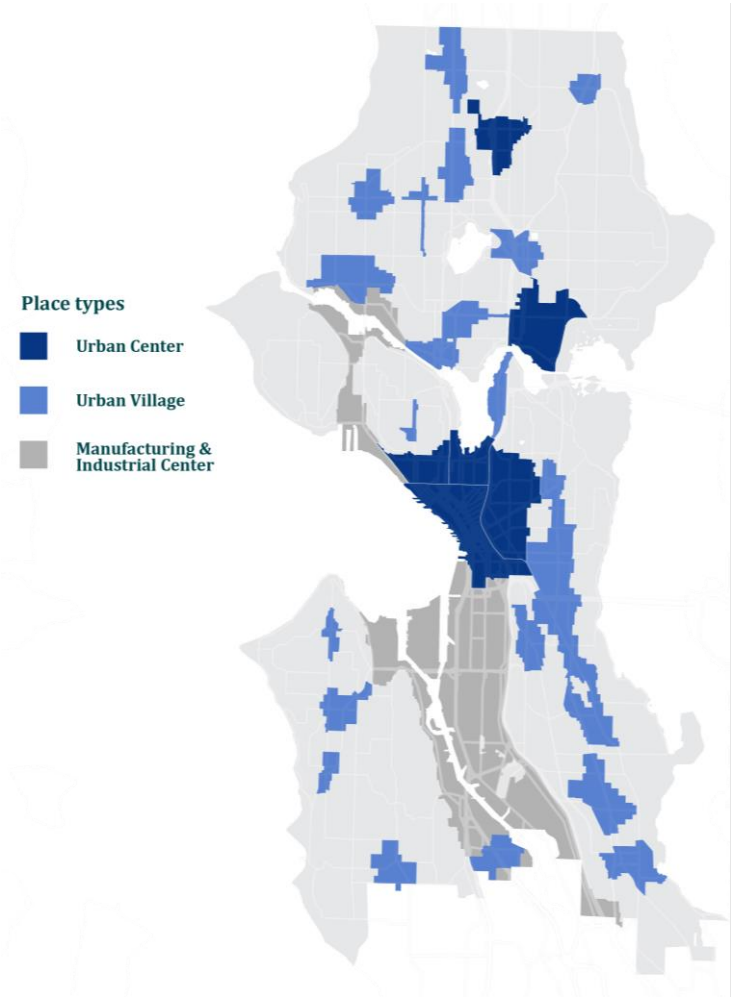
Place Types

- **Regional Centers** are regionally designated places with a diverse mix of uses, housing, and employment They include several centers that comprise greater Downtown along with the University District and Northgate. These contain Seattle's densest neighborhoods and a large share of the city's jobs.
- **Urban Centers** are dense, walkable, mixed-use places with a wide range of housing and businesses located near transit, amenities, and jobs.
- **Neighborhood Center** are places with a wide range of housing and businesses that primarily serve the local community. These areas resemble urban villages, but with a smaller size and lower intensity of allowed development.
- **Corridors** are areas near frequent transit and large parks that allow a wide range of housing types in areas currently zoned primarily for detached homes (within a 10-minute walk from a light rail station and a five-minute walk from frequent bus transit service and entrances to large parks). Corridors also include areas already zoned for multifamily and commercial use and could have small increases in height.
- **Urban Neighborhoods** represent low-scale, primarily residential areas. This place type would primarily allow housing types such as detached homes, duplexes, triplexes, fourplexes, and stacked flats. This place type would allow flexibility for new forms of housing in areas currently zoned primarily for detached homes.
- **Manufacturing and Industrial Centers** are regionally designated industrial job centers. The One Seattle Plan process would not change the boundaries of these centers nor the goals and policies for these areas which were recently updated as part of the Industrial and Maritime Strategy project.

1.4.3 Alternative 1: No Action

Citywide Growth Concept: Alternative 1, No Action, assumes the continuation of the Seattle 2035 Comprehensive Plan. Even without making any changes to the City's zoning, the existing Comprehensive Plan and implementing regulations would add 80,000 new homes and 158,000 jobs over the next 20 years, based on growth targets adopted by the King County Growth Management Council.[1] These homes and jobs will be distributed across the city based on observed growth between 2010 and 2020 and the distribution of growth in the Seattle 2035 Comprehensive Plan. In addition, growth in each urban center and village would not exceed existing zoned capacity. While there have been significant increases in the number of people working from home in recent years, job locations are frequently indicated based on the office in which the company is located, rather than where the work takes place. Consequently, future growth may look similar to past growth even if the portion of people working from home remains high.

Exhibit 1.4-1. Alternative 1: No Action



Note: See **Exhibit 2.1-1** in **Chapter 2** for a crosswalk of existing place types (existing and Alternative 1) versus proposed place type names under Alternatives 2-5.
Source: City of Seattle, 2023.

130th/145th Station Area: The current Comprehensive Plan and zoning designations would be retained under Alternative 1, No Action, in the 130th/145th Station Area. Neighborhood Residential zones would continue to allow three-story single-purpose residential development around the future light rail station at 130th and some 4-8 story multifamily uses near the 145th BRT station. Based on current plans and zoning, this Draft EIS studies the addition of 194 housing units/109 jobs around the 130th Station Area and 646 housing units and 607 jobs around 145th Station Area.

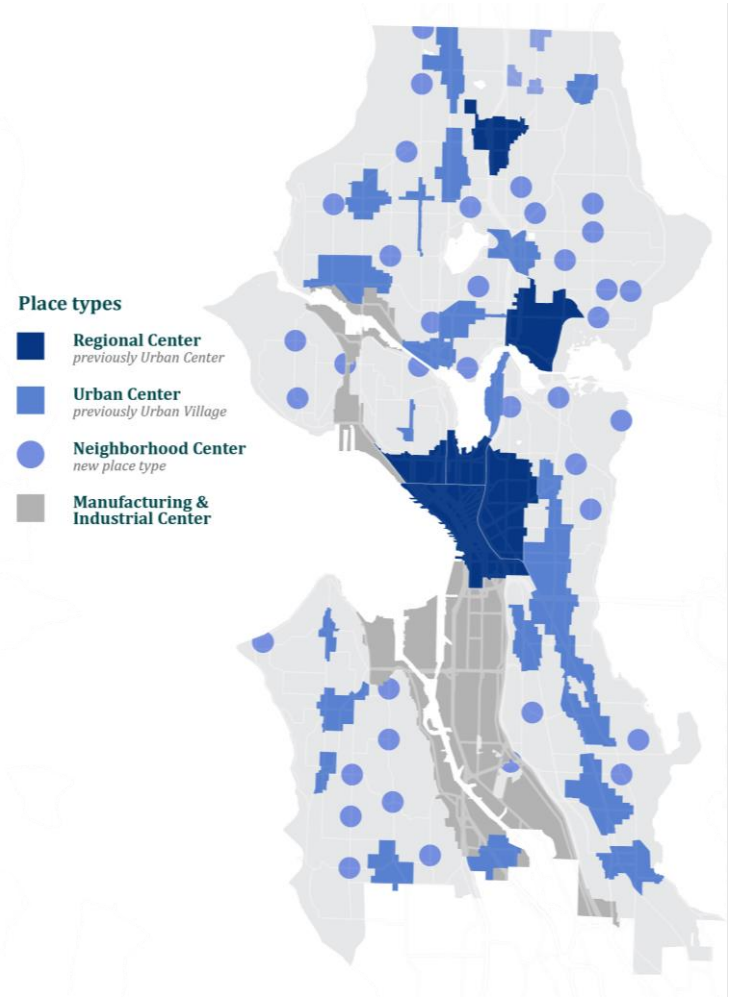
[1] Growth targets were set for the years 2019-2044, but in the EIS have been adjusted to match the required 20-year planning period for 2024-2044, to account for population, housing, and employment change for the years 2019-2023.

1.4.4 Alternative 2: Focused

Citywide Growth Concept: Alternative 2 would designate additional areas of focused growth called neighborhood centers to create more housing around shops and services. Neighborhood centers would be similar to urban centers (formally known as urban villages) since they would allow a wide range of housing types and commercial space, but with a smaller geographic size and lower intensity of allowed development. Neighborhood centers could have a range of housing from townhouses to 7 story stacked housing.

Alternative 2 studies a total housing growth of 100,000 housing units (20,000 more than the No Action Alternative) to account for the potential additional housing demand assumed within neighborhood centers. Eighty thousand new homes would be located in a similar distribution to Alternative 1, with an additional 20,000 accommodated in new housing types within neighborhood centers. Neighborhood centers in areas with low displacement risk are allocated 50% more homes than those in areas with high displacement risk.

Exhibit 1.4-2. Alternative 2: Focused



Note: See **Exhibit 2.1-1** in **Chapter 2** for a crosswalk of existing place types (existing and Alternative 1) versus proposed place type names under Alternatives 2-5.
Source: City of Seattle, 2023.

130th/145th Station Area: Alternative 2 would implement a subarea plan that would:

- Create city and community concepts around land use, transportation and other policies and investments for fast, reliable transit and compact walkable neighborhoods.
- Align with the City of Seattle Comprehensive Plan (One Seattle Plan).
- Lead with equity to address past systemic inequities and minimize factors that contribute to displacement.
- Address Climate Change by reducing vehicle miles traveled, car dependency and greenhouse gas (GHG) emissions.

Alternative 2 would designate three new neighborhood centers. Growth would equal: 1,049 housing units/284 jobs at 130th Street and 1,159 housing units/695 jobs at 145th Street.

1.4.5 Alternative 3: Broad

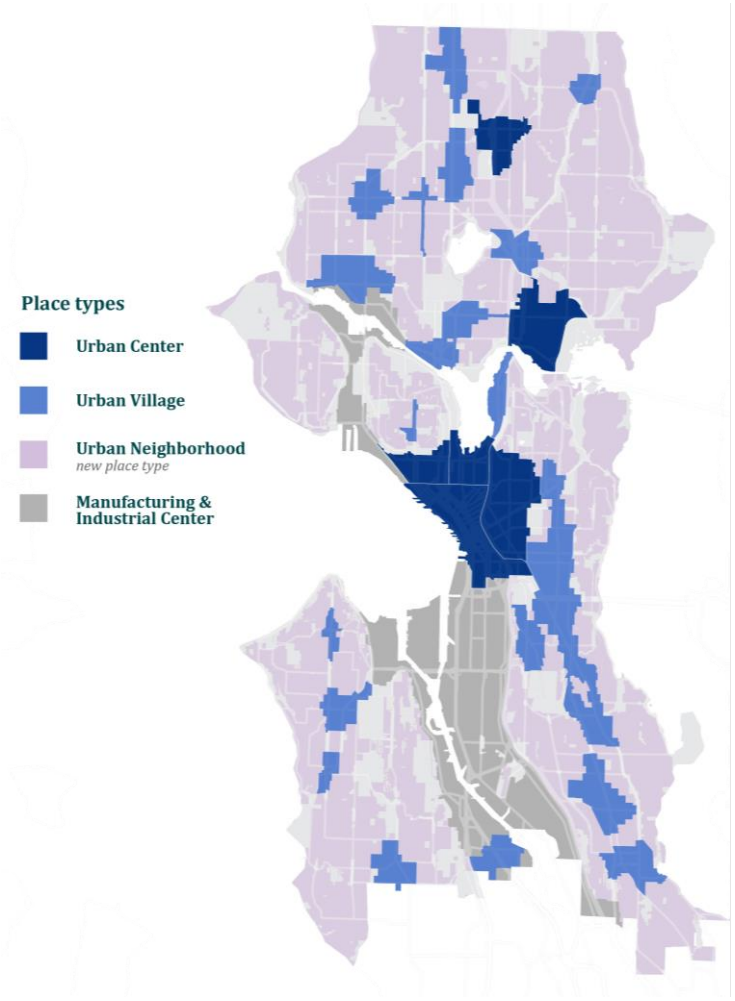
Citywide Growth Concept: This Alternative allows a wider range of low-scale housing options, like triplexes and fourplexes, in all Neighborhood Residential (NR) zones as part of a new urban neighborhood place type. This approach would:

- Expand housing choices in all neighborhoods.
- Increase production of homeownership options.
- Address exclusionary nature of current zoning.
- Allow more housing options near existing large parks and other neighborhood amenities.

Housing in the urban neighborhood place type could include duplexes, triplexes, and fourplexes as well as stacked flats and sixplexes on larger lots.

Alternative 3 studies a total housing growth of 100,000 housing units (20,000 more than the No Action Alternative) to account for the potential additional housing demand that can be accommodated with broad zoning changes. Eighty thousand units would be located in a similar distribution to Alternative 1, with an additional 20,000 accommodated within urban neighborhood areas.

Exhibit 1.4-3. Alternative 3: Broad



Notes: The urban neighborhood areas shown on this map do not reflect the viability of redevelopment on any specific property. Factors such as property ownership, existing uses, and presence of environmentally critical areas will be factored into the distribution of housing and jobs studied in the EIS analysis. See **Exhibit 2.1-1** in **Chapter 2** for a crosswalk of existing place types (existing and Alternative 1) versus proposed place type names under Alternatives 2-5.
Source: City of Seattle, 2023.

Alternative 3 studies the same number of jobs as the No Action Alternative but would include a small shift in the distribution of jobs and commercial space toward existing urban neighborhood areas to reflect local demand consistent the distribution of new housing.

130th/145th Station Area: Under this Alternative, there would be no changes to the future land use map within this area but there would be more flexibility in urban neighborhood areas for missing middle housing as well as corner stores and at-home businesses.

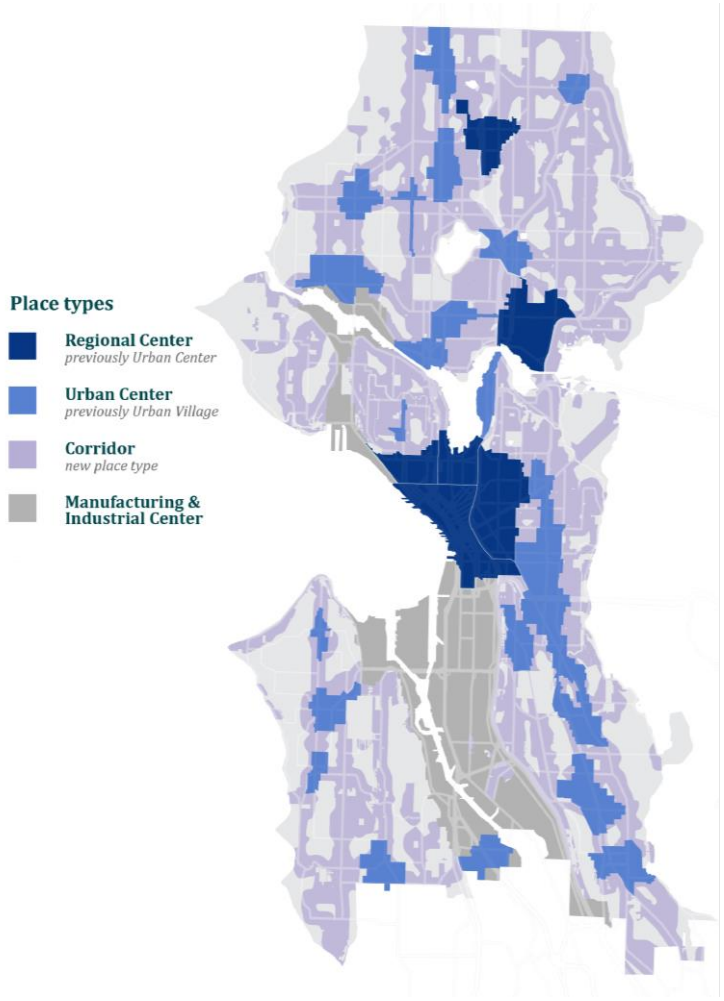
1.4.6 Alternative 4: Corridor

Citywide Growth Concept: This Alternative would allow a wider range of housing options only in corridors to focus growth within a short walk of transit and amenities. This Alternative would increase production of both homeownership and rental options in various neighborhoods and support city and regional investment in transit. Corridors could have a range of housing options from duplexes to 5-story stacked housing or higher heights in existing multifamily/commercial areas.

Alternative 4 studies a total housing growth of 100,000 housing units (20,000 more than the No Action Alternative) to account for the potential additional housing demand that is expected within the corridors. Eighty thousand units would be located in a similar distribution to Alternative 1, with 20,000 additional homes accommodated within corridors. Alternative 4 would have the same number of jobs as the No Action Alternative but includes a small shift in the distribution of jobs and commercial space toward corridors, consistent with the distribution of new housing.

Corridor areas would be the largest single place type and would accommodate the second highest housing growth after regional centers. Most jobs would be generated in the regional centers and the manufacturing industrial centers.

Exhibit 1.4-4. Alternative 4: Corridor



Notes: The Corridors shown on this map do not reflect the viability of redevelopment on any specific property. Factors such as property ownership, existing uses, and presence of Environmentally Critical Areas will be factored into the distribution of housing and jobs studied in the EIS analysis. See **Exhibit 2.1-1** in **Chapter 2** for a crosswalk of existing place types (existing and Alternative 1) versus proposed place type names under Alternatives 2-5.
Source: City of Seattle, 2023.

130th/145th Station Area: Within the station areas, a wider range of housing options would be allowed only in corridors consistent with the citywide approach.

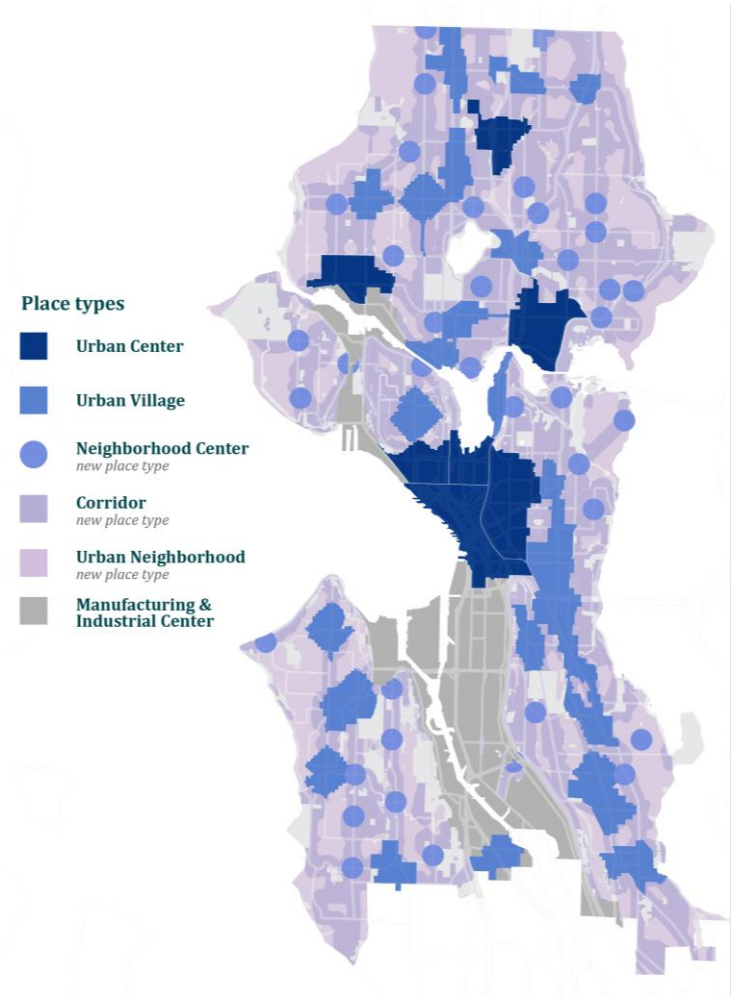
1.4.7 Alternative 5: Combined

Citywide Growth Concept: Alternative 5 anticipates the largest increase in supply and diversity of housing across Seattle. It includes the strategies for encouraging housing growth in Alternatives 2, 3, and 4 plus additional changes to existing urban center and village boundaries and changes to place type designations. This Alternative seeks to:

- Accommodate abundant housing in neighborhoods across the city.
- Promote a greater range of rental and ownership housing.
- Address past underproduction of housing and rising housing costs.

Alternative 5 assumes growth of 120,000 housing units (40,000 more than the No Action Alternative) to account for the potential additional housing growth that could occur under a combination of changes identified in Alternatives 2, 3, and 4 plus designating Ballard as a regional center, expanding boundaries of seven existing urban centers (formerly called urban villages), and designating the 130th Station Area as an urban center. Eighty thousand units would be located in a similar distribution to Alternative 1, with the additional 40,000 distributed based on a combination of Alternatives 2, 3, and 4. The distribution of jobs and housing would be a combination of the other Alternatives after accounting for expanded urban village boundaries and potential changes to place type designations.

Exhibit 1.4-5. Alternative 5: Combined



Notes: The corridors and urban neighborhood areas shown on this map do not reflect the viability of redevelopment on any specific property. Factors such as property ownership, existing uses, and presence of environmentally critical areas will be factored into the distribution of housing and jobs studied in the EIS analysis. See **Exhibit 2.1-1** in **Chapter 2** for a crosswalk of existing place types (existing and Alternative 1) versus proposed place type names under Alternatives 2-5.
Source: City of Seattle, 2023.

130th/145th Station Area: Under Alternative 5, an urban center would be created straddling the west and east sides of I-5 at the Sound Transit light rail station. This Alternative adds 1,644 housing units/356 jobs around 130th Street and 1,059 housing units/648 jobs around 145th Street.

1.4.8 Summary of Alternatives

Alternative Growth Comparisons

Alternative 1, No Action, studies the impact of adding 80,000 new homes and 158,000 jobs over 20 years, based on growth targets adopted by the King County Growth Management Planning Council.[2] Alternatives 2, 3, and 4 study a total housing growth of 100,000 housing units (20,000 more than Alternative 1, No Action) to account for the potential additional housing that could occur within neighborhood centers, urban neighborhood areas, or corridors. Alternative 5 assumes growth of 120,000 housing units (40,000 more than the No Action Alternative) to account for the potential additional housing that could occur within the areas of change identified in Alternatives 2, 3, and 4 as well as changes to existing and new centers. All Alternatives assume the same overall growth in jobs. See **Exhibit 1.4-6**.

Exhibit 1.4-6. Summary of Housing and Job Growth Share—Citywide Alternatives

	Alternative 1: No Action	Alternative 2: Focused	Alternative 3: Broad	Alternative 4: Corridor	Alternative 5: Combined
Housing	80,000	100,000	100,000	100,000	120,000
Jobs	158,000	158,000	158,000	158,000	158,000

Sources: City of Seattle, 2023; BERK, 2023.

Under all Alternatives, 80,000 units would be located in a similar distribution to Alternative 1, meaning that they would be located primarily in existing centers and villages. Under the action alternatives, an additional 20,000 or 40,000 housing units would be accommodated within new place types located throughout the city. This results in a shift in the percent share of growth between study areas. For example, while absolute housing growth in Downtown/South Lake Union (Area 4) is constant at 19,413 housing units, the percent share of housing growth in Area 4 is lower under all the action alternatives than the No Action Alternative. Under Alternative 5, both Areas 1 and 2 in North Seattle receive a greater share of housing growth than Area 4. **Exhibit 1.4-7** and **Exhibit 1.4-9** show percent share of housing target growth by study area and Alternative, with the two highest study area percent shares under each alternative highlighted orange.

[2] Growth targets were set for the years 2019-2044, but in the EIS have been adjusted to match the required 20-year planning period for 2024-2044, to account for population, housing, and employment change for the years 2019-2023.

Exhibit 1.4-7. Housing Growth Estimates Percent Share by Study Area—Citywide Alternatives

Study Area	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Area 1 Northwest	17.2%	18.4%	17.6%	17.2%	17.9%
Area 2 Northeast	16.0%	18.3%	20.2%	21.0%	19.6%
Area 3 West	7.5%	8.1%	6.7%	6.6%	6.8%
Area 4 Downtown/South Lake Union	24.3%	19.4%	19.4%	19.4%	16.2%
Area 5 East	16.6%	16.3%	13.8%	13.8%	13.4%
Area 6 Southwest	7.7%	9.4%	10.2%	10.1%	11.5%
Area 7 Duwamish Manufacturing Center	2.4%	2.3%	1.9%	2.0%	3.0%
Area 8 Southeast	8.3%	7.9%	10.2%	9.9%	11.6%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Note: The two highest percent shares under each alternative by study area are highlighted orange.
Sources: City of Seattle, 2023; BERK, 2023.

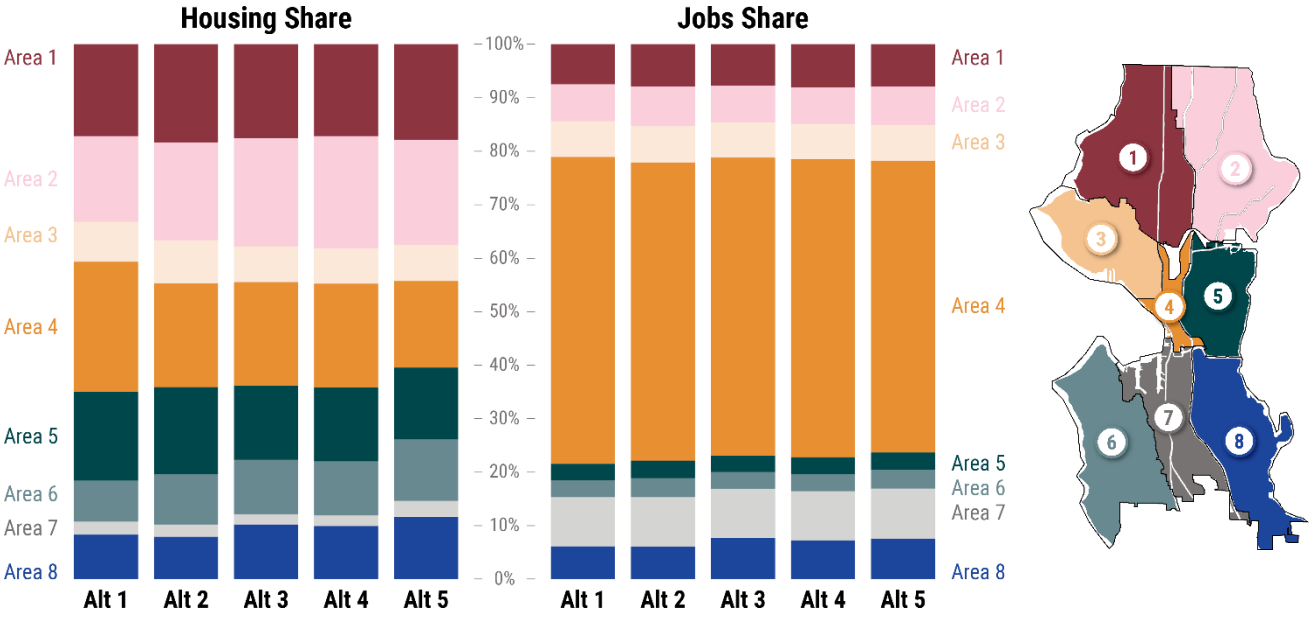
All Alternatives assume the same overall growth in jobs with a little over half of job growth in Downtown/South Lake Union (Area 4) and about 9% in the Duwamish Manufacturing Center (Area 7). Alternatives 2, 3, and 4 assume a small job shift from the larger centers towards other place types to reflect local demand consistent with the distribution of new housing. The distribution of jobs and housing under Alternative 5 would be a combination of the other Alternatives after accounting for expanded regional and urban center boundaries and potential changes to place type designations. See **Exhibit 1.4-8** and **Exhibit 1.4-9**.

Exhibit 1.4-8. Job Growth Estimates Percent Share by Study Area—Citywide Alternatives

Study Area	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Area 1 Northwest	7.5%	7.9%	7.8%	8.1%	7.9%
Area 2 Northeast	6.9%	7.4%	6.9%	6.9%	7.2%
Area 3 West	6.7%	6.9%	6.6%	6.6%	6.7%
Area 4 Downtown/South Lake Union	57.4%	55.7%	55.7%	55.7%	54.6%
Area 5 East	3.0%	3.3%	3.1%	3.2%	3.2%
Area 6 Southwest	3.2%	3.5%	3.2%	3.2%	3.5%
Area 7 Duwamish Manufacturing Center	9.2%	9.2%	9.2%	9.2%	9.3%
Area 8 Southeast	6.1%	6.1%	7.7%	7.2%	7.6%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Note: The two highest percent shares under each alternative by study area are highlighted orange.
Sources: City of Seattle, 2023; BERK, 2023

Exhibit 1.4-9. Comparison of Housing and Jobs Growth Estimates Percent Share by Study Area—Citywide Alternatives



Sources: City of Seattle, 2023; BERK, 2023.

Major Policy Updates

The proposal would update the Seattle Comprehensive Plan to address growth between 2024 and 2044 and adapt new policies and codes that help meet the objectives defined in **Section 1.4.** It would also implement text and map amendments to the Comprehensive Plan as well as changes to zoning and development standards in the Seattle Municipal Code and the Building Code. Changes to the Comprehensive Plan would help meet the objectives defined in **Section 1.4.1** and would influence the manner and distribution of projected growth as well as the manner in which the City conducts its operations to promote and achieve other goals such as those related to equity, economic opportunity, environmental sustainability, community, public health, safety, welfare, and service delivery. All Comprehensive Plan elements will be reviewed and updated as part of the proposal. In many cases, proposed policy amendments will reflect changes to state and regional requirements and 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.

Changes to the Comprehensive Plan could include, but are not limited to:

- Implementing a major update of the Growth Strategy and Future Land Use Map including:
  - Adding neighborhood centers, corridors, and urban neighborhoods as new place types.
  - Combining the multifamily and mixed-use/commercial designations on the Comprehensive Plan's Future Land Use Map categories.
- Updating planned growth assumptions to reflect updated regional targets, market conditions, development capacity, and changes to the growth strategy.

- Updating housing and employment targets for regional centers consistent with VISION 2050.
- Eliminating Growth Targets for urban villages or modifying them to reflect changing market conditions, development capacity, and changes to the growth strategy.
- Identifying strategies for addressing displacement.
- Identifying strategies for meeting jurisdictional affordable housing targets.
- Identifying strategies for meeting additional infrastructure needs.
- Identifying strategies for meeting vehicle miles traveled (VMT), mode shift, and greenhouse gas emission goals.
- Updating the Transportation levels-of-service (LOS) to reflect updated goals, new state guidance, changing conditions, and address concurrency.
- Removing volume 2 of the Comprehensive Plan which contains goals and policies excerpted from past neighborhood plans.
- Adding or modifying policies for the growth strategy place types and zone categories.
- Modifying or implementing new policy changes on a wide variety of topics such as equity, complete communities, increasing housing choices, climate change resilience, greenhouse gas reduction strategies, vision zero, zero waste, electrification, decarbonization, essential public facilities, environmentally critical areas, or other topics.

Changes to the Seattle Municipal Code would implement the Growth Strategy in the Comprehensive Plan as well as specific goals and policies, particularly those around land use regulations and housing. Changes to zoning and development standards would support City goals such as allowing more people to walk or bike to everyday needs, encouraging better building design, or reducing the cost of housing. These changes could include, but are not limited to:

- Modifying heights, lot size, density limits, coverage limits, setbacks, amenity standards, and other similar standards affecting the scale and form of new construction to implement goals and policies in the update Comprehensive Plan including those around increasing the supply, diversity, and affordability of housing.
- Allowing more flexibility for commercial uses in certain areas such as allowing more retail on arterial streets, increasing flexibility for home businesses, and allowing corner stores in Urban Neighborhood Residential zones.
- Allowing more height and/or floor area for projects that provide public open space or that include affordable housing or housing types such as 3- and 4-story stacked flats or projects with shared open space.
- Reducing or eliminating residential parking minimums citywide.
- Modifying bike parking requirements to recognize the unique conditions across different zones and housing types.
- Modifying solid waste storage requirements to recognize current solid waste needs and to recognize the unique conditions across different zones and housing types.
- Modifying tree and landscaping requirements to increase tree canopy in Neighborhood Residential zones.

- Modifying building code regulations to support development of attached and stacked flat units.
- Implementing or modifying Mandatory Housing Affordability (MHA) requirements
- Updating tenant relocation assistance requirements to increase support for relocated households.
- Updating our transportation concurrency requirements to reflect changes to the level-of-service standard.
- Changes to support electric vehicle charging when parking is provided.

Changes to the Comprehensive Plan could also implement changes required by state legislation including HB 1110 which requires cities to allow a minimum number of housing units on certain lots and restricts design review and development standards for middle housing as well as SB 5412 which updates SEPA categorical exemptions and requires certain environmental analysis.

Source: City of Seattle 130th and 145th Station Area Planning Multimodal Mobility Study, December 2020.

130th/145th Station Area

This EIS also provides a focused review of potential land use and zoning changes to implement the 130th and 145th Street Station Area Plan and options for the City to streamline future environmental review in that area, which may include a planned action (RCW 43.21c.440), infill exemption (RCW 43.21C.229), or other tools available under state legislation (e.g., SB 5818).

Alternative land use concepts have been paired up with citywide Alternatives for review in the EIS. **Exhibit 1.4-10** summarizes the land use concepts under the Alternative 1 (No Action) and the two Alternatives that have a more detailed approach in the 130th/145th Station Area.

- Alternative 1 retains the current Comprehensive Plan and zoning designations. No new areas would be designated for mixed-use or higher density and building types outside existing commercial zoning would remain primarily single purpose with some 4-8 story multi-family uses near the 145th BRT station.

- Compared to Alternative 1, Alternative 2 would have more mixed-use development in three new neighborhood centers—one near the 145th Station Area, one immediately to the east of I-5 and one around an existing business district (referred to as the Pinehurst Neighborhood Center). Most of the housing proposed under Alternative 2 would be near the 145th Station Area and job growth would be modest. The neighborhood centers would contain a mix of Low-rise Residential, Midrise Residential, and Neighborhood Commercial 3 (NC3) zoning.
- Under Alternatives 3 and 4, changes in the 130th/145th station areas would be consistent with the changes described citywide.
- Under Alternative 5, an urban center would be created straddling the west and east sides of I-5 at the Sound Transit light rail station at 130th with Low-rise Residential, Midrise Multifamily, and Neighborhood Commercial (2 and 3) zoning. The 130th Station Area would see the greatest increase in housing and job growth under Alternative 5. Similar to Alternative 2, the 145th Station Area would be designated as a neighborhood center under Alternative 5 with similar zoning and housing growth and slightly fewer jobs.

Exhibit 1.4-10. Summary of Alternatives—130th/145th Station Areas

Feature	**Alternative 1: No Action** (aligns with citywide Alt 1)*	**Alternative 2: Focused** (aligns with citywide Alt 2)*	**Alternative 5: Combined** (aligns with citywide Alt 5)*
Amount** and Pattern of Growth	Baseline growth and pattern. Growth in housing units: 840 Growth in jobs: 716	Cluster growth in newly designated small mixed-use node(s) and near transit. Growth in housing units: 2,208 Growth in jobs: 979	Potential new urban center and corridor designations. Residential areas growth. Growth in housing units: 2,703 Growth in jobs: 1,004
Building Types for New Construction	No change (single family, accessory dwelling units, limited multifamily and mixed use).	Denser and taller buildings in nodes. More mixed-use buildings.	Denser than Alt 2 with more mixed-use buildings and more home type variety.
Building Heights for New Construction	No change Multifamily and mixed use: 45–80 ft Neighborhood Residential zones: 30 ft	Nodes: Potentially up to 40–80 ft Neighborhood Residential zones: 30 ft	Urban center: 95 ft Corridors: Potentially up to 40-80 ft Urban Neighborhood Residential zones: 30 ft
Retail and Commercial	No change	Could include more retail and commercial locations than Alt 1	More retail and commercial locations than Alt 2

* Note: Alternative 1, No Action, would retain the City's Seattle 2035 urban village strategy and center/village designations—the existing urban centers and villages are categorized here according to the new place types proposed under Alternatives 2-5 for comparison purposes only. See **Exhibit 2.1-1** in **Chapter 2** for a crosswalk of existing place types (existing and Alternative 1) versus proposed place type names under Alternatives 2-5.
** The growth estimates consider the current zoning within a common maximum boundary (Alternative 5). The 130th Street and Pinehurst Neighborhood Center from Alternative 2 are both within the 130th Street Urban Center boundary in Alternative 5.
Sources: City of Seattle, 2023; BERK, 2023.

In addition to establishing future land use and zoning designations supporting the station area, the City's Station Area Plan provides direction on key policy issues:

- Land Use/Housing
  - Provide more density/diversity of land uses concurrent with transit.
  - Provide more housing choice.
  - Offer affordable housing options near light rail and Bus Rapid Transit (BRT).
  - Mitigate displacement of current residents and businesses
- Amenities/Public Realm
  - Coordinate update of street types in Streets Illustrated.
  - Establish a strong visual identity for the station areas, including architecture, landscape design, public art, and other public realm improvements as well as neighborhood wayfinding.
  - Provide amenities to support anticipated growth.
  - Retain tree canopy and healthy open spaces/environment.
- Access
  - Provide non-motorized access to the stations (safe etc.).
  - Coordinate with WSDOT, Sound Transit, and City of Shoreline.
  - Address parking regulations.

1.5 Key Issues & Options

The key issues facing decision makers include:

- Creation of a growth concept that meets objectives of the plan to create an equitable, livable, inclusive, and climate resilient community. The growth concept would offer greater housing choices across the city and an improved job-housing balance. It links to investments in transit and non-motorized improvements.
- Approval of a Comprehensive Plan including goals and policies that fulfill Seattle's vision and meet state and regional requirements.
- Approval of development regulations that implement the Comprehensive Plan goals, policies, and land use plan, resulting in quality urban design, and integrating the best available science to protect critical areas.
- Approval of SEPA facilitation tools to help incentivize growth while mitigating impacts for the 130th/145th Station area and other areas of the community.

1.6 Summary of Impacts & Mitigation Measures

Environmental Impacts

This section provides a summary of each environmental topic addressed in this EIS. This includes:

- Earth & Water Quality
- Air Quality/GHG
- Plants & Animals
- Energy & Natural Resources
- Noise
- Land Use Patterns
- Historic Resources
- Population, Employment, & Housing
- Transportation
- Public Services & Utilities

For the full context of the affected environment, potential impacts, and mitigation measures please see **Chapter 3**.

Equity & Climate Considerations

The City is seeking to develop a Comprehensive Plan that results in more equitable outcomes, reduces harms, and supports community-wide benefits created by growth and investment.

The Growth Management Act (GMA) now requires each county and city give special consideration to achieving environmental justice in its goals and policies, including efforts to avoid creating or worsening environmental health disparities.

> *"Environmental justice" means the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to development, implementation, and enforcement of environmental laws, regulations, and policies. Environmental justice includes addressing disproportionate environmental and health impacts in all laws, rules, and policies with environmental impacts by prioritizing vulnerable populations and overburdened communities and the equitable distribution of resources and benefits.*

GMA requires a series of elements including land use, housing, transportation, utilities, capital facilities, parks and recreation, economic development and recently, climate change and resiliency. The Comprehensive Plan provides policies that are considered in the exercise of the City's authority under SEPA; see Seattle's SEPA Policies at SMC 25.05.665.

As part of the scoping process in Fall 2022, the City identified climate and equity metrics that were to be addressed in the EIS analysis. In addition, for each environmental topic thresholds and metrics were developed to address the elements of the environment proposed during EIS scoping including those identified in WAC 197-11-444 and WAC 197-11-960.

For each environmental topic this summary describes an analysis of equity and climate performance criteria associated with that topic.

1.6.1 Earth & Water Quality

Source: City of Seattle, 2023.

How did we analyze Earth & Water Quality?

The EIS team reviewed documents and maps identifying critical areas, surface water, shorelines, groundwater, sea level rise, and environmental health. Thresholds of significance utilized in this impact analysis include:

- Runoff Increases: Impervious surface expansions that would increase runoff flow volumes and durations to streams by magnitudes resulting in bank scour and erosion;
- Surface Water Quality: Increases in amount of pollution to receiving waters that would impair their designated uses (such as human contact and fish habitat);

- Groundwater Quality: Impervious surface expansions that would decrease groundwater recharge beyond designated limits and increases in amount of pollution discharged to levels that would contaminate groundwater supplies.
- Environmental Earth and Soil Hazards: Disturbances of existing contaminated areas to levels that could endanger human health or the environment.
- Climate Change—Extreme Precipitation: Growth concentrated into areas that are reasonably expected to be at risk for future flooding and landslides.
- Climate Change—Sea-level Rise: Growth concentrated into areas that are reasonably expected to be at risk for future sea-level rise.

What impacts did we identify?

Every Alternative would increase density in the city boundary and likely result in increased vehicle use, increased hard surfaces, and focus additional development closer to water resources. However, the redevelopment associated with each plan Alternative would comply with City codes requiring stormwater management, critical area protections, building upgrades, and other measures to avoid or minimize potential impacts to earth and water resources.

Direct: Direct impacts relate to the development that could be allowed by each alternative over the 20-year planning period.

- Construction impacts—Construction activities can involve removal of vegetation and soil disturbance, causing erosion, water quality impacts, and potential for soil contamination. Construction activities and associated rainfall runoff controls are required to meet permitting requirements that should prevent or minimize adverse impacts.
- Vehicle Use—All of the plan Alternatives would result in increased vehicle use. Higher numbers of vehicle trips can potentially increase contamination of local receiving waters, depending on the level of stormwater runoff treatment provided to the roadways.
- Hard Surfaces—All of the plan Alternatives would result in an increase in the amount of hard surface (i.e., parking, buildings, etc.) in the city. The amount of hard surface versus vegetation in each place type impacts the way rainwater runoff mixes with potential pollution and soaks into the earth or is transported to natural receiving waters.

Indirect: Indirect impacts potentially occur as a result of the proposed action and are reasonably foreseeable, but they occur later in time or farther removed in distance. Indirect impacts on earth and water resources generally come from each alternative's potential indirect changes to pollutant sources and land cover through changes to the pattern and locations of population density and growth rate. As outlined in Vision 2050 (PSRC, 2020), focusing growth in previously developed urban areas will result in less impact on regional earth and water resources than focusing the same growth in previously undeveloped areas outside of cities that add new impervious surfaces controlled under current standards. Overall, the indirect effect from every Alternative is considered beneficial to earth and water resources in the region that includes the city and areas beyond.

What is different between the Alternatives?

Citywide

Expected changes to single-occupancy vehicle trips are used as an indicator of potential increased pollution from vehicles. Increases in single-occupancy vehicle trips are presented in **Exhibit 1.6-1**, which is based on data from **Section 3.10 Transportation**. Alternative 1 has the lowest studied housing units and Alternative 5 the most, with Alternatives 2-4 moderate in growth. Thus, the potential for pollution due to single-occupancy vehicle trips matches this range. Factors that are used as gauges of increased hard surfaces are summarized in **Exhibit 1.6-1** and include number of housing units and distribution of housing (new development is assumed to create more hard surfaces when it is spread into areas like Neighborhood Residential rather than concentrated into centers). Additional considerations of changes in land cover, including changes in vegetation, are discussed in **Section 3.3 Plants & Animals**.

Exhibit 1.6-1. Impacts Based on Expected Pollution and Runoff Increases

Metric	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
Pollution Indicator: Daily Single-Occupancy Vehicle Trips (millions)	1.78	1.85	1.85	1.85	1.91
Hard Surface Indicator: Housing Units	80,000	100,000	100,000	100,000	120,000
Hard Surface Indicator: Share of Developable Acres					
Existing Centers	58%	58%	58%	58%	58%
Plan Additions: Centers and Corridors	0%	6%	0%	15%	**20%**
Neighborhood Residential	0%	0%	**29%**	0%	13%
Outside Subareas*	42%	36%	13%	27%	9%
Impact of Alternative Compared to No Action	**Baseline**	**Lowest Impact**	**Highest Impact**	**Moderate Impact**	**Highest Impact**

Source: City of Seattle, 2023; BERK, 2023.

Equity & Climate Vulnerability Considerations

Several areas of the city rank high (in the upper half of the scoring range) for environmental health disparities. Redevelopment in these areas associated with the plan Alternative could have both beneficial and detrimental impacts to the population in these areas, as follows:

- Exposure to Contaminated Sites: In areas with environmental health disparities, redevelopment allowed by the studied Alternatives could have both beneficial and detrimental impacts to the population in these areas. Redevelopment can sometimes pose a risk of exposure from contaminated sites or motivate additional clean-up and protection, depending on the scale of the project. The City regulates development around known contaminated sites.
- Water Quality: Redevelopment often triggers requirements to upgrade stormwater management to meet current standards, which can either avoid impacts or result in a

benefit to earth and water resources, and in turn to those living in the surrounding community. Alternative 1 would have the least potential for equitable investments in stormwater quality improvements with the level of housing units compared to Alternative 5 with the most and Alternatives 2 to 4 moderate potential. However, each of the plan alternatives could have increased environmental impacts where development density is focused in closer proximity to water resources.

- Flooding and Landslides: Where redevelopment would trigger installation of newer stormwater infrastructure as described above, that infrastructure can be designed to be more resilient to changes in rainfall frequencies and volumes, thereby lowering the flood risks for the community. While Alternative 1 retains current plans and regulations, the action alternatives advance the City's climate resilience with a new climate element based on a climate vulnerability assessment.
- Sea-Level Rise: Areas currently at risk for sea level rise are in Area 7 along the Duwamish River. There is a potential for sea level rise and storm surge risks elsewhere in Areas 1, 3, 4, and 6. Alternative 1 tends to have less growth in these areas and Alternative 5 the most. In Area 3 the growth under Alternative 2 would be similar to Alternative 5. However, action alternatives would include a new climate element required under the Growth Management Act (GMA) and climate resilience strategies to direct growth away from shorelines.

130th/145th Station Area

The 130th/145th Station Area is in close proximity to Thornton Creek, and runoff from these areas is in the associated regulated stream basin.

- Alternative 1, No Action, would have the lowest potential land cover conversions of vegetation to hard surface, the lowest expected increase in daily vehicle trips, and would focus increased density farther away from water resources than all other Alternatives.
- Alternative 2 would have neighborhood center development in the station area. Alternative 2 would have the least potential land cover conversions of vegetation to hard surface, the lowest expected increase in daily vehicle trips, and would focus increased density farther away from water resources than all other action alternatives. Alternative 2 presents the lowest potential for direct impacts on earth and water resources within the 130th/145th Station Area among the action alternatives.
- In Alternative 5, the 130th/145th Station Area would specifically include areas to be reclassified as an urban center and would have relatively higher potential land cover conversions of vegetation to hard surface, the highest expected increase in daily vehicle trips, and would focus the highest amount of increased density closer to water resources than all other action alternatives.

What are some solutions or mitigation for impacts?

The Comprehensive Plan includes policies relevant to the city-wide protection and restoration of earth and water resources. Action alternatives would amend all elements as part of the

Periodic Update; this includes similar and improved policies addressing earth and water resources particularly related to climate resilience.

In addition to new Comprehensive Plan policies under action alternatives and existing codes and regulations addressing critical areas and stormwater, the City could consider:

- Continued implementation of SDOT policy to avoid adding or expanding roadways through transit and other approaches.
- Strengthen critical areas ordinances and restore critical area buffers.
- Update the Shoreline Master Program to increase sea-level rise resiliency actions (such as construction of barriers or property acquisitions) by basing boundaries and elevation restrictions on the Mean Higher High Water Mark (the average of the higher daily tides) or some other metric higher than the Ordinary High Water Mark.
- Install updated stormwater controls on roadways, which are not likely to be upgraded as part of the parcel redevelopments included in the Alternatives.
- Continue research and implementation of innovative stormwater best management practices, especially those focused water quality treatment in the most urban areas.
- Implement the Puget Sound Partnership Action Agenda and Water Resource Inventory Area Salmon Recovery/Habitat Protection plans.
- Continue to implement PSRC's Four-Part Strategy to reduce greenhouse gas emissions.

With mitigation, what is the ultimate outcome?

Landcover across most of the city has been extensively modified for over a century by development, which has already resulted in long-term impacts to earth and water resources. Redevelopment of these areas associated with every project Alternative would be required to install permanent stormwater management systems to mitigate potential impacts from changes to the site runoff. These required stormwater management measures are designed to minimize pollution at the source; remove or reduce the amounts of pollutants in the stormwater before it enters the receiving water; or manage the rate at which stormwater flows into a receiving water, the separated storm conveyance system, or the combined sewer system. Furthermore, the comprehensive future planning associated with the project Alternatives that would focus growth in the city's already developed area as opposed to allowing that same growth to impact more rural, undeveloped areas is also expected to be beneficial to earth and water resources. Therefore, no significant unavoidable adverse impacts to earth and water resources are expected.

Summary of Thresholds

Exhibit 1.6-2 summarizes the results of the evaluation of potential impacts based on the evaluation in **Section 3.1 Earth & Water Quality**.

Exhibit 1.6-2. Earth & Water Quality Summary of Thresholds of Significance

Metric	Threshold	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
	Surface Water Quality: Impervious surface expansions; and increases in amount of pollution.[1]	▽	▽	▼	▽	▼
	Groundwater Quality: Impervious surface expansions that would decrease groundwater recharge and increases in amount of pollution discharged.[1]	▽	▽	▼	▽	▼
☒ Equity & Climate	Environmental Earth and Soil Hazards: Disturbances of existing contaminated areas to levels that could endanger human health or the environment.[2]	▽	▽	▽	▽	▽
☒ Equity & Climate	Climate Change—Extreme Precipitation: Growth focused into areas that are reasonably expected to be at risk for future flooding and landslides.[3]	▼	▽	▽	▽	▽
☒ Equity & Climate	Climate Change—Sea-level Rise: Growth focused into areas that are reasonably expected to be at risk for future sea-level rise.[4]	▼	▽	▽	▽	▽

Note: Impacts are considered either unavoidable adverse (▼▼), adverse but able to be mitigated (▼), impact but less than adverse (▽), limited or none (—), moderately positive (△), or positive (▲).
1 All alternatives would increase hard surfaces (i.e., parking, buildings, etc., known as impervious surfaces). Each alternative allows development density in closer proximity to water resources. Alternatives 3 and 5 could result in more impervious areas and less tree canopy than other alternatives. Alternative 5 could result in more pollution due to higher growth and vehicle trips than other alternatives.
2 Redevelopment can sometimes pose a risk of exposure from contaminated sites or motivate additional clean-up and protection, depending on project scale. The City regulates development around known contaminated sites.
3 Where redevelopment would trigger installation of newer stormwater infrastructure it can be designed to be more resilient to changes in rainfall frequencies and volumes. Alternative 1 retains current plans and regulations, action alternatives advance the climate resilience policies and strategies.
4 Current codes are based on current water surface elevation metrics and may not fully address resiliency to potential impacts from forecasted sea-level rise. Alternative 5 could result in exposure of more people to sea level rise. Compared to Alternative 1, the action alternatives would potentially have less risk of sea level rise exposure to communities because of new climate element and resilience strategies and direct growth away from shorelines.

1.6.2 Air Quality & GHG Emissions

How did we analyze Air Quality & GHG Emissions?

The EIS evaluates the air quality impacts of implementing the Alternatives and focuses on two criteria air pollutants: carbon monoxide (CO) and particulate matter (PM) resulting from changes in land uses and transportation patterns. It also considers other criteria air pollutants such as ozone precursors (reactive organic gases, ROGs, and oxides of nitrogen, NOx) and Toxic Air Pollutants (TAPs).

The project team collected data from the following sources to support analysis of existing air quality conditions and potential effects of the project Alternatives:

- U.S. Environmental Protection Agency Greenbook (EPA, 2021)
- Puget Sound Clean Air Agency (PSCAA) and Ecology Air Monitoring Network
- 2016-2021 PSCAA Air Quality Data Summaries (PSCAA)
- 2020 Community Greenhouse Gas Emissions Inventory (Seattle, 2022)
- Washington Department of Ecology Air Quality Standards and Greenhouse Gas Emissions Inventory (Ecology, 2022a and 2022b)

Mobile emissions were estimated using the EPA's Motor Vehicle Emission Simulator (MOVES) model.

The thresholds of significance utilized in this impact analysis include:

- Air Pollution: Growth concentrated in areas with high exposure to air pollution.
- Per Capita GHG emissions: Increase in GHG emissions on a per capita basis.
- Consistency with other efforts: Actions would prevent or deter statewide, regional, or local efforts to reduce GHG emissions.

What impacts did we identify?

Construction: Future growth under any Alternative would result in development of new residential, retail, light industrial, office, and community/art space and associated emissions generated during construction activities would include exhaust emissions from heavy duty construction equipment, trucks used to haul construction materials to and from sites, worker vehicle emissions, as well as fugitive dust emissions associated with earth-disturbing activities, and other demolition and construction work. Criteria air pollutants would be emitted during construction activities from demolition and construction equipment, much of it diesel-powered, trucks used to haul construction materials to and from sites, and from vehicle emissions generated during worker travel to and from construction sites.

Construction-related GHG emissions from any given development project that may occur in the next 20 years would be temporary and would not represent an on-going burden to the City's inventory. However, cumulatively it can be assumed that varying levels of construction

activities within the city would be ongoing under any of the Plan Alternatives and hence, cumulative construction related emissions would be more than a negligible contributor to GHG emissions within the city.

Transportation: All action alternatives result in roughly the same annual GHG emissions. The variation is within approximately one half of one percent. This is because the projected improvements in fuel economy outweigh the projected increase in VMT. Therefore, roadway emissions are considered a minor adverse impact.

What is different between the Alternatives?

Citywide

GHG emissions would differ among the Alternatives with the lowest total emissions under Alternative 1 and the most under Alternative 5. Alternatives 2, 3, and 4 have the same growth. On a per capita basis, Alternative 5 would have the least.

Exhibit 1.6-3. GHG Emissions ($MTCO_2e$) by Alternative and Per Capita Rate

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Transportation	-1,662	-834	-835	-835	176
Buildings	48,422	50,489	50,926	50,654	52,785
Waste	60,834	64,053	64,294	65,294	67,917
Total Emissions	107,594	113,708	114,385	114,113	120,878
Population Growth Estimate	164,000	205,000	205,000	205,000	246,000
Per Capita GHG Emissions	**0.66**	**0.55**	**0.56**	**0.56**	**0.49**

Notes: Population growth calculated using City GIS data for total housing units and population (total units/population = persons per household), assuming 2.08 persons per household
Source: Kimley-Horn, 2023

Equity & Climate Vulnerability Considerations

Portions of Seattle located along major roadways (freeways and the most-traveled highways) are exposed to relatively high levels of air borne toxics, resulting in high cancer risk values. Risks and hazards drop dramatically in places farther than 200 meters (656 feet) from the center of highways; for the EIS, a buffer area of 500 to 1,000 feet has been considered from roads with daily trips greater than 100,000 vehicles to identify potential exposure of sensitive populations to air toxics; this includes Interstate 5 north of Interstate 90. Within the "buffer" study area, the potential for dwelling units is described for each alternative:

- Under Alternatives 1, 3, and 4, the number of dwelling units within the portion of urban centers and villages in the 1,000-foot buffer area would be the lowest.
- Alternative 2 would place a greater number of dwelling units within the 1,000-foot buffer when compared to Alternative 1, 3, and 4, but fewer units compared to Alternative 5.

- Alternative 5 would place the greatest number of dwelling units within the 1,000-foot buffer when compared to the other Alternatives.

130th/145th Station Area

Zoning designations under **Alternative 1** would be retained within the 130th/145th Station Area and no new areas will be designated for mixed-use or higher density than exists under existing conditions. Implementation of Alternative 1 assumes a growth potential of 840 housing units and 716 jobs in proximity to the future light rail and BRT stations.

- **Construction:** Station Area growth under Alternative 1 would be the lowest compared to all other Alternatives. Therefore, emissions associated with heavy-duty construction equipment, trucks, worker vehicles, and fugitive dust would likely be the lowest among all Alternatives.
- **Operations—Criteria Pollutants:** Transit has been identified as the most frequent and successful tool in reducing VMT (WSDOT, 2022). Transit improvements overall provide a VMT reduction of up to 2.6% (WSDOT, 2022). Therefore, transit service and connectivity provided by the future light rail and BRT stations in combination with Alternative 1 growth potential, in comparison to baseline conditions, would result in improved transit service and connectivity when compared to existing conditions, providing greater potential for VMT reduction and reductions in criteria pollutants.
- **Operations—Greenhouse Gas Emissions:** Transit service and connectivity provided by the future light rail and BRT stations in combination with Alternative 1 growth potential, in comparison to baseline conditions, would result in improved transit service and connectivity when compared to existing conditions, providing greater potential for VMT reduction and reductions in GHG emissions. The housing growth potential under Alternative 1 would be the lowest compared to all other Alternatives. Therefore, GHG emissions associated with building energy use and solid waste would be lowest under Alternative 1.
- **Exposure to Pollution**: Target growth under Alternative 1 within the Station Area would be lowest among all other Alternatives and would place the least number of residents in proximity to transportation-related pollutants along I-5.

Implementation of **Alternative 2** assumes a growth potential of 2,208 housing units, which is greater than the growth potential of Alternative 1.

- **Construction:** Emissions associated with heavy-duty construction equipment, trucks, worker vehicles, and fugitive dust would likely be greater than Alternative 1 and less than Alternative 5 based on the target growth in dwelling units.
- **Operations—Criteria Pollutants:** Increased growth potential within neighborhood centers combined with improvements to transit service and connectivity, when compared with Alternative 1, would result in greater potential for VMT reduction and reductions in criteria pollutant emissions.
- **Operations—Greenhouse Gas Emissions:** As stated above, increased growth potential within neighborhood centers combined with improvements to transit service and connectivity, when compared with Alternative 1, would result in greater potential for VMT

reduction, resulting in reductions in GHG emissions. However, target growth within the Station Area under Alternative 2 would be greater than Alternative 1, resulting in higher emissions related to building energy consumption and solid waste generation.

- **Exposure to Pollution**: Target growth under Alternative 2 within the Station Area would be greater than Alternative 1 and would place a greater number of residents in proximity to transportation-related pollutants along I-5. Compared to Alternative 5, Alternative 2 would place a fewer number of residents in proximity to transportation-related pollutants along I-5.

Under **Alternative 5**, an urban center designation on both the west and east sides of the 130th Station Area would merge with an existing commercial node to expand residential mixed use near the station. Implementation of Alternative 5 assumes a growth potential of 2,703 housing units, which is greater than all other Alternatives.

- **Construction:** Station Area growth under Alternative 5 would be the greatest compared to all other Alternatives. Therefore, emissions associated with heavy-duty construction equipment, trucks, worker vehicles, and fugitive dust would likely be the highest among all Alternatives.
- **Operations—Criteria Pollutants:** Increased growth potential within urban centers combined with improvements to transit service and connectivity provided by the stations, when compared with all the other Alternatives, would result in greatest potential for VMT reduction and reductions in criteria pollutant emissions.
- **Operations—Greenhouse Gas Emissions:** As stated above, Station Area growth under Alternative 5 would result in the greatest potential for VMT reduction and reductions in transportation-related GHG emissions. However, Station Area growth would be the highest under Alternative 5, likely resulting in the highest emissions related to building energy consumption and solid waste generation.
- **Exposure to Pollution**: Target growth under Alternative 5 within the Station Area would be the greatest compared to all other Alternatives and would potentially place the greatest number of residents within close proximity to transportation-related pollutants along I-5.

What are some solutions or mitigation for impacts?

In addition to current and proposed policies, including transportation, and a new climate element with the One Seattle Comprehensive Plan Update, the following mitigation measures are considered in **Section 3.2 Air Quality & GHG Emissions**.

- VMT Related: Pedestrian facilities, bicycle improvements, transit improvements, congestion pricing, roadway fees, and tolls, land use mix and compactness.
- Electric vehicles
- Residential strategies including tree canopy, street sweeping, appropriate location of truck routes, and zoning standards addressing location, building, and site design.
- Development standards that require or incentivize enhanced air filtering and circulation to address transportation-generated particulates for residences and other sensitive uses.

The 130th/145th Station Area measures would be similar and tailored to the station area:

- Incorporation of development standards including requirements for enhanced air filtration and circulation for residential units within the Station Area and site intake vents as far from substantial sources as practicable.
- Building design strategies to minimize the number of residential units facing I-5.
- Planting of trees along streets with residential development and along commercial corridors including but not limited to the reforestation plan for the Lynnwood Link Extension.
- Restrict open spaces such as balconies near the source of toxic air contaminants.
- Restrict operable windows near sources of toxic air contaminants.

With mitigation, what is the ultimate outcome?

No significant unavoidable adverse impacts to air quality and greenhouse gas emissions are anticipated. Through mitigation implementation, local and state climate actions, and expected continued regulatory changes, the alternatives may result in lower GHG emissions on a per capita basis compared to existing conditions. The Alternatives would not prevent or deter statewide, regional, or local efforts to reduce GHG emissions. While each alternative would generate GHG emissions from growth and development within the city, the benefit of channeling development to targeted areas that might otherwise occur in peripheral areas of the city or region could serve to offset these impacts.

Summary of Thresholds

Exhibit 1.6-4 summarizes potential impacts based on the evaluation in **Section 3.2 Air Quality & GHG Emissions**.

Exhibit 1.6-4. Air Quality & GHG Emissions Thresholds of Significance

Metric	Threshold	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
☒ Equity & Climate	Air Pollution: Growth focused in areas with high exposure to air pollution.[1]	▽	▼	▽	▽	▼
☒ Equity & Climate	Per Capita GHG emissions: Increase in GHG emissions on a per capita basis.[2]	△	△	△	△	△
☒ Equity & Climate	Consistency with other efforts: Actions would prevent or deter statewide, regional, or local efforts to reduce GHG emissions.[3]	—	—	—	—	—

Note: Impacts are considered either unavoidable adverse (▼▼), adverse but able to be mitigated (▼), impact but less than adverse (▽), limited or none (—), moderately positive (△), or positive (▲).
1 Air toxics and particulate matter risks and hazards are greatest near major highways and drop beyond approximately 656 feet from the center of highways. A buffer area of 500 to 1,000 feet has been considered to reduce the potential exposure of sensitive populations to air toxics. Under any alternative, increased residential densities could be expected within this buffer. Alternative 2 would place a greater number of units within the 1,000-foot buffer when compared to Alternative 1, 3, and 4, but fewer units compared to Alternative 5. Alternative 5 would place the greatest number of units within the 1,000-foot buffer when compared to the other alternatives.

2 According to the Seattle 2020 Community GHG Inventory, citywide core per capita emissions was 4.09 MTCO2e per resident in 2020. Alternative 1 would result in per capita emissions of 0.66 MTCO2e, which is significantly lower than the existing per capita rate. While Alternative 5 results in the highest overall housing growth and VMT, resulting in the highest GHG emissions associated with transportation, building energy, and waste compared to the other alternatives, per capita emissions would be the lowest at 0.49. Other action alternatives are in the range of Alternatives 1 and 5.
3 The alternatives would not prevent or deter statewide, regional, or local efforts to reduce GHG emissions. While each alternative would generate GHG emissions from growth and development within the city, the benefit of channeling development to targeted areas that might otherwise occur in peripheral areas of the city or region could serve to offset these impacts.

1.6.3 Plants & Animals

How did we analyze Plants & Animals?

Analyses in this EIS consider all plants and animals that may be affected by the Alternatives, with particular emphasis on tree canopy cover and on streams that may receive stormwater runoff from pollution-generating impervious surfaces. This emphasis reflects heightened concern about those two elements of the environment. During the public scoping process, many stakeholders expressed concern about the loss of tree canopy cover in the city. With regard to stormwater, a growing field of research is finding that stormwater runoff contains contaminants that are harmful to fish, including species that are listed as threatened or endangered under the Endangered Species Act (ESA).

Thresholds of significance utilized in this impact analysis include:

- Impacts that would reduce the likelihood of survival or recovery of a plant or animal species in the wild, compared to the No Action Alternative
- A substantially increased potential for tree canopy cover loss, compared to the No Action Alternative.
- An appreciable increase in the delivery of stormwater contaminants to fish-bearing streams, compared to the No Action Alternative.

What impacts did we identify?

Reducing the amount of area dedicated to lower-density residential uses and increasing the amount of area available for conversion to higher-density uses would lead to an elevated risk of impacts to vegetation including tree canopy loss on redeveloped parcels and in nearby road rights-of-way.

Source: City of Seattle, 2023.

What is different between the Alternatives?

Citywide

Plant and Animal Species: Under any of the alternatives, the potential for adverse effects on plants and animals would be avoided, minimized, documented, and mitigated to the greatest extent possible through regulatory reviews and permitting processes that apply to individual projects. None of the alternatives propose any modifications to those processes. The action alternatives would include policies to maintain and enhance tree canopy in rights of way and city property and to expand tree canopy throughout the community, prioritizing residential and mixed-use areas with the least current tree canopy. Implementation of these policies could lead to beneficial effects for some species. Given that habitats in the city limits represent a very small proportion of the total amount of habitat available to any species, differences in the availability or distribution of habitats in the city would be unlikely to result in any appreciable impacts on regional populations of plants or animals. Based on these considerations, none of the alternatives would be expected to result in impacts that would reduce the likelihood of survival or recovery of a plant or animal species in the wild.

Runoff and Streams: Development or redevelopment projects may create or replace impervious surfaces, including some pollution-generating impervious surfaces. If runoff from these surfaces enters fish-bearing streams, contaminants in the runoff may harm or kill fish. On-site stormwater management would likely be required for development or redevelopment

projects within the city limits. Implementation of required stormwater management would occur under any of the Alternatives and would prevent or minimize the delivery of contaminants to fish-bearing streams. This, in turn, would avoid or minimize the potential for adverse impacts on aquatic species and habitats.

The locations, design, and performance standards of stormwater facility improvements would be determined on a project-by-project basis and cannot be predicted for a programmatic review such as this. For this analysis, it is assumed that the potential for stormwater contaminants to be delivered to streams would be proportional to the amount of area available for conversion to higher-density uses. This assumption is based on the reasoning that a greater amount of area available for redevelopment projects would translate into a greater potential that there may be some projects for which it is not possible to avoid adverse impacts on water quality altogether.

Tree Canopy: The potential for reductions in tree canopy cover would be affected by the amount of area available for conversion to higher-density uses and the amount of area redeveloped for housing. A substantial portion of development-related reductions in canopy cover would be reversed over time as replacement trees grow, and the potential for any such reductions would be limited by regulations that protect existing trees and require replacement of trees that are removed from private parcels. Requirements for tree planting in road rights-of-way may create opportunities for additional tree canopy development in areas that currently lack street trees. Also, the action alternatives would include policies to maintain and enhance tree canopy.

Based on the amount of area available for conversion to higher-density uses, Alternative 1 (No Action) would have the lowest potential for development-related reductions in tree canopy cover. Among the action alternatives, Alternative 2 would have the lowest potential for reductions in tree canopy cover; this alternative focuses growth in neighborhood centers. Alternative 3 would have a higher potential for reduction in tree canopy cover as it would be expected to allow for residential development at higher densities in the Neighborhood Residential zones. Given the highest number of homes produced and the broadest range of areas affected, Alternative 5 would tend to have the highest potential for loss of tree canopy.

Encouraging residential and commercial development within the urban environment of Seattle could indirectly benefit plants and animals by easing development pressure in less-developed areas outside the city.

Equity & Climate Vulnerability Considerations

Areas with disadvantaged populations tend to have less canopy cover than other areas. Generally, these areas also lost more canopy cover during the 5-year study period of the City's tree canopy assessment. Alternatives that concentrate growth in areas where extensive multifamily development is already present may have a higher likelihood of contributing to canopy cover loss in areas with disadvantaged populations. The risk of adverse impacts on disadvantaged populations would be partially offset by several factors, such as increased availability of lower-cost housing options in areas with higher canopy cover and access to large parks.

Trees play a vital role in moderating temperatures in urban areas. In general, areas with more canopy cover have cooler temperatures, compared to areas with less canopy cover. Increasing canopy in low-canopy neighborhoods is a critical aspect of the City's long-term heat preparedness strategy (Seattle Office of Sustainability & Environment 2022). Alternatives with a higher likelihood of contributing to canopy cover loss in areas with low canopy cover would have an elevated risk of exacerbating local heat impacts.

Compared to the action alternatives, Alternative 1 would result in less growth in the city overall but would tend to focus that growth in areas where extensive multifamily development is already present. Among the action alternatives, Alternative 3 would have the lowest likelihood of contributing to such effects; this alternative would minimize the amount of growth in areas where extensive multifamily development is already present. Alternative 2 would focus growth in a limited number of neighborhood centers, where extensive multifamily development is already present. As a result, the likelihood of contributing to adverse effects on disadvantaged populations or exacerbating climate vulnerability would be higher than under Alternative 3. Alternative 4 would likely have a level of impact for this topic that is between Alternatives 2 and 3. Alternative 5 would include the most housing units overall spread across a wide range of areas including neighborhood centers, corridors, and neighborhood residential areas. Consequently, the higher level of new homes could result in a higher likelihood of contributing to canopy cover changes that adversely affect disadvantaged populations or exacerbate climate vulnerability, compared to the other action alternatives. Under all of the action alternatives, disadvantaged communities would be expected to benefit from new policies that prioritize the protection, maintenance, and expansion of tree canopy in residential and mixed-use areas where tree canopy is currently low.

130th/145th Station Area

Alternative 1: No areas with relatively high canopy cover are found in areas that would continue to be designated as urban centers or urban villages in the 130th/145th Station Area under Alternative 1. No areas currently zoned primarily for single-family residential uses in the 130th/145th Station Area would be converted to higher-density designations under Alternative 1. As such, Alternative 1 would have a lower potential of leading to increased delivery of stormwater contaminants to streams in this area, compared to the other Alternatives.

Alternative 2: All three of the neighborhood centers that would be established in the 130th/145th Station Area under Alternative 2 would partially overlap areas with moderately high canopy cover. Approximately 117 acres in the 130th/145th Station Area (52 acres in the NE 130th Street unit and the full 65-acre area of the NE 145th Street unit) would be designated as neighborhood centers. Areas that are currently zoned primarily for single-family residential uses and that would be converted to higher-density designations under Alternative 2 make up approximately one-half of the 117-acre area that would be designated as neighborhood centers. As such, Alternative 2 would have a higher potential than Alternative 1 of leading to increased delivery of stormwater contaminants to streams in this Area 1, but a lower potential than the other action alternatives.

Alternative 5: Alternative 5 would convert approximately 200 acres of parcels that are currently zoned primarily for single-family residential uses to higher-density designations. These areas would partially overlap areas with moderately high canopy cover. However, the housing target for these areas would be higher than under any of the other Alternatives. As a result, more redevelopment projects would be expected to occur in these areas under Alternative 5 than under the other alternatives, and Alternative 5 would thus have a higher potential of leading to increased delivery of stormwater contaminants to streams in this area, compared to the other Alternatives.

What are some solutions or mitigation for impacts?

The City has long-standing and new regulations intended to address stormwater quality and tree canopy retention. Measures that may increase and enhance tree canopy cover include the following:

- Implement a Green Factor requirement in Urban Neighborhood Residential zones. The Green Factor is a menu of landscaping strategies that is intended to increase the amount and quality of urban landscaping while allowing increased flexibility for developers and designers to efficiently use their properties.
- Add an open space requirement in urban neighborhood zones, encouraging space for trees. (As of Spring 2024, the City anticipates adopting new zoning standards in urban neighborhood zones, to allow for middle housing types that have footprints offering consolidated open space areas).
- Develop an adaptive management policy to collect, monitor, analyze, and learn from the results of code application and to assess the Tree Protection Code's effectiveness in achieving the goals of retaining or replanting trees and increasing canopy cover while allowing for more housing options.
- Encourage or require attached units rather than detached units, which could result in more plantable area by eliminating small corridors between buildings. This option may be feasible in areas that would be classified as neighborhood center, urban neighborhood, or corridor under the action alternatives.
- Increase funding or use of in-lieu fees for City-led tree planting and maintenance in parks and rights-of-way, particularly in areas identified as heat islands.
- Expand existing programs such as Trees for Neighborhoods, which provides trees and support for people who want to plant trees on their property or in the adjacent right-of-way.
- Develop a comprehensive plan for investment in the equitable distribution and resilience of the urban forest.
- Investigate technologies such as flexible pavement, soil cells, expanded tree pits, and appropriate soil types in City-owned rights-of-way.
- Pursue creative approaches for maximizing green infrastructure in appropriate locations in City-owned rights-of-way—for example, installing planted bike lane and curb line buffer

strips between curbs and sidewalks, or replacing parking spots and curb bulbs to support park-scale street trees.
- Collaborate with Seattle Public Schools and organizations such as Green Schoolyards America to increase tree cover on school grounds.

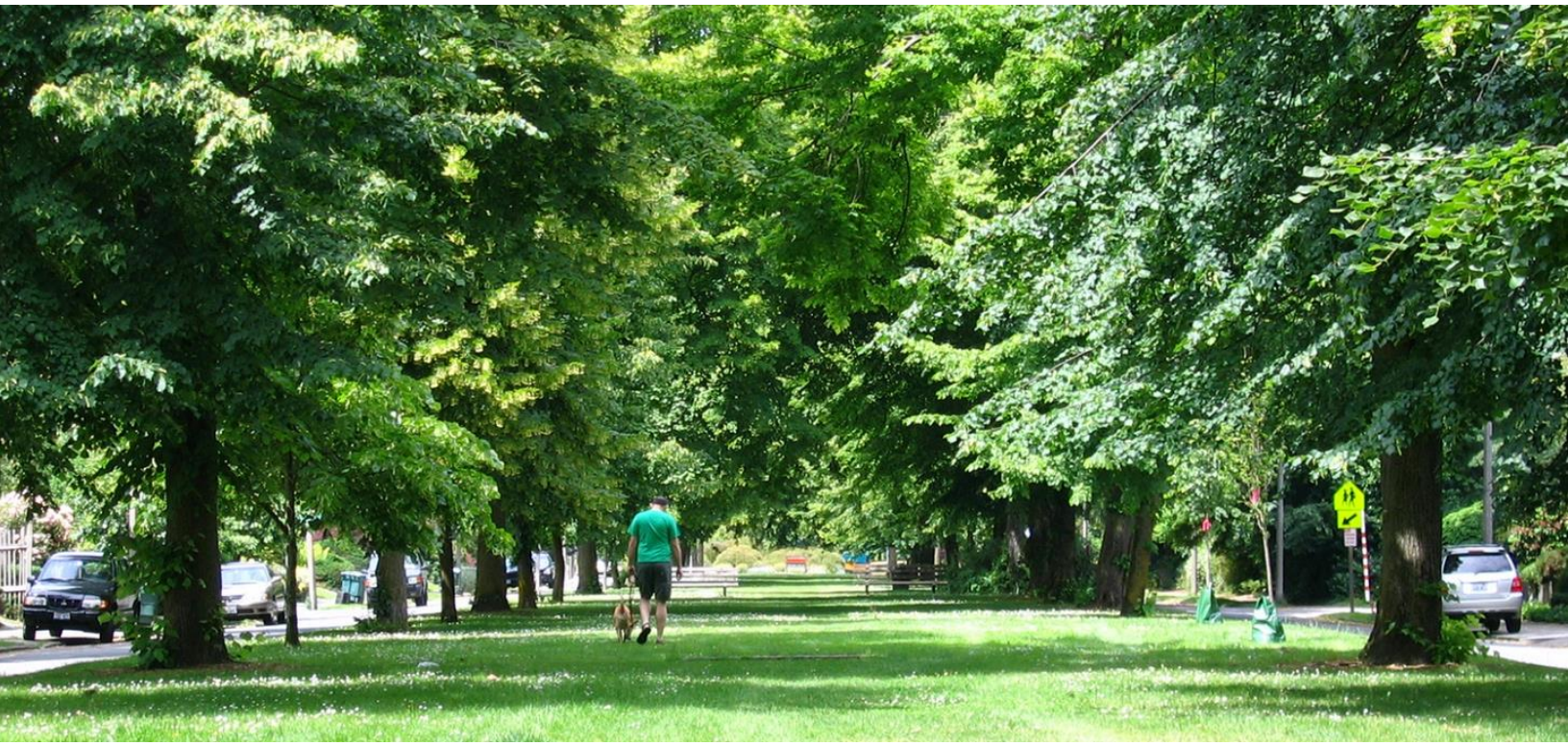
Possible additional measures for reducing the risk of delivering contaminants to fish-bearing streams include the following:

- Retrofit existing stormwater facilities to increase storage capacity and improve water quality treatment.
- Adopt stormwater detention standards that require new parcel development to detain larger volumes of stormwater runoff on-site and in a manner that mimics predeveloped stormwater patterns.
- Set lower development size thresholds to require more parcel projects to install on-site stormwater management.
- Set lower limits for the maximum percentage of a new development that could be covered with impervious surfaces.
- Encourage expanded use of soil amendments to facilitate stormwater infiltration (i.e., low-impact development practices) where technically feasible.
- Sponsor or encourage public education about the threats posed to fish by contaminants in stormwater runoff.
- Provide a stronger program for maintaining stormwater treatment and detention facilities.

With mitigation, what is the ultimate outcome?

Under any of the Alternatives, population growth in Seattle will drive development and redevelopment of residential and commercial properties. Differences in the availability or distribution of habitats in the city would be unlikely to result in any appreciable impacts on regional populations of plants or animals. Based on this consideration, combined with the existing statutory and regulatory requirements that provide protection for plants and animals, none of the Alternatives would be expected to result in impacts that would reduce the likelihood of survival or recovery of a plant or animal species in the wild.

Similarly, none of the action alternatives would be expected to have significant, unavoidable adverse impacts on aquatic species and habitats. On-site stormwater management would likely be required for development or redevelopment projects within the city limits (see **Section 3.1.4**). Implementation of required stormwater management would occur under any of the alternatives. For these reasons, none of the action alternatives would be expected to result in an appreciable increase (compared to the No Action Alternative) in the delivery of stormwater contaminants to fish-bearing streams.



Source: City of Seattle, 2023.

Also, none of the action alternatives would be expected to have significant, unavoidable adverse impacts on tree canopy cover. As discussed in **Section 3.3.3**, the City's current tree protection regulations minimize the potential for development-related loss of tree canopy cover. For this reason, none of the action alternatives would result in a substantially higher potential for development-related tree canopy cover loss, compared to the No Action alternative. In addition, the potential for canopy loss due to other factors would be the same under all alternatives.

Encouraging residential and commercial development within the urban environment of Seattle could indirectly benefit tree canopy cover regionally by easing development pressure in less-developed areas outside the city. Increasing density in the city—particularly given the City's requirements for tree protection and replacement—would have fewer adverse impacts than would the conversion of undeveloped parcels in suburban areas to low-density residential uses. In addition, development-related canopy loss under any of the Alternatives would be expected to have a relatively minor influence on the total amount of tree canopy cover in the city.

Summary of Thresholds

Exhibit 1.6-5 summarizes potential impacts based on the evaluation in **Section 3.3 Plants & Animals**.

Exhibit 1.6-5. Plants & Animals Thresholds of Significance

Metric	Threshold	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
	Impacts that would reduce the likelihood of survival or recovery of a plant or animal species in the wild, compared to the No Action alternative.[1]	Future baseline	—	—	—	—
☒ Equity & Climate	A substantially increased rate of tree canopy cover loss, compared to the No Action alternative.[2]	Future baseline	▽(-)	▽(+)	▽(-)	▽(+)
	An appreciable increase in the delivery of stormwater contaminants to fish-bearing streams, compared to the No Action alternative.[3]	Future baseline	—	—	—	—

Note: Impacts are considered either unavoidable adverse (▼▼), adverse but able to be mitigated (▼), impact but less than adverse (▽), limited or none (—), moderately positive (△), or positive (▲).
1 Given that habitats in the city limits represent a very small proportion of the total amount of habitat available to any species, differences in the availability or distribution of habitats in the city would be unlikely to result in any appreciable impacts on regional populations of plants or animals. Based on these considerations, none of the alternatives would be expected to result in impacts that would reduce the likelihood of survival or recovery of a plant or animal species in the wild.
2 Within the range of the action alternatives, Alternative 2 has less conversion potential (-) and Alternative 3 the most (+), with Alternative 4 closer to Alternative 2 and Alternative 5 closer to Alternative 3.
3 On-site stormwater management would likely be required for development or redevelopment projects within the city limits. Implementation of required stormwater management would occur under any of the alternatives and would prevent or minimize the delivery of contaminants to fish-bearing streams. This, in turn, would avoid or minimize the potential for adverse impacts on aquatic species and habitats.

1.6.4 Energy & Natural Resources

How did we analyze Energy & Natural Resources?

This section addresses impacts related to energy and other natural resources. Models employed for air quality and transportation provide data useful to calculate energy use from transportation sources and buildings. Thresholds of significance utilized in this impact analysis include:

- Energy usage in excess of projected supply availability.
- Conflict with energy policies adopted by the City of Seattle.

What impacts did we identify?

Construction Impacts: Future growth under any Alternative would result in development of new residential, retail, light industrial, office, and commercial use. Fossil fuels for construction vehicles

and other energy-consuming equipment would be used temporarily and would not represent a significant demand on energy resources. Selecting building materials composed of recycled materials requires substantially less energy to produce than non-recycled materials and could be promoted to reduce construction energy impacts.

Source: City of Seattle, 2023.

What is different between the Alternatives?

Citywide

Transportation Energy: The EIS authors projected total vehicle miles traveled (VMT) by passenger vehicles, trucks, and buses to estimate annual transportation energy usage. **Exhibit 1.6-6** identifies total VMT by Alternative. Alternative 1 produces the least total VMT and Alternative 5 the most total VMT. Implementation of the One Seattle Comprehensive Plan would result in increased housing options and densities that, together with additional transit options such as the 130th and 145th Light Rail Stations, would reduce per-capita VMT.

Exhibit 1.6-6. Annual Vehicle Miles Traveled

	Existing	Alternative 1	Alternative 2	Alternative 3	Alternative 4*	Alternative 5
Total VMT**	22,272,230	24,434,250	24,776,040	24,670,240	24,776,040	25,199,240
Total VMT excluding buses	22,203,300	24,357,100	24,698,900	24,593,100	24,698,900	25,122,100
VMT per capita cars and trucks	17.2	13.7	13.5	13.5	13.5	13.4

Note: *Traffic data is not available for Alternative 4 because the projected VMT would fall between Alternative 2 and Alternative 3. For purposes of the analysis, it has been assumed that Alternative 4 VMT is equivalent to Alternative 2, which is higher than Alternative 3.
Includes cars, trucks, and buses. VMT in **Section 1.6.10 and **Section 3.10 Transportation** excludes buses.
Source: Fehr & Peers, 2023.

See **Exhibit 1.6-7** for a comparison of annual fuel usage for studied Alternatives in units of trillion British Thermal Units (Btu). All Alternatives would use more gas, diesel, and compressed natural gas (CNG). Alternatives 3 and 5 would use more ethanol.

Exhibit 1.6-7. Annual Transportation Fuel Usage (Trillion Btu)

	Existing	Alternative 1	Alternative 2	Alternative 3	Alternative 4*	Alternative 5
Gasoline	0.3471	0.34	0.35	0.35	0.35	0.36
Diesel	0.0141	0.02	0.02	0.02	0.02	0.02
CNG	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002
Ethanol	0.0006	0.0006	0.0006	0.0006	0.0006	0.0007

* Traffic data is not available for Alternative 4 because the projected VMT would fall between Alternative 2 and Alternative 3. For purposes of the analysis, it has been assumed that Alternative 4 VMT is equivalent to Alternative 2, which is higher than Alternative 3.
Source: Kimley-Horn, 2023.

Building Energy Demand: Increases in development would increase population and employment in the City of Seattle and would increase energy consumption. All future development would be required to adhere to energy efficiency standards combined with increased efficiency through performance requirements fostered by the Climate Action Plan and all-electric space and water heating required by the 2022 Washington Energy Code. Development within the City of Seattle under all Alternatives will primarily be comprised of commercial, industrial, and residential. All new development or redevelopment would be designed and constructed to meet the applicable state and City building and energy conservative code requirements which would reduce energy consumption as compared to prior structures which likely used more energy consumption on a pro rata basis. A mixture of newer and older development would likely be more energy efficient than existing development, based on changes to building codes, innovations in building and technologies, and compliance with City energy conservation measures such as regular building tune-ups.

Using federal annual end-use consumption data for various housing types in the western US, the EIS team estimated electricity and natural gas usage under each alternative from new building square footage due to target growth; see **Exhibit 1.6-8**. Residential dwellings vary by Alternative–80,000 dwelling units for Alternative 1, 100,000 dwelling units for Alternatives 2 through 4, and 120,000 dwelling units for Alternative 5—but employment is similar in all Alternatives, thus the difference is in household demand. Alternative 5 with the greatest dwelling units would have the most demand for electricity and natural gas and Alternative 1 the least. Non-residential consumption has been estimated based on 2020 data on building energy benchmarking for industrial and commercial uses from Seattle City Light. Compared to existing energy per capita energy usage of 0.0002 trillion Btu electricity and 0.00004 trillion Btu natural gas per capita in the State, per capita energy demand of all alternatives would be lower.

Exhibit 1.6-8. Building Energy Demand, New Building Square Footage Growth—Electricity and Natural Gas (trillion Btu)

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Electricity					
Residential	1.29	1.58	1.64	1.61	1.91
Commercial	1.56	1.56	1.56	1.56	1.56
Industrial	0.37	0.37	0.37	0.37	0.37
Total Demand	3.22	3.51	3.58	3.54	3.84
Percent of Statewide Consumption	0.18%	0.20%	0.20%	0.20%	0.22%
Per Capita Electricity Demand*	0.000020	0.000017	0.000017	0.000017	0.000016
Natural Gas					
Residential	0.17	0.21	0.21	0.21	0.25
Commercial	0.55	0.55	0.55	0.55	0.55
Industrial	0.18	0.18	0.18	0.18	0.18
Total Demand	0.90	0.94	0.95	0.94	0.98
Percent of Statewide Consumption	0.27%	0.28%	0.28%	0.28%	0.29%
Per Capita Natural Gas Demand*	0.0000055	0.0000046	0.0000046	0.0000046	0.0000040

* Per capita demand based on projected population increase.
Source: Kimley-Horn, 2023.

Equity & Climate Vulnerability Considerations

Extreme heat events will create increased energy demand for cooling while decreasing capacity and efficiency of energy systems as transmission lines and substations are stressed. Energy demand from buildings is lowest under Alternative 1 and greatest under Alternative 5 as noted above. Among Alternatives 2 through 4 with the same growth of 100,000 new dwellings but different patterns and types of housing, Alternatives 2 and 4 have lower building energy

demand with more compact housing types in neighborhood centers and corridors compared to Alternative 3 with more distributed housing in urban neighborhoods. As new buildings are constructed, measures to promote building and site design that promote passive cooling may be appropriate. All Alternatives have this potential to address cooling needs.

130th/145th Station Area

Alternative 1: Under Alternative 1, zoning designations would be retained within the 130th/145th Station Area and no new areas will be designated for mixed-use or higher density than exists under existing conditions. The future light rail station at 130th would be developed in an area that would allow three-story single-purpose residential development and four- to eight-story multifamily in the land surrounding the future 145th BRT Station. Impacts on supply availability related to existing conditions would be nominal:

- Alternative 1 assumes a growth potential of 840 housing units and 716 jobs, requiring approximately 0.02 trillion Btu of electricity and 0.005 trillion Btu of natural gas per year. This constitutes approximately 0.001% and 0.001% of statewide electricity and natural gas usage, respectively.

Alternative 2: Under Alternative 2, changes in land use designations focus on addressing transit-oriented developments, designating the station areas as neighborhood centers. Growth would be clustered in small mixed-use nodes near transit, resulting in denser and taller buildings with heights of up to 80 feet. Impacts on supply availability in comparison with existing conditions would be nominal:

- Implementation of Alternative 2 assumes a growth potential of 2,208 housing units and 979 jobs, requiring approximately 0.05 trillion Btu of electricity and 0.009 trillion Btu per year of natural gas. This constitutes approximately 0.003% and 0.003% of statewide electricity and natural gas usage, respectively, which are more than double the requirements of Alternative 1.

Alternative 5: Under Alternative 5, an urban centers designation on both the west and east sides of the 130th Station Area would merge with an existing commercial node to expand residential mixed use near the station. Growth would be accommodated in more mixed-use buildings, providing greater housing types in buildings with heights of up to 95 feet. Energy requirements under this Alternative would be slightly higher than Alternative 2 and impacts on supply availability in comparison with Alternative 2 would be nominal.

- Implementation of Alternative 5 assumes a growth potential of 2,703 housing units and 1,004 jobs, requiring approximately 0.05 trillion Btu of electricity and 0.01 trillion Btu of natural gas per year. This constitutes approximately 0.003% and 0.003% of statewide electricity and natural gas usage, respectively.

What are some solutions or mitigation for impacts?

In addition to the One Seattle Plan policy updates and regulations and commitments, the following mitigation efforts would reduce the use of power in building heating and cooling:

- Installation of solar (photovoltaic) and other local generating technologies.
- Implementation of sustainable requirements including the construction and operation of LEED-compliant (or similar ranking system) buildings.
- The use of passive systems and modern power saving units.
- Use of Alternative forms of energy could be included in larger developments where installation is cost effective.
- Implementation of conservation efforts and renewable energy sources to conserve electricity in new developments, including energy efficient equipment (i.e., light bulbs, appliances, and heating and air conditioning), and could reduce energy consumption.

With mitigation, what is the ultimate outcome?

No significant unavoidable adverse impacts on energy are anticipated. The development capacities proposed under all Alternatives would increase overall energy consumption. This is mitigated by applying energy codes to new development and VMT measures for building and transportation energy usage. Adherence to energy efficiency measures would ensure that future development would not result in consumption of energy resources in excess of projected supply availability.

Average annual transportation fuel consumption would increase under all alternatives when compared to existing conditions by less than one percent due to the increase in total VMT associated with projected growth. However, with increased average vehicle fuel efficiency and providing the infrastructure and opportunity for people living and working in the City of Seattle to access alternative transportation modes, action alternatives would not result in the consumption of energy resources in excess of projected supply and would not conflict with energy policies adopted by the City of Seattle.

Since average annual energy use per capita is expected to decrease, the action alternatives would not conflict with energy policies adopted by the City of Seattle.

Summary of Thresholds

Exhibit 1.6-9 summarizes potential impacts based on the evaluation in **Section 3.4 Energy & Natural Resources**.

Exhibit 1.6-9. Energy Thresholds of Significance

Metric	Threshold	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
	Energy usage in excess of projected supply availability.[1]	—	—	—	—	—
	Conflict with energy policies adopted by the City of Seattle[2]	—	—	—	—	—

Note: Impacts are considered either unavoidable adverse (▼▼), adverse but able to be mitigated (▼), impact but less than adverse (▽), limited or none (—), moderately positive (△), or positive (▲).
1 The development capacities proposed under all alternatives would increase overall energy consumption. Adherence to energy efficiency measures would ensure that future development would not result in the consumption of energy resources in excess of projected supply availability. Average annual transportation fuel consumption would increase under all alternatives when compared to existing conditions by less than one percent due to the increase in total VMT associated with projected growth. Providing the infrastructure and opportunity for people living and working in the City of Seattle to access alternative transportation modes, action alternatives would not result in the consumption of energy resources in excess of projected supply.
2 Improvements in fuel efficiency combined with reductions in VMT would contribute to reductions in transportation fuel demand on a per capita basis. Compared to existing energy per capita energy usage in the State, per capita energy demand of all alternatives would be lower. Since average annual energy use per capita is expected to decrease, the action alternatives would not conflict with energy policies adopted by the City of Seattle.

1.6.5 Noise

How did we analyze Noise?

The EIS evaluates noise/vibration impacts associated with implementing the Alternatives considered in this EIS. The evaluation considers available reports, regulatory requirements, and guidance from federal, state, port, and city sources. The EIS noise expert reviewed technical data from noise monitoring locations and employed a Federal Highway Administration (FHWA) traffic noise model. Thresholds of significance utilized in this impact analysis include:

- The Alternative would cause future traffic noise levels of 10 dBA or more above existing noise levels.
- Noise-sensitive receivers are concentrated near noise-generating (non-residential) activities or major roadways.

What impacts did we identify?

Construction Noise: Resulting construction activities associated with development of new residences, commercial and retail land uses, and mixed-use developments would have the potential to temporarily affect nearby sensitive receivers such as existing residences, schools,

and nursing homes. Construction activities with the highest potential for construction-related noise or vibration impacts are those that require pile driving or other similar invasive foundation work. These types of construction activities are generally associated with high-rise development which all Alternatives envision to occur within urban centers. The Seattle noise ordinance restricts the use of impact equipment to certain times of day and noise levels. The City of Seattle does not enforce quantitative vibration standards.

Transportation Noise Contribution by Alternatives: Traffic noise levels for all Alternatives would increase by less than 1.5 dBA along all roadway segments modeled roadways. Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference, and a 5-dBA change is clearly perceptible and is typically considered substantial. Consequently, an increase of less than 1.5 dBA would be considered a minor impact on environmental noise.

What is different between the Alternatives?

Citywide

Operational Noise Sources: If an active industrial development is proposed adjacent to noise-sensitive land uses, noise compatibility problems could arise. Noise levels from stationary sources would be required to comply with the exterior sound level limits outlined in the City's Noise Ordinance (SMC Chapter 25.08). Following compliance with the City's Noise Ordinance, stationary noise source impacts from all Alternatives would not be significant.

Equity & Climate Vulnerability Considerations

Exterior noise levels in Seattle close to highways, freeways, and high traffic roadways can exceed 65 dBA L_{dn}. The 65 dBA L_{dn} noise level is important because it represents the exterior noise level which can be reduced to 45 dBA L_{dn} using standard construction techniques. The U.S. Department of Housing and Urban Development (HUD) utilizes a screening distance of 1,000 feet of highways or major roadways, 3,000 feet for railroads, and 15 miles for FAA-regulated airfields to evaluate transportation noise effects at sensitive receivers. EIS analysis indicates that existing uses along Interstate 5 (I-5) north of Interstate 90 (I-90) consist primarily of residential uses, within 1,000 feet of transportation noise sources.

Most alternatives seek to locate residential uses near transit or highly traveled roadways to reduce vehicle miles traveled within the city. New sensitive receptors (e.g., residential uses) could be located within noise contours up to 65 dBA L_{dn} (or greater) due to proximity to roadway, rail, and airport noise sources. Alternative 1 would have the lowest growth and Alternative 5 the most. Alternative 4 would put more density in corridors, some of which is found in the 1,000-foot buffer, and more impact is anticipated under Alternative 4 than Alternative 2. The growth strategy of Alternative 5 would result in the densest concentration of sensitive uses near major highways/roadways, transit facilities, and industrial/maritime uses.

Alternative 1 would locate several urban centers and urban villages within 1,000-feet of roadways with greater than 100,000 daily vehicles. Alternatives 1, 3, and 4 would have less population in proximity to the 1,000 feet of the major roadways than Alternatives 2 and 5 based on the areas of focus for growth associated with the Alternatives. Alternative 2 would place a greater number of units within the 1,000-foot buffer when compared to Alternative 1, 3, and 4, but fewer units compared to Alternative 5. Alternative 5 would place the greatest number of units within the 1,000-foot buffer when compared to the other Alternatives.

130th/145th Station Area

Alternative 1: Under Alternative 1, the 130th/145th Station area would experience minimal traffic noise increases and stationary source noise levels (e.g., HVAC systems, parking noise, conversations, and other noise sources typical of urban areas) but highway traffic noise sources would continue to dominate the existing noise environment.

Alternative 2: Under Alternative 2, the 130th/145th Station Area would be designated as neighborhood center and would include a mix of low-rise residential, midrise residential, and neighborhood commercial uses. Some traffic noise and stationary source noise levels could increase though not above background highway traffic noise. Alternative 2 would site residents and commercial/retail uses near transit hubs, which would likely reduce traffic and traffic noise levels associated with increased development in the area.

Alternative 5: Noise impacts at the Station Area would be most substantial under Alternative 5, which includes the strategies for encouraging housing growth in Alternatives 2, 3, and 4 plus some additional changes to existing regional center and urban center boundaries and changes to place type designations. Under this Alternative, an urban center would be created on both the west and east sides of I-5 at the Sound Transit light rail station. As a result, the 130th/145th Station Area would experience higher traffic noise and stationary source noise at increases than Alternatives 1 through 4.

What are some solutions or mitigation for impacts?

Measures to Reduce Construction-Related Noise and Vibration Impacts

In addition to restrictions on the hours of construction in accordance with the Seattle Noise Ordinance, other mitigation that could be applied includes:

- Installing barriers to shield noise sensitive receptors and enclosing stationary work.
- Selecting haul routes to avoid noise sensitive areas.
- Using fully baffled compressors, or preferably electric compressors.
- Using fully mufflered construction equipment.
- Use low-noise emission equipment.
- Monitor and maintain equipment to meet noise limits.
- Prohibit aboveground jack hammering and impact pile driving during nighttime hours.

To reduce potential moderate adverse noise impacts from impact pile driving activities adjacent to noise-sensitive land uses (within 50 feet) or moderate adverse vibration impacts to historic structures, the One Seattle Comprehensive Plan could consider adoption of a policy recommending the Seattle Noise Ordinance be updated to require best practices for noise control, including "quiet" pile-driving technology and using temporary sound walls or cushion blocks.

Measures to Reduce Land Use Compatibility Noise Impacts

Although mitigation measures are not required due to a lack of significant adverse impact findings, to reduce the potential for exposure of residences and other noise-sensitive land uses to incompatible environmental noise, the One Seattle Plan could consider adoption of a policy that recommends that residences and other noise-sensitive land uses (i.e., schools, day care) be separated from freeways, railways, ports, and other active industrial facilities where exterior noise environments exceed 65 dBA L_{dn}. If sensitive land uses are proposed in such areas, a policy addressing the need for additional mitigation strategies could be considered to achieve an interior noise performance standard of 45 dBA L_{dn}. The types of implementation measures that could help to accomplish this include:

- Coordination with WSDOT on sound wall construction.
- Use of appropriate building materials such as walls and floors with a sound transmission class (STC) rating of 50 or greater.
- Site design measures, including use of window placement to minimize window exposure toward noise sources, avoid placing balcony areas in high noise areas, and use of buildings as noise barriers.
- Use of acoustically rated building materials (insulation and windows).

In addition, zoning land use criteria or boundaries could be established, while meeting other planning goals, to limit the proximity of new residential development to known or anticipated sources of high noise levels.

With mitigation, what is the ultimate outcome?

Under all studied Alternatives, increased residential and employment growth could result in increased traffic volumes, though the resulting noise increases are not anticipated to exceed 3dBA, the threshold of change that is perceptible. The location of noise sensitive receivers (e.g., residential uses) near traffic, rail, or industrial noise sources could occur under all Alternatives, particularly Alternatives 4 and 5. Implementation of residential noise mitigation described in the previous subsection should adequately reduce noise experienced by noise-sensitive receivers. With the application of mitigation measures described above, no significant unavoidable adverse noise impacts would occur under any of the Alternatives.

Summary of Thresholds

Exhibit 1.6-10 summarizes potential impacts based on the evaluation in **Section 3.5 Noise**.

Exhibit 1.6-10. Noise Thresholds of Significance

Metric	Threshold	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
	The alternative would cause future traffic noise levels of 10 dBA or more above existing noise levels.[1]	▽	▽	▽	▽	▽
☒ Equity & Climate	Noise-sensitive receivers are concentrated near noise-generating (non-residential) activities or major roadways.[2]	▽	▽	▽	▼	▼

Note: Impacts are considered either unavoidable adverse (▼▼), adverse but able to be mitigated (▼), impact but less than adverse (▽), limited or none (—), moderately positive (△), or positive (▲).
1 Traffic noise levels for all Alternatives would increase by less than 1.5 dBA along all roadway segments modeled roadways less than the 10dBA or more above existing noise levels. Consequently, an increase of less than 1.5 dBA would be considered a minor impact on environmental noise.
2 Alternative 4 would focus more growth near transit and major highways/roadways than Alternatives 1 through 3 considered a moderately adverse noise impact that can be reduced with mitigation measures. Alternative 4 would place the fewest number of units (the same as Alternatives 1 and 3) within the 1,000-foot buffer when compared to Alternative 2 and 5. The growth strategy of Alternative 5 would result in the densest concentration of sensitive uses near major highways/roadways, transit facilities, and industrial/maritime uses, considered a moderately adverse noise impact but mitigation measures would reduce this noise impact.

1.6.6 Land Use & Urban Form

How did we analyze Land Use & Urban Form?

The EIS evaluates current land and shoreline uses, physical form, and views. It reviews land use patterns and compatibility, urban form (height, bulk scale, transitions, and tree canopy), shadows, and views as well as resulting equity and climate vulnerability considerations. Elements of the analysis include:

- **Land use patterns** consider the distribution of growth and intensity of planned uses as well as resulting activity levels.
- **Land use compatibility** considers changes in use type between adjacent areas and any likely incompatibilities. Land use incompatibilities could be related to health and safety (such as noise levels or odors), activity levels at various times of day/night, or conflicting movement patterns.
- **Height, bulk, and scale** considers the physical form, aesthetic, and character of development (such as massing, setbacks, height, and FAR).
- **Transitions** consider visual changes in physical form between adjacent areas.
- **Tree canopy** considers how urban form affects tree canopy.

- **Shadows** consider shading of public open space or rights-of-way as a result of allowed development and the possible implications related to health, urban heat, and the human experience.
- **Views** consider the protection of public views of important landmarks and natural features, as well as views from specific designated viewpoints within the city and scenic qualities along mapped scenic routes.

What impacts did we identify?

Citywide

The major topics are addressed below with impacts common to all Alternatives.

- **Land Use Patterns:** Activity levels would increase across the city with new residents, businesses, and employees. The primary differences between the Alternatives lie in the distribution and intensity of growth across the city and the projected land use patterns.
- **Land Use Compatibility:** Future growth under all Alternatives is likely to increase the frequency of different land use types locating close to one another, and similarly likely to increase the frequency of land use patterns that contain mixes of land uses with differing levels of intensity, both within areas currently designated as urban centers and villages and, to a varying extent, in other areas of the city.
- **Height, Bulk, and Scale:** Future growth and development directed into existing urban centers and villages under all Alternatives would result in a moderate amount of additional height and bulk in these commercial and mixed-use nodes.
- **Transitions:** Gradual redevelopment of new buildings that are larger than those they replace is likely to occur under all Alternatives, especially in urban centers and villages. Redevelopment would create a potential for localized adverse compatibility issues as existing, lower-intensity uses transition to higher-intensity development forms. For example, areas that are predominately composed of detached single-family homes may experience more occurrences of sharper transitions in urban form as new, more intensive forms—such as townhomes and multi-family apartments—could be built alongside existing single-family homes. Redevelopment could also result in sharper transitions between zones and place types.
- **Trees:** Bulkier development under all Alternatives would likely displace some trees on private property, especially in residential zones. This is a threshold that helps the City consider equity and climate implications.
- **Shadows:** Under any Alternative, redevelopment will generally be taller and often bulkier than the existing building. Taller buildings cast longer shadows, and bulkier buildings cast wider shadows, especially downhill. Some development would likely occur adjacent to parks under all Alternatives; an adjacent southern building is most impactful throughout the day. Height limits and street widths vary throughout Seattle, but in all cases, east-west-oriented streets are challenging for solar access, especially during wintertime. In most

cases, the 3-story and taller buildings on the south side would shade the southern side of the street throughout the year except summertime and may shade both sides of the street throughout a winter day.

- **Views:** Under all Alternatives, new buildings would develop with greater height and bulk and, with these increases, development may interfere with publicly protected views. Because these views are protected under current regulations, views would remain unobstructed as long as potential impacts are identified during permit review. Of note, the number of SEPA-protected viewpoints, scenic routes, and Seattle-designated historic landmarks means that view corridors impact development capacity on many sites.

Equity & Climate Vulnerability Considerations

Regarding equity and climate considerations, the Land Use & Urban Form section addresses the relationship of height and density to housing choice, creation of community building spaces, as well as active transportation, and other climate considerations including tree canopy cover and heat islands. Two of the topics are summarized below. See **Section 3.6** for more information.

Height and Density: Relationship to Housing Supply & Affordability

The present combinations of allowed height, FAR, and setbacks found in Seattle's zoning regulations generally led to denser housing with many studio and 1-bedroom units over the last 20 years. A broad, citywide approach to allowing increased density with taller buildings would likely have more equitable impacts to housing choice, a more varied urban form, and more opportunity for vibrant neighborhoods.

- Alternative 1 and 2 would largely continue current patterns.
- Alternative 3: Alternative 3 would allow middle housing types such as duplexes, triplexes, fourplexes, sixplexes, and stacked flats in all Neighborhood Residential zones, and would provide more options for people to stay in their community over a lifetime and across generations. Housing configurations that cluster more units together on a site provide more opportunities for intergenerational families to live near each other.
- Alternative 4 offers a wider range of housing types similar to Alternative 3 as well as 5-story buildings close to transit and parks. The likely increase in housing type variety would provide more housing for different life stages similar to Alternative 3. Increasing housing type options across half of Neighborhood Residential zones in the city also increases the opportunities for people to live in parts of the city economically closed off to them in Alternative 1.
- Alternative 5 combines the place types found in Alternatives 2-4 and therefore could provide the most housing type variety and choice amongst all the alternatives.

Relationship to Street-level Community-building Spaces

A lively, vibrant neighborhood center is dependent on having a robust residential population nearby. The expected patterns of development, with increased height, bulk, and scale, could

improve the ability to gather in public places and cultural anchors (i.e., culturally relevant businesses, services, religious institutions, arts, etc.), as long as commercial space displacement is mitigated and appropriate gathering spaces are provided.

- Alternative 1: Alternative 1 would continue a pattern of small areas of apartments with small, less expensive units surrounded by large areas with high-cost detached homes. This division could limit social wellbeing and sociability. At the same time, these higher densities close to transit and amenities increase opportunities for active living, which in turn increases chances for sociability and wellbeing.
- Alternative 2: Impacts under Alternative 2 would be similar to Alternative 1, but an increase in compact urban form of more housing and commercial uses could provide more spaces and locations where social interactions can happen than under Alternative 1.
- Alternative 3: Although possible future development of middle housing may lead to less open space on lots than under Alternative 1, more units would surround and share the available open space, which would increase opportunities for sociability amongst neighbors.
- Alternative 4: More housing within a 5-minute walk to large parks under Alternative 4 would likely increase opportunities for social interactions and social wellbeing. At the same time, the number of people living along inhospitable arterials, where social interactions can be inhibited by traffic's impact on sense of safety, air quality, and noise would likely increase.
- Alternative 5: With the increase in middle housing types and variety throughout the city and fewer concentrated extremes of higher and lower density areas, Alternative 5 would likely have overall positive impacts on social wellbeing and social interactions, similar to Alternative 3. Similar to Alternative 4, there could be impacts with greater density along arterials, but perhaps to a lesser degree with development opportunities more dispersed in Alternative 5.

130th/145th Station Area

The 130th/145th Station Areas will likely redevelop under all Alternatives, although the scale, location, and intensity of that development would vary by Alternative. Some commonalities include:

- **Height/bulk/scale.** Large superblocks (longer than 600 feet) lacking a connected internal path or street network mean that direct routes to access the station will be challenging without regulations to encourage or require through-connections with redevelopment. Redevelopment at the light rail station would occur in a physically bifurcated, uncomfortable human environment (at 5th Ave NE, Roosevelt Way, and I-5) and could miss an opportunity to celebrate and activate the station entry.
- **Tree canopy.** Plentiful evergreens, steep slopes, Thornton Creek, and environmentally critical areas near the 130th Station Area make development here unique, and perhaps more constrained, than many other Seattle areas. Existing large evergreen trees make residential areas feel set in hillside woods. Tree preservation could impact development capacity, and

redevelopment with a loss of existing trees would have a noticeable effect on the human experience and sense of being set in nature.

- **Shadows.** In general, the existing tall evergreens, combined with steep slopes, significantly shade many residential areas. Shadow impacts from increases in building heights would be less noticeable in these residential areas because of those existing shadows. The north-south orientation of 15th Ave NE, as well as to a lesser extent the diagonal orientation of Roosevelt Way NE, allows for greater solar access for longer hours throughout the year, even with increases in building heights.

What is different between the Alternatives?

Exhibit 1.6-11, **Exhibit 1.6-12**, and the following text summarize and compare land use impacts citywide and within the 130th/145th station areas under each alternative based on the evaluation in **Section 3.6 Land Use Patterns & Urban Form**. A summary of each topic and results is provided after each table.

Citywide

Exhibit 1.6-11. Summary of Land Use and Urban Form Impacts by Alternative—Citywide

Metric	Impact	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
	Land Use Patterns	▽	▼	▽	▼	▼
	Land Use Compatibility	▽	▼	▼	▼	▽
	Height, Bulk, & Scale	▽	▼	▼	▼	▼
	Transitions	▼	▽	▲	△	▲
☒ Equity & Climate	Tree Canopy (how urban form affects tree canopy)	▽	▽	▼	▼	▼
	Shadows	▽	▼	▽	▽	▼
	Views	—	—	—	▽	▽

Note: Impacts are considered either unavoidable adverse (▼▼), adverse but able to be mitigated (▼), impact but less than adverse (▽), limited or none (—), moderately positive (△), or positive (▲).
Sources: BERK, 2023; MAKERS, 2023.

Land use patterns. Growth under all Alternatives would increase activity levels and land use intensities across the city resulting in likely adverse impacts to land use patterns. All Alternatives focus most future growth into centers currently characterized by higher densities, more compact building forms, and a more diverse mix of uses than other areas of the city. Land use patterns in the neighborhood centers and corridors would intensify more under Alternatives 2 and 4, respectively, than under the No Action Alternative. Under Alternative 3, overall land use patterns would become denser over time within the urban neighborhood zones but most of this development would continue to be residential in nature and would be more spread throughout the analysis areas than the other action alternatives. Alternative 5

includes the most growth overall and incorporates elements of the other action alternatives—the intensity of land use patterns would shift most dramatically under Alternative 5 as activity levels increase over time.

Land use compatibility. Future growth under all Alternatives is likely to increase the frequency of different land use types locating close to one another, and similarly likely to increase the frequency of land use patterns that contain mixes of land uses with differing levels of intensity, both within the centers and, to a varying extent, in other areas of the city. Land use incompatibilities under the No Action Alternative would be similar to those observed today but could become more severe over time with continuing trends. Under the action alternatives, denser and more mixed-use land use patterns in the new place types could result in localized land use compatibility impacts within the place types or on the border with adjacent residential areas. All neighborhood centers, for instance, already contain areas zoned for commercial or mixed-use development but additional jobs and commercial space could increase more quickly in these areas due to the local demand from new housing. However, adverse compatibility impacts at the periphery of most existing centers would also be minimized as the new place types redevelop with denser development—this would be most noticeable over the long term under Alternative 5 as the abutting neighborhood center, corridors, and urban neighborhood areas redevelop. See also the summary of transitions below.

Height, bulk, and scale. Height, bulk, and scale impacts would likely occur under all Alternatives as development occurs. Future growth and development directed into existing centers under all Alternatives would result in a moderate amount of additional height and bulk in these commercial and mixed-use nodes generally consistent with that experienced during growth over the last 20 years. Under the action alternatives, building heights, bulk, and/or scale in the new place types would likely increase with new development. These impacts would be more pronounced in the neighborhood centers and corridors where height limits would be increased up to 5-7 stories. Where middle housing is allowed in new places, more properties may develop with 3-story (or 4-story if affordable) buildings adjacent to 1- and 2-story buildings. The Alternatives vary in the likelihood of localized impacts (Alternative 1, 2, and to some extent 4) versus more distributed impacts (Alternative 3 and 5).

Transitions. Continued infill development in established centers and villages under the No Action Alternative would likely create increasingly stark contrasts with surrounding lower-scale areas. The new place types introduced under the action alternatives would generally reduce existing contrasts between centers (that see widespread development of large buildings) and surrounding areas (with broad areas that see minimal development). Over time, edges under Alternatives 3 and 5 would be softened the most as feathered gradations of intensity fill in around nodes of activity, neighborhood amenities, and existing centers.

Tree canopy. Bulkier development under all Alternatives would likely displace some trees on private property, especially in residential zones. At the same time, the number of street trees may increase where they are required with redevelopment. Private property may see a greater loss of existing tree canopy under the action alternatives with more widespread

redevelopment. For example, the increase in size and number of buildings allowed on a lot in Alternatives 3 and 5 will likely decrease the amount of space available for trees on urban neighborhood lots.

Shadows. Under any Alternative, taller and often bulkier redevelopment will cast longer and/or wider shadows than existing development. Building shadows can be considered positive for climate adaptation to reduce summertime heat but can be negative for human health and wellbeing (especially during winter) and the health of existing trees if accustomed to full sun. Over time, increased height limits in the neighborhood centers, corridors, and expanded urban centers under Alternatives 2, 4, and 5 would likely result in longer shadows over a greater portion of the day compared to the other Alternatives and may be most impactful where shadows would fall downhill or on east-west oriented neighborhood main streets.

Views. Future development under Alternatives 1 through 3 would present limited disruptions to public views. Growth would continue to concentrate in centers (which tend to contain few viewpoints), most public viewpoints are outside the neighborhood centers in Alternative 2, and there would be no height increase for market-rate development and a minimal height increase for affordable housing in the Neighborhood Residential zones under Alternative 3. Most of the protected viewpoints and scenic routes are within or adjacent to the more intense development expected in the corridor place type under Alternatives 4 and 5, and a few are in or near the expanded regional and urban centers in Alternative 5. Development under these Alternatives may disrupt views in more places.

130th/145th Station Areas

Exhibit 1.6-12. Summary of Land Use and Urban Form Impacts by Alternative—130th/145th Station Areas

Metric	Impact	No Action	Alt. 2	Alt. 5
	Land Use Patterns	—	▼	▼
	Land Use Compatibility	▼	▼	▽
	Height, Bulk, & Scale	▽	▼	▼
	Transitions	▼	▽	▲
☒ Equity & Climate	Tree Canopy (how urban form affects tree canopy)	▽	▽	▼
	Shadows	▽	▼	▼
	Views	—	—	▽

Note: Impacts are considered either unavoidable adverse (▼▼), adverse but able to be mitigated (▼), impact but less than adverse (▽), limited or none (—), moderately positive (△), or positive (▲).
Sources: BERK, 2023; MAKERS, 2023.

Land use patterns and compatibility. No adverse impacts to land use patterns are expected in the station areas under the No Action Alternative. No new areas would be designated for mixed-use or higher density and building types outside existing commercial zoning would

remain primarily single purpose with some multi-family uses near the 145th BRT station. Few parcels around 130th would be likely to fully redevelop under the No Action Alternative, though more may see additions (e.g., ADUs) and rebuilds consistent with the existing land use patterns. However, the area may still see increased activity under the No Action Alternative over time as people seek to access the light rail station which could result in compatibility impacts with surrounding lower density residential development. Greater change would occur in the areas currently zoned for more intense development, including the 145th BRT station area and Pinehurst area.

Under Alternatives 2 and 5, both station areas would likely redevelop into mixed-use nodes with more growth at greater heights clustered in the newly designated neighborhood centers (Alternatives 2 and 5) and urban center (Alternative 5). Activity levels and land use intensities would increase resulting in greater impacts to land use patterns than the No Action Alternative. Compatibility impacts would be similar to those described citywide for neighborhood and urban centers.

Height, bulk, and scale. Changes to height, bulk, and scale would be limited under the No Action Alternative and primarily within the 145th station area. Under Alternatives 2 and 5, the station areas could see extensive changes to height, bulk, and scale as a result of proposed zoning capacity increases combined with proximity to the new light rail station. Heights could reach up to 7-8 stories immediately adjacent to the 130th light rail station and in the core of the 145th station area. 15th Ave NE (both in the 145th station area and Pinehurst) as well as NE 125th St at 15th Ave NE and Roosevelt Way NE south of NE 125th St would likely see greater levels of activity, enlivening the street level experience. However, many small commercial spaces currently exist in strip malls or in adapted houses in these areas. Maintaining affordable commercial space in the area for local and BIPOC-owned businesses may be challenging with redevelopment, impacting the social and cultural ties to these neighborhood centers.

Under all Alternatives, large superblocks (longer than 600 feet) lacking a connected internal path or street network also mean that direct routes to access the station will be challenging without regulations to encourage or require through connections with redevelopment. Redevelopment at the light rail station would occur in a physically bifurcated, uncomfortable human environment (at 5th Ave NE, Roosevelt Way, and I-5) and could miss an opportunity to celebrate and activate the station entry.

Transitions. Transitions impacts in the station areas would be similar to those described citywide for the No Action Alternative and Alternatives 2 and 5. Under Alternatives 2 and 5, development of high-intensity buildings in the immediate vicinity of the 130th station area may create abrupt local transitions in scale between existing detached houses and new larger construction. Over time, an evolution of the station area into more consistently intensely used land, combined with smaller scale redevelopment in surrounding low-rise zones, would likely soften these transitions.

Tree canopy. Plentiful evergreens, steep slopes, Thornton Creek, and environmentally critical areas near the 130th Station Area make development here unique, and perhaps more constrained,

than many other Seattle areas. Existing large evergreen trees make residential areas feel set in hillside woods. Tree preservation could impact development capacity, and redevelopment with a loss of existing trees would have a noticeable effect on the human experience and sense of being set in nature. Under all Alternatives, any redevelopment would fill gaps in street trees along the frontage. Large-scale redevelopment under Alternatives 2 and 5 in the station areas (more so under Alternative 5) would significantly impact the existing tree canopy. Alternatively, if trees are protected "exceptional" trees, development capacity would be constrained.

Shadows. Under all Alternatives, the existing tall evergreens, combined with steep slopes, significantly shade many residential areas. Shadow impacts from increases in building heights would be less noticeable in these residential areas because of those existing shadows. The north-south orientation of 15th Ave NE, as well as to a lesser extent the diagonal orientation of Roosevelt Way NE, allows for greater solar access for longer hours throughout the year, even with increases in building heights. Under Alternatives 2 and 5, increased height limits could result in increased shadows on Jackson Park. However, the human experience of the park would not significantly change as tall evergreens already shade the park boundaries.

Views. Impacts to views in the station areas under the No Action Alternative and Alternative 2 would present limited disruptions to public views. Increased height limits near the 130th light rail station under Alternatives 2 and 5 could have limited impacts on the adjacent I-5 scenic corridor.

What are some solutions or mitigation for impacts?

Citywide

All Alternatives would focus the majority of future growth into the existing urban centers and villages. Compatibility challenges would not be an uncommon or new phenomenon in these areas and can be avoided or mitigated by continuing to implement the Land Use Code (Title 23). New place types and/or expanded housing options in existing Urban Neighborhood Residential zones proposed as part of the action alternatives would introduce localized land use and urban form impacts where newer development is of greater height and intensity than existing development. These impacts, if they occur, are likely temporary and will be resolved over time or reduced by the application of existing or new development regulations and design standards. Overall, the new place types would create smoother and more varied transitions in intensity throughout the city (especially adjacent to urban center and village boundaries).

Existing building and land use policies, programs, and codes that promote compact building forms and energy efficient, low-carbon, green building techniques—such as the City's green building permit incentives for private development and the Sustainable Buildings and Sites policy for City-development—would continue to apply under all Alternatives.

Under the action alternatives, the City could also update Comprehensive Plan policies to further address the effects of climate change, particularly for communities more vulnerable to the effects of climate stress than others or located in areas in the city that may experience larger

effects from climate change (including "heat islands" with more pavement and fewer trees, floodplain and landslide hazard areas, and areas with limited access to transit). For example, the action alternatives focus additional residential growth in areas 1, 2, and 6 which have relatively high levels of existing tree canopy cover. Required frontage improvements could increase the number of street trees with redevelopment, though more and bulkier development under all Alternatives would likely displace some trees on private property and reduce tree canopy coverage overall.

130th/145th Station Area

- **Urban design and active transportation: Transit celebration**. Incentivize or require development to relate to, enhance, celebrate, and activate the station entry with transit-oriented commercial and public space.
- **Urban design and active transportation: Intersite connectivity.** Incentivize or require new development to provide new paths or streets to break down large blocks and provide direct, short routes to the station.
- **Street-level community building: Lack of focused public realm.** Undertake a community design effort to develop a cohesive approach toward development of public streets, public realm, or opportunities for shared social gathering that could be implemented through a combination of private development and public projects.
- **Street-level community building: Affordable commercial space.** Implement the 130th & 145th Station Area Planning Plan displacement mitigation strategies.
- **Child-friendly city and social wellbeing: Shared open space.** Incentivize or require outdoor gathering spaces, especially children's play areas, which are oriented away from air and noise pollutants. Consider allowing zero-lot line development to allow for incremental development of interlocking buildings that create an active and varied street front—that can also block air and noise—while consolidating privately shared gathering space internally.
- **Sociability: Small social spaces.** Incentivize or require social corridors and/or shared entries amongst a small group of units in residential development to promote trust-building and social connections. Consider allowing more than 2 single-stair buildings per lot to maximize opportunities for shared entries amongst smaller groups of neighbors.

With mitigation, what is the ultimate outcome?

Over time, additional growth and development will occur in Seattle and a generalized increase in development intensity, height, bulk, and scale is expected under all Alternatives—this gradual conversion of lower-intensity uses to higher intensity development patterns is unavoidable but an expected characteristic of urban population and employment growth. No significant unavoidable adverse impacts to land use patterns, compatibility, or urban form are expected under any Alternative.

Future growth is likely to result in temporary or localized land use impacts as development occurs. The potential impacts related to these changes may differ in intensity and location in each of the Alternatives and many are expected to resolve over time. Application of the City's adopted or new development regulations, zoning requirements, and design guidelines are anticipated to sufficiently mitigate these impacts.

Summary of Thresholds

The results of the Land Use and Urban Form evaluation and SEPA thresholds of significance are addressed in **Exhibit 1.6-11** and **Exhibit 1.6-12**.

1.6.7 Plans & Policies

How did we analyze Plans & Policies?

The EIS reviews adopted state, regional, and City plans and policies that guide growth in Seattle and reviews the proposed Alternatives for consistency with the adopted plans and policies—an impact is identified if the proposal would result in an inconsistency with adopted plans and policies.

What impacts did we identify?

Growth Management Act—Goals: All alternatives have sufficient zoned vacant and redevelopable land to accommodate the minimum 20-year population, housing, and job allocations. The action alternatives would each adopt a new growth strategy and each element of the Comprehensive Plan would be updated. The plan would continue to focus growth in an urban area with a range of public services and multimodal transportation options, provide for parks and recreation, and protect critical areas and historic resources consistent with the GMA.

Countywide Planning Policies—Growth Targets: Each studied alternative would provide capacity to meet minimum growth targets for housing and jobs.

What is different between the Alternatives?

Citywide

VISION 2050—Regional Growth Strategy, Development Pattern Policies: The action alternatives would update the Comprehensive Plan to meet VISION 2050 policies. The No Action Alternative would not update the Comprehensive Plan policies, though the growth capacity would still meet minimum growth targets expected of a Metropolitan city. The action alternatives provide for more growth and add capacity to meet additional policies and objectives in VISION 2050 including improved balance of jobs and housing, creating

opportunities for middle housing, focusing more growth around transit investments, and contributing to a pattern of growth that supports regional climate goals.

Growth in Seattle that is more balanced between housing and jobs could be beneficial for overall growth patterns in the region and reduce development pressures in other non-urban areas.

VISION 2050 Climate Policies: Under VISION 2050 there are 12 metropolitan planning policies meant to help reduce greenhouse gas emissions and prepare for climate change impacts. All studied alternatives would increase greenhouse gas emissions associated with buildings and waste. The growth levels of Alternatives 2 through 4 would reduce transportation emissions and Alternative 5 would slightly increase transportation emissions. The region-wide benefit of channeling development that might otherwise occur in peripheral areas of the city or region to targeted areas could serve to offset these impacts.

GMA and Countywide Planning Policy Requirements—Housing Element: Alternative 1, No Action, would meet GMA goals regarding compact growth served by multimodal transportation and municipal services. It would not meet new GMA requirements to amend the Housing Element to address new requirements in HB1220 regarding housing opportunities by income band and the removal of racially disparate impacts. Likewise, new housing targets by income band and special needs housing required in Countywide Planning Policies would not be met. Alternative 1 could perhaps conflict with Countywide Planning Policies that direct cities to provide a full range of affordable, accessible, healthy, and safe housing choices to every resident in King County as it would continue to limit the range of housing options in many areas of Seattle.

Action alternatives would create a new housing element to meet new GMA requirements and address additional housing types and affordability levels. Alternatives 2 through 4 provide more housing types and support transit. Alternative 5 provides the greatest capacity for housing to meet affordability.

VISION 2050 and Countywide Planning Policies—Centers: Alternative 5 redesignates Ballard from a secondary urban center under Alternative 1 to a regional center under the new place types with the intent to seek approval as a Regional Growth Center under VISION 2050 and the PSRC Regional Centers process. Also, the 130th/145th Station Area would be designated an urban center (currently called an urban village under Alternative 1) with the intent to seek approval as a Countywide Center by the Growth Management Planning Council.

The Alternative also expands existing urban centers and villages[3] to help facilitate infrastructure investments and be locations for facilitated environmental review.[4] The

[3] Alternative 1, No Action, would retain the City's Seattle 2035 urban village strategy and center/village designations—the existing urban centers and villages are categorized here according to the new place types proposed under Alternatives 2-5 for comparison purposes only. Ballard would remain a "Hub Urban Village" under Alternative 1, would be called an "Urban Center" under Alternatives 2 – 5, and would be redesignated as a Regional Center (as shown here) under Alternative 5. See **Exhibit 2.1-1** in **Chapter 2** for a crosswalk of existing place types (existing and Alternative 1) versus proposed place type names under Alternatives 2–5.

[4] This includes responding to SB 5412 which allows for an infill exemption for housing and mixed uses when considered in an EIS for a Comprehensive Plan. As part of this EIS process state agencies including WSDOT have been consulted and mitigation measures both current regulations and other proposed mitigation could apply to reduce impacts. See **Appendix C** for a list of codes providing mitigation for environmental impacts.

boundary expansions for urban villages are intended to allow them to comply with Countywide Center criteria for size and shape. Some current urban villages would not meet criteria as Countywide Centers by existing or planned activity units.

Equity & Climate Vulnerability Considerations

The action alternatives would respond to HB1220 affordable housing requirements as well as PolicyLink recommendations to allow "more housing types across the city with equitable access to wealth building and neighborhood opportunities."

The action alternatives allocate a similar or greater amount of growth to villages as the No Action Alternative. Additional growth over the No Action Alternative is planned in Neighborhood Residential areas or in corridors under Alternative 4) or distributed across single family areas with middle housing types (Alternatives 3 and 5).

In addition, the action alternatives include new climate policies focused on reducing emissions from buildings and transportation and making the city more capable of withstanding the impacts of climate change.

130th/145th Station Area

The *130th and 145th Station Area Plan* and its vision and strategies would not be implemented under the No Action Alternative. Housing and job growth around both station areas would be minimal.

Alternatives 2 and 5 would implement the Station Area Plan with compact growth, services, and housing around the station and implement its strategies. The City would meet minimum standards for the Countywide Center of 130th Avenue Station Area by total area and activity units under Alternatives 2 and 5 but not under Alternative 1.

What are some solutions or mitigation for impacts?

Citywide

The action alternatives also propose new housing and place types to help meet affordable housing needs and address racially disparate impacts in support of the City's response to HB1220 (see **Section 3.8 Population, Housing, & Employment**). The action alternatives promote housing types in other bills relevant to middle housing including HB 1110 and accessory dwelling units in HB 1137.

If a Preferred Alternative is developed, it should be evaluated for conformity to state and regional plans and policies. It may include reallocating growth assumptions in place types while being in the range of the studied Alternatives (e.g., to meet Countywide Center or Regional Growth Center criteria).

130th/145th Station Area

See above.

With mitigation, what is the ultimate outcome?

No significant unavoidable adverse impacts are anticipated with respect to plans and policies. Inconsistencies with new regional plans and state requirements and the regional growth strategy under the No Action Alternative would be avoided through amendments to the Comprehensive Plan proposed under the action alternatives.

Summary of Thresholds

Exhibit 1.6-13 summarizes potential impacts based on the evaluation in **Section 3.8 Population, Housing, & Employment**.

Exhibit 1.6-13. Plans and Policies Thresholds of Significance

Metric	Threshold	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
	Inconsistency with adopted plans and policies: Growth Management Act (GMA).[1]	▼	—	—	—	—
	Inconsistency with adopted plans and policies: VISION 2050.[2]	▼	—	—	—	—
	Inconsistency with adopted plans and policies: Countywide Planning Policies.[3]	▼	—	—	—	▼
	Inconsistency with adopted plans and policies: 130th/145th Station Area Plan.[4]	▼	—	▼	▼	—

Note: Impacts are considered either unavoidable adverse (▼▼), adverse but able to be mitigated (▼), impact but less than adverse (▽), limited or none (—), moderately positive (△), or positive (▲).
1 Alternative 1, No Action, would not meet new GMA requirements to amend the Housing Element to address new requirements in HB1220 regarding housing opportunities by income band and the removal of racially disparate impacts. It would not include a new climate element required under GMA.
2 The No Action Alternative would not include a new climate element to meet VISION 2050 policies nor address the findings of the equity evaluation of Seattle 2035 plan.
3 The No Action Alternative would not meet new housing targets by income band and special needs housing required in Countywide Planning Policies and would continue to limit the range of housing options in many areas of Seattle. The Admiral, Morgan, and Upper Queen Anne centers do not meet activity units for Countywide Centers (30 activity unit threshold) in Alternative 5 though their size would meet standards.
4 Alternatives 1, 2, and 5 study the 130th/145th Station Area. Alternative 1 provides limited activity units near the transit investment. Alternatives 2 and 5 would establish more compact nodes or centers and fulfill the station area plan vision and strategies. Elements of these alternatives could be combined with Alternatives 1, 3, and 4 to integrate the subarea plan.

1.6.8 Population, Housing, & Employment

Source: City of Seattle. 2023.

How did we analyze Population, Housing, & Employment?

The EIS addresses population, employment, and housing, as well as the historical context of racial segregation that has contributed to today's demographic patterns. The evaluation uses city, state, and federal population, employment, and housing data and trends to identify current conditions and areas more at risk of displacement. It considers trends and buildable land capacity information and place types to address differences in the Alternatives.

A primary focus of this analysis is the evaluation of how effectively each alternative achieves three objectives:

- Increase the supply, diversity, and affordability of market-rate housing.
- Increase the supply of income-restricted housing.
- Reduce residential displacement.

What impacts did we identify?

Seattle would continue to grow in population and housing supply under all five Alternatives; the housing supply could have a different mix of types and affordability. There is a potential for displacement of residents under any of the Alternatives though they vary in type and degree.

Seattle's total employment is expected to grow by 158,000 jobs in all Alternatives. In all Alternatives, a majority of employment growth is expected to occur in urban centers such as Downtown, South Lake Union, University District, and Northgate as well as manufacturing industrial areas. The greatest variation across alternatives is in the distribution of growth in the remaining place types. For instance, job growth in neighborhood centers and corridors has the potential to provide more neighborhood-serving businesses and services in areas of the city that currently have few options. Alternative 2 would focus about 5% of job growth in new neighborhood anchors. Alternative 5 would distribute about 5% of jobs across neighborhood centers and corridors combined. Alternatives 1, 3, and 4 offer relatively less job growth in these areas.

What is different between the Alternatives?

Citywide

Supply, Diversity & Affordability

All action alternatives are expected to increase total housing supply more than No Action. In Alternative 2 (Focused), a greater share of new housing would be in stacked housing such as apartment buildings. Alternative 3 (Broad) would produce the greatest diversity of housing types, particularly non-stacked housing types such as detached homes, ADUs, 2/3/4/6-plexes, and townhouses.

Exhibit 1.6-14. Projected Net New Housing Units by Housing Type

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Stacked Housing					
Condominiums	2,261	2,977	3,730	3,127	3,626
Apartments	73,109	93,815	76,652	88,662	110,079
Non-Stacked Housing					
>2,000 sq. ft.	1,389	698	1,111	1,111	1,111
>1,200 – 2,000 sq. ft.	648	533	4,260	1,578	1,128
≤ 1,200 sq. ft.	2,593	1,977	14,247	5,522	4,056
Total Net New Housing	**80,000**	**100,000**	**100,000**	**100,000**	**120,000**

Note: Non-stacked housing refers primarily to unit types expected to be built in Urban Neighborhood Residential zones. These may include detached homes, attached, or detached accessory dwelling units, townhomes, or other low to moderate density formats. All of these units could be sold separately or as condominiums to support homeownership opportunities.

Despite its higher overall housing growth estimate, Alternative 2 would produce fewer units that could be owner-occupied compared to Alternative 1 (No Action) due to its emphasis on zones that allow multifamily housing. Alternative 3 would produce the most units that could be

owner-occupied due to its emphasis on growth in small-scale detached and attached that are typically offered for sale. Over time, changes in consumer preference, housing costs, or laws governing condominium construction could result in changes in the percentage of units that are owner-occupied.

In general, the action alternatives would be expected to reduce competition for housing compared to No Action due to the increased housing growth that they accommodate. Alternative 5 would result in the largest increase in housing supply and therefore have the greatest impact on reducing overall market housing cost pressures for both new and older units.

Income Restricted Units

Seattle has two programs that support the production of new income- and rent-restricted affordable housing through developer contributions or incentives: Mandatory Housing Affordability and the Multifamily Tax Exemption. Under all Alternatives the city is expected to gain additional income-restricted units through these programs.

Mandatory Housing Affordability (MHA): MHA is a program to support the development of new income- and rent-restricted affordable housing in Seattle. To achieve the goal of providing affordable housing and mitigate the impacts of new development, new commercial, residential, or live-work projects in designated zones must contribute to affordable housing. Considering the current MHA requirements, Alternatives 2, 4, and 5 would substantially increase the number of new income-restricted units produced, compared to No Action, while Alternative 3 would have a smaller impact. The City is considering whether to extend MHA requirements to include development in all Neighborhood Residential Zones (with a place type name of urban neighborhood under action alternatives); this would result in a higher total number of affordable units produced for the action alternatives, compared to a scenario where Neighborhood Residential zones are excluded.

Exhibit 1.6-15. Projected New Affordable Units through MHA-Residential (Including Neighborhood Residential Zones)

	Alternative 1: No Action	Alternative 2: Focused	Alternative 3: Broad	Alternative 4: Corridor	Alternative 5: Combined
Performance Units	1,131	1,614	1,163	1,400	1,800
Payment Units	9,891	13,544	13,029	13,137	16,741
Total	**11,022**	**15,158**	**14,191**	**14,537**	**18,541**

Note: These projections assume that the City will apply MHA requirements in Neighborhood Residential zones.
Source: City of Seattle, 2023.

Multifamily Tax Exemption (MFTE): MFTE is a developer incentive that provides a tax exemption on eligible multifamily housing in exchange for setting aside a portion of units as income- and rent-restricted affordable housing. This exemption lasts 12 years, at which point the property owner can renew the tax exemption and affordability requirements or rent those units

at market rate. Therefore, new affordable units are added to Seattle's housing supply each year as developers opt into the program, while other affordable units come offline when property tax exemptions expire. **Exhibit 1.6-16** shows projections of net new affordable housing units produced through MFTE under each alternative. These projections are based on current trends in use of the program, and the expected new housing production by zone under each alternative. Alternatives 1 and 3 are not expected to increase net MFTE units overall as the number of new affordable units produced with MFTE would equal the number expiring and returning to market rate. Alternatives 2, 4, and 5 expect modest growth in the total supply of MFTE units.

Exhibit 1.6-16. Projected Net Gain of Affordable Housing Units through MFTE

	Alternative 1: No Action	Alternative 2: Focused	Alternative 3: Broad	Alternative 4: Corridor	Alternative 5: Combined
Total	**0**	**600**	**0**	**450**	**525**

Source: City of Seattle, 2023.

Demolitions and Displacement: Between 2009 and 2022, more than 600 housing units were lost due to demolition each year in Seattle. Demolition of older housing is expected to continue under all Alternatives as lots with older homes are redeveloped with newer and higher-density housing. However, the number of units demolished is expected to vary widely by Alternative, from 5,030 units in Alternative 1 to 9,148 units in Alternative 3, as shown in **Exhibit 1.6-17**. This table also shows the ratio of net new units per demolished unit. Here Alternatives 1 and 2 have the highest ratio, while Alternative 3 has the lowest.

Exhibit 1.6-17. Projected Housing Units Demolished by EIS Analysis Area and Alternative

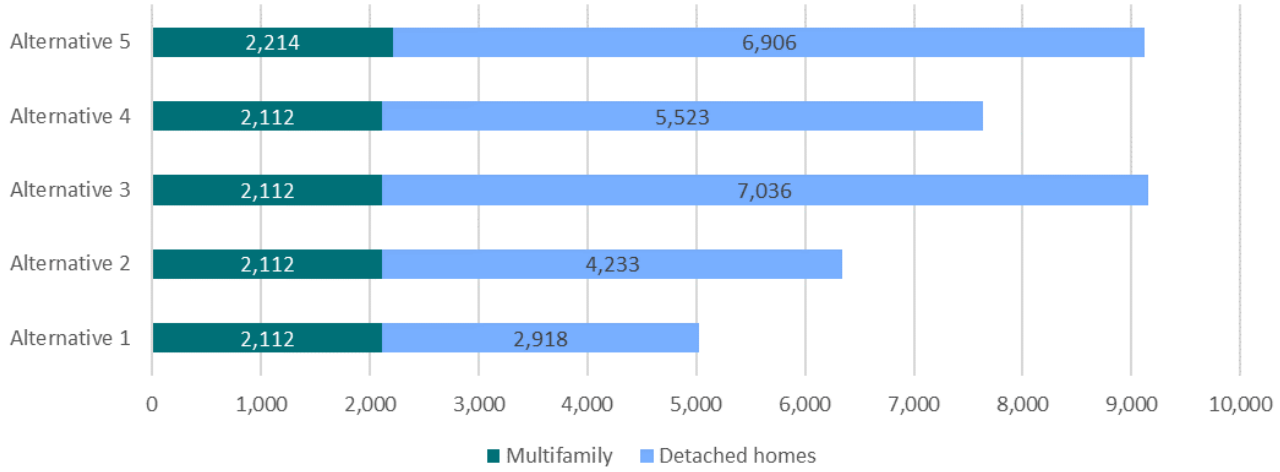
Area	Alternative 1: No Action	Alternative 2: Focused	Alternative 3: Broad	Alternative 4: Corridor	Alternative 5: Combined
Area 1	871	1,192	1,662	1,330	1,758
Area 2	1,103	1,391	2,636	2,202	2,274
Area 3	389	534	484	473	565
Area 4	810	810	810	810	810
Area 5	685	929	735	745	915
Area 6	565	767	1,404	1,070	1,374
Area 7	80	85	48	87	140
Area 8	527	637	1,369	918	1,284
Total units demolished	5,030	6,345	9,148	7,635	9,120
Total net new units	80,000	100,000	100,000	100,000	120,000
Ratio of net new units to units demolished	**15.9**	**15.8**	**10.9**	**13.1**	**13.2**

Source: City of Seattle, 2023. BERK, 2023.

There is almost no variation in the number of multifamily units demolished across Alternatives, with the exception that Alternative 5 is expected to result in slightly higher demolitions. This is because the Alternatives vary primarily in the amount of growth expected in new place types located where detached homes currently predominate. As a consequence, most of the demolitions are expected to be older detached homes, and there is substantial variation among the Alternatives in the total number of detached homes expected to be demolished. See **Exhibit 1.6-18**.

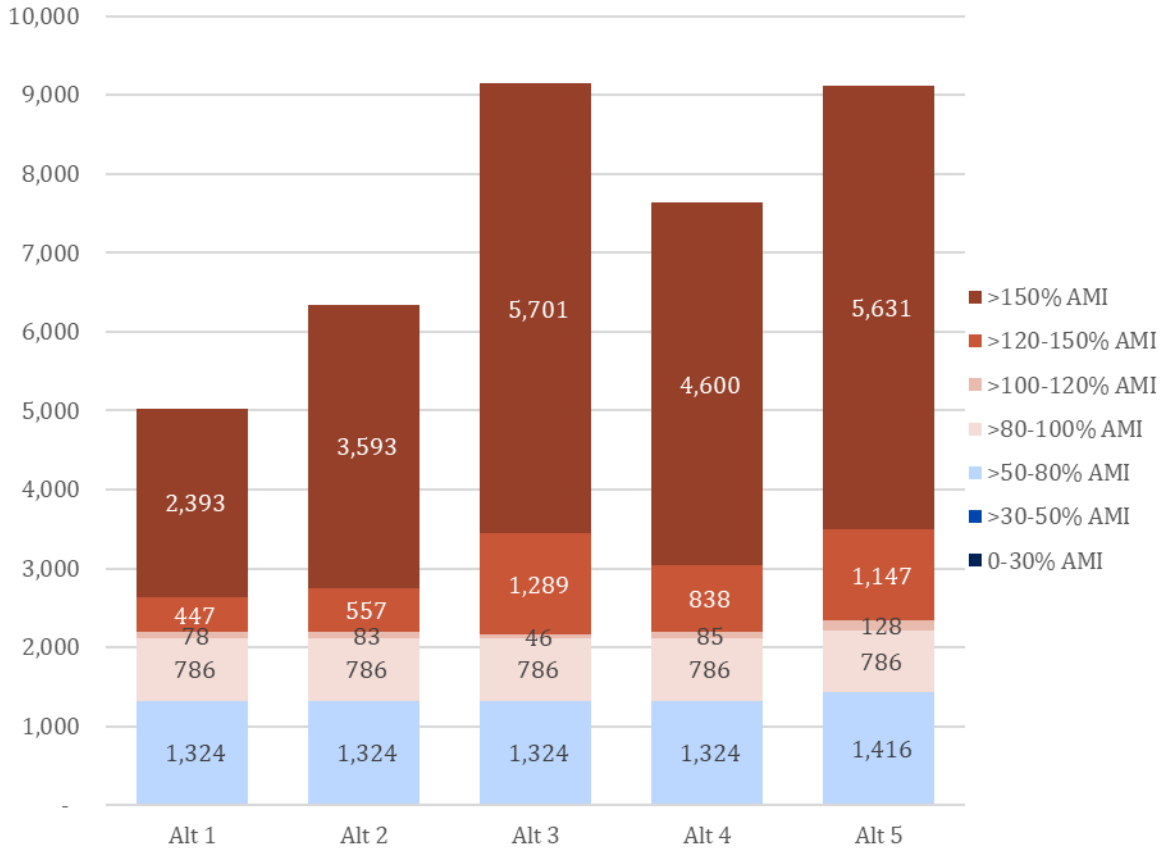
Exhibit 1.6-19 presents projections of housing lost due to demolition by affordability level. This analysis shows that all Alternatives are expected to result in the demolition of a similar number of units affordable at 120% AMI or below. The Alternatives vary primarily in the number of detached homes demolished, which tend to be affordable only to households with incomes above 120 or 150% AMI.

Exhibit 1.6-18. Projected Housing Units Demolished by Housing Type and Alternative



Sources: City of Seattle, 2023; BERK, 2023.

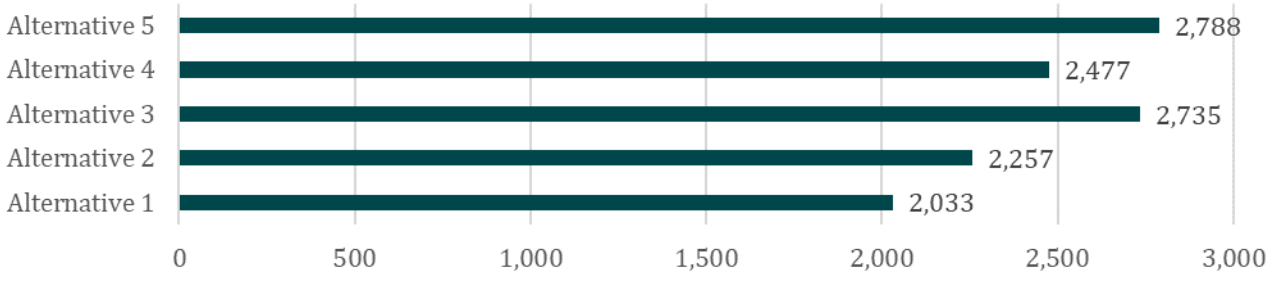
Exhibit 1.6-19 . Projected Housing Units Lost to Demolition by Affordability Level



Note: No units from affordable at 30-50% AMI are expected to be demolished in any Alternative. A very small number of 0-30% AMI units (2-12) could be demolished. These counts are not shown in the chart.
Sources: City of Seattle, 2023; BERK, 2023.

Estimating the number of renter households residing in units projected to be demolished is one way to conservatively estimate how many households could be physically displaced in each alternative. See **Exhibit 1.6-20**. Alternative 5 would be expected to result in the greatest potential for renter households displaced due to demolitions, while Alternative 1 would be expected to see the fewest. Alternatives 2 and 5 are expected to create the most new affordable units per unit demolished as described in **Chapter 3**.

Exhibit 1.6-20. Renter Households Physically Displaced by Alternative



Sources: City of Seattle, 2023; BERK, 2023.

Equity & Climate Vulnerability Considerations

There is a housing affordability crisis in Seattle that is disproportionately impacting communities of color and lower income residents. Rapidly increasing rents are contributing to extreme housing cost burden, economic displacement, and housing insecurity. Physical displacement is much less common than economic displacement, but its impacts can be devastating for affected households. And when specific racial or ethnic communities are disproportionately impacted by economic and physical displacement, this contributes to the process of cultural displacement.

Skyrocketing ownership housing costs also have equity related impacts. A lack of moderately priced ownership housing options prevents pathways to homeownership and wealth generation for both low and moderate-income households. Achieving homeownership, for moderate-income households, often requires moving outside of Seattle to find more affordable ownership housing options. However, they may need to contend with higher transportation costs due to increased car dependency due to living further from jobs, transit, and services.

- Alternative 1: Although there would continue to be new housing built over the next 20 years, the rate of new housing production would likely continue to fall far short of demand, contributing to rising housing costs and disproportionately inequitable outcomes for low-income and BIPOC community members.
- Alternative 2: Except for Alternative 5, Alternative 2 would provide the greatest benefit for low-income renter households. This is due to the emphasis on increased rental housing production and its potential impact on moderating rental housing cost escalation as well as increased affordable housing production through MHA. However, Alternative 2 would provide the least benefit for moderate-income households seeking to access the homeownership market and associated wealth generation opportunities.
- Alternative 3: Except for No Action, Alternative 3 would provide the least benefit for low-income renter households. That is because rental housing supply and new affordable housing through MHA would only see modest increases compared to No Action. However, Alternative 3 would provide the greatest benefit for moderate income-households seeking to access the homeownership market and associated wealth generation opportunities.
- Alternative 4: Compared to No Action, Alternative 4 would provide benefits for both low-income renter households as well as moderate-income households that seek to access the homeownership market and associated wealth generation opportunities. This is due to an expected increase in rental housing supply, affordable housing production through MHA, and supply of housing types that can be sold to homeowners.
- Alternative 5: Alternative 5 would provide the greatest benefit for low-income renter households among all alternatives due to its impact on increasing rental housing supply and new affordable housing through MHA and MFTE. Compared to No Action, it would also provide benefits for moderate income-households seeking to access the homeownership market and associated wealth generation opportunities. This is due to the increased supply and diversity of housing types that can be sold to homeowners. However, both Alternative 3 and 4 are expected to produce more ownership housing.

130th/145th Station Area

Alternative 1: Both housing and employment growth would be much lower in the station area compared to the other Alternatives. This would limit the number of households and businesses that can benefit from nearby access to the light rail stations. It would also limit the variety of housing choices available.

Alternative 2: Alternative 2 would support transit-oriented development in these station areas at higher levels of density than allowed under current zoning. It is expected to more than double the number of new housing units compared to No Action and increase overall housing supply more than any Alternative other than Alternative 5. This would allow many more households to live near light rail transit.

Alternative 5: This Alternative would create a new urban village around the NE 130th St station area. This change would support transit-oriented development and the most housing and job growth compared to the other Alternatives.

What are some solutions or mitigation for impacts?

Although not required to address identified impacts, the City could pursue the following kinds of actions to address possible population, employment, and housing conditions.

- **Implement MHA requirements in Neighborhood Residential zones:** The City could apply MHA requirements through zoning changes in Neighborhood Residential zones. This would increase affordable housing production in Alternatives 3 and 5, which contemplate allowing a greater amount and variety of housing in Neighborhood Residential zones.
- **Increase funding for programs combating displacement:** To address the potential for residential, commercial, and cultural displacement under any Alternative, the City could pursue various actions that support the stability and retention of existing households, and the preservation and creation of new, cultural institutions and businesses. Examples of potential anti-displacement actions include:
  - Increasing funding for Seattle's Equitable Development Initiative (EDI) to expand the ability of community organizations to acquire and develop property in neighborhoods at high risk of displacement.
  - Supporting low-income homeowners to add housing on their property to stay in place and build wealth. Homeowners who have low or fixed incomes may struggle with the rising costs of property ownership, including taxes and maintenance costs, and may also face challenges to adding housing to their property that could generate income or meet their household needs despite current or future zoning capacity that allows additional density. The City could fund programmatic efforts to help homeowners overcome awareness, financing, design, permitting, or other barriers.
  - Strengthen the Office of Economic Development's (OED) small business support programs. OED has provided a range of support services for small businesses, including access to capital, storefront repair, a stabilization fund pilot, and a tenant improvement

fund pilot. Resources for these or similar programmatic efforts could mitigate potential commercial displacement pressure.
    - Establish and fund a program that supports tenant or community ownership of rental housing when it becomes available for purchase.
- **Strengthen relocation assistance programs:** The Tenant Relocation Assistance Ordinance and Economic Displacement Relocation Assistance provide relocation assistance to low-income households displaced due to removal or alteration of their housing or increasing housing costs. The City could pursue policy or funding changes that would increase the number of households receiving assistance or the amount of assistance received.
- **Density bonuses:** The City could allow projects that set aside a significant portion of their units as income-restricted affordable housing to receive extra height or floor area.

With mitigation, what is the ultimate outcome?

Over time, additional growth and development will occur in Seattle, and much of this growth will occur through redevelopment. The Alternatives vary based on the amount, types, and geographic pattern of existing housing and businesses that may be demolished to make way for new growth. While this can contribute to the risk of physical displacement, that risk is not significantly higher in the action alternatives. Moreover, the benefits in terms of reduced economic displacement pressure and increased production of affordable units offered by the action alternatives outweigh any increased risk of physical displacement. Therefore, no significant unavoidable adverse impacts to population, employment, or housing are expected under any Alternative.

Summary of Thresholds

Exhibit 1.6-21 summarizes potential impacts based on the evaluation in **Section 3.8 Population, Housing, & Employment**.

Exhibit 1.6-21. Population, Housing & Employment Summary of Thresholds of Significance

Metric	Threshold	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
☒ Equity & Climate	Increase the supply of market-rate housing.[1]	—	△	△	△	▲
☒ Equity & Climate	Increase the affordability of market-rate housing.[2]	—	△	△	△	▲
☒ Equity & Climate	Increase the diversity of market-rate housing.[3]	—	△	▲	△	▲
☒ Equity & Climate	Increase the supply of income-restricted housing.[4]	△	▲	△	▲	▲
☒ Equity & Climate	Reduce residential economic displacement.[5]	▽	△	△	△	▲
☒ Equity & Climate	Reduce residential physical displacement.[6]	—	▽	▽	▽	▽

Note: Impacts are considered either unavoidable adverse (▼▼), adverse but able to be mitigated (▼), impact but less than adverse (▽), limited or none (—), moderately positive (△), or positive (▲).

1 Total housing supply will grow under all alternatives. Alternative 5 would produce the most new units.
2 In general, the action alternatives would be expected to reduce competition for housing compared to No Action due to the increased growth that they accommodate. Alternative 5 provides the greatest amount of new supply, and therefore would be expected to have the greatest impact on reducing market housing cost pressures. These impacts would be expected across the entire market housing supply, both new and older units.
3 Based on the different place types, Alternative 3 would produce the greatest range of new housing types—detached single family, missing middle, multiplex, apartments. Alternative 5 has the greatest changes to place types including increasing the size of centers and adding new centers. This would also increase the diversity of housing options available.
4 Most affordable housing production is through the MHA program, and MHA requirements vary geographically. Alternatives 2, 4, and 5 include the greatest amount of growth in zones that generate MHA performance and payment units.
5 Alternative 5 is expected to have the greatest impact on reducing economic displacement pressure because it anticipates the largest increase in housing supply.
6 Alternative 3 with the greatest redevelopment in urban neighborhood areas and Alternative 5 with the greatest total potential units have the highest potential for physical displacement due to the demolition of existing homes. In Alternatives 1, 2, 4, and 5 the number of new affordable units substantially exceeds the number of units demolished. In Alternative 3, new affordable units only slightly exceed demolitions, in part because of the assumption that MHA would not apply in NR zones. Alternatives 2 and 5 are expected to create the most new affordable units per unit demolished.

1.6.9 Cultural Resources

How did we analyze Cultural Resources?

The Cultural Resources evaluation addresses historic-period architectural resources and precontact and historic-period archaeological resources. It is based on a literature review using State and City registers and spatial data, and review by liaisons representing different cultures and expertise. Impacts to cultural resources in the study areas from the No Action Alternative and four action alternatives were identified by assessing potential for both above- and belowground changes.

Impacts of the Alternatives on cultural resources are considered significant if they result in:

- Substantial changes to or alteration of features or characteristics, or loss (removal or demolition) of a cultural resource that prevent their eligibility for inclusion as a designated Seattle Landmark (SL), or inclusion in the National Register of Historic Places (NRHP), National Historic Landmark (NHL) program, or the Washington Heritage Register (WHR).
- More than a moderate adverse impact (potential loss of or alterations to the physical evidence or tangible evidence of cultural history) to Culturally Important Resources (CIR), which for the purposes of this EIS are important to certain cultural groups or communities, whether or not they are listed or eligible for the SL, NRHP, or WHR.

Resources that have been officially determined not eligible for these registers or considered CIR will not be adversely impacted by the proposed Alternatives.

What impacts did we identify?

All studied alternatives have the potential to affect districts, sites, landscapes, or buildings, structures, or objects (BSOs) that have been designated as an SL or listed in the NRHP and WHR, and those resources that have been determined eligible for listing in the NRHP. Additionally, the studied alternatives could potentially affect the numerous BSOs and unidentified archaeological sites that have yet to be surveyed and assessed for potential eligibility for listing in the registers.

Since development may occur in any location in the study area under any Alternative, it is possible that cultural resources could be impacted under each alternative. Changes to zoning that allow a wider range of residential and/or commercial growth could spur redevelopment in those locations. This could occur, for example, where the focused growth within neighborhood centers would allow for a wide range of housing types and commercial space or within Neighborhood Residential zones where the broad expansion of housing options would allow for and possibly incentivize increased density on larger lots throughout the study area. Even where there are no formally designated historic properties, there are numerous properties with historic-period buildings, many of which have never been formally surveyed and evaluated for eligibility but could potentially qualify for designation as an SL or listing in the NRHP. Many are located in an area with a High or Very High Risk of archaeological resources.

Demolition and construction projects could require substantial below-groundwork, thus negatively and irreversibly impacting below-ground archaeological and cultural resources. DAHP's archaeological predictive model, used to establish probabilities for precontact cultural resources, depicts much of the land within the study area as within a High or Very High Risk area, primarily because of proximity of Puget Sound, Salmon Bay, Lake Union, Elliott Bay, and the Duwamish River, and the use-history throughout the precontact and historic periods.

Analysis indicates that all Alternatives have the potential to affect historic and cultural resources through development/redevelopment in historically marginalized neighborhoods in the study areas.

What is different between the Alternatives?

Citywide

Alternative 1: Redevelopment and development projects due to market pressures under Alternative 1 (No Action) would continue to affect cultural resources, with such impacts as alteration, demolition, damage, or destruction. Alternative 1 includes no additional protections or improvements in planning for consideration of impacts to cultural resources.

Alternatives 2 – 4: Alternatives 2 through 4 would allow more housing than Alternative 1 but still propose most growth in centers, but each would emphasize different locations for additional housing choices: Alternative 2—growth in distributed nodes called neighborhood

centers, Alternative 3—middle housing distributed throughout the urban neighborhood place type, and Alternative 4 focusing more attached housing in corridors. While most growth will be in larger centers the additional growth would increase the probability of inadvertent discovery of below ground archaeological and cultural resources as compared to Alternative 1 because of substantial foundation work needed for multi-story buildings.

- **Alternative 2:** Some new neighborhood centers contain or abut listed historic properties or recorded archaeological resources, or contain mapped resources, such as within the Loyal Heights and Upper Fremont (NW Seattle), Wedgwood and Sand Point Way (NE Seattle), Magnolia and Nickerson (Queen Anne/Magnolia), Montlake, Madrona, and Squire Park (Capitol Hill/Central District), Alki, North Delridge/Youngstown, and Gatewood (W Seattle), and Georgetown (Duwamish) Neighborhood Centers.
- **Alternative 3:** Insufficient formal survey and inventory has been undertaken in many of the urban neighborhood areas across the city, leaving broad swaths of historic-period single-family and small-scale multi-family residential buildings as-yet unidentified or evaluated, and thus vulnerable to impacts from development. There are designated SLs, NRHP- and WHR-listed properties and mapped resources sensitivity areas (e.g., High to Very High Risk of archaeological and cultural sensitivity) across the city within the NR zones, such as Dunn Gardens (NRHP-listed) (NW Seattle), James and Pat Chiarelli House (designated SL and NRHP-listed) and the Julian and Marajane Barksdale House (NRHP-listed) (NE Seattle), Fort Lawton Landmark District (designated SL) (Queen Anne/Magnolia), Harvard-Belmont Historic District (designated SL and NRHP-listed) and Frink Park (NRHP-listed) (Capitol Hill/Central District), Schmitz Park Bridge (designated SL and NRHP-listed) (W Seattle), and Joseph Kraus House (designated SL and NRHP-listed) (SE Seattle).
- **Alternative 4:** Under Alternative 4 growth will occur in the areas that contain or abut listed historic properties or recorded archaeological resources, or contain mapped resources sensitivity areas (e.g., High to Very High Risk of archaeological and cultural sensitivity), possibly impacting such cultural resources as the John B. Allen School (designated SL and NRHP-listed) and the Christ the King Catholic Church (CIR) (NW Seattle), the Bryant Elementary School (designated SL) and the Henry Owen Shuey House (designated SL and NRHP-listed) (NE Seattle), Magnolia Public Library (designated SL and NRHP-listed) and the (former) Seventh Church of Christ (designated SL) (Magnolia/Queen Anne), Samuel Hyde House (designated SL and NRHP-listed), Volunteer Park (designated SL and NRHP-listed), Millionaire's Row Historic District (NRHP-listed), Moore Mansion and Bordeaux House (designated SLs) (Capitol Hill/Central District), Fauntleroy Community Church and YMCA (designated SL) (W Seattle), Hat 'n Boots (designated SL) (Duwamish), and Van Asselt School and Old Fire Station #33 (designated SLs), Ota Residence (CIR), and the Jimmie and Betty Eng House (NRHP-listed) (SE Seattle).

Alternative 5: Alternative 5 will allow the largest increase in supply and diversity of housing throughout the city. Existing regional centers and urban centers would gain up to 80,000 housing units, while other areas would see up to 40,000 additional housing units in new housing types. It combines the strategies in Alternatives 2, 3, and 4, and expands the boundaries of the city's existing urban centers and urban villages. Alternative 5 applies the proposed land-use concepts

of all Alternatives, which could incentivize development to increase floor area and height limits, allowing for the construction of dense, multi-story buildings.

Equity & Climate Vulnerability Considerations

The City's equity and climate change performance metrics did not specifically address cultural resources. However, Seattle's approach to evaluating and identifying cultural resources did include experts with local community groups to identify cultural important resources (CIRs), in addition to common channels of federal, state, and city inventories and registers. This resulted in identification of black and Hispanic commemorative and historic sites in several areas, mapped and described in **Section 3.9 Cultural Resources**.

Studies by the National Trust for Historic Preservation (NTHP) have noted that while rezoning and redevelopment can address some environmental justice concerns such as poor air and water quality, soil contamination, noise pollution, climate change, and unsafe, disconnected, and inaccessible neighborhoods, some of the land use strategies could also lead to adverse impacts such as the loss of historic and CIRs that have yet to be identified and documented within these communities (Canaan et al. 2021:54–55; NTHP 2021:10; Rypkema 2004).

The state and city SEPA rules allow some minor projects to be exempt from SEPA review. SEPA exemptions vary by location, zone, and use, and by residential density goals. SEPA allows some non-residential and mixed-use exemptions, as well. Some exempted projects are not subject to the same review and could impact cultural resources.

130th/145th Station Area

Under all studied Alternatives, development projects would affect cultural resources, with such impacts as alteration, demolition, damage, or destruction.

Alternative 1: Some 3-8 story residential buildings would be allowed near the station consistent with current zoning. The blocks around 130th Street would see an additional 194 housing units and 646 units would be developed at 145th Street. Redevelopment and development projects due to market pressures under Alternative 1 would continue to affect cultural resources, with such impacts as alteration, demolition, damage, or destruction. Impacts would be similar to the Citywide summary above.

Alternative 2: In the 130th/145th Station Area, Alternative 2 would designate three neighborhood centers near 130th Street and Roosevelt Way, 125th Street and 15th Avenue, and 145th Street and 15th Avenue, clustering denser, taller buildings and growth near transit. Development would be more mixed use near the 145th Station Area (with NC3) compared to Alternative 1. Building heights would be allowed up to 75 feet. The area would see 2,208 new housing units and 979 new jobs. Redevelopment and development projects under Alternative 2 could affect cultural resources, with such impacts as alteration, demolition, damage, or destruction.

Alternative 5: Alternative 5 would create an expansive urban center (previously urban village) at the Sound Transit light rail station along both sides of I-5, with zoning including low-rise residential, mid-rise multifamily, and neighborhood commercial (NC2 and NC3), linking Pinehurst's existing commercial area to an expanded residential/mixed-use area near the station. Development would be denser than Alternative 2, with more mixed-use, retail, and commercial buildings, and a wider variety of housing types. Building heights in the urban center would be allowed up to 95 feet, while in the nodes and corridors, building heights could be up to 80 feet. The urban center at NE 130th Street would see the highest residential growth of up to 1,644 housing units, while the neighborhood center at 145th Street and 15th Avenue would receive up to 1,059 housing units. The Station Area would see up to 1,004 new jobs.

What are some solutions or mitigation for impacts?

Examples of mitigation for impacts for architectural resources are detailed in **Section 3.7.3**.

- Mitigation includes a combination of protection and incentives, e.g., adaptive reuse, prioritizing funds for seismic retrofits to historic properties. Mitigation also includes approaches to seek and integrate the histories and context statements from historically marginalized communities, immigrant communities, and to consult tribes and reflect indigenous perspectives.

Mitigation for adverse impacts to archaeological or cultural resources, could include:

- Modifying demolition review process so that historic review occurs even if SEPA thresholds are increased;
- Prior to commencing site-specific subsurface investigations of soils, notifying the local Indigenous Tribes so an archaeologist can observe the work;
- Funding survey and inventory of archaeological sites;
- Updating tree removal requirements for archaeological sites;
- Employing standard archaeological techniques such as archaeological testing, excavation and data recovery/collection of artifacts, documentation, analysis, sharing evidence with the local Indigenous tribes, and archiving, possibly in a repository for future research;
- Funding public education and outreach, including interpretive signage and/or a museum exhibit;
- Funding interpretive signage and educational programs for BIPOC communities' historic neighborhoods; or
- Funding development of digital and other media content, including film, to share holistic stories of the impacted resource(s).

With mitigation, what is the ultimate outcome?

All the Alternatives have the potential for significant adverse impacts to cultural resources in the analysis areas. Such impacts can include physical alteration, damage, or destruction of all or

part of a resource; alteration of the characteristics of the surrounding environment that contribute to the property's significance; and the introduction of visual or audible elements that are out of character with the property. Such impacts could alter the characteristics of a historic property in such a way as to diminish its integrity, thus affecting its eligibility to qualify for inclusion in the SL or NRHP.

Advanced planning to eliminate, minimize, or avoid impacts to cultural resources is crucial under all of the alternatives. Review of development projects on a case-by-case basis even if SEPA thresholds are raised will also help to eliminate, minimize, or avoid impacts to cultural resources. The ultimate outcome of such mitigation is to moderate or substantially lessen the adverse impacts to r cultural resources before they are lost or significantly altered. With the implementation of advanced planning or project-specific review, significant adverse impacts to cultural resources can be avoided or minimized.

Summary of Thresholds

Exhibit 1.6-22 summarizes potential impacts based on the evaluation in **Section 3.9 Cultural Resources**.

Exhibit 1.6-22. Cultural Resources Thresholds of Significance

Metric	Threshold	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
	Substantial changes to or alteration of features or characteristics, or loss (removal or demolition) of a cultural resource that prevents their eligibility for inclusion as a designated Seattle Landmark (SL), or inclusion in the National Register of Historic Places (NRHP), National Historic Landmark (NHL) program, or the Washington Heritage Register (WHR).[1]	▼	▼	▼	▼	▼
	More than a moderate adverse impact (potential loss of or alterations to the physical evidence or tangible evidence of cultural history) to Culturally Important Resources (CIR), which for the purposes of this EIS are important to certain cultural groups or communities, whether or not they are listed or eligible for the SL, NRHP, or WHR.[2]	▼	▼	▼	▼	▼

Note: Impacts are considered either unavoidable adverse (▼▼), adverse but able to be mitigated (▼), impact but less than adverse (▽), limited or none (—), moderately positive (△), or positive (▲).
1 All studied alternatives have the potential to result in change, alteration, or loss of architecturally historic buildings, structures, and objects that might be eligible for future designation on local, state, or federal registers. The alternatives could also have an impact on/damage to archaeological and cultural resources during below-ground work.
2 All studied alternatives have the potential to alter or result in loss of CIR through development. The CIR includes features important to certain cultural groups or communities.

1.6.10 Transportation

Source; SDOT, 2023.

How did we analyze Transportation?

This EIS provides a multimodal analysis of transportation in Seattle to evaluate the potential impacts of the proposed land use Alternatives. The following metrics are included as part of the evaluation:

- Mode share by sector
- Transit capacity analysis
- Vehicle Miles Traveled (VMT), Vehicle Hours Traveled (VHT), and average trip speed
- Corridor travel time
- Volume-to-Capacity across screenlines
- Intersection level of service (LOS)
- State facility capacity analysis

Each metric is used to quantitatively evaluate and contextualize impacts.

Thresholds of significance utilized in this impact analysis include:

- A subarea would have a percentage of SOV travel exceeding the target stated in the Seattle 2035 Comprehensive Plan.

- A study route would operate over the transit agency crowding threshold.
- VMT per capita exceeds the existing level.
- A corridor would have a travel time LOS grade of F.
- A screenline would exceed the V/C threshold stated in the Seattle 2035 Comprehensive Plan by at least 0.01.
- A signalized intersection would operate at LOS E or F and an unsignalized intersection would operate at LOS F.
- A state facility does not meet the standard set by WSDOT.

A significant transportation impact under the four action alternatives is identified if:

- A subarea that does not exceed its SOV mode share target under the No Action Alternative would exceed its SOV mode share target or a subarea that exceeds its SOV mode share target under the No Action Alternative would have an increase in SOV mode share of at least 1% compared to the No Action Alternative.
- A study route that would operate at or under the transit agency crowding threshold under the No Action Alternative would operate over the transit agency crowding threshold or a study route identified as operating over the transit agency crowding threshold under the No Action Alternative would have an increase in passenger load of at least 5% compared to the No Action Alternative.
- VMT per capita would exceed the VMT per capita under the No Action Alternative.
- A corridor that would have a travel time LOS grade of A-E under the No Action Alternative would operate at LOS F or a corridor that would have a travel time LOS grade F under the No Action Alternative would have an increase in travel time of at least 5%.
- A screenline that would not exceed the V/C threshold under the No Action Alternative would exceed the V/C threshold or a screenline that would exceed the V/C threshold under the No Action Alternative would increase the V/C ratio by at least 0.01.
- The action alternative would cause an intersection that operated acceptably under No Action Alternative to operate unacceptably, or the action alternative would add at least a 5 second delay from the No Action Alternative at an intersection that operated unacceptably under the No Action Alternative.
- A state facility that would meet WSDOT's standards under the No Action Alternative would exceed WSDOT's standards or a state facility that does not meet WSDOT's standards under the No Action Alternative would increase the volume-to-LOS service volume ratio by at least 0.01 compared to the No Action Alternative.

Source: City of Seattle, 2023.

What impacts did we identify? What is different between the Alternatives?

Citywide

Exhibit 1.6-23 summarizes the potential impacts to Seattle's transportation system under each alternative. The purpose of an EIS is to disclose how potential actions by the City may impact the transportation system in comparison to what is expected to occur with currently adopted zoning codes and policies. Therefore, the impacts of each Action Alternative are assessed against the performance of the transportation system under the No Action Alternative 1. The impacts identified under the No Action Alternative 1 are also expected to occur under the action alternatives even if those Alternatives would not result in additional impacts. Although the focus of the EIS is not to mitigate conditions under the currently adopted zoning code (i.e., the No Action Alternative 1), many of the mitigation measures proposed for the action alternatives would also lessen impacts under the No Action Alternative 1.

All action alternatives are expected to have significant impacts to transit passenger load, Corridor travel time, intersection LOS in the NE 130th/NE 145th Street Subarea, and state facilities. Impacts of Alternatives 2 and 3 would be similar to one another while impacts of Alternative 5 are expected to be higher in magnitude due to the increased growth. Alternative 4 would fall within this range, likely closer in magnitude to Alternatives 2 and 3 than Alternative 5. **Exhibit 1.6-23** details the types and number of impacts expected under each alternative.

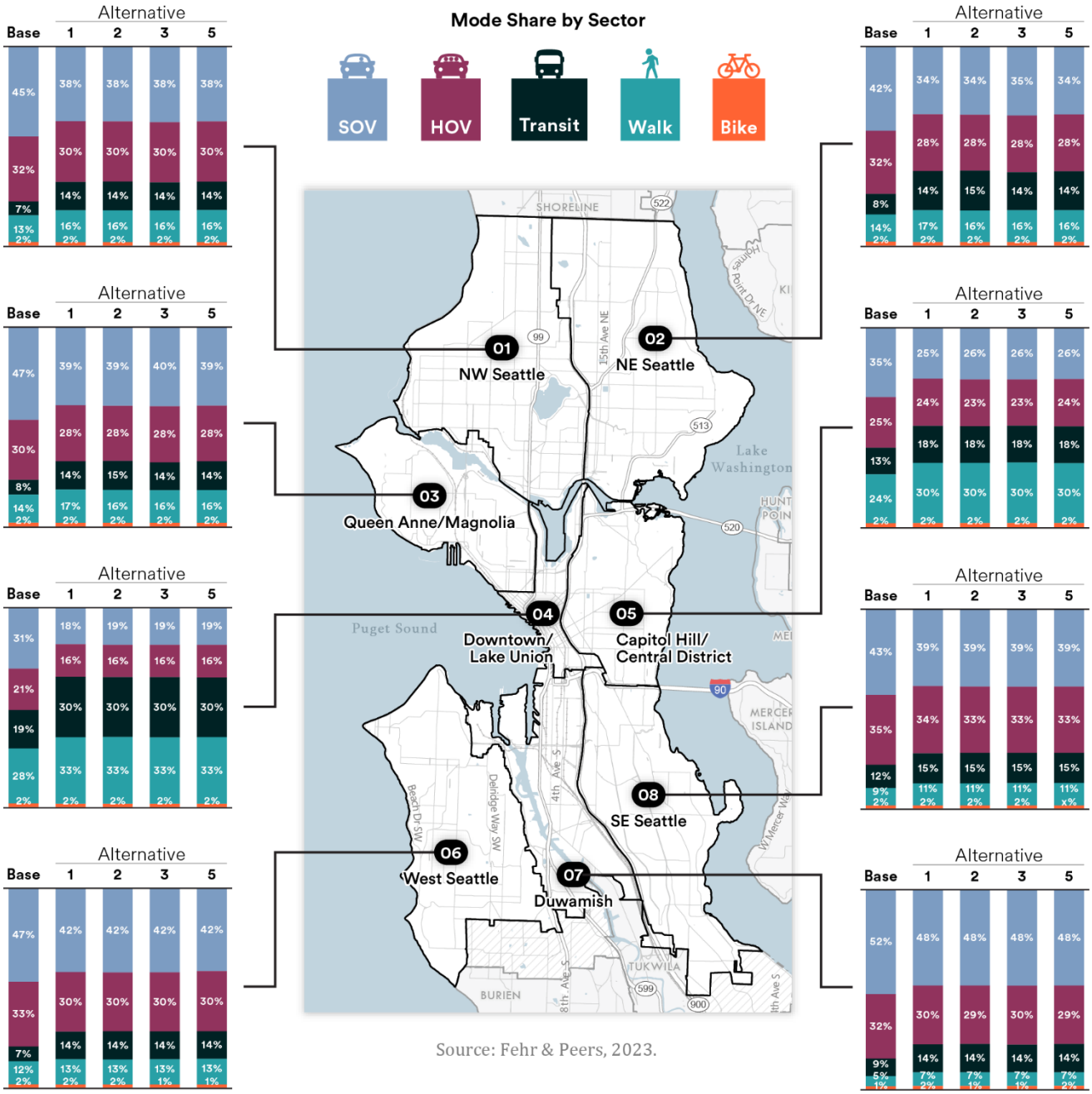
In addition to **Exhibit 1.6-23**, **Exhibit 1.6-24** and **Exhibit 1.6-25** summarize some of the key metrics across the Alternatives graphically.

Exhibit 1.6-23. Overview of Significant Adverse Impacts: All Alternatives

Impact Type	Alt. 1—No Action	Alt. 2—Focused	Alt. 3—Broad	Alt. 5—Combined
SOV Mode Share	Duwamish subarea impacted	No additional impacts beyond No Action	No additional impacts beyond No Action	No additional impacts beyond D No Action
VMT per Capita	No	No	No	No
Active Transportation	No	No	No	No
Transit	8 routes: Light Rail 1, 2, and 3 Lines; RapidRide E, J, R, Denny & Fremont	8 routes under No Action + additional impacts to RapidRide E, J, R & Fremont	8 routes under No Action + additional impacts to RapidRide E, J, R & Fremont	8 routes under No Action + additional impacts to RapidRide E, J, R & Fremont
Roadway Users				
Corridor Travel Time	4 corridors: Mercer, Stewart, Olive & Michigan	4 corridors under No Action + additional impact to Olive	4 corridors under No Action + additional impact to Olive	4 corridors under No Action + additional impact to Olive
Screenline	No	No	No	No
130th/145th Subarea Intersection LOS	6 intersections: 145th/Aurora, 145th/5th, 145th/15th, 130th/Aurora, 130th/1st & 125th/15th	Additional impacts to the 6 intersections impacted under No Action	Additional impacts to the 6 intersections impacted under No Action	Additional impacts to the 6 intersections impacted under No Action + impact at 130th/Roosevelt/5th
State Facilities	7 segments along I-5, SR 99, SR 509 & SR 522	7 segments under No Action + additional impacts along I-5, SR 99, & SR 522	7 segments under No Action + additional impacts along I-5, SR 99, & SR 522	7 segments under No Action + additional impacts along I-5, SR 99, SR 509 & SR 522
Safety	No	No	No	No

Source: Fehr & Peers, 2023.

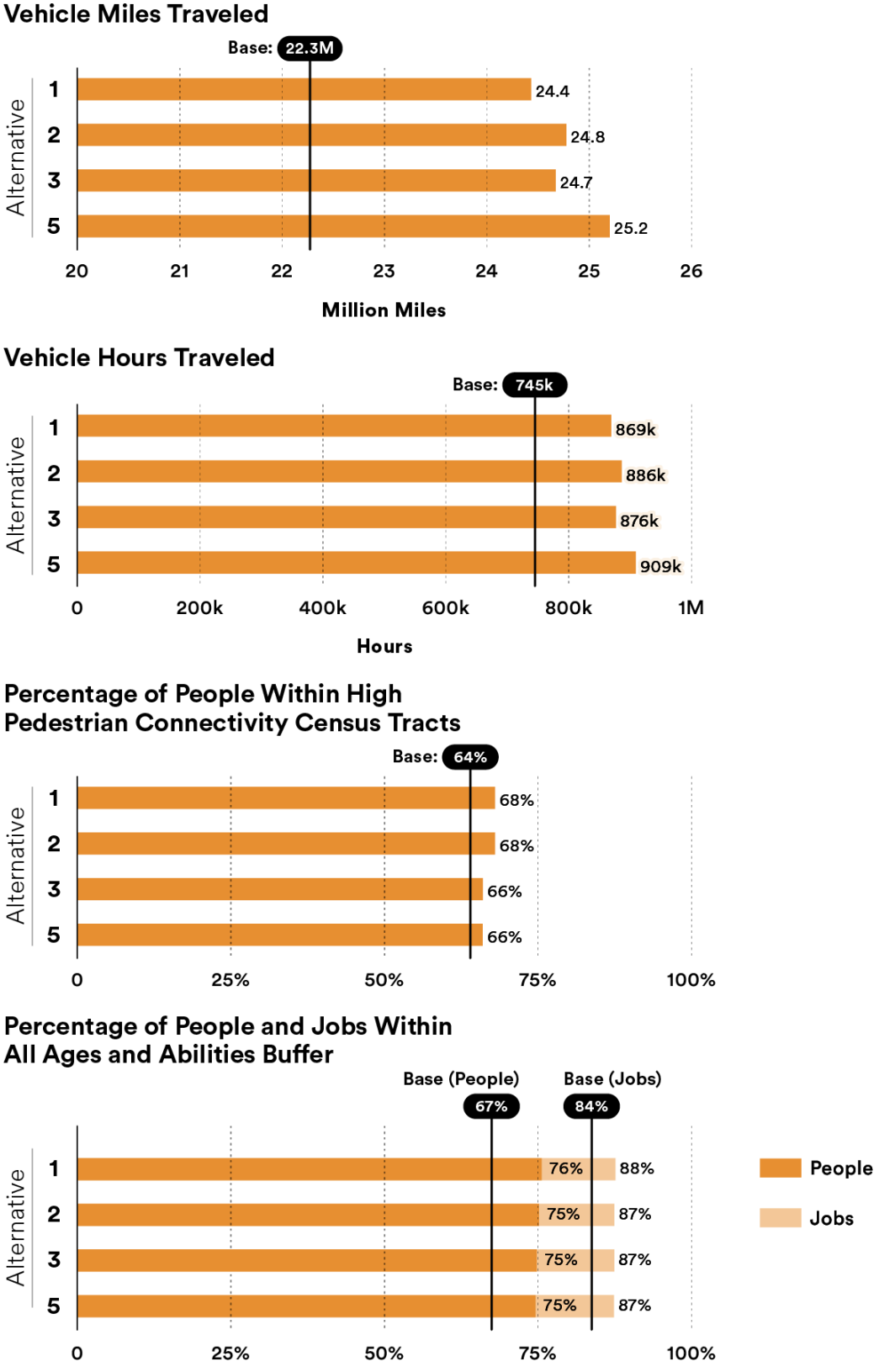
Exhibit 1.6-24. Transportation Metrics Across the Alternatives



Source: Fehr & Peers, 2023.

Source: Fehr & Peers, 2023.

Exhibit 1.6-25. Citywide Transportation Metrics



Source: Fehr & Peers, 2023.

130th/145th Station Area

Under Alternative 1, six intersections are expected to no longer meet the LOS D threshold, constituting a significant impact. These include:

- N 145th Street / Aurora Avenue N
- NE 145th Street / 5th Avenue NE
- NE 145th Street / 15th Avenue NE
- N 130th Street / Aurora Avenue N
- N 130th Street / 1st Avenue NE
- NE 125th Street / 15th Avenue NE

Under Alternative 2, six intersections are expected to fall below the LOS D threshold; these intersections are the same as those identified under Alternative 1. However, operations are expected to degrade with five of the six intersections falling from LOS E to F. All six intersections would experience at least five additional seconds of delay (the impact threshold) and therefore are considered to have a significant impact under Alternative 2.

Delays would generally be longest under Alternative 5. Under Alternative 5, impacted intersections would include the six intersections identified under the other Alternatives as well as the intersection of NE 130th Street/Roosevelt Way NE/5th Avenue NE which would fall from LOS D to LOS E.

What are some solutions or mitigation for impacts?

Citywide

The mitigation strategies in **Section 3.10 Transportation** include:

- Transportation Systems Management and Operations (TSMO)
- Transportation Demand Management (TDM)
- Pedestrian and Bicycle System Improvement
- Transit Strategies
- Parking Management Strategies
- Safety Strategies

Equity & Climate Vulnerability Considerations

Providing additional housing growth in areas with more complete infrastructure could advance equity by expanding the opportunity for more people to live in those areas. From that perspective, all of the action alternatives could advance equity by providing more housing opportunities throughout the city with Alternative 5 providing the most opportunity through its higher housing target.

An important consideration for climate vulnerability and health disparities is the distribution of effects from emissions, generated by personal and freight vehicles. Underserved communities often face the highest effects of vehicle emissions; for example, freight traffic emissions or poor air quality due to close proximity heavily congested roadways and freeways. Total VMT generated by each alternative was estimated using the SoundCast model. The action alternatives are expected to result in higher VMT than the No Action Alternative due to the increased growth levels. The increase for Alternatives 2 and 3 is expected to be approximately 1% higher than the No Action Alternative and for Alternative 5 is expected to be approximately 3% higher. Alternative 4 would fall within that range and likely most similar to Alternatives 2 and 3. Therefore, it is possible that the action alternatives—Alternative 5 in particular—could result in additional vehicle emissions near underserved communities along high vehicle emissions roadways.

From a regional perspective, accommodating more growth within dense urban areas like Seattle provides better climate outcomes than if that growth were accommodated elsewhere. Therefore, at a regional scale, concentrating more growth within Seattle is expected to lead to travel behaviors with lower impacts to climate vulnerability than if that growth occurred in outlying areas. Because all of the action alternatives would accommodate more growth than the No Action Alternative, they are expected to result in better climate outcomes with Alternative 5 providing the most benefit as it would accommodate the highest level of housing growth within Seattle.

130th / 145th Street Station Area

Analysis of the action alternatives, relative to the No Action Alternative 1, identified seven impacted intersections. The impacted intersections are listed below:

- N 145th Street / Aurora Avenue N
- NE 145th Street / 5th Avenue NE
- NE 145th Street / 15th Avenue NE
- N 130th Street / Aurora Avenue N
- N 130th Street / 1st Avenue NE
- NE 130th Street / Roosevelt Way NE / 5th Avenue NE
- NE 125th Street / 15th Avenue NE

Each intersection was evaluated to identify potential mitigation measures that would address delay impacts such that intersection delays would not exceed the five second impact threshold relative to Alternative 1.

Some impacts could be addressed with more minimal interventions such as signal timing and phasing modifications while others would require physical changes to the intersections to expand capacity, for example adding turn pockets or lanes. However, adding physical capacity to these intersections is likely not practical or desirable due to right-of-way constraints and potential secondary impacts to other modes. Instead, the City would likely pursue multimodal improvements aimed at making transit, walking, and biking more convenient and comfortable such that people have more options to choose from when traveling through the neighborhood.

The Seattle Transportation Plan (STP) outlines the types of multimodal improvements that are being considered.

With mitigation, what is the ultimate outcome?

Regardless of the Alternative selected, increased travel demand is expected to result in potentially significant adverse impacts to transit passenger load, corridor travel time, intersection LOS in the NE 130th/NE 145th Street Subarea, and state facilities.

The City is expected to pursue targeted transportation capacity improvements focused on improved transit, bicycle, pedestrian, and freight connections. Additionally, the City will manage demand using policies, programs, and investments aimed at shifting travel to non-SOV modes. However, the magnitude and duration of traffic congestion during peak periods (as measured using corridor travel time) is expected to be exacerbated as growth continues to occur.

Significant impacts to transit were identified under all action alternatives with respect to transit passenger loads. Mitigation measures could lessen the severity of the passenger load impacts. However, due to the increment of change projected, service levels may not be able to fully mitigate the projected impacts. Therefore, a significant unavoidable adverse impact to transit capacity is expected.

Some combination of the travel demand management strategies could be implemented to reduce the magnitude of SOV travel. These programmatic measures may lessen the severity of some of the potential impacts, particularly the travel time impacts which are fairly limited in scope. However, in the absence of state facility capacity expansion beyond that already planned and funded, the action alternatives may still result in potentially significant unavoidable adverse impacts to state facilities.

Some of the impacts to subarea intersections would require physical capacity expansions which are unlikely to be implemented due to right-of-way constraints and potential secondary impacts to other modes. Therefore, the intersection impacts are not expected to be fully mitigated and the action alternatives may still result in a significant unavoidable adverse impact to intersection LOS.

Summary of Thresholds

Exhibit 1.6-26 summarizes potential impacts based on the evaluation in **Section 3.10 Transportation** (summarized in **Exhibit 1.6-23**).

Exhibit 1.6-26. Transportation Impact Thresholds and Alternative Comparison

Metric	Threshold Summary	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
	SOV travel exceeding the 2035 Plan target/ +1% over no action	▼	—	—	—	—
☒ Equity & Climate	VMT increase	Future baseline	▽	▽	▽	▽
☒ Equity & Climate	VMT per capita exceeds the existing level / no action level	—	—	—	—	—
☒ Equity & Climate	Active Transportation	—	—	—	—	—
	Over the transit agency crowding threshold/ +5% no action	▼▼	▼▼	▼▼	▼▼	▼▼
	Corridor would have a travel time LOS grade of F / +5% no action	▼	▼	▼	▼	▼
	Screenline exceeding the 2035 Plan target by 0.01/ +.01 over no action	—	—	—	—	—
	130th/145th Subarea Intersection LOS 3 or F / +5 seconds over no action	▼▼	▼▼	▼▼	▼▼	▼▼
	State Facilities: Does not meet the standard set by WSDOT / increase by at least 0.01 over no action	▼▼	▼▼	▼▼	▼▼	▼▼
	Safety	—	—	—	—	—

Note: Impacts are considered either unavoidable adverse (▼▼), adverse but able to be mitigated (▼), impact but less than adverse (▽), limited or none (—), moderately positive (△), or positive (▲).

1.6.11 Public Services

How did we analyze Public Services?

This section addresses the potential impacts on public services associated with each alternative. Public services are defined as police, fire, emergency medical; parks and recreation; and schools. These services are provided citywide principally by the City of Seattle for police, fire, and parks, and by the Seattle Public Schools for education. The evaluation considers available capital and operational plans and data from service providers such as calls for service, distribution and types of facilities, and usage.

Impacts of the Alternatives are considered significant if they:

- Result in insufficient parks, open space, and trail capacity to serve expected population based on existing levels of service.
- Create inconsistencies with shoreline public access policies.
- Result in increases in public school enrollment that cannot be accommodated through regular school planning processes.
- Increase demand for police or fire and emergency that can't be accommodated through regular planning and staffing processes.
- Result in insufficient capacity to handle solid waste under current Seattle Public Facility plans.

What impacts did we identify?

Demand for new park acres would increase under each alternative if the City maintains its 8.0 acres per 1,000 population level of service. Greater population growth across the city could increase demand for shoreline public access. New levels of service are anticipated to be applied.

Demand for police, fire, and solid waste services would increase with greater population and employment growth. Additional police officers, fire units, and solid waste services would be needed to maintain current levels of service. action alternatives would update level of service policies and capital facility plans as needed.

What is different between the Alternatives?

Parks

Citywide

The current parks level of service is 8.0 acres per 1,000 population (from Seattle 2035 and 2017 Parks and Open Space Plan). However, the city is considering options for updating the level of service as part of the Comprehensive Plan Update. The goal of updating the level of services is to make it more consist with the City's goals and approach to acquisition.

Additional park acres would be needed under each alternative if the City maintains its 8.0 acres per 1,000 population level of service. Currently, Seattle Parks and Recreation manages 6,478 acres of parks.

The acreage needed would range from 1,331 to 1,997 acres between Alternative 1 and Alternative 5, with Alternatives 2 through 4 requiring an additional 1,664 acres. Within each analysis area, the acres required are highest under Alternative 5. See **Exhibit 1.6-27**. The City currently has 6,478 acres of parkland. If no new acres are added to the City's inventory, the LOS rate per 1,000 would drop.

Exhibit 1.6-27. Additional Acreage Needed to Meet Parks LOS by Alternative

Alternative	Total Net Acreage Needed
Alternative 1	1,312
Alternative 2	1,640
Alternative 3	1,640
Alternative 4	1,640
Alternative 5	1,968

Notes: Converts housing units to population using a persons per household of 2.05 regional housing target efforts. The 8 acres per 1,000 population is applied to net population growth.
Source: BERK, 2023.

The acreage needed would range from 1,312 to 1,968 acres between Alternative 1 and Alternative 5, with Alternatives 2 through 4 requiring an additional 1,640 acres. Within each analysis area, the

acres required are highest under Alternative 5 except that Area 4 Downtown would have the same growth and acres needed under all Alternatives. Under each alternative, expected population growth is lowest in Area 7 due to the focus on employment (except in South Park).

130th/145th Station Area

Within and adjacent to the station study area are parks and open space including Jackston Park Golf Course, Flicker Haven Natural Area, and Northacres Park. All Alternatives would result in an increased demand for parkland, with most demand under Alternative 5 and the least demand under Alternative 1 in the 130th Street Station Area. In the 145th Street Area, demand for parkland would be slightly higher under Alternative 2 and Alternative 5 than the No Action Alternative (with demand highest under Alternative 2).

Schools

Citywide

It is not possible to develop an accurate twenty-year projection of school needs given the wide variety of factors that influence these numbers and the recent fluctuations in public school enrollment. As a high-end estimate of potential impacts, it may be helpful to estimate the number of new classrooms that would be needed if recent trends change and the percentage of the total population enrolled in Seattle Public Schools holds steady over the next twenty years.

Applying this rate to expected population growth shows a range of 10,912-16,368 students generated by each alternative, the least under Alterative 1 and the most under Alternative 5. Depending on the grade level and pace of housing and population growth, new classrooms or schools could be needed over time to accommodate growth.

Based on planning level estimates of students per school, there could be a need between 436-655 classrooms. Under all Alternatives, most population growth, and therefore students, would be added in areas 1 and 2. Student growth in Area 4 would be the same across all Alternatives and would likely go to schools in areas 3 and 5 as there are no schools located in Downtown. Areas 6, 7, and 8 would have the second highest share of population and students in all the action alternatives.

Within the analysis areas, most growth would be directed to centers under all Alternatives and schools in those areas would be most affected. However, in Alternatives 2-5, more areas currently zoned Neighborhood Residential would see growth, which may be focused around neighborhood centers, corridors, or elsewhere distributed through distributed growth of missing middle housing types.

While K-12 public school enrollment has declined over the last 5 years, future population growth has the potential to increase student enrollment in various areas throughout the city. Seattle Public Schools monitors changes in enrollment to track expected future needs and would adjust their enrollment projections accordingly for future planning cycle. SPS would respond to the exceedance of capacity as it has done in the past by adjusting school boundaries

and/or geographic zones, adding or removing portables, adding/renovating buildings, reopening closed buildings or schools, and/or pursuing future capital programs.

130th/145th Station Area

There would be an increase in housing, population, and students with most under Alternative 5 and least under Alternative 1. Depending on Alternative, the number of students could be greatest in 130th Street Station (Alternative 5) or at 145th Street (Alternative 2).

Police

Citywide

Growth in housing and jobs is expected to occur incrementally under all Alternatives. For the purposes of the EIS analysis, increased density of population and jobs is anticipated to increase the potential demand for police services. However, many factors can influence crime rates. Literature and studies have identified population density and socioeconomic conditions (diminished economic opportunities, concentrations of poverty, high level of transiency, low levels of community participation) as factors as well as prevalent attitudes towards crime and crime reporting. Property crimes are more prevalent than violent crimes and property crimes such as robbery and motor vehicle theft tend to occur at intersections rather than in whole neighborhoods. Victims of crimes are also more likely to be persons of color and younger.

The estimated number of officers per 1,000 residents is 1.4 in 2022. Given that SPD staffing levels are as low as they have been since 1980 based on data collected by the Washington Association of Sheriffs and Police Chiefs (WASPC), this analysis uses a rate of 1.8 officers per 1,000 residents, which is the average rate between 2010 and 2022.

Based on population and housing growth alone Alternative 1 would have the least demand and Alternative 5 the most demand for police staffing. Most demand would occur in areas with the greatest planned growth in Areas 1 and 2. Area 4 Downtown may need Alternative ratios with a focus on office employment as well as residential uses. Area 7 may also need other personnel depending on needs with industrially focused land use. See **Exhibit 1.6-28**.

Exhibit 1.6-28. Estimate of Officer FTEs per 1000 Residents at Avg. LOS 2010-2022

Alternative	Area 1	Area 2	Area 3	Area 4*	Area 5	Area 6	Area 7*	Area 8	Total
Current (est.)	219.0	177.7	100.5	143.3	193.1	128.0	6.3	109.3	1,077.0
Alternative 1	266.6	222.3	121.2	212.8	239.2	148.9	13.3	132.3	1,356.6
Alternative 2	283.6	242.6	128.8	212.8	250.5	160.9	14.6	136.7	1,430.5
Alternative 3	280.6	249.7	123.8	212.8	241.1	163.7	13.4	145.4	1,430.5
Alternative 4	279.3	252.8	123.5	212.8	241.3	163.2	13.4	144.1	1,430.5
Alternative 5	295.2	262.1	129.2	212.8	249.7	176.8	19.6	158.9	1,504.3

Source: Washington Association of Sheriffs and Police Chiefs, 2023, BERK, 2023.
*Area 7 is predominantly industrial and will be regardless of Alternative growth strategy
Note: the level of service calculation is based on Seattle Police Department's average level of service from 2010-2022 which is 1.8 officers per 1,000 residents.

130th/145th Station Area

Incremental growth under each alternative would contribute to demand for officers in Area 2 with least under Alternative 1 and most under Alternative 5. See **Exhibit 1.6-28**.

Fire/Emergency Medical Services

Citywide

Growth in worker and residential populations in the study area is expected to lead to an increased number of calls for aid, basic and advanced life support, and other emergency services. Growth is expected to occur incrementally under all Alternatives, as individual development projects are constructed. The Seattle Fire Department would attempt to maintain response times consistent with or better than current performance levels as the population grows. Over time, additional staffing and equipment within each analysis area would be required in order to maintain or improve performance levels.

Additional units would need to be added to meet the current levels of service of apparatus per 1,000 dwelling units. However, based on Seattle Fire Department's Live dispatch dashboard as well as the SFD 2021 annual report, citywide unit additions should reflect aid unit prioritization over other fire units. Across all Alternatives, each subarea or battalion should have at least a single aid unit stationed at a centrally located station to limit fire unit dispatches on aid calls.

Secondarily, the recommendations for Area 4 are consistent across all Alternatives and reflect the growing need for an additional unit to fill the gap in service in the South Lake Union neighborhood.

Alternative 5 having the highest growth has the greatest need for apparatus. More apparatus under any of the Alternatives may require additional personnel and expanded stations. Any potential future fire facility, staffing, or equipment needs will be included as part of the City's annual Budget and Capital Improvement Program process.

130th/145th Station Area

The 130th and 145th Station Area is in Area 2, and between SFD Stations 24, 31 and 39. These stations' units include two engines, one ladder, and one air unit. Growth in the station areas could increase demand.

- Alternative 1: This area is currently identified as a hole in service and may require additional units at the Bitter Lake fire station to meet minimum service standards. This likely would not require a new station given that nearly all development is targeted at urban centers and the Northgate station is already well equipped with support units in case of multiple calls to the transit station area.
- Alternative 2: Fire services at the station area would require either a new station or additional units at Bitter Lake to support higher density housing, which results in additional aid calls as well as one additional firefighting unit as is customary at new stations. SFD has

identified this area as a hole in service that falls just outside of the minimum response buffer of two different stations; providing additional units at one or both stations could better equip them to handle increased demand.

- Alternative 5: This Alternative presents that largest increase in unit needs for the transit stations areas. Alternative 5: If an additional aid unit is provided at each of the nearby stations at Bitter Lake and Lake City, SFD can maintain and even improve the service levels of the station area without being forced to cross Interstate-5 which may present a challenge depending on the time of day.

Solid Waste

Citywide

Growth in residential, commercial, and self-haul solid waste is expected to increase under all Alternatives.

Exhibit 1.6-29 and **Exhibit 1.6-30** offers estimates of each solid waste stream by customer types for Alternatives based on job growth estimates and housing units. The number of people per household is variable but is estimated at 2.05 people per household for these calculations. All Alternatives estimate 158,000 additional jobs in Seattle between 2024 and 2044.

Exhibit 1.6-29. Estimated Tons of Solid Waste (Garbage, Recycling, Compost) Generated by Alternative—Residential

Scenario	Resident estimates	Tons of Waste Per year estimate	Tons of Diversion at goal rate: 70%
Current: 2020	762,148	315,739	221,017
Alternative 1	966,358	400,338	282,336
Alternative 2	1,007,358	417,323	292,126
Alternative 3	1,007,358	417,323	292,126
Alternative 4	1,007,358	417,323	292,126
Alternative 5	1,048,358	434,308	304,015

Sources: SPU, 2020 Annual Waste Prevention & Recycling Report; BERK, 2023.

Exhibit 1.6-30. Estimated Tons of Waste Generated for Commercial Customers

Year	Employee Estimates	Tons per year based on 2020 per employee estimate	Diversion at current recycling rate: 61.6%	Diversion at goal recycling rate: 70%
2020 (per 2020 employee estimate)	499,146 employees	286,036 tons	176,198.2 tons	200,225.2 tons
2044 estimates, all alternatives	746,447 employees	427,751 tons	263,494.9 tons	299,426 tons

Sources: SPU, 2020 Annual Waste Prevention & Recycling Report; BERK, 2023.

To meet the additional need for solid waste services, contracts with waste haulers are renegotiated every 10 years. Fees charged to residential and commercial customers from Seattle Public Utilities and from waste haulers directly support the necessary capital investments needed to ensure minimum levels of service.

130th/145th Station Area

Alternative 1 produces a small residential growth number. The number of dwelling units would change the type of service but would not significantly impact levels of service.

Under Alternative 5, impacts to solid waste would be similar to and slightly greater than Alternative 2 with a small increase in the number of dwelling units and waste volume.

Equity & Climate Vulnerability Considerations

Each service and facility type would be affected by climate change and has the opportunity to invest in more equitable services. Alternatives with greater growth have the potential to affect service delivery more than lesser growth Alternatives but all Alternatives have the potential to create new investments to improve equitable services and climate resiliency.

Police Services: SPD has developed Micro Community Policing Plans (MCPP) to address the individual needs of each community. Based on the City's equity opportunity areas evaluation and engagement with the community in each area, these plans could be updated. Police access to parts of the city could be affected by extreme precipitation, flooding, sea level rise, and landslides. Alternatives with greater growth such as Alternatives 2-4 and particularly Alternative 5 may require greater police services and may mean additional personnel and facilities that need to be adapted for climate resilience.

Fire/Emergency Services: While the Seattle Fire Department is the main firefighting entity within Seattle, most of its work is rooted in health services and fire prevention. To reduce fires in homes SFD works with communities throughout Seattle to distribute fire prevention flyers that have been translated in the top seven spoken languages in Seattle to ensure compliance with fire safety standards regardless of language. Fire prevention outreach also helps alleviate racial and social inequities. Housing structures in the Southwest, Southeast, and East Central regions of the city are more likely to be older and to potentially benefit from fire prevention outreach. These areas are also more disadvantaged than elsewhere in the city per Seattle Racial and Social Equity Index. Targeting fire prevention outreach in these areas is vital to alleviating fire safety inequity.

Aside from outreach and prevention, SFD also performs fire inspections on existing homes as well as required inspections on new development. Each alternative will result in an increase in the number of multi-family units and may require additional staff to adequately provide fire prevention services to the growing population. Alternative 5 would have more demand than Alternatives 2-4 and Alternative 1.

Schools: The City's responsibility in planning for schools is to coordinate with the School District in planning for growth and modernization. Equitable access improvements would help all local students in priority areas under all alternatives.

Parks: Parks are important for community health and well-being and a key amenity in growth areas. The City developed an overlay of public space priority areas considering race and social equity, density and growth, and health outcomes in its parks system plan. Areas of the highest priority for plans/programs/investments based on Race and Social Equity are generally in the south end of the City including Delridge (Area 6), South Park (Area 7), and Southeast Seattle (Area 8). The need for continued investment in priority areas would be similar across all alternatives.

Solid Waste: SPU has also joined with Seattle City Light to mitigate cost burden of utility services on low-income households through the Utility Discount Program. The Clean City Division of SPU also provides necessary debris clearance in the event of climate emergencies and ensure equitable distribution of resources by utilizing Seattle's Racial Equity Toolkit in program planning and implementation. This toolkit and the division ensure that public litter receptacles, litter abatement routes, and encampment solid waste collection (purple bag program) are equitably distributed throughout the city and are not prioritized in highly resourced communities. These and similar programs could support residents under all alternatives.

What are some solutions or mitigation for impacts?

All Services

- The City is updating its Comprehensive Plan, including its public services policies, and coordinating with service providers regarding growth estimates.
- Compact growth in centers under all Alternatives and in other areas of focus like neighborhood centers and corridors in Alternatives 2 and 4 could result in more efficient service delivery. More diffuse growth in urban neighborhood areas in Alternatives 3 and 5 could distribute the demand more incrementally making use of existing infrastructure like schools, parks, and fire stations.

Parks

The City could explore a level of service that has a lower acres per 1,000 population or an Alternative population density-based approach given the urban nature of the city.

The City could add additional or improve existing park space including:

- Expanding existing parks or adding capacity on existing parks (e.g., expanded play or sports facilities),
- Creating linear parks and trails,
- Increasing tree canopy coverage in rights-of-way or public parks and open space to reduce urban heat island effects,

- Developing recreation facilities on building rooftops to provide sports courts, athletic fields, off-leash dog areas, etc.,
- Developing community gardens (permitted on some rooftops in individual zones) as a way to provide open space and urban agricultural use,
- Increasing frequency of maintenance to offset an increase in park usage.

The City could implement a parks impact fee to help pay for the development of new park land if needed in the future.

The City could also explore transportation to and from parks and potentially increase connectivity between parks in areas of high equity opportunity.

Schools

- The City could implement a school impact fee to help pay for the development of new classrooms if they are needed in the future.
- The City could help identify interim uses for existing underutilized classrooms so that the school district can hold onto them in case they are needed in the future.
- The City could incentivize provision of public schools in centers in vertical formats, where new schools are needed. The City could also allow for greater heights at existing school locations where demand increases. Goals would be to protect recreation and tree canopy while allowing for more student classroom capacity.
- The City could update development standards and review processes for new schools in order to make it easier to add classrooms or build new schools if they are needed in the future.
- As part of development standards for new place types such as neighborhood centers and corridors, the City could enhance street cross sections including walking routes to schools in areas with added housing.
- The City could identify specific objectives to assist Seattle Public Schools in acquiring and developing new schools if needed.

Police & Fire Services

- SPD could update its MCPP described under “Incorporated Plan Features” or create updated police service programs to engage the community in police services that equitably and justly meet community needs.
- SFD could explore options to decrease call times through new station placement strategies that limit East/West travel which has historically been challenging for fire units during busier times of day.
- SFD could explore smaller, more nimble fire units that are better equipped to navigate Seattle’s complex topography to decrease response times while still ensuring SFD’s excellent standard of service for emergency medical and fire response.
- SFD could convert peak aid units that are available at certain times to full time aid units.

- SFD could add aid units in underserved areas.

Solid Waste

- Increasing budget for education and outreach services for multi-family residents
- Establishing more significant penalties for those who do not adhere to recycling and composting standards while increasing financial benefits for households and multi-family residents who opt for recycling and compost over landfill waste disposal.
- Require specific standards in solid waste hauling contracts to protect employees from adverse health impacts of their work during extreme weather events.

130th/145th Station Area

- **All:** The 130th/145th Station Area Plan includes several strategies related to parks, education, and schools.
- **Fire/Emergency Medical Services:** If an additional aid unit is provided at each of the nearby stations at Bitter Lake and Lake City, SFD can maintain and even improve the service levels of the station area and avoiding crossing Interstate-5 at congested times of the day.

With mitigation, what is the ultimate outcome?

Police

There will be an increase in population and jobs and an increase in demand for police services. However, there are mitigation measures to invest in resources to address needs and provide adequate services.

Fire/Emergency Medical Services

It is anticipated that increased demand for fire/emergency medical services can be accommodated due the changes in staffing for fire prevention education, increased capacity at station facilities, and either redistributing or increasing the number of units at each station. Consequently, no significant unavoidable adverse impacts are to be expected.

Parks

All alternatives will exceed the existing level of service and increase demand for parks and recreation facilities. With mitigation (adding parks, making better use of existing parks, or updating the LOS) significant adverse impacts can be avoided.

Schools

All studied Alternatives would result in increases in students. This could require additional school capacity unanticipated in current district plans. However, it is anticipated that Seattle Public Schools could respond to any new growth that may occur through regular capital planning and coordination. Consequently, no significant unavoidable adverse impacts are anticipated.

Solid Waste

It is anticipated that Seattle Solid Waste will be able to accommodate expected increases in solid waste service through regular contract renegotiation and ongoing maintenance and upkeep of capital facilities. Consequently, no significant adverse impacts are anticipated.

Summary of Thresholds

Exhibit 1.6-31 summarizes potential impacts based on the evaluation in **Section 3.11 Public Services**.

Exhibit 1.6-31. Public Services Thresholds of Significance

Metric	Threshold	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
☒ Equity & Climate	Result in insufficient parks, open space, and trail capacity to serve expected population based on existing levels of service.[1]	▼	▼	▼	▼	▼
	Create inconsistencies with shoreline public access policies.[2]	▼	▼	▼	▼	▼
	Result in increases in public school enrollment that cannot be accommodated through regular school planning processes.[3]	▼	▼	▼	▼	▼
	Increase demand for police or fire and emergency that can't be accommodated through regular planning and staffing processes.[4,5]	▼	▼	▼	▼	▼
	Result in insufficient capacity to handle solid waste under current Seattle Public Facility plans.[6]	▼	▼	▼	▼	▼

Note: Impacts are considered either unavoidable adverse (▼▼), adverse but able to be mitigated (▼), impact but less than adverse (▽), limited or none (—), moderately positive (△), or positive (▲).
1 Additional park acres would be needed under each alternative if the City maintains its 8.0 acres per 1,000 population level of service. The acreage needed would range from 1,312 to 1,968 acres between Alternative 1 and Alternative 5, with Alternatives 2 through 4 requiring an additional 1,640 acres.
2 Greater population growth across the city could increase demand for shoreline public access. The alternatives would range in demand from the least under Alternative 1 to the most under Alternative 5. Shoreline Master Program requirements for shoreline public access for non-residential development could result in more public access as development occurs in shoreline jurisdiction.

3 While K-12 public school enrollment has declined over the last 5 years, future population growth has the potential to increase student enrollment in various areas throughout the city. Seattle Public Schools monitors changes in enrollment to track expected future needs and would adjust their enrollment projections accordingly for future planning cycle. SPS would respond to the exceedance of capacity as it has done in the past by adjusting school boundaries and/or geographic zones, adding or removing portables, adding/renovating buildings, reopening closed buildings or schools, and/or pursuing future capital programs.
4 Increased density of population and jobs is anticipated to increase the potential demand for police services. The EIS analysis uses a rate of 1.8 officers per 1,000 residents, which is the average rate between 2010 and 2022. Alternative 1 would have lower growth and Alternative 5 the highest growth with other alternatives in the range. However, many factors can influence crime rates. Property crimes are more prevalent than violent crimes and property crimes such as robbery and motor vehicle theft tend to occur at intersections rather than in whole neighborhoods.
5 Growth in worker and residential populations in the study area is expected to lead to an increased number of calls for aid, basic and advanced life support, and other emergency services. Growth is expected to occur incrementally under all alternatives, as individual development projects are constructed.
6 Growth in residential, commercial, and self-haul solid waste is expected to increase under all alternatives. Alternative 1 would have lower growth and Alternative 5 the highest growth with other alternatives in the range.

1.6.12 Utilities

How did we analyze Utilities?

Utilities evaluated in this EIS include the public water system, the wastewater system, the stormwater management system, and the electrical system. A review of existing service provider plans and spatial data and contacts with service providers supported the development of the analysis.

Thresholds of significance utilized in this impact analysis include:

- Impacts that would be inconsistent with plans for future utility improvements, development, or growth.
- Impacts that would require major unplanned capital improvements for the utility to serve new developments.

What impacts did we identify?

Citywide

Seattle would experience population and job growth under all the Alternatives, which would result in an increase in demand for utility services. While the Alternatives have different housing targets the impacts to utilities as a result of the increased demand would be similar. Job targets are the same under each alternative.

Water: None of the Alternatives are anticipated to adversely impact water supply. SPU does not have any planned efforts to increase water supply during the 20-year planning horizon for the comprehensive plan. As reported in its Official Yield Estimate and Demand Forecast, SPU

forecasts that future demand will remain relatively flat well below the available water supply beyond 2060 despite anticipated population and employment growth due to continued efforts to conserve water and planned reductions in service to its wholesale water customers (SPU 2018, 2019a). SPU currently has a forecasted surplus capacity between 35 and 40 MGD. Individual housing and business developments would need to ensure adequate water supply for drinking water and fire suppression, which could require improvements or upgrades to the existing water distribution system and construction of new service connections where existing infrastructure is undersized. There could be variations in the extent to which water system infrastructure would need to be upgraded or added under each alternative depending on the age, extent, size, and condition of the existing infrastructure and the type of development being planned. For example, a greater degree of utility improvements may be required in urban neighborhood areas for multifamily development than in urban centers.

Wastewater: All Alternatives would result in greater demands on wastewater and drainage collection systems through a combination of population growth, water consumption, and the amount of impervious surface as a result of new development. The amount and location of increased demand, and any impacts as a result, would vary by alternative. Development under all the Alternatives would occur in areas with wastewater and, to a lesser extent, drainage capacity constraint risks. The drainage capacity constraint risk areas are generally not concentrated within regional or urban centers and, for the most part, are outside the areas targeted for the highest concentrations of growth. While impervious surfaces from development can increase peak flows and affect conveyance capacity, these impacts could be mitigated by the City's stormwater code requirements for flow control. The West Point treatment plant is already approaching its capacity for maximum month loading (King County 2019). Treatment plant loading rates would continue to increase with population growth under all Alternatives; however, the treatment plant may reach maximum month loading capacity under Alternatives 2-5 sooner than it would under Alternative 1 No Action, due to their higher growth targets.

While there could be variations in the extent to which wastewater and drainage infrastructure would need to be upgraded or added under each alternative depending on the extent and location of additional population growth and development, the nature of the impact between Alternatives would generally be the same.

Electricity/Power: All Alternatives would result in increased demands on the electrical system due to population and job growth but are not anticipated to have adverse impacts on the electrical system. SCL currently anticipates a modest baseline demand growth of 0.5% per year between 2022 and 2032, which factors in economic growth and electrification of transportation and buildings. A rapid electrification scenario would increase demand by 32% over the baseline during that same period (SCL 2022b). While Alternatives 2 through 5 target greater household increases than factored into SCL's Electrification Assessment, population growth is less of a consideration for load capacity than electrification of transportation and building systems. For either scenario, SCL will seek to increase energy supply through sustainable and resilient energy resources such as wind and solar while implementing customer demand management and energy efficiency programs (SCL 2022b).

As with the other utilities, development would need to connect to the city's power grid. This could require minor improvements or upgrades to existing electrical infrastructure and construction of new service connections where existing infrastructure is undersized or nonexistent. While there could be variations in the extent to which electrical infrastructure would need to be upgraded or added under each alternative, the nature of the impact between Alternatives would be the same.

130th/145th Station Area

Impacts to water, wastewater, and electricity would be the same as described for the citywide evaluation. The 130th/145th Station area is within the Thornton Creek watershed and partially within the Densmore stormwater basin, which is capacity constrained, and includes many blocks with an informal drainage system, including some ditch and culvert systems. Increases in impervious surface due to new development could increase peak flows and potentially affect conveyance capacity. Development in this area would be subject to more stringent stormwater management requirements to avoid adversely affecting conveyance capacity and to protect water quality. These requirements could include flow control and treatment or the construction of formal stormwater drainage facilities if none are present.

What is different between the Alternatives?

Citywide

As the City has been planning for and directing growth to centers and villages designated in the Seattle 2035 plan, there would be no adverse impacts to utilities. Alternative 2 would result in areas of infrastructure improvements through a greater portion of the city than in Alternative 1, but in a more focused manner than Alternatives 3 and 4.

While there is ample capacity to accommodate growth in the near term for all utilities, the addition of 40,000 more housing units under Alternative 5 within the planning period would likely exacerbate service constraints during peak periods for wastewater and stormwater without improvements to existing systems.

Under all Alternatives, development would require improvements and upgrades to existing utilities and construction of new facilities to accommodate the increased density, which could offset the impact of increased growth through upsizing of service lines and on site or green stormwater infrastructure.

Equity & Climate Vulnerability

Utility infrastructure is vulnerable to the impacts of climate change in a variety of ways such as sea level rise, extreme heat, flooding due to extreme precipitation, and others.

Drainage and Power: Utility infrastructure is vulnerable to the impacts of climate change in a variety of ways such as sea level rise, extreme heat, flooding due to extreme precipitation, and others.

- **Sewer/Drainage**: The City's wastewater and drainage systems are vulnerable to sea level rise that could inundate conveyance pipes and facilities, particularly those facilities that lie within the 100-year floodplain. More frequent and extreme storm events can damage transmission lines and cause power outages.
- **Power:** Seattle's electrical power relies on hydroelectric sources, which rely on water supplies vulnerable to reduced winter snowpacks and drought. More frequent and extreme storm events can damage transmission lines and cause power outages.

Areas 7 and 8 in particular have vulnerable populations and are more susceptible to climate change impacts such as flooding and heat island effects.

- Alternative 1 plans for 8,500 households to Areas 7 and 8, primarily to existing urban centers in Area 8.
- Alternative 5 adds approximately 17,500 households in Areas 7 and 8, primarily in regional center and urban neighborhood areas in Area 8.
- Alternatives 2 through 4 are in this range.

Growth in these areas may require a greater degree of investment in improved drainage and electrical utilities to overcome these vulnerabilities.

130th/145th Station Area

Alternative 2 with several neighborhood centers and particularly Alternative 5 with an urban center on both sides of I-5 would lead to greater demand on utilities than under Alternative 1, along with a greater opportunity for utility improvements within the area, particularly related to stormwater management in an area designated as capacity constrained.

Under Alternative 5 while new development has the benefit of improving utility infrastructure, this development would occur within a capacity constrained stormwater basin, which may be a constraint on the extent of new development and resulting increase in impervious surface if stormwater cannot be managed on site or through improved conveyance infrastructure.

What are some solutions or mitigation for impacts?

Citywide

A number of regulations apply to new development to ensure adequate utilities.

The Comprehensive Plan includes a Utilities Element that lists policies and goals to ensure safe, reliable, and equitable service and growth throughout the city; protect water quality; and encouraging energy efficiency and renewable resources.

King County, SPU, and SCL regularly plan and adapt to changing growth patterns and are currently engaged in efforts to improve wastewater and stormwater capacity, reduce water and electrical demand, and increase the resiliency of their utility systems against the impacts of climate change. City codes regulating construction and utilities will continue to ensure new development addresses any service or capacity constraints.

While each alternative has the potential to impact utilities through increased demand, none of these impacts are identified as significant adverse impacts. King County, SPU, and SCL regularly plan and adapt to changing growth patterns and are currently engaged in efforts to improve wastewater and drainage system capacity, reduce water consumption and electrical demand, and increase the resiliency of their utility systems against the impacts of climate change. City codes regulating construction and future utility investments will continue to ensure new development addresses any service or capacity constraints. See **Section 3.12.3**.

130th/145th Station Area

See citywide.

With mitigation, what is the ultimate outcome?

There would be no significant unavoidable adverse impacts to utilities under any of the Alternatives. Services generally have capacity to serve, and where there are deficiencies in current infrastructure, there are plans and regulations to ensure that there is proper connection and sizing.

Summary of Thresholds

Exhibit 1.6-32 summarizes potential impacts based on the evaluation in **Section 3.12 Utilities**.

Exhibit 1.6-32. Utilities Impact Thresholds and Alternative Comparison

Metric	Threshold	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
	Impacts that would be inconsistent with plans for future utility improvements, development, or growth.[1]	▽	▽	▽	▽	▽
	Impacts that would require major unplanned capital improvements for the utility to serve new development.[1]	▽	▽	▽	▽	▽

Note: Impacts are considered either unavoidable adverse (▼▼), adverse but able to be mitigated (▼), impact but less than adverse (▽), limited or none (—), moderately positive (△), or positive (▲).
1 Seattle would experience population and job growth under all the alternatives, which would result in an increase in demand for utility services. Service providers for water, wastewater, drainage, and power regularly plan and identify improvements to ensure wastewater and drainage system capacity, reduce water consumption and electrical demand, and increase the resiliency of their utility systems against the impacts of climate change.

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