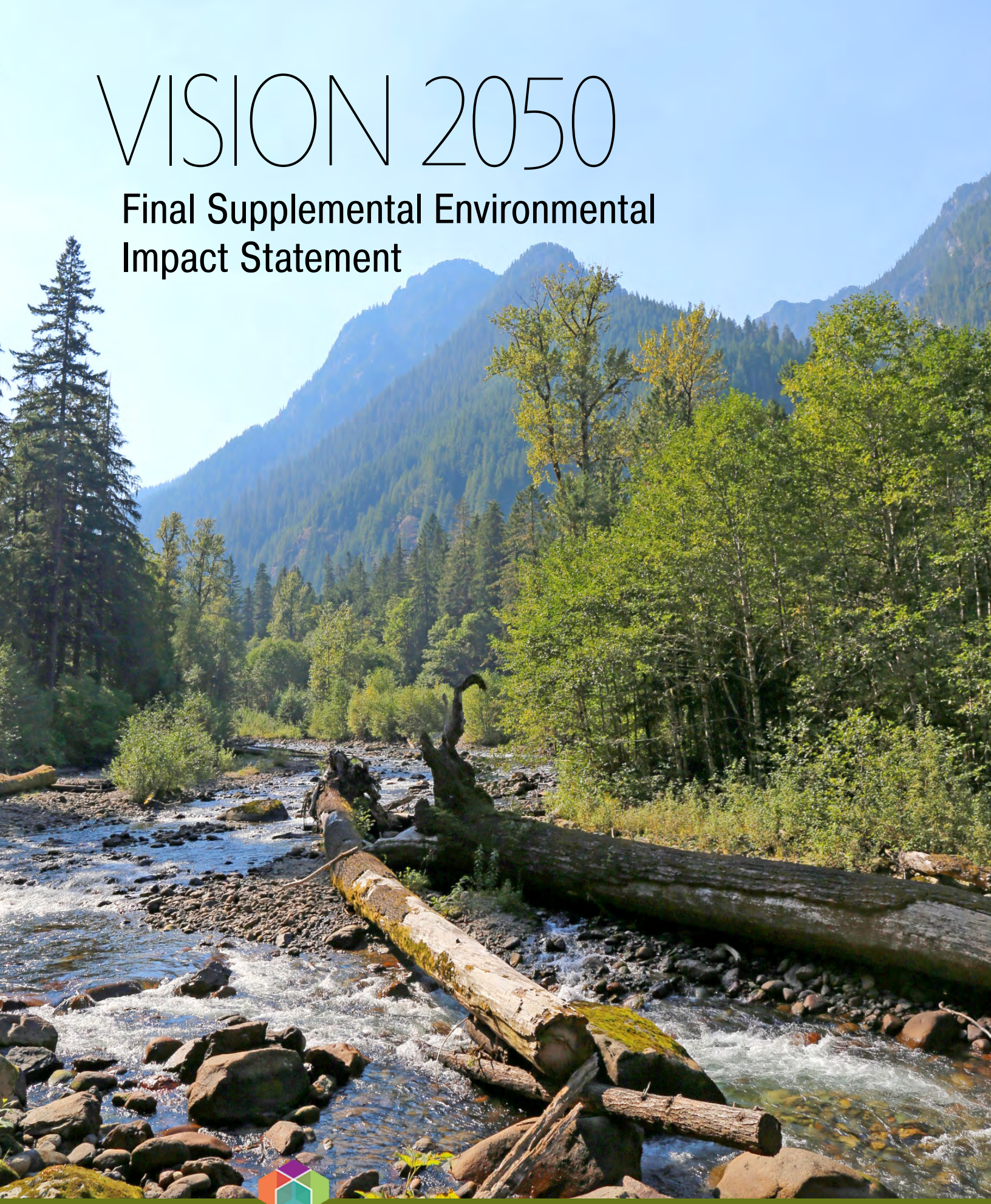
VISION 2050

Final Supplemental Environmental Impact Statement



Puget Sound Regional Council

MARCH 2020

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Funding for this document provided in part by member jurisdictions, grants from the U.S. Department of Transportation, Federal Transit Administration, Federal Highway Administration and Washington State Department of Transportation.

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March 18, 2020

Dear Participants in the VISION 2050 Process:

The Puget Sound Regional Council (PSRC) has prepared this Final Supplemental Environmental Impact Statement (SEIS) on VISION 2050 in accordance with the State Environmental Policy Act (SEPA). VISION 2050 is the central Puget Sound region's long-range growth management, environmental, economic, and transportation strategy. The Final SEIS supplements the VISION 2040 Final Environmental Impact Statement (2008), which is available at https://www.psrc.org/environmental-review-vision-2040.

Forecasts show the region needs to plan for 1.8 million additional people and 1.2 million new jobs by 2050 (from a 2017 base year). PSRC is developing VISION 2050 to guide growth to support thriving communities, a strong economy, and a healthy environment.

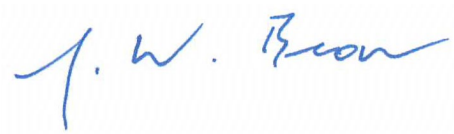
VISION 2050 contains the region's multicounty planning policies, which are required by the Washington State Growth Management Act, and a regional strategy for accommodating growth through 2050. The Final SEIS presents and discusses the potential environmental impacts that may occur from the regional growth alternatives identified by PSRC's Growth Management Policy Board. The three alternatives, Stay the Course (no action alternative), Transit Focused Growth, and Reset Urban Growth, are described and evaluated for environmental impacts, as well as the Preferred Growth Alternative, which is a variation of the Transit Focused Growth alternative. Potential measures to mitigate impacts are also described.

In addition to adding the Preferred Growth Alternative, the Final SEIS responds to comments submitted on the Draft SEIS, which was issued on February 28, 2019. Comments on the Draft SEIS and responses to those comments are in Appendix I of the Final SEIS. PSRC's Executive Board and General Assembly will use information from the Final SEIS in the decision to adopt VISION 2050.

The complete document and supporting materials are available at: https://www.psrc.org/our-work/regional-planning/vision-2050/environmental-review. The webpage provides options for viewing paper copies. The PSRC Information Center can also provide assistance at 206-464-7532 or info@psrc.org. Appeals of the adequacy of the SEIS must be received in writing by PSRC and postmarked by March 31, 2020. Information on submitting an appeal can be found at https://www.psrc.org/sepa-information.

If you have any questions regarding the Final SEIS, please contact Erika Harris, SEPA Responsible Official, at 206-464-6360 or eharris@psrc.org.

Sincerely,



Josh Brown, Executive Director
Puget Sound Regional Council

Erika Harris, SEPA Responsible Official
Puget Sound Regional Council

Fact Sheet

Final Supplemental Environmental Impact Statement for VISION 2050

Proposed Action

The Puget Sound Regional Council (PSRC) is scheduled to adopt VISION 2050 in 2020. VISION 2050 is the long-range growth management, environmental, economic and transportation strategy for the central Puget Sound region. VISION 2050 is an update of VISION 2040, which was adopted in 2008.

VISION 2050 contains the region's multicounty planning policies, which are required by the Washington State Growth Management Act (GMA), and a regional strategy for accommodating growth through 2050. VISION 2050 covers King, Kitsap, Pierce, and Snohomish counties and their respective cities and towns.

The VISION 2050 Final Supplemental Environmental Impact Statement (Final SEIS) has been prepared in accordance with the State Environmental Policy Act (SEPA), Revised Code of Washington (RCW) 43.21C and the adopted rules for EIS preparation under Washington Administrative Code (WAC) 197-11-400 to 460. VISION 2050 is a non-project action.

The Final SEIS presents and discusses the potential environmental impacts that may occur upon implementation of a regional growth strategy. Three regional growth alternatives are described—Stay the Course (no action alternative), Transit Focused Growth, and Reset Urban Growth—along with the Preferred Growth Alternative recommended by the Growth Management Policy Board. The Final SEIS evaluates environmental impacts and describes potential mitigation measures.

The Final SEIS also contains a series of appendices that include supporting technical materials. A Draft SEIS was prepared in 2019 for public review and comment, and this Final SEIS supersedes the 2019 document.

Proponent and SEPA Lead Agency

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Permits and Approvals

No permits or approvals are required before PSRC adopts VISION 2050.

Principal Contributors

Please see List of Preparers in Appendix F.

Date of Issue of Final SEIS

March 18, 2020

Appeals

Appeals of the adequacy of the SEIS must be received in writing by PSRC and postmarked by March 31, 2020. Information on submitting an appeal can be found at https://www.psrc.org/sepa-information.

Next Steps

The PSRC Executive Board will complete its review of the VISION 2050 plan and Final SEIS and make its recommendation to PSRC's General Assembly. The General Assembly will take action to adopt VISION 2050 in spring 2020.

Related Documents and Final SEIS Availability

A complete list of references for the Final SEIS is provided in Chapter 7, and Appendix E contains background and information papers. The Final SEIS is available in electronic format on PSRC's website, https://www.psrc.org/our-work/regional-planning/vision-2050/environmental-review. The webpage provides options for viewing paper copies. The PSRC Information Center can also provide assistance at 206-464-7532 or info@psrc.org.

The following documents are incorporated by reference into this VISION 2050 Final SEIS under the provisions of WAC 197-11-600(4)(b).

- VISION 2040 Final Environmental Impact Statement (FEIS), available at: https://www.psrc.org/environmental-review-vision-2040
- Transportation 2040 FEIS, available at: https://www.psrc.org/our-work/regional-planning/regional-transportation-plan/environmental-review-regional-transportation

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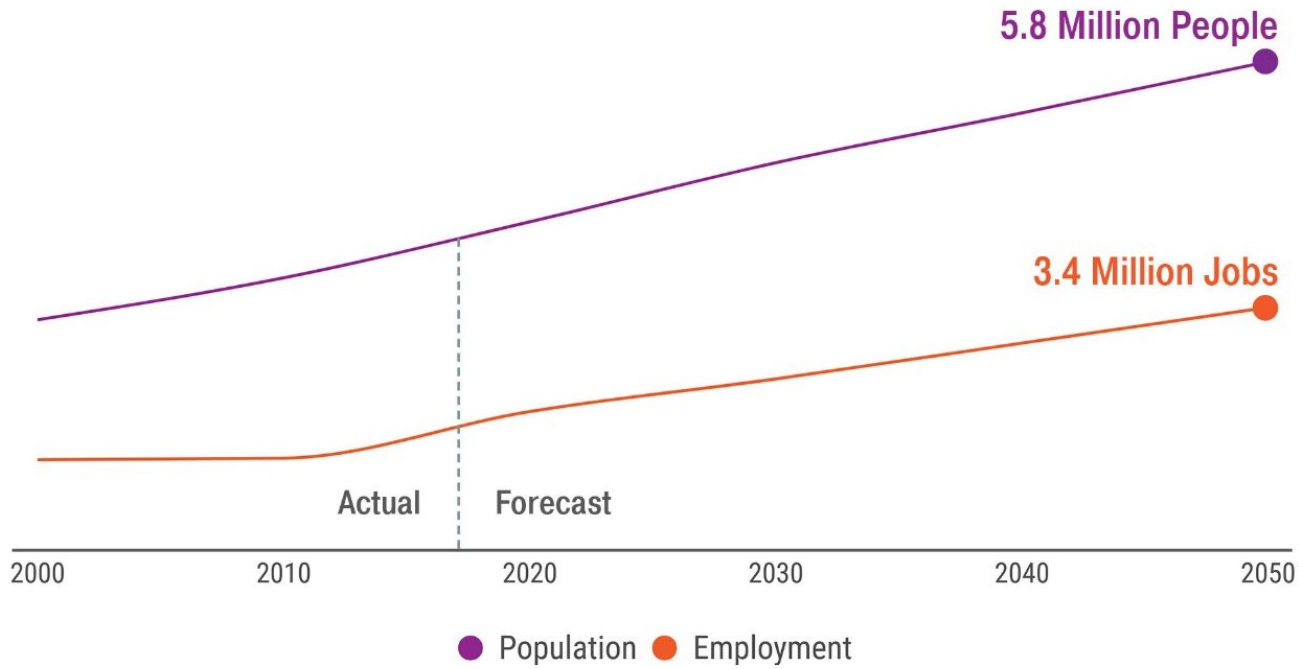
Executive Summary

VISION 2050 is a shared and integrated strategy for how and where the central Puget Sound region should grow. The region has been growing at a strong pace, with today's population at well over 4 million people. More growth is coming. Forecasts show the region needs to plan for 1.8 million additional people and 1.2 million new jobs by 2050 (from a baseline of 2017) (Figure ES-1).

Figure ES-1. Historical and Forecasted Regional Population and Employment



Source: PSRC

VISION 2040 is the region's previous plan for managing growth forecasted through the year 2040, and this update extends the plan through 2050. VISION 2050 includes overarching goals, a strategy to sustainably guide growth in the region, and multicounty planning policies as required by the state Growth Management Act (GMA) (RCW 36A.70.210). The plan also includes implementation actions at the regional, county, and local levels. VISION 2050 policy chapters address regional collaboration, the Regional Growth Strategy, the environment, climate change, development patterns, housing, the economy, transportation, and public services.

The region has had important successes implementing VISION 2040, which helps fulfill the goals of the GMA. Strong economic gains in recent years have made the region among the fastest growing in the country. The plan has helped coordinate state and regional initiatives and support local decisions. Regionally, growth is shifting toward more compact, sustainable development occurring within urban areas and cities, with cost-effective and efficient services, reduced impacts on the environment, and positive health outcomes.

At the same time, the region continues to face challenges, including the climbing cost of housing. Congestion from rapid growth is reducing access to jobs, services, and housing. While recent economic growth has been strong, prosperity has not benefited everyone or all parts of the region. Finally, pressing environmental issues such as climate change, the health of Puget Sound, and open space preservation require more collaborative, long-term action.

PSRC is updating the region's vision to plan for another decade of growth and to consider new information and changes that have occurred in the growing region. Local governments have been implementing the region's growth strategy through population and employment targets and comprehensive planning. This updated plan will guide anticipated growth in ways that support regional objectives for thriving communities, a strong economy, and a healthy environment. The following statements are the desired outcomes for the VISION 2050 plan.

The central Puget Sound region provides an exceptional quality of life and opportunity for all, connected communities, a spectacular natural environment, and an innovative, thriving economy. In 2050:

- Climate. The region's contribution to climate change has been substantially reduced.
- Community. Distinct, unique communities are supported throughout the region.
- Diversity. The region's diversity continues to be a strength. People from all backgrounds are welcome, and displacement due to development pressure is lessened.
- Economy. Economic opportunities are open to everyone, and the region competes globally and has sustained a high quality of life. Industrial, maritime, and manufacturing opportunities are maintained.
- Environment. The natural environment is restored, protected, and sustained, preserving and enhancing natural functions and wildlife habitats.
- Equity. All people can attain the resources and opportunities to improve their quality of life and enable them to reach their full potential.

- Health. Communities promote physical, social, and mental well-being so that all people can live healthier and more active lives.
- Housing. A range of housing types ensures that healthy, safe, and affordable housing choices are available and accessible for all people throughout the region.
- Innovation. The region has a culture of innovation that embraces and responds to change.
- Mobility and Connectivity. A safe, affordable, and efficient transportation system connects people and goods to where they need to go, promotes economic and environmental vitality, and supports the Regional Growth Strategy.
- Natural Resources. Natural resources are sustainably managed, supporting the continued viability of resource-based industries such as forestry, agriculture, and aquaculture.
- Public Facilities and Services. Public facilities and services support the region's communities and plans for growth in a coordinated, fair, efficient, and cost-effective manner.
- Resilience. The region's communities plan for and are prepared to respond to potential impacts from natural and manmade hazards.
- Rural Areas. Rural communities and character are strengthened, enhanced, and sustained.

What is the Regional Growth Strategy?

The Regional Growth Strategy is a strategy for sustainable growth. It helps to preserve resource lands, protect rural lands from urban-type development, and promote infill and redevelopment within urban areas to create more compact, walkable, and transit-friendly communities. Under GMA, counties, in consultation with cities, are responsible for adopting 20-year growth targets. These population and employment growth targets are a key input to local comprehensive plans, ensuring that each county is accommodating population and employment growth. Jurisdictions use growth targets to inform land use, transportation, and capital facilities in their 20-year comprehensive plans.

The Regional Growth Strategy defines roles for different types of places in accommodating the region's population and employment growth, which inform the countywide growth target-setting process. The Regional Growth Strategy also serves an important role as a coordinated regional statement of the long-range land use development assumptions that underlie the Regional Transportation Plan, required by both GMA and federal transportation planning regulations.

Counties, cities, and towns implemented VISION 2040's Regional Growth Strategy through their countywide growth targets and local comprehensive plans following the adoption of VISION 2040 in 2008. The Regional Growth Strategy Background Paper, which is included in Appendix E, outlines data trends since 2000 and after the adoption of VISION 2040 in 2008 (PSRC 2018a).

This VISION 2050 Final Supplemental Environmental Impact Statement (Final SEIS) reviews the environmental effects of a preferred Regional Growth Strategy (the Preferred Growth

Alternative) and three other regional growth alternatives: Stay the Course (no action), Transit Focused Growth, and Reset Urban Growth.

While each of these alternatives is intended to be a strategy for sustainable growth, they distribute growth in unique patterns that have different trade-offs. This Final SEIS shows a range of land use, transportation, environmental, and other impacts that would likely occur with each of these alternatives and identifies opportunities to mitigate them.

PSRC issued a Draft SEIS on February 28, 2019 and sought feedback on the alternatives during a 60-day public comment period. Comments on the Draft SEIS and responses to those comments are provided in Appendix I. The comments and information in the Draft SEIS were considered in the development of the Preferred Growth Alternative, along with board priorities and supplemental information.

Why is PSRC doing an environmental review of VISION 2050?

The Washington State Environmental Policy Act (SEPA) requires that public agencies identify environmental impacts likely to result from plans and projects. PSRC is using the environmental review process to analyze the effects of continued growth in the region, and alternative ways of responding to and accommodating that growth. Just as VISION 2050 builds upon VISION 2040, the VISION 2040 Final Environmental Impact Statement (FEIS) provides a foundation for the environmental review of VISION 2050. This Final SEIS builds on the VISION 2040 FEIS and provides additional information for consideration. The information presented in the Draft SEIS and this Final SEIS help inform how regional planning can best achieve the outcomes identified for VISION 2050. The Draft and Final SEIS also helped with the development of the Preferred Growth Alternative and the Executive Board's final recommendation for the growth strategy. Chapter 1 contains more information on the purpose and need for this SEIS.

How has the region changed since VISION 2040 was adopted?

The central Puget Sound region continues to be a desirable major metropolitan area, attracting new residents, employers, and visitors. It is known as a clean, healthy, safe, and diverse place with a vibrant economy and temperate climate. The region has a remarkably beautiful natural setting, including snowcapped peaks, abundant waterways and shorelines, and lush forests and greenery. The natural environment provides habitat for a wide variety of fish and wildlife, and at the same time creates economic opportunity through industries such as fishing and timber harvest, and provides numerous recreational and tourism opportunities. These features have all made the region a magnet for growth.

Key changes in the last decade:

- Technology industry employment is experiencing rapid growth, particularly in Seattle and central King County.
- Job growth has been strong in recent years but has been uneven across the region and by industry.
- Population growth is continuing at a strong pace.
- Regional demographics are changing as the population is becoming older and more ethnically and racially diverse.
- Housing production struggled to keep pace with population growth in the post-recession expansion; rent and home prices increased dramatically, causing a crisis of housing affordability.
- Transit infrastructure around the region is expanding, and transit ridership is increasing.
- Climate change is of growing urgency, and intersects with many resources including air quality, ecosystems, and water.

Chapter 2 details changes to the environmental baseline since the publication of the VISION 2040 FEIS in 2008. VISION 2050 will address these issues through the Regional Growth Strategy and regional policies and actions.

The regional population in 2017 was 4.1 million, an increase of 376,000 people—or 10 percent—from 2010 to 2017 (Figure ES-1). The VISION 2040 FEIS forecast a population of 5.0 million by 2040, whereas current forecasts have updated this to 5.3 million in 2040. By 2050, it is estimated the regional population will have grown to 5.8 million people.

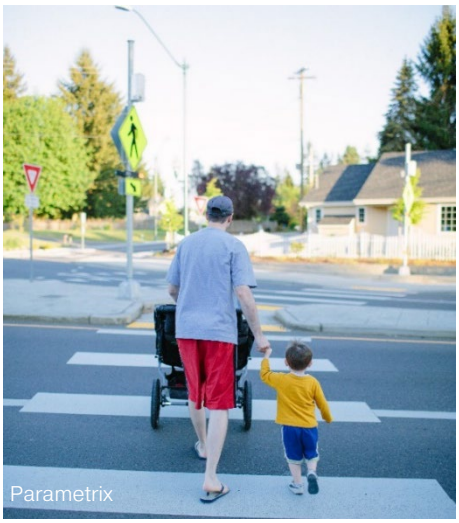
Consistent with VISION 2040, the vast majority of the region's population, employment, and housing is contained inside the region's designated urban growth areas. From 2005 to 2017, the percentage of population within the urban growth area increased from 85 to 87 percent and the percentage of employment remained constant at 96 percent.

VISION 2040's Regional Growth Strategy focuses growth not only in urban areas, but more specifically in regionally designated urban centers. Between 2010 and 2017, 12 percent of the region's population growth occurred in centers. From 2010 to 2017, 37 percent of regional job growth was located in regional growth centers and 8 percent was located in manufacturing/ industrial centers. Chapter 2 contains information on existing conditions for land use, population, employment, housing, and other resources.

Alternatives evaluated in this SEIS

At the heart of VISION 2050 is a shared vision of how and where the region should grow. The Regional Growth Strategy provides a description of a planned physical development pattern that the central Puget Sound region will evolve into over time. This Final SEIS includes the Preferred Growth Alternative and three distinct alternatives that initially were reviewed in a Draft SEIS. The Draft SEIS alternatives were developed after a public comment and scoping process (PSRC 2018b), extensive review by PSRC's Growth Management Policy Board, and input from regional staff and other stakeholders. The three alternatives allowed the environmental analysis to consider the effects of extending the growth strategy to 2050 and the potential effects of

changes to that strategy. This information, public comment, and additional discussion by PSRC boards and committees resulted in the development of the Preferred Growth Alternative presented in this Final SEIS. The potential environmental effects of the Preferred Growth Alternative and the other three alternatives, as well as measures to mitigate impacts, are provided in this Final SEIS.



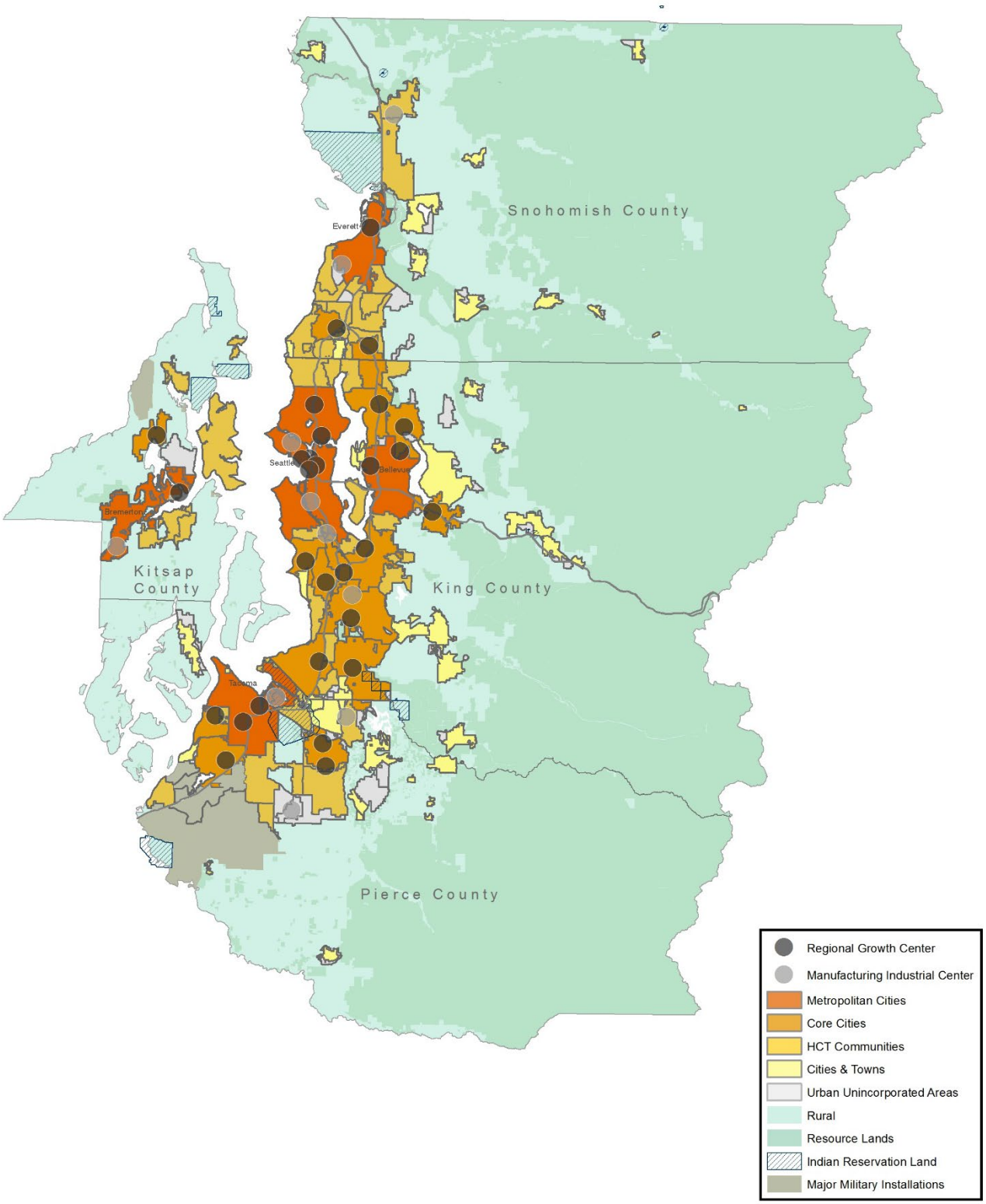
The strategy for accommodating growth asserts that the region will sustain and grow a variety of places, such as active centers and central cities, small towns, and rural areas, into the future. Other than in natural resource lands and military installations, all growth alternatives assume that all types of communities will grow and accommodate forecast growth (1.8 million additional people and 1.2 million additional jobs), though at different rates by geography and by county.

The Regional Growth Strategy uses "regional geographies" to classify cities and unincorporated areas by roles and types. Grouping cities and other place types provides flexibility to counties and cities to identify appropriate growth targets for individual cities in each category, while acknowledging differing roles for accommodating growth. Based on scoping comments and discussion with the board, PSRC identified changes to the VISION 2040 regional geographies and developed updated classifications for cities and unincorporated urban areas. The updated regional geographies are:

- Metropolitan Cities
- Core Cities
- HCT (High-Capacity Transit) Communities
- Cities & Towns
- Urban Unincorporated Areas
- Rural
- Resource Lands
- Major Military Installations
- Indian Reservation Lands

Locations of regional geographies for the Preferred Growth Alternative are depicted in Figure ES-2. Regional geographies are discussed in more detail in Chapter 3, in addition to the alternatives summarized below.

Figure ES-2. Regional Geographies



Source: PSRC

Preferred Growth Alternative

The Preferred Growth Alternative considers a compact growth pattern based on the VISION 2040 Regional Growth Strategy that assumes accelerated growth near the region's existing and planned transit investments.

The Preferred Growth Alternative is primarily based on the Transit Focused Growth Alternative, with adjustments to some growth allocations, regional geographies, and the high-capacity transit growth goal to reflect growth trends and local planning considerations (see below and Chapter 3). The alternative has an explicit goal for 65 percent of the region's population growth and 75 percent of employment growth to occur within regional growth centers and within a quarter-mile to a half-mile from current and planned investments in high-capacity transit, including light rail, bus rapid transit, commuter rail, ferries, and streetcar. This would result in the largest shares of growth to Metropolitan Cities, Core Cities, and HCT Communities.

This alternative assumes a greater role for areas served by high-capacity transit outside of Metropolitan and Core Cities. The remaining share of population and employment growth not identified for regional geographies with high-capacity transit would be distributed largely within the urban growth area among areas not served by high-capacity transit.

Growth in unincorporated urban growth areas with existing or planned high-capacity transit and planned for annexation or incorporation would be similar to cities with high-capacity transit. Growth in rural areas would be lower than in the Stay the Course and Reset Urban Growth alternatives, but slightly higher than Transit Focused Growth, comprising just 2 percent of the region's population growth. Growth in unincorporated areas without access to high-capacity transit and unaffiliated unincorporated areas is the lowest in this alternative, with 3 percent of population growth and 2 percent of employment growth.

Stay the Course (No Action) Alternative

The Stay the Course Alternative (hereafter referred to as Stay the Course) is a direct extension of the VISION 2040 Regional Growth Strategy and assumes a compact growth pattern, focused in the largest and most transit-connected cities in the region within the region's 29 designated regional growth centers. This alternative serves as the required no action alternative that must be evaluated in accordance with SEPA.

This alternative continues to direct the largest share of future growth to the region's five major Metropolitan Cities: Seattle, Bellevue, Everett, Bremerton, and Tacoma. Growth is also focused in the region's Core Cities—those other cities with regional growth centers that are concentrations of growth and serve as economic and transportation hubs for the region.

Compared to historical trends, this alternative allocates less growth in Urban Unincorporated and Rural areas and more growth in cities. Growth in Urban Unincorporated areas is envisioned as occurring in areas affiliated with cities for annexation, and growth in rural areas is minimized when compared to past trends.

This alternative maintains the VISION 2040 Regional Growth Strategy allocation of shares of growth. For this analysis, Stay the Course and subsequent data measures use the revised regional geographies. PSRC developed model inputs for Stay the Course using the existing VISION 2040 regional geographies and then calculated inputs and results based on the revised system of regional geographies.

Transit Focused Growth Alternative

The Transit Focused Growth Alternative (hereafter referred to as Transit Focused Growth) considers a compact growth pattern based on the VISION 2040 Regional Growth Strategy that assumes accelerated growth near the region's existing and planned transit investments.

Transit Focused Growth assumes an explicit goal for 75 percent of the region's population and employment growth to occur within regional growth centers and within a quarter- to a half-mile from current and planned high-capacity transit station areas, including light rail, bus rapid transit, commuter rail, ferries, and streetcar. This would result in the largest shares of growth to Metropolitan Cities, Core Cities, and HCT Communities.

The alternative also assumes a greater role in accommodating future growth for areas served by high-capacity transit outside of Metropolitan and Core Cities. Growth in unincorporated urban growth areas with existing or planned high-capacity transit and planned for annexation or incorporation would be similar to cities with high-capacity transit.

The remaining share of population and employment growth would be distributed largely within the urban growth area among areas not served by high-capacity transit based on the broad objectives for the Regional Growth Strategy. Growth in Rural areas and Urban Unincorporated areas without access to high-capacity transit and unaffiliated unincorporated areas is the lowest in this alternative.

Reset Urban Growth Alternative

The Reset Urban Growth Alternative (hereafter referred to as Reset Urban Growth) shares similarities with actual growth patterns that occurred from 2000 to 2016 and assumes a more dispersed growth pattern throughout the urban area.

Reset Urban Growth assumes a more distributed pattern throughout the urban area. This alternative would continue to allocate the largest shares of growth to Metropolitan Cities and Core Cities, although the overall growth to these geographies and HCT Communities would be less compared to the other alternatives.

Growth allocations for Cities & Towns and Urban Unincorporated areas are based on land use capacities identified in currently adopted comprehensive plans. Growth in Urban Unincorporated areas without access to high-capacity transit and unaffiliated Urban Unincorporated areas is the highest in this alternative. Growth in Rural areas would be higher than the Preferred Growth and Transit Focused Growth alternatives and slightly higher than Stay the Course.

Comparison of Alternatives

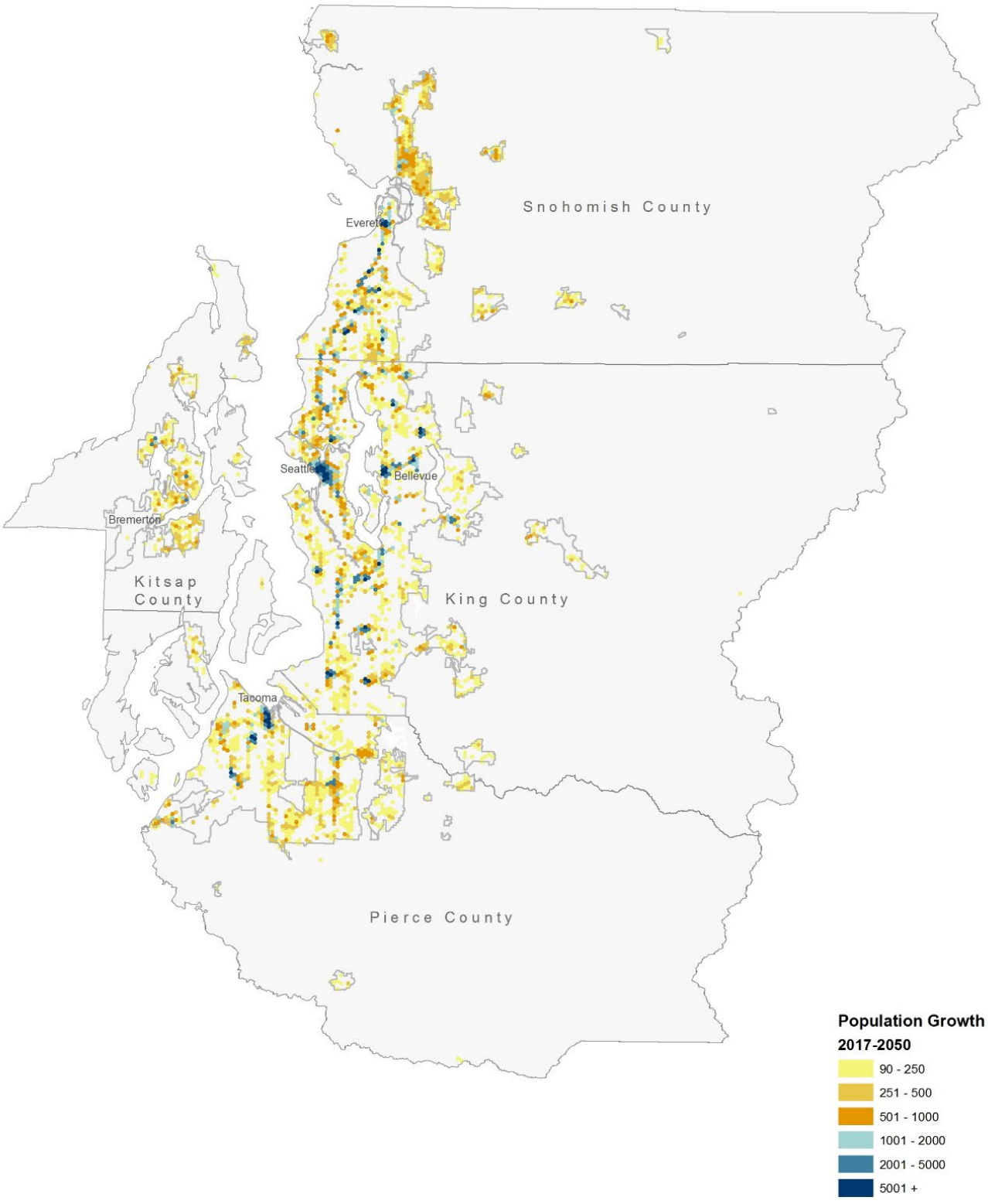
A high-level summary comparing the distribution of growth between the alternatives is presented in Table ES-1. Following the table, maps of each alternative's distribution of population growth throughout the region are shown in Figures ES-3 through ES-6.

Table ES-1. Summary Comparison of Alternatives[1]

Topic	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
What would the growth pattern look like?	Compact growth pattern based on the VISION 2040 Regional Growth Strategy that assumes accelerated growth near the region's existing and planned transit investments.	Compact growth focused in Metropolitan and Core Cities with regional growth centers. Extends current growth plan.	More compact growth focused in high-capacity transit areas in Metropolitan, Core, and HCT Communities. Less growth in outlying areas.	Growth is more distributed throughout the urban growth area, while still assuming a large share of growth to Metropolitan and Core Cities. More growth in outlying areas.
Where would population growth go?	**Metropolitan Cities:** 36% **Core Cities:** 28% **HCT Communities:** 24% **Cities & Towns:** 6% **Urban Unincorporated Areas:** 3% **Rural Areas:** 2%	**Metropolitan Cities:** 35% **Core Cities:** 28% **HCT Communities:** 18% **Cities & Towns:** 9% **Urban Unincorporated Areas:** 5% **Rural Areas:** 5%	**Metropolitan Cities:** 36% **Core Cities:** 29% **HCT Communities:** 23% **Cities & Towns:** 6% **Urban Unincorporated Areas:** 4% **Rural Areas:** 2%	**Metropolitan Cities:** 31% **Core Cities:** 25% **HCT Communities:** 18% **Cities & Towns:** 8% **Urban Unincorporated Areas:** 12% **Rural Areas:** 6%
Where would employment growth go?	**Metropolitan Cities:** 44% **Core Cities:** 35% **HCT Communities:** 13% **Cities & Towns:** 4% **Urban Unincorporated Areas:** 2% **Rural Areas:** 1%	**Metropolitan Cities:** 44% **Core Cities:** 36% **HCT Communities:** 12% **Cities & Towns:** 5% **Urban Unincorporated Areas:** 3% **Rural Areas:** 1%	**Metropolitan Cities:** 44% **Core Cities:** 35% **HCT Communities:** 13% **Cities & Towns:** 4% **Urban Unincorporated Areas:** 2% **Rural Areas:** 1%	**Metropolitan Cities:** 41% **Core Cities:** 32% **HCT Communities:** 12% **Cities & Towns:** 6% **Urban Unincorporated Areas:** 6% **Rural Areas:** 2%

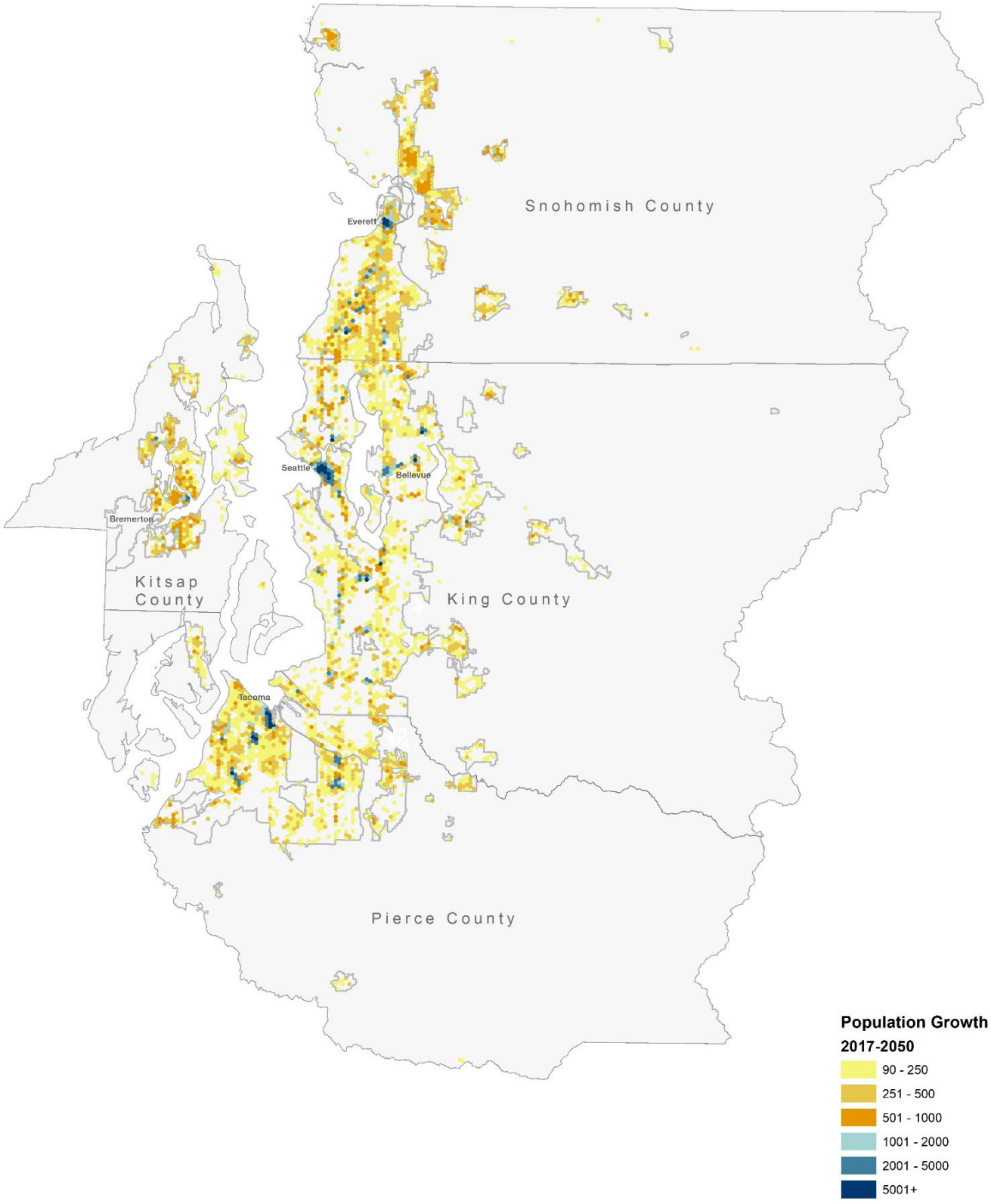
[1] Percentages may not total 100% due to rounding

Figure ES-3. Preferred Growth Alternative: Population Growth Distribution, 2017–2050



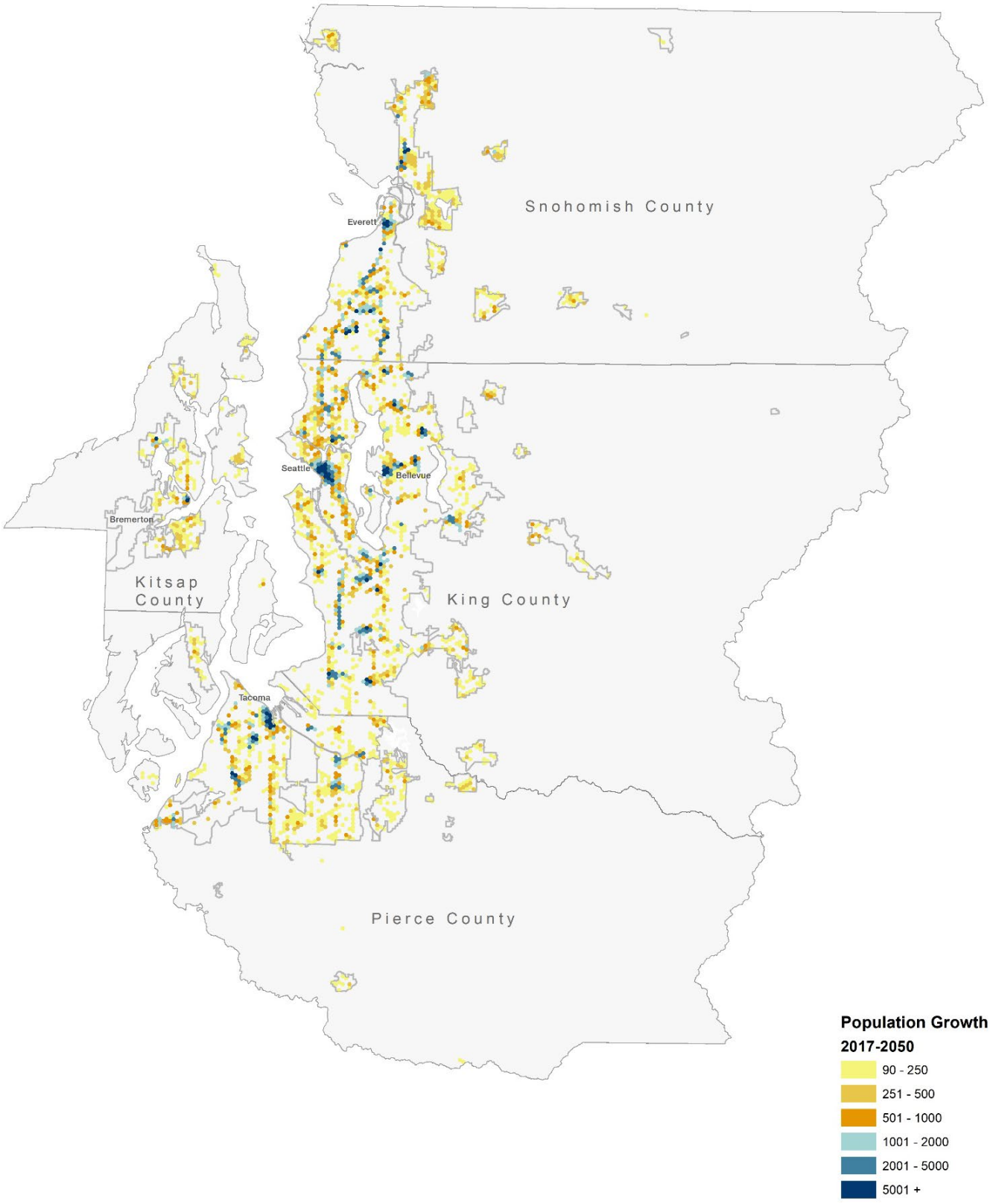
Source: PSRC

Figure ES-4. Stay the Course: Population Growth Distribution, 2017–2050



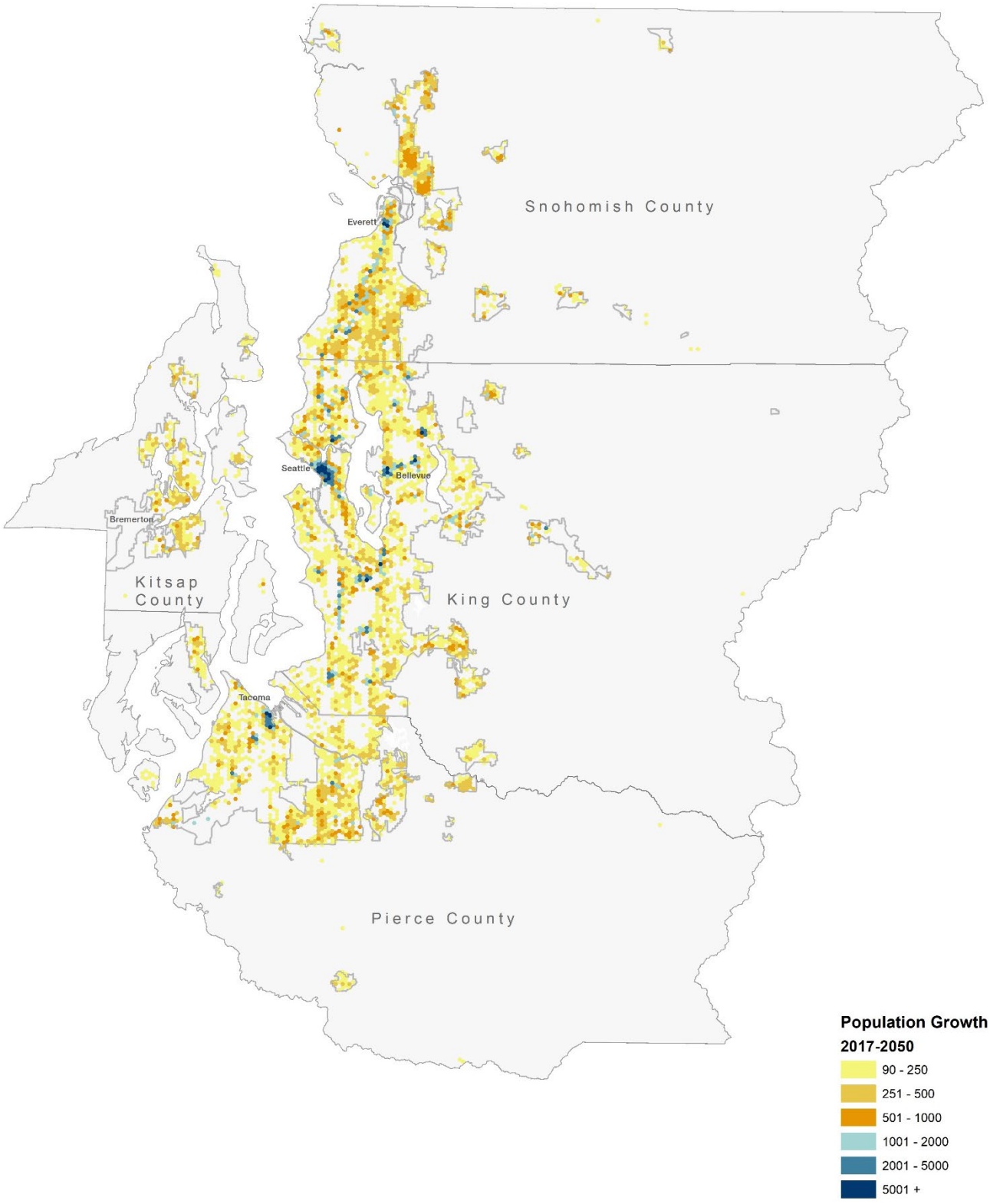
Source: PSRC

Figure ES-5. Transit Focused Growth: Population Growth Distribution, 2017–2050



Source: PSRC

Figure ES-6. Reset Urban Growth: Population Growth Distribution, 2017–2050



Source: PSRC

All alternatives assume the same amount of regional growth in population and employment from 2017 to 2050—1.8 million additional people and 1.2 million additional jobs. As described above, the difference between alternatives is how the growth is allocated among the regional geographies—Metropolitan Cities, Core Cities, HCT Communities, Cities & Towns, Urban Unincorporated, and Rural areas—and among the region's four counties. This distribution of additional growth throughout the region results in environmental impacts. Some impacts are similar across all alternatives, and some impacts show differences between alternatives. Key impacts common to all alternatives are summarized in Table ES-2 and key differences are summarized in Table ES-3.

Comprehensive discussion of all impacts can be found in Chapters 4 and 5. See Appendix C for discussion of the modeling process and results.

The results summarized here are the result of analysis of the growth distribution patterns for each alternative. Local plans that will be updated in accordance with GMA are not included. These results also do not include planning and improvements that may occur at transit station areas or the effects of other upcoming subarea plans.

Table ES-2. Impacts Common to All Alternatives

Resource	Impacts Common to All Alternatives
Population, Employment, Housing, and Land Use	• Population and employment growth directed toward built areas will increase density and encourage infill and redevelopment. • Population and employment growth in less-developed and Rural areas would result in lower-density land uses and potential development pressures on natural resource lands. • There is potential for displacement unless affordable housing opportunities and/or other supports are provided.
Transportation	Compared to current conditions: • The average distance people drive and the amount of time spent in a vehicle each day would be reduced. • The average time people spend in congestion each year is forecast to increase. • Overall transit ridership is forecast to more than double. • Generally, the percentage of trips made by driving alone would decrease, while walking, biking, and transit use would increase. • Substantially more jobs would be accessible by transit, walking, or biking.
Air Quality	• There would be a marked reduction in all pollutants, including CO_2e (a measure used for reporting greenhouse gases).
Ecosystems	• Activities associated with development, including clearing, grading, vegetation removal, and conversion of land to impervious surface would have adverse impacts to ecosystem resources such as fragmentation and degradation of habitat.
Water Quality and Hydrology	• Amount of impervious surface would increase as a result of added development, which may alter stormwater hydrology, reduce aquatic habitat, and degrade water quality.
Public Services and Utilities	• Demand for additional utilities including energy, solid waste, sanitary sewer, water, and stormwater would be anticipated. Costly repair and replacement would be needed for many of these utilities between now and 2050. • General service expansions of fire and police services, health and medical services, and schools would be anticipated.

Table ES-2. Impacts Common to All Alternatives (continued)

Resource	Impacts Common to All Alternatives
Parks and Recreation	• For both local and regional parks, recreation, and open space resources, growth would lead to increased use, which could lead to degradation of the recreational experience, potential degradation of natural and open space resources, and increased conflicts between users.
Environmental Health	• Development or redevelopment could occur in contaminated areas and expose construction workers or people living near construction activities to contamination or pollution; however, growth in contaminated areas would result in a beneficial impact through cleanup activities. • Human health would experience beneficial impacts from increased walking, biking, and transit and increased access to open spaces. • Increasing density of the urban environment could cause localized air quality and noise impacts if not properly planned for and mitigated.
Historic, Cultural, and Archaeological Resources	• Development could alter landscapes and properties with archaeological, cultural, or historic resources through damage and destruction.
Visual Quality	• Development in existing urban areas would result in an increase in density, height, and scale of new and redeveloped areas, which could impede viewsheds and increase shading but may provide beneficial impacts through redevelopment of aging infrastructure and poorly maintained properties. • Development in existing outlying and Rural areas would potentially convert undeveloped spaces to other uses and may not be consistent with community visual character.
Earth	• Impacts from earthquakes, landslides, volcanic activities, and floods could result in damage to buildings and infrastructure, disruptions to utilities, economic losses, and injuries and loss of life.
Noise	• Growth in urban areas would likely increase localized noise impacts through the replacement of vegetation with paved surfaces and buildings, an increase in the number of noise sources (e.g., vehicles, construction equipment, and emergency vehicles), and an increase in population density.

Key differences that can be distinguished between alternatives are summarized in Table ES-3. A ranking is included for each key difference. The circles represent the performance ranking of the four alternatives for each indicator. The rankings are relative and do not capture the magnitude of the difference between alternatives. Not all indicators utilize all four available rankings. Where performance is considered essentially the same, two or more alternatives may receive the same ranking. A protocol based on evaluating both the absolute numeric and percentage difference between alternatives was used to determine whether values are distinct, slightly distinct, or essentially the same. Rankings are based on unrounded results. See the supplemental data tables in Appendix B for the detailed results for each indicator.

Table ES-3. Summary Comparison of Impacts that can be Differentiated Between Alternatives[2]

Rating Key:

Worst Performing Alternative — Best Performing Alternative

	2050 Growth Alternatives			
Topic	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
Population, Employment, Housing				
What would the balance of jobs and housing be? In 2017, King County subareas: 0.97 to 1.32. Kitsap, Pierce, and Snohomish counties: 0.71 to 0.78 (jobs-housing ratios indexed to the regional average)	Improves jobs-housing ratios compared to baseline (2017) and Stay the Course. In 2050, King County subareas: 1.03 to 1.29. Kitsap, Pierce, and Snohomish counties: 0.80 to 0.81.	Worsens jobs-housing ratios compared to baseline (2017) and the other alternatives. In 2050, King County subareas: 1.12 to 1.37. Kitsap, Pierce, and Snohomish counties: 0.65 to 0.77.	Improves jobs-housing ratios compared to baseline (2017) and Stay the Course. In 2050, King County subareas: 1.03 to 1.29. Kitsap, Pierce, and Snohomish counties: 0.80 to 0.81.	Improves jobs-housing ratios compared to baseline (2017) and Stay the Course. In 2050, King County subareas: 1.02 to 1.27. Kitsap, Pierce, and Snohomish counties: 0.79 to 0.81.
How much moderate-density housing would be built? Regional housing stock in 2017: 16% high-density 20% moderate-density 64% low-density (regional housing stock by density) Moderate-density housing tends to provide more affordable housing choices.	Regional housing stock growth (2017–2050): 61% high-density 15% moderate-density 24% low-density	Regional housing stock growth (2017–2050): 51% high-density 15% moderate-density 34% low-density	The highest level of moderate-density housing built. Regional housing stock growth (2017–2050): 63% high-density 16% moderate-density 20% low-density	The lowest level of moderate-density housing built. Regional housing stock growth (2017–2050): 52% high-density 14% moderate-density 34% low-density

[2] Table ES-2 describes impacts common to all alternatives.

Table ES-3. Summary Comparison of Impacts that can be Differentiated Between Alternatives (continued)

	2050 Growth Alternatives			
Topic	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
Land Use				
How close would growth be to rural and resource lands? Population and employment growth in proximity to urban growth boundary (2017–2050)	 8% of growth throughout the region occurs in proximity to the urban growth boundary.	 9% of growth throughout region occurs in proximity to the urban growth boundary.	 6% of growth throughout the region occurs in proximity to the urban growth boundary, the lowest level.	 10% of growth throughout the region occurs in proximity to the urban growth boundary, the highest level.
How much land would be needed for development? Acres of developed land (2017–2050)	 184,000 acres of land developed or redeveloped.	 324,000 acres of land developed or redeveloped, tied with Reset Urban Growth for the highest amount.	 151,000 acres of land developed or redeveloped, the lowest amount.	 322,000 acres of land developed or redeveloped, tied with Stay the Course for the highest amount.
How close would transit be? Population and employment growth in Regional Growth Centers and in proximity to high-capacity and all transit service (2017–2050)	 69% of population and employment growth occurs near high-capacity transit and 76% near all types of transit service.	 46% of population and employment growth occurs near high-capacity transit and 65% near all types of transit service.	 75% of population and employment growth occurs near high-capacity transit and 81% near all types of transit service, the highest levels of the alternatives.	 45% of population and employment growth occurs near high-capacity transit and 61% near all types of transit service, the lowest levels of the alternatives.

Table ES-3. Summary Comparison of Impacts that can be Differentiated Between Alternatives (continued)

	2050 Growth Alternatives			
Topic	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
Transportation				
How much would the average person drive? 38.0 minutes, 16.1 miles in 2014 (average daily drive time and drive distance, per person), higher than all of the alternatives	 33.2 minutes, 12.8 miles in 2050.	 34.5 minutes, 13.3 miles in 2050.	 32.8 minutes, 12.7 miles in 2050, the shortest drives.	 34.9 minutes, 13.4 miles in 2050, the longest drives.
How long would the average person be stuck in traffic each year? 21.0 hours in 2014 (average annual time spent in congestion, per person), lower than all of the alternatives	 28.2 hours in congestion in 2050.	 30.2 hours in congestion in 2050.	 27.5 hours in congestion in 2050, the fewest hours stuck in traffic.	 31.2 hours in congestion in 2050, the most hours stuck in traffic.
How many transit trips would be taken? 194 million trips in 2014 (annual transit boardings), substantially lower than all of the alternatives	 504 million trips in 2050, tied with Transit Focused Growth for the highest number of transit trips.	 474 million trips in 2050, the lowest number of transit trips.	 507 million trips in 2050, tied with the Preferred Growth Alternative for the highest number of transit trips.	 481 million trips in 2050.
How many jobs would be accessible by walking, biking, or transit? (Average jobs accessible by walking, biking, or transit per person) baseline levels lower compared to the alternatives	 The second-highest numbers of jobs accessible by transit, walking, and biking.	 The lowest numbers of jobs accessible by transit, walking, and biking.	 The highest numbers of jobs accessible by transit, walking, and biking.	 Slightly higher numbers of jobs accessible by transit, walking, and biking compared to Stay the Course.

Table ES-3. Summary Comparison of Impacts that can be Differentiated Between Alternatives (continued)

	2050 Growth Alternatives			
Topic	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
Air Quality				
What would be the contribution to climate change and air pollution? Pollutant emissions: 47,200 tons per day CO_2e in 2014, see Section 4.4 for other pollutants (CO_2e is a measure used for reporting greenhouse gas emissions)	 39,400 tons per day CO_2e, tied with Transit Focused Growth for the lowest levels of greenhouse gas emissions and other pollutants.	 40,500 tons per day CO_2e, tied with Reset Urban Growth for the highest levels of greenhouse gas emissions and other pollutants.	 39,100 tons per day CO_2e, tied with the Preferred Growth Alternative for the lowest levels of greenhouse gas emissions and other pollutants.	 40,900 tons per day CO_2e, tied with Stay the Course for the highest levels of greenhouse gas emissions and other pollutants.
Ecosystems				
How much land would be needed for development? Acres of land developed (2017–2050)	 184,000 acres needed for development.	 324,000 acres needed for development, tied with Reset Urban Growth for the most acres needed.	 151,000 acres needed for development, the fewest acres needed.	 322,000 acres needed for development, tied with Stay the Course for the most acres needed.
Would important habitat be harmed? Development in areas likely to have regionally significant habitat	 The least amount of growth in areas likely to have regionally significant habitat, tied with Transit Focused Growth.	 Lower amount of growth in areas likely to have regionally significant habitat.	 The least amount of growth in areas likely to have regionally significant habitat, tied with the Preferred Growth Alternative.	 The most amount of growth in areas likely to have regionally significant habitat.

Table ES-3. Summary Comparison of Impacts that can be Differentiated Between Alternatives (continued)

	2050 Growth Alternatives			
Topic	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
Water				
How much hardened surface would be added by growth? Total impervious surface added through new development and redevelopment (2017–2050)	 15,100 acres of impervious surface.	 22,600 acres of impervious surface, tied with Reset Urban Growth for the most acres added.	 12,200 acres of impervious surface, the fewest acres added.	 22,600 acres of impervious surface, tied with Stay the Course for the most acres added.
How much would redevelopment improve old stormwater systems? Acres of land redeveloped (2017-2050) with outdated stormwater controls can result in water quality benefits	 Redevelopment of 25,800 acres of impervious surface in areas with outdated stormwater controls.	 Redevelopment of 32,100 acres of impervious surface in areas with outdated stormwater controls, the highest level of redevelopment.	 Redevelopment of 22,000 acres of impervious surface in areas with outdated stormwater controls, the lowest level of redevelopment.	 Redevelopment of 30,300 acres of impervious surface in areas with outdated stormwater controls.
Public Services, Utilities, and Energy				
How much new infrastructure would be needed? Population growth (2017-2050) in Urban Unincorporated and Rural areas, which are more likely to need new or extended infrastructure	 5% of population growth to Urban Unincorporated and Rural areas, the lowest level in those areas more likely to need new or extended infrastructure.	 11% of population growth to Urban Unincorporated and Rural areas.	 6% of population growth to Urban Unincorporated and Rural areas.	 18% of population growth to Urban Unincorporated and Rural areas, the highest level in those areas more likely to need new or extended infrastructure.
Parks and Recreation				
Would parks be nearby? 59% of population was located near parks in 2017 (urban population growth in proximity to parks providing local urban access)	 57% of population growth would be near parks in 2050.	 55% of population growth would be near parks in 2050, tied with Reset Urban Growth for the lowest level of growth with access to parks.	 58% of population growth would be near parks in 2050, the highest level of growth with access to parks.	 55% of population growth would be near parks in 2050, tied with Stay the Course for the lowest level of growth with access to parks.

Table ES-3. Summary Comparison of Impacts that can be Differentiated Between Alternatives (continued)

	2050 Growth Alternatives			
Topic	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
Visual Quality				
How would areas change visually?	 Less development in outlying and Rural areas would slightly reduce negative impacts to these areas.	 More development in outlying and Rural areas could result in negative visual impacts in these areas.	 Less development in outlying and Rural areas would slightly reduce negative impacts to these areas.	 More development in outlying and Rural areas would slightly increase negative impacts to these areas.
Environmental Justice				
How would people color and people with low incomes be affected by changes in jobs and housing?	 The second-greatest improvement in the balance of jobs and housing for census tracts that are greater than 50 percent people with low incomes or people of color. The ratios are still well above the regional average, indicating these communities are jobs-rich and housing may be less affordable or available.	 The least improvement in the balance of jobs and housing for census tracts that are greater than 50 percent people with low incomes or people of color, tied with Reset Urban Growth.	 The greatest improvement in the balance of jobs and housing for census tracts that are greater than 50 percent people with low incomes or people of color.	 The least improvement in the balance of jobs and housing for census tracts that are greater than 50 percent people with low incomes or people of color, tied with Stay the Course.
How would people of color and people with low incomes be affected by changes in availability of moderate density housing?	 The second-highest level of moderate-density housing stock growth overall for census tracts that are greater than 50 percent people with low incomes or people of color.	 The third-highest level of moderate-density housing stock growth overall for census tracts that are greater than 50 percent people with low incomes or people of color.	 The highest level of moderate-density housing stock growth overall for census tracts that are greater than 50 percent people with low incomes or people of color.	 The lowest level of moderate-density housing stock growth overall for census tracts that are greater than 50 percent people with low incomes or people of color.

Table ES-3. Summary Comparison of Impacts that can be Differentiated Between Alternatives (continued)

	2050 Growth Alternatives			
Topic	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
Would people of color and people with low incomes benefit from changes to land use and transportation?	 Greater proximity to transit for census tracts that are greater than 50 percent people with low incomes or people of color.	 Less proximity to transit for census tracts that are greater than 50 percent people with low incomes or people of color.	 The greatest proximity to transit for census tracts that are greater than 50 percent people with low incomes or people of color.	 The lowest proximity to transit for census tracts that are greater than 50 percent people with low incomes or people of color.
Would the risk of displacement increase? Population growth in areas of higher displacement risk (2017-2050)	 22% of population growth would occur in areas of higher displacement risk.	 17% of population growth would occur in areas of higher displacement risk, tied with Reset Urban Growth for the lowest level.	 23% of population growth would occur in areas of higher displacement risk, the highest level.	 17% of population growth would occur in areas of higher displacement risk, tied with Stay the Course for the lowest level.

Multicounty Planning Policies

VISION 2050 includes the multicounty planning policies for the four-county region required by the Growth Management Act (RCW 36.70A.210(7)). Multicounty planning policies provide a common, coordinated policy framework for local plans and other large-scale planning efforts in the region. They are designed to support implementation of the Regional Growth Strategy, including concentrating growth within the region's designated urban growth area and limiting development in resource and Rural areas. The policies provide an integrated framework for addressing planning for regional collaboration, the Regional Growth Strategy, the environment, climate change, land use, housing, the economy, transportation, and public services.

Chapter 6 of this Final SEIS summarizes the policies and their purpose, describes differences from VISION 2040 policies, and discusses the environmental effects for each topic area. Most of the policies would produce environmental benefits, as they would help to implement the mitigation measures identified in Chapters 4 and 5 of this Final SEIS. The VISION 2040 FEIS includes additional detail on the multicounty planning policies, their purpose, and environmental effects.

1. Introduction

This chapter briefly describes the Puget Sound Regional Council (PSRC) and VISION 2040. It also describes the purpose of VISION 2050, the need for environmental review, and the process to develop VISION 2050 and the Supplemental Environmental Impact Statement (SEIS).

Why is an SEIS being prepared for VISION 2050?

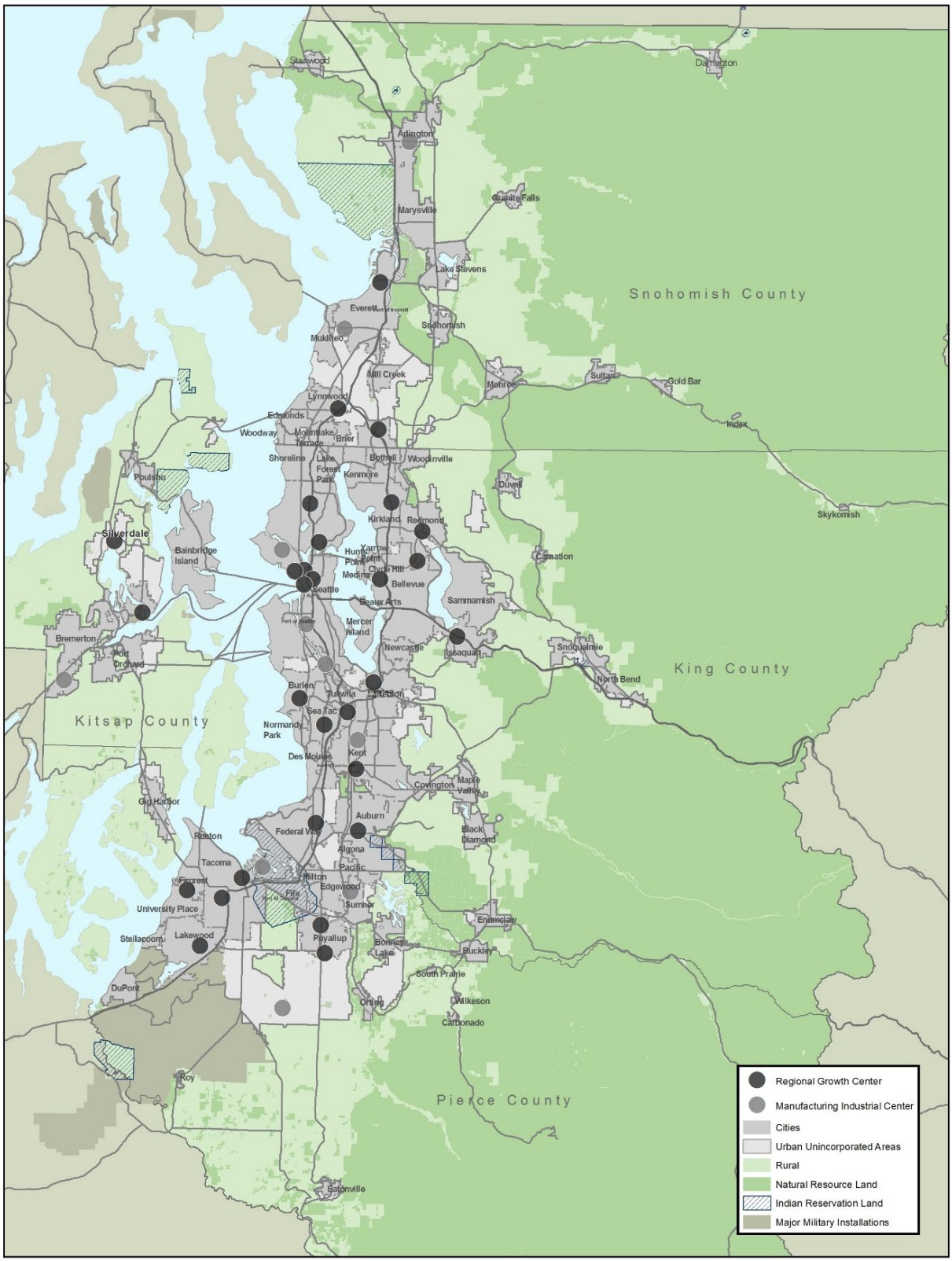
The region's plan to accommodate additional population and job growth to 2050 will likely have environmental impacts. PSRC will use the environmental review process to analyze the effects of continued growth in the region, and alternative ways of responding to and accommodating that growth. Because VISION 2050 will build upon VISION 2040, the VISION 2040 Final Environmental Impact Statement (FEIS) provides a foundation for the environmental review of VISION 2050. This Final SEIS provides updates and additional information for consideration.

1.1 Puget Sound Regional Council

The central Puget Sound region is made up of King, Kitsap, Pierce, and Snohomish counties, and their 82 cities and towns (see Figure 1.1-1). The major metropolitan cites of the region are Seattle and Bellevue in King County, Bremerton in Kitsap County, Tacoma in Pierce County, and Everett in Snohomish County.

PSRC's mission is to ensure a thriving central Puget Sound now and into the future through planning for regional transportation, growth management, and economic development. It serves as a forum for cities, counties, ports, transit agencies, tribes, and the state to work together on important regional issues.

Figure 1.1-1. Counties, Cities, and Towns in the Central Puget Sound Region



Source: PSRC

As the region's Metropolitan Planning Organization and Regional Transportation Planning Organization, key PSRC responsibilities include:

- Long-range growth, economic, and transportation planning
- Transportation funding
- Economic development coordination
- Regional data
- Technical assistance
- Certification of local comprehensive plans

A General Assembly and Executive Board govern PSRC. The Growth Management and Transportation Policy Boards advise the Executive Board. PSRC supports the work of the region's Economic Development District, which coordinates economic development planning in the region. PSRC's organizational structure is described in more detail in Chapter 3 of the VISION 2040 FEIS.

PSRC plans under Washington state's Growth Management Act (GMA), which establishes broad goals such as:

- Managing urban growth
- Protecting agricultural, forestry, and environmentally sensitive areas
- Reducing sprawl
- Encouraging efficient multimodal transportation systems

GMA and the state planning framework are described in more detail in Chapter 3 of the VISION 2040 FEIS.

1.2 VISION 2040

PSRC adopted VISION 2040 in April 2008. VISION 2040 is a shared strategy for how and where the central Puget Sound region should grow by the year 2040. It was the result of a process undertaken by the region's elected officials, public agencies, interest groups, and individuals to establish a common vision for the future. VISION 2040 consists of:

- An environmental framework
- A regional growth strategy
- Multicounty planning policies to guide growth and development
- Actions to implement
- Measures to track progress

"People, prosperity and planet" is the central theme of VISION 2040 and conveys that the people of this region, its economic prosperity, and its relationship to the planet are tied together in mutually supportive and interdependent ways. VISION 2040 begins with a Framework for a Sustainable Environment and a call to care for and sustain a healthy environment for generations to come. It asserts that more sustainable practices can enhance the natural environment and built environment, while ensuring that growth results in clean and vibrant communities. The sustainability principles in the framework figure prominently in VISION 2040. The Framework for a Sustainable Environment is grounded in the Regional Environmental Baseline in the VISION 2040 FEIS, which describes the region's environment. Both the environmental framework and the baseline continue to provide a foundation for future planning in the region.

The Regional Growth Strategy in VISION 2040 provides guidance to cities and counties for accommodating expected growth—up to 5 million people in the region by the year 2040. The strategy is designed to preserve resource lands and protect rural lands from urban-type development. The strategy promotes infill and redevelopment within urban areas to create more compact, walkable, and transit-friendly communities.

The multicounty planning policies provide guidance for implementing the Regional Growth Strategy and inform both countywide planning policies and local planning in the region. Required by GMA, VISION 2040's multicounty planning policies are organized under the topics of environment, development patterns, housing, economy, transportation, and public services.

VISION 2040 contains implementation actions that contribute to achieving the Regional Growth Strategy and multicounty planning policies. VISION 2040 also contains measures to monitor and evaluate growth to ensure that it continues to meet VISION 2040's goals and objectives.

1.3 Purpose and Need

1.3.1 Purpose of VISION 2050

VISION 2050 builds on VISION 2040 to keep the central Puget Sound region healthy and vibrant as it grows. As the region prepares to add more people and jobs in the coming decades—about 1.8 million more people between 2017 and 2050—VISION 2050 identifies the challenges we should tackle together as a region and renews the VISION for the next 30 years. It considers new information and perspectives about a changing region. The vision statement in VISION 2050 is:

The central Puget Sound region provides an exceptional quality of life and opportunity for all, connected communities, a spectacular natural environment, and an innovative, thriving economy. In 2050:

- Climate. The region's contribution to climate change has been substantially reduced.
- Community. Distinct, unique communities are supported throughout the region.

- Diversity. The region's diversity continues to be a strength. People from all backgrounds are welcome, and displacement due to development pressure is lessened.
- Economy. Economic opportunities are open to everyone, the region competes globally, and has sustained a high quality of life. Industrial, maritime, and manufacturing opportunities are maintained.
- Environment. The natural environment is restored, protected, and sustained, thereby preserving and enhancing natural functions and wildlife habitats.
- Equity. All people can attain the resources and opportunities to improve their quality of life and enable them to reach their full potential.
- Health. Communities promote physical, social, and mental well-being so that all people can live healthier and more active lives.
- Housing. A range of housing types ensures that healthy, safe, and affordable housing choices are available and accessible for all people throughout the region.
- Innovation. The region has a culture of innovation that embraces and responds to change.
- Mobility and Connectivity. A safe, affordable, and efficient transportation system connects people and goods to where they need to go, promotes economic and environmental vitality, and supports the Regional Growth Strategy.
- Natural Resources. Natural resources are sustainably managed, supporting the continued viability of resource-based industries, such as forestry, agriculture, and aquaculture.
- Public Facilities and Services. Public facilities and services support the region's communities and plans for growth in a coordinated, fair, efficient, and cost-effective manner.
- Resilience. The region's communities plan for and are prepared to respond to potential impacts from natural and man-made hazards.
- Rural Areas. Rural communities and character are strengthened, enhanced, and sustained.

1.3.2 Need for Environmental Review

PSRC, as lead agency for environmental review, has determined that the regional plan for 2050 will likely have significant impacts on the environment, and in February 2018 issued a Determination of Significance, pursuant to the State Environmental Policy Act (SEPA—Revised Code of Washington [RCW] 43.21C.030(2)(c)). In response to the Determination of Significance, PSRC has analyzed impacts to the natural and built environments in this Final

SEIS. The SEIS evaluates alternative ways that the region might grow and different strategies to mitigate negative impacts of growth.

The VISION update is considered a non-project action. SEPA defines non-project actions as governmental actions involving decisions on policies, plans, or programs that contain standards controlling use of or modifications to the environment, or that will govern a series of connected actions. This includes, but is not limited to, the adoption or amendment of comprehensive plans, transportation plans, ordinances, rules, and regulations (Washington Administrative Code [WAC] 197-11-704). SEPA review for non-project actions requires agencies to consider the "big picture" by:

- Conducting comprehensive analysis
- Addressing cumulative impacts
- Considering possible alternatives
- Outlining successful mitigation measures

An Environmental Impact Statement (EIS) for a non-project proposal does not require site-specific analyses. Therefore, the EIS provides qualitative and quantitative descriptions of the likely environmental effects that may occur with the alternatives.

1.3.3 Related Plans

PSRC adopted the Regional Transportation Plan in May 2018 (PSRC 2018c). It serves as the transportation plan for implementing transportation goals identified in VISION 2040 and is guided by the multicounty planning policies in VISION 2040. Amazing Place, the Regional Economic Strategy, was adopted by the Central Puget Sound Economic Development District in September 2017 (PSRC 2017a). It also serves to implement policies identified in VISION 2040.

1.4 How Does VISION 2050 Update VISION 2040?

Board discussions, VISION 2050 scoping comments, the Taking Stock 2016 assessment (PSRC 2017b), and other input from stakeholders have helped to identify challenges with growth and opportunities to update VISION 2040. The Growth Management Policy Board directed that VISION 2050 should build on VISION 2040. Some key changes and challenges being addressed by VISION 2050 include:

- Updates to growth forecasts for the year 2050 and to the Regional Growth Strategy
- Updated regional geographies
- An updated framework to plan for centers and transit-oriented development
- A new Regional Open Space Conservation Plan

- Housing affordability
- Climate change
- Social equity

The alternatives being evaluated in this Final SEIS are described in Chapter 3 and updates to the multicounty planning policies are discussed in Chapter 6.

1.5 SEIS Process and Public Outreach

The SEPA process for VISION 2050 follows procedures identified in Chapter 197-11 of the WAC, the SEPA Handbook (2017), PSRC procedures and policies for implementing SEPA adopted in Executive Board Resolution EB-2016-01, and PSRC's Public Participation Plan (PSRC 2018d).

PSRC's Determination of Significance, issued on February 2, 2018, marked the beginning of a public outreach and scoping process that extended to March 19, 2018. During the scoping comment period, PSRC staff had contact with many individuals, organizations, and local jurisdictions throughout the region, and received more than 1,300 individual comments. The top five categories of comments included land use and development patterns, transportation, Regional Growth Strategy, environment, and housing. The engagement process and comments received during scoping are summarized in the VISION 2050 Scoping Report (PSRC 2018b) and are reflected in the objectives and outcomes listed in Section 1.1.1 of that report.

The Determination of Significance indicated PSRC's intent to prepare an SEIS. SEPA allows an SEIS to be prepared when an existing EIS addresses some, but not all, of a new proposal's probable significant adverse environmental impacts. This SEIS builds on and supplements the FEIS prepared for VISION 2040. Some environmental resources, conditions, and analysis methods have changed substantially, while others have not. Consequently, each element in this SEIS has a varying level of existing conditions information and analysis. Elements in the SEIS reference the FEIS when information for a resource is relevant. In addition, Appendix B includes supporting data tables and figures and Appendix C describes the methodology and modeling tools used.

This SEIS focuses on the potential comparative impacts of the Regional Growth Strategy alternatives. More information on how the analysis of impacts was conducted is provided in Chapter 4.

A Draft SEIS for VISION 2050 was issued on February 28, 2019, followed by a public comment period that ended on April 29, 2019. PSRC encourages engagement with the public. During the Draft SEIS comment period, PSRC staff had contact with many individuals, organizations, and local jurisdictions throughout the region. PSRC held five public open houses throughout the region to provide information and gather comments on the Draft SEIS. In addition, a public hearing was held on April 4, 2019. Over 650 individual comments were received. The top five categories of comments included Regional Growth Strategy alternatives, transportation, land use, housing, and planning process, policy, or public engagement. The engagement process

and comments received during the Draft SEIS comment period are summarized in the VISION 2050 Summary of Comments on the Draft Supplemental Environmental Impact Statement (PSRC 2019a). The comments are also available on PSRC's website.

The Draft SEIS, public comments, and board discussions informed the development of a draft preferred Regional Growth Strategy alternative and updated multicounty planning policies, which were incorporated into the Draft VISION 2050 plan issued on July 19, 2019. The evaluation criteria and process for selecting a Preferred Growth Alternative are described in Appendix D. The public comment period for the Draft VISION 2050 plan ran from July 19, 2019, to September 16, 2019. Input and feedback received during this period was reviewed and considered and the preferred Regional Growth Strategy alternative and multicounty planning policies were revised accordingly. Revisions were reviewed and the updated analysis is documented in this Final SEIS. Final action to adopt VISION 2050 is expected to take place at a meeting of PSRC's General Assembly in spring 2020. Please see the PSRC website for information on the Executive Board and General Assembly consideration of the final VISION 2050 plan.

PSRC

2. Affected Environment

This chapter updates the affected environment discussion in the VISION 2040 FEIS that was issued in 2008. Comprehensive data supporting this chapter can be found in Appendix B.

How has the regional environment changed since VISION 2040?

In the past decade, the central Puget Sound region has experienced change, particularly from challenges during the last recession (approximately December 2007 to June 2009) and the tremendous population and economic growth that followed. Each of the environmental resources listed below was affected by these changes differently. Therefore, the affected environment for this Final SEIS includes:

- Resources that experienced substantial change in the last decade, or where there is significant new information, including: population, employment, housing, land use, and transportation. These changes are described in Sections 2.1 through 2.5.
- Resources that experienced less change, including: air quality, ecosystems, water quality and hydrology, public services and utilities, parks and recreation, and environmental health. Additional detail on these resources can be found in Sections 2.6 through 2.11.
- Resources that generally have similar impacts as described in the VISION 2040 FEIS, including energy; historic, cultural, and archaeological resources; visual quality; earth; and noise. These resources are described in Sections 2.12 through 2.16.

In addition, changes to the regulatory setting, including federal and state legislation, are described in Section 2.17.

What are some of the key regional changes in the last decade?

- Tech industry employment is experiencing rapid growth, particularly in Seattle and central King County.
- Job growth has been strong in recent years but has been uneven across the region and between industries.
- Population growth is continuing at a strong pace.
- Regional demographics are changing as the population is becoming older and more racially and ethnically diverse.
- Housing production struggled to keep pace with population growth in the post-recession expansion; rent and home prices increased dramatically, causing a crisis of housing affordability.
- Transit infrastructure around the region is expanding, and transit ridership is increasing.
- Climate change[1] is of growing urgency, and intersects with many resources including air quality, ecosystems, and water.

2.1 Population

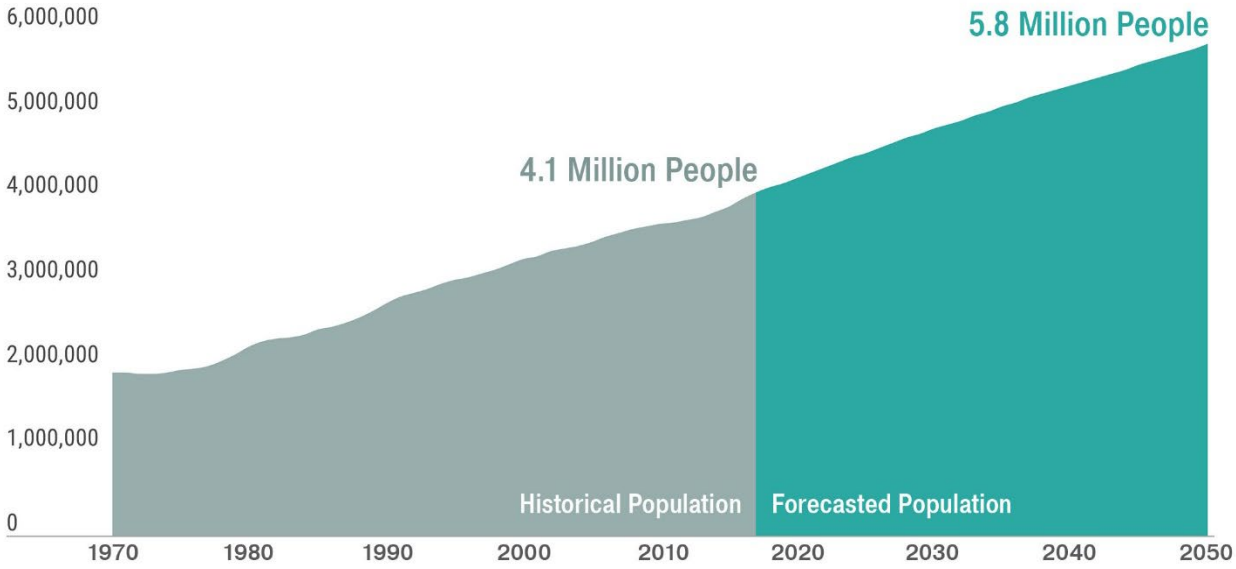
The central Puget Sound region continues to experience a surge in population growth. Along with this substantial growth, the region is experiencing shifts in demographics—most notably, an aging population and increasing racial and ethnic diversity. This section provides an overview of population growth since the VISION 2040 FEIS, describes the growth forecast through 2050, and summarizes key demographic shifts in the growing population.

The base year for the regional population forecast is 2017, when 4,076,000 resided in the region. The region experienced a population increase of 376,000 people—or 10 percent—from 2010 to 2017 (Figure 2.1-1). The VISION 2040 FEIS forecast a population of 4,988,000 by 2040, whereas current forecasts have updated this to 5,328,000 in 2040. By 2050, it is estimated the regional population will have grown to 5,823,000 people.

Similarly, Washington State Office of Financial Management (OFM) 2017 Growth Management projections include higher growth projections for 2040 than previously anticipated. Compared to growth assumptions used to inform the VISION 2040 FEIS, OFM projects a higher amount of growth for King County in particular.

[1] Climate change is an urgent environmental, economic, and equity threat being addressed at all levels, from a local to an international scale. Caused by an increase in greenhouse gases trapping heat in the atmosphere, climate change is a significant cross-cutting issue throughout VISION 2050 (PSRC 2019b). Climate change is addressed in the Final SEIS throughout many of the resources discussed in Chapters 2, 4, and 5. For more detailed information on climate change in the Puget Sound region, please refer to: https://cig.uw.edu/resources/special-reports/ps-sok/

Figure 2.1-1. Historical and Forecasted Regional Population



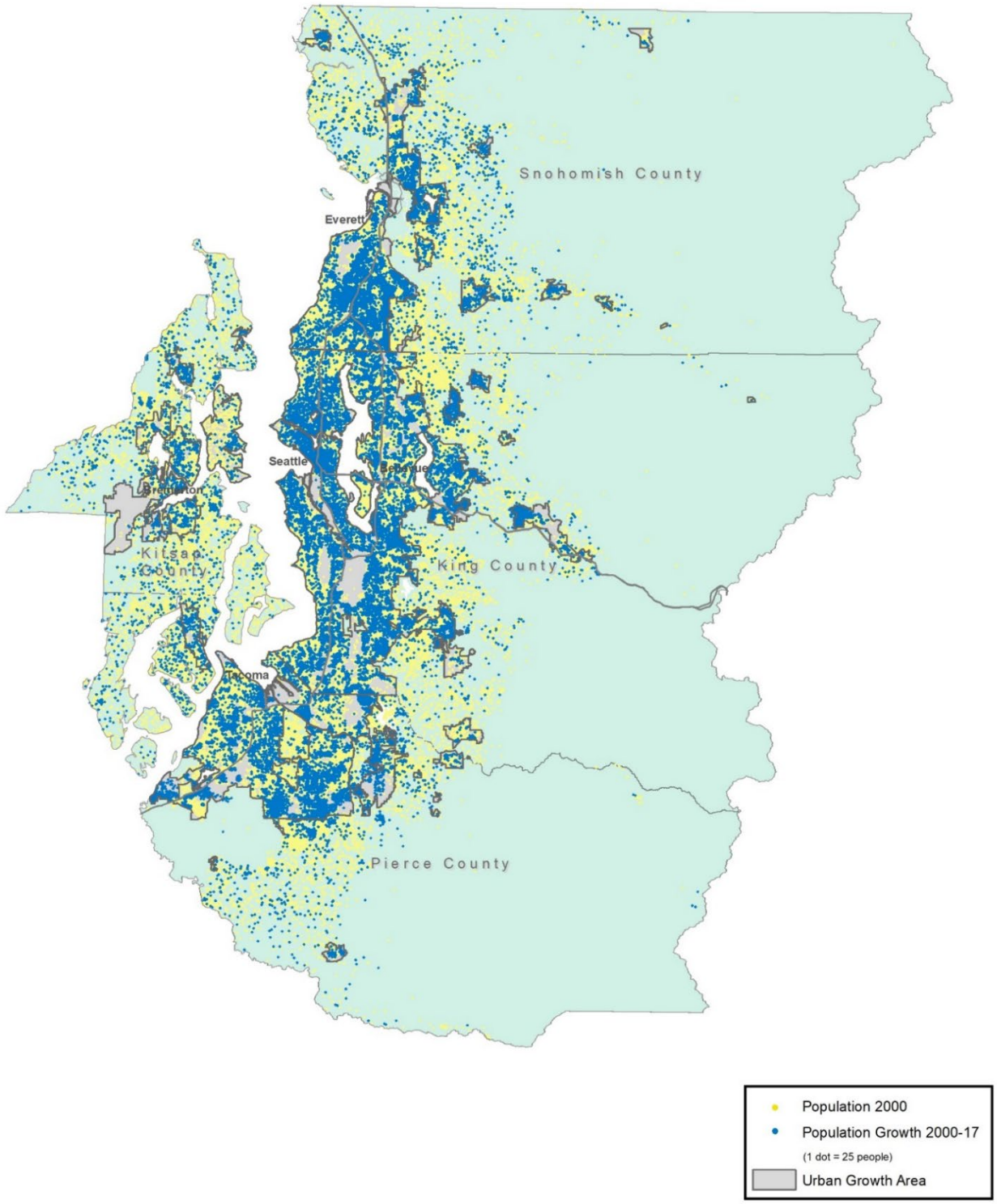
Source: U.S. Census Bureau, WA Office of Financial Management, PSRC

Figure 2.1-2 shows the distribution of population growth from 2000 to 2017 throughout the region. The densest areas of population growth are occurring within the urban growth area. All four counties have seen an increase in rural population as well, though at declining rates from the previous decade. Additional discussion on growth by land use type can be found in Section 2.4. The percent population growth from 2010 to 2017 was largest in King and Snohomish counties at 12 and 11 percent, respectively. In the same time period, the Pierce County population grew 8 percent and Kitsap County 5 percent.

The major demographic shifts that have occurred as a result of the aging population are very similar in magnitude to those predicted in the VISION 2040 FEIS. As shown in Figure 2.1-3, between 1970 and 2010, the proportion of people 65 and over remained relatively constant at approximately 10 percent. Today, this age group comprises 14 percent of the population. From 2030 through 2050, people 65 and over will make up nearly 20 percent of the population.

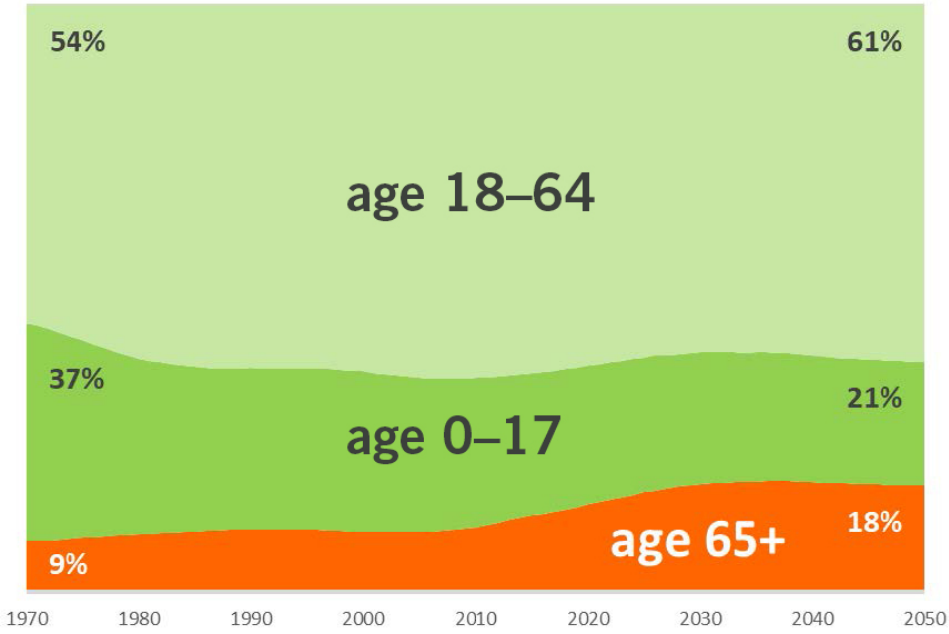
Since 2000, the regional population has become more racially and ethnically diverse. People of color currently represent 35 percent of the region—and accounted for 81 percent of the region's population growth since 2000 (PSRC 2018e). The region's Hispanic/Latinx population has grown by 130 percent since 2000 and now constitutes 10 percent of the region's population. The region's Asian/Pacific Islander population has grown 88 percent since 2000 and currently represents 13 percent of the region's population. In addition, people of color are more dispersed throughout the region as depicted in Figure 2.1-4. Additional discussion of people of color and people with low incomes can be found in Section 5.4 and Appendix H of this Final SEIS and the Central Puget Sound Demographic Profile (PSRC 2018f).

Figure 2.1-2. Spatial Distribution of Population Increase, 2000–2017



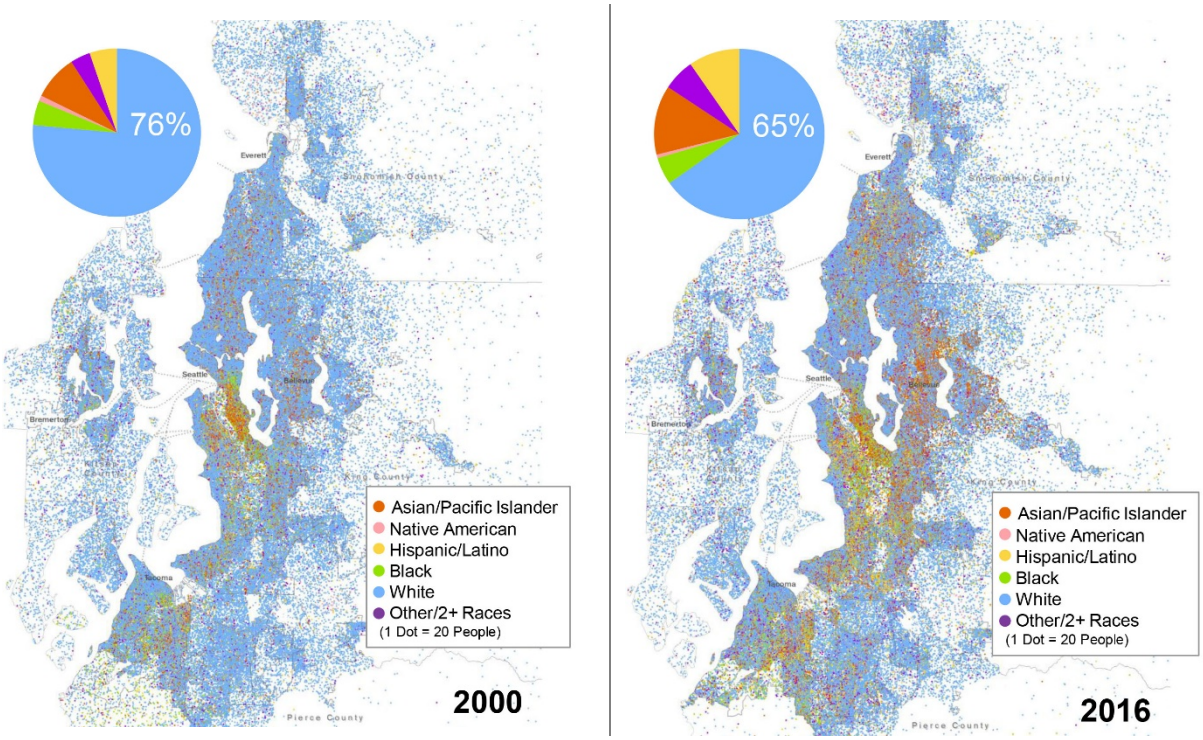
Source: PSRC

Figure 2.1-3. Historical and Forecasted Regional Age Demographics



Source: U.S. Census Bureau, PSRC

Figure 2.1-4. Comparison of Population Distribution by Race and Ethnicity, 2000 and 2016[1]



Source: PSRC, U.S. Census Bureau American Community Survey

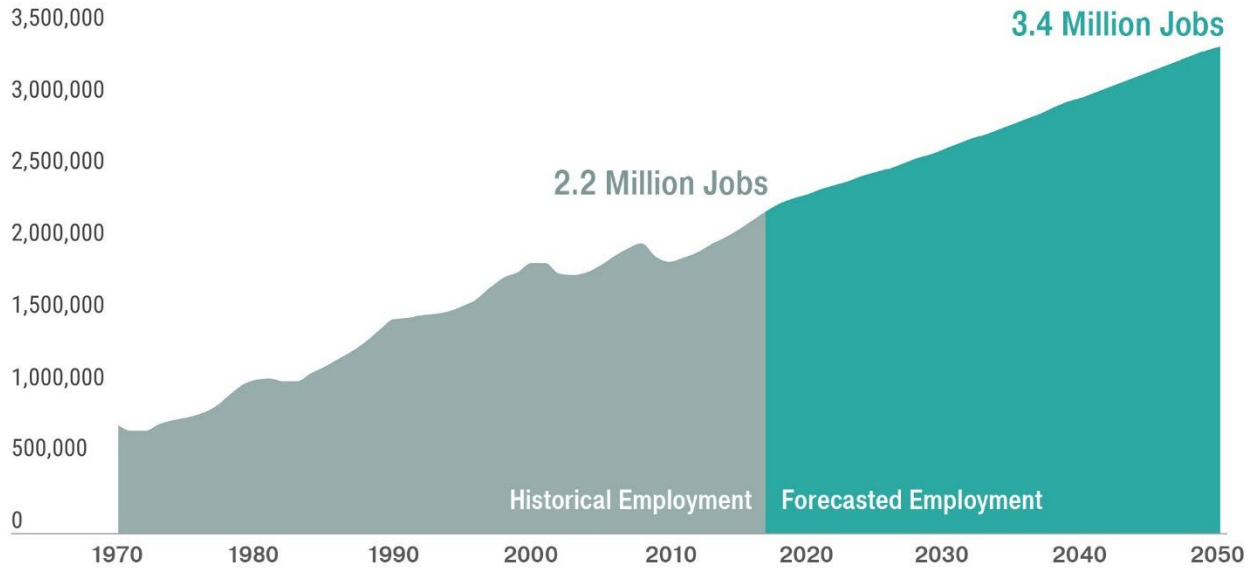
[1] 2016 refers to American Community Survey 2012-2016 5-year average estimates

2.2 Employment

This section describes overall employment throughout the region, including employment by economic sector and cluster. Additional detailed information on the region's economy and employment can be found in the region's economic strategy, Amazing Place: Growing Jobs and Opportunity in the Central Puget Sound Region (PSRC 2017a) and in the Economic Analysis of the Central Puget Sound Region (PSRC 2017c).

During the last recession, between 2007 and 2010, the region lost an estimated 100,000 jobs. Since 2010, job growth and the regional economy recovered and replaced all of the jobs lost during the recession (PSRC 2017a). From 2010 to 2017, 343,000 jobs have been added to the region, a nearly 20 percent increase. The total regional employment in 2017 was 2,233,000 jobs as shown in Figure 2.2-1.

Figure 2.2-1. Historical and Forecasted Regional Employment

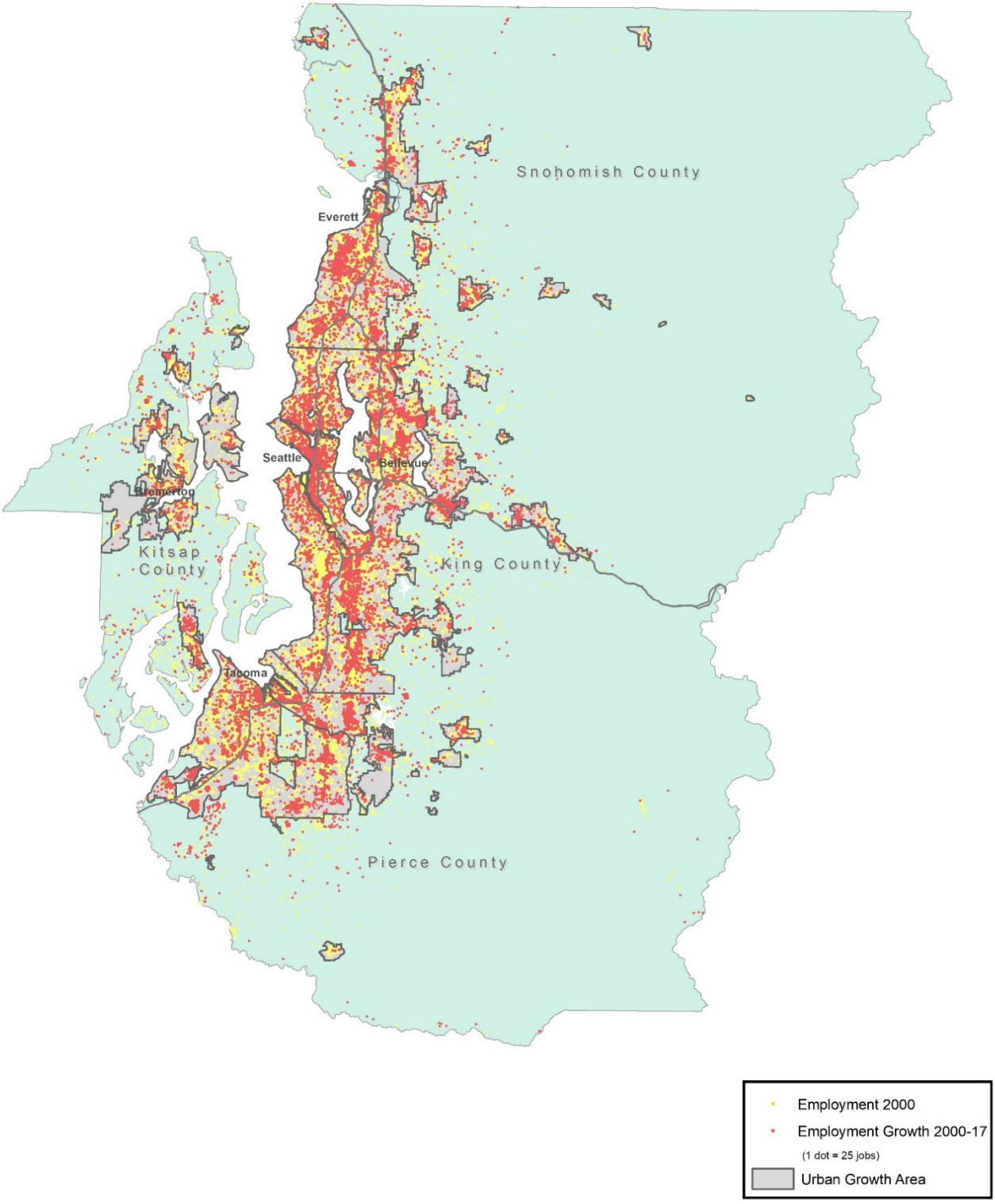


Source: PSRC

Figure 2.2-2 shows the distribution of jobs added to the region from 2000 to 2017. Job growth is focused primarily within the urban growth area and is more concentrated than population growth during the same period. All four counties gained new jobs, but 86 percent of employment growth has occurred in King and Snohomish counties since 2010 (PSRC 2018e).

Due to effects from the last recession, employment growth through 2040 is now expected to be slightly less than anticipated in the VISION 2040 FEIS. The FEIS forecasted a total of 3,126,000 jobs by 2040; this forecast has been reduced slightly to 3,037,000. The updated forecast estimates 3,392,000 jobs in the region by 2050 (Figure 2-2.1).

Figure 2.2-2. Spatial Distribution of Employment Increase, 2000–2017



Source: PSRC

Each county's major employers are similar to those described in the VISION 2040 FEIS and are listed below in Table 2.2-1.

Table 2.2-1. Major Employers, Central Puget Sound Region

	King	Kitsap	Pierce	Snohomish
Basic	Amazon, Boeing Company*, Microsoft*, Nordstrom*, Starbucks, University of Washington*	Naval Base Kitsap*, Puget Sound Naval Shipyard*, Olympic College*, SAFE Boats International	Amazon Distribution, Boeing Company, Joint Base Lewis-McChord*, Milgard Windows & Doors*, State Farm	Boeing Company*, Fluke Corporation, Naval Station Everett*, Tulalip Tribes*
Health	Kaiser Permanente, Swedish Hospital/ Swedish Medical Center*	Harrison Medical Center*, Martha & Mary, Naval Hospital Bremerton, Port Madison Health Services (Suquamish Tribe)	CHI Franciscan Health, DaVita Medical Group, Kaiser Permanente, MultiCare Health System*	Philips Healthcare, Premera Blue Cross*, Providence Health & Services*, Swedish Hospital/Swedish Medical Center, The Everett Clinic
Retail	Costco*	Fred Meyer*, Safeway*	Fred Meyer, Safeway, Walmart	Fred Meyer, Safeway, Walmart
Govern-ment	City of Seattle*, King County*, school districts	Kitsap County, school districts*, state government	City of Tacoma*, Pierce County*, school districts*	Edmonds Community College*, school districts*, Snohomish County*, state government*

Source: Economic Alliance Snohomish County, Economic Development Board Tacoma Pierce County, Economic Development Council of Seattle & King County, Kitsap Economic Development Alliance

* Denotes employers listed in VISION 2040 FEIS

The largest regional employment sector is the service sector, with a total of 1,038,000—or 46 percent—of all jobs in 2017. The service sector includes health services, accommodations/food services, professional/scientific/technical services, information, administrative services, and other services. It is anticipated that an additional 843,000 service jobs will be added from now to 2050. These trends are similar to those predicted in the VISION 2040 FEIS, though current forecasts project higher rates of growth in this sector.

Other key characteristics of the service sector include the following:

- In 2015, healthcare had the largest share of employment in the region, making up 27 percent of service sector jobs and 13 percent of all jobs (PSRC 2017c).
- Also, in 2015, information sector jobs, which include employment related to software, media, internet, and telecommunication services, made up 12 percent of service sector jobs and 5 percent of all jobs. This is more than double the national average of 2 percent (PSRC 2017c).

Economic sectors are large components of the economy defined by their place in the production chain, such as manufacturing and construction, services, education, and government. These sectors are usually defined consistently across most economies.

Economic clusters are geographic concentrations of interconnected businesses, suppliers, and institutions that share common markets, technologies, and worker skill needs. These clusters tend to be specialized to a geographic area and represent unique characteristics of the economy.

Other key overall economic sector trends include the following:

- Construction job growth was rapid during the housing boom of the early- to mid-2000s, followed by major job loss during the last recession, resulting in a net loss of 21,000 jobs. Construction is currently one of the fastest growing job sectors, adding nearly 40,000 jobs from 2010 to 2017. Similar to the VISION 2040 FEIS, forecasts indicate that growth will continue into the future, but at a slower rate.
- After a period of net decline from 2000 to 2010, manufacturing jobs have been increasing slightly since 2010, but the result is still a net decrease overall from 2000 to 2017. Consistent with the projection in the FEIS, this growth is expected to be short-lived, with manufacturing jobs estimated to decrease from 2020 to 2050.

The economic strategy for the region was recently updated in Amazing Place: Growing Jobs and Opportunity in the Central Puget Sound Region (PSRC 2017a), which identifies the key clusters of the regional economy that are driving the region's job growth.

The following clusters showed the strongest job growth from 2010 to 2017:

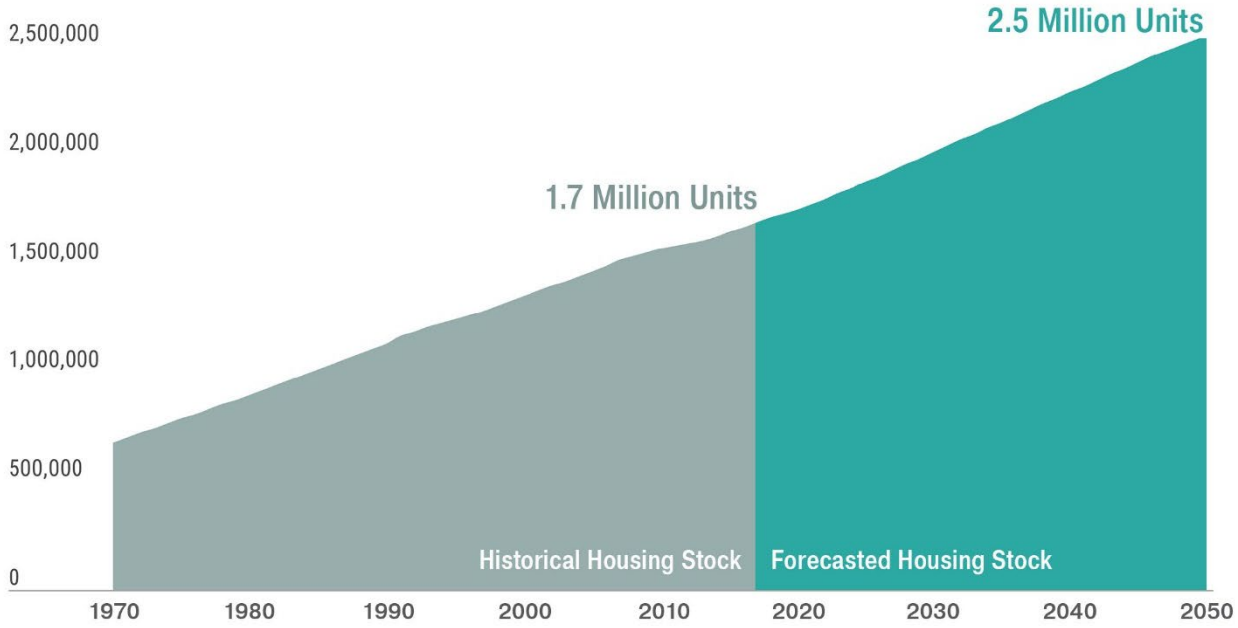
- Tourism: 88,000 jobs
- Information Technology: 75,000 jobs
- Transportation and Logistics: 11,000 jobs
- Business Services: 7,800 jobs
- Aerospace: 6,700 jobs
- Maritime: 6,600 jobs

2.3 Housing

Since VISION 2040 was adopted in 2008, the region's housing market has experienced highs and lows, from the precipitous drop in housing prices and foreclosures during the last recession to the current economic upswing and job growth that has led to rapid increases in rents and home prices. This section provides an overview of housing stock, median home value, median rent, jobs-housing balance, and housing affordability. Detailed information on housing in the region can be found in the VISION 2050 Housing Background Paper (PSRC 2018g).

Figure 2.3-1 depicts historical and forecasted regional housing units from 1970 to 2050. The region's housing stock has increased from 1,571,000 units in 2010 to 1,687,000 units in 2017 and is forecast to reach 2,547,000 units by 2050. The current household size of 2.50 is forecast to slowly decline through 2050 to approximately 2.36. This decline is slower than anticipated in the VISION 2040 FEIS.

Figure 2.3-1. Historical and Forecasted Regional Housing Stock, 1970–2050



Source: PSRC

As shown in Table 2.3-1, the majority of current housing stock is largely comprised of low-density housing in all four counties, with substantially lower percentages of moderate- and high-density housing. King County shows a greater proportion of high-density housing than the other counties. Kitsap, Pierce, and Snohomish counties show markedly higher amounts of low-density housing. Continuing the trend noted in the VISION 2040 FEIS, from 2000 to 2017 the percentage of single-family (low-density) housing units has decreased slightly and multifamily (moderate- to high-density) units have increased slightly across the region.

Strong employment growth has contributed to a surge in population and demand for housing. Housing construction, which struggled to keep pace with demand initially, has accelerated substantially since its low point in 2011 and is now on par with pre-recession levels of production. These factors, in addition to increasing incomes and low interest rates, have resulted in increasing home values and rents throughout the region (PSRC 2018g).

Table 2.3-1. Housing Units in Areas Zoned for Low-, Moderate-, and High-Density Development, 2017

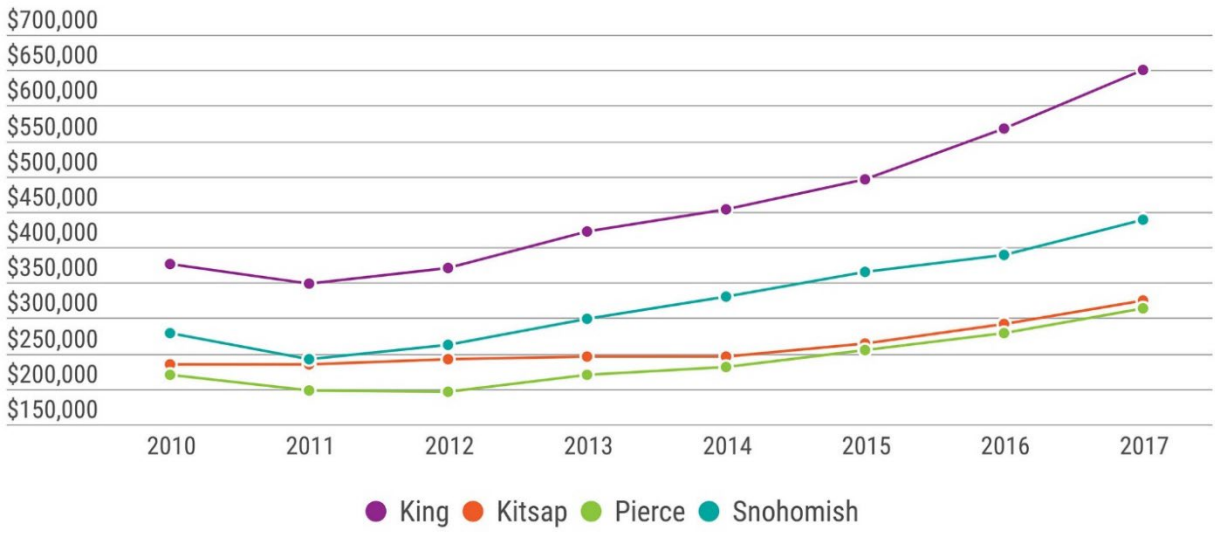
	High Density (%)	Moderate Density (%)	Low Density (%)
King County	24	20	56
Kitsap County	1	11	87
Pierce County	6	20	74
Snohomish County	6	24	70
Region	**16**	**20**	**64**

Source: PSRC

Note: Low density is defined as less than 12 units/acre, moderate density as 12 to 49 units/acre, and high density as 50+ units/acre. These groupings generally translate to single-family development; duplex, triplex, townhome, and low-rise apartment/condo buildings; and high-rise apartment/condo buildings.

While home prices have increased across the region, there is a widening price gap among the counties, with the median King County home price close to double the cost of homes in Kitsap and Pierce counties (Figure 2.3-2). Since 2010, the median single-family home price has increased by 73 percent in King County, 57 percent in Snohomish County, 42 percent in Pierce County, and 38 percent in Kitsap County.

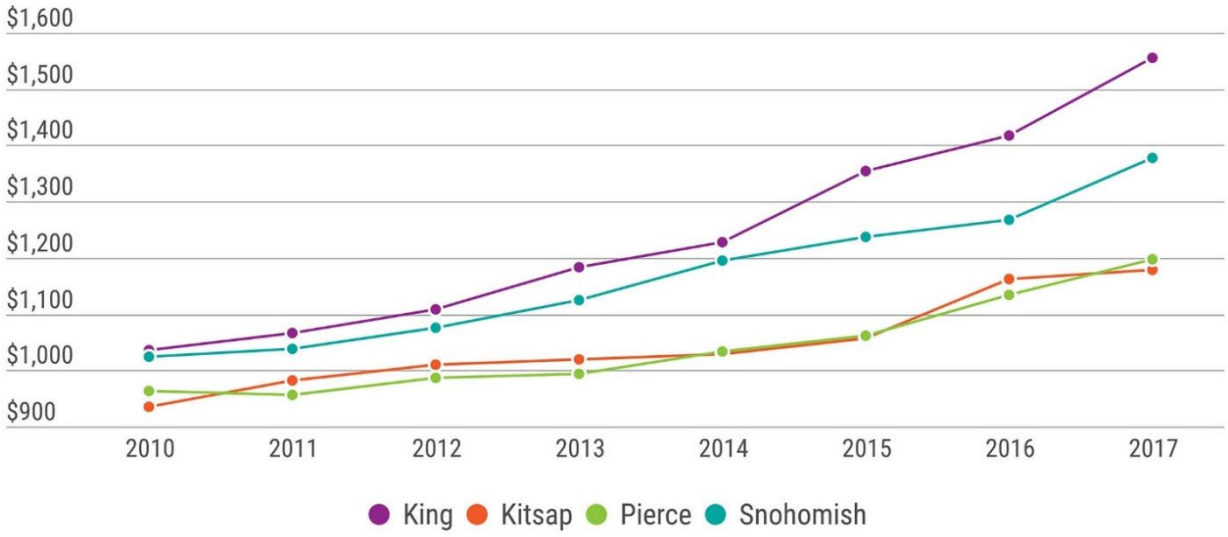
Figure 2.3-2. Median Home Value by County, 2010–2017



Source: Washington Center for Real Estate Research | UW Runstad Department of Real Estate

Similar to home prices, median rent has also risen significantly since 2010 (Figure 2.3-3). From 2010 to 2017, median rent increased by 50 percent in King County, 34 percent in Snohomish County, 26 percent in Kitsap County, and 24 percent in Pierce County. While median rents are increasing across the region, the counties also show a widening gap in rent.

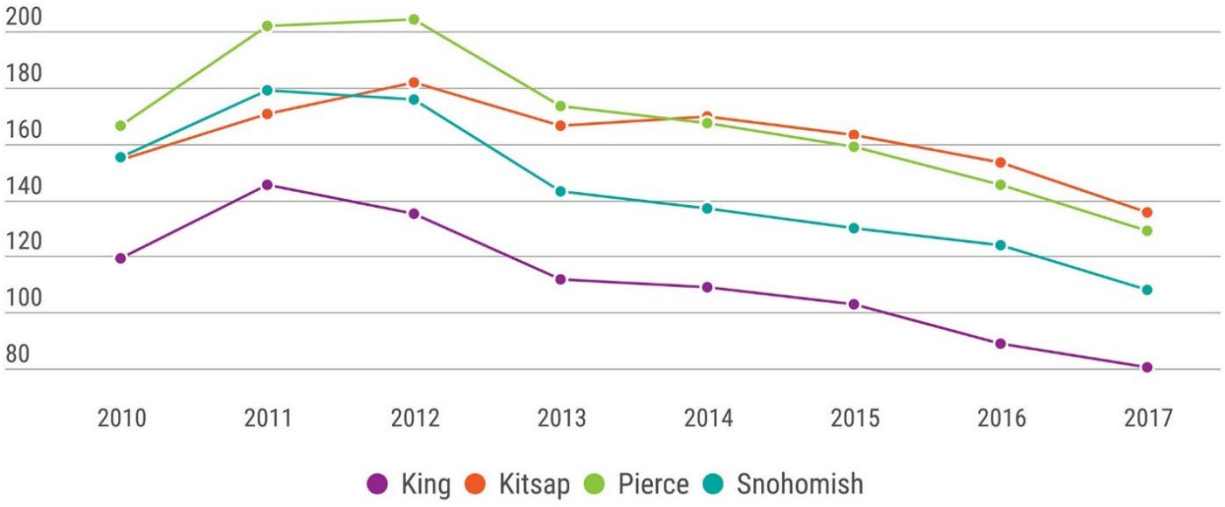
Figure 2.3-3. Median Rent by County, 2010–2017



Source: U.S. Census Bureau American Community Survey 1-Year estimates

Homeownership opportunities are becoming less accessible to middle- and lower-income households. The Washington Center for Real Estate Research maintains a Housing Affordability Index to track, at the county level, the affordability of the median-priced single-family home for the typical family earning median family income. An index of 100 indicates balance between income and home prices; higher indices indicate greater affordability, and lower indices indicate less affordability. Quarterly indices indicate that affordability has been decreasing across all four counties since the early 2010s. King County has been below the 100 threshold over the last two years, while the other three counties have remained above (Figure 2.3-4).

Figure 2.3-4. Housing Affordability Index by County, 2010–2017



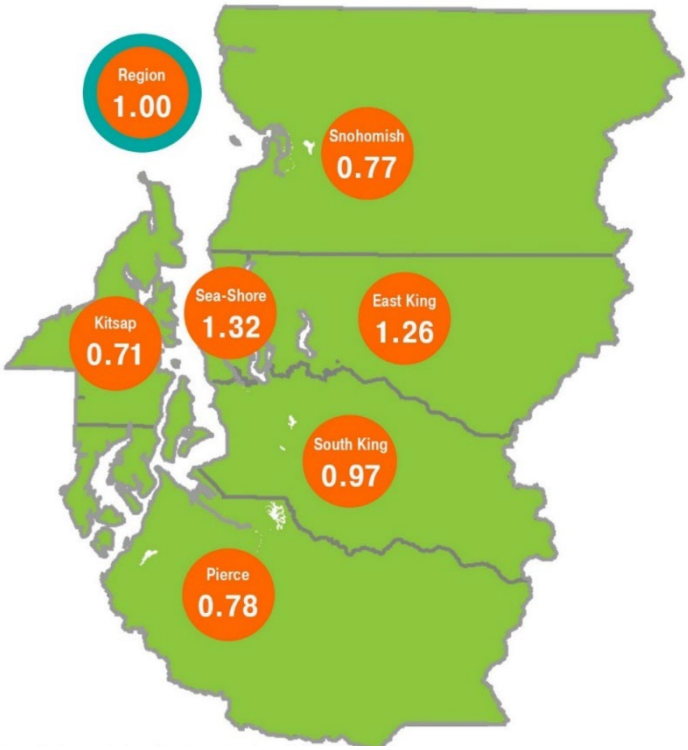
Source: Washington Center for Real Estate Research

A recent case study completed by PSRC indicates that moderate-density housing tends to offer more affordable ownership options than either low- or higher-density housing options; however, as depicted in Table 2.3-1, moderate density occurs in smaller quantities throughout the region (PSRC 2018h).

Jobs-housing balance is a planning concept that advocates for housing and employment to be located close together. A jobs-housing ratio compares the number of jobs in relation to the number of housing units in a given area. A lack of housing, especially housing affordable to moderate- and low-income households close to job centers, will push demand for affordable homes to more distant areas, increasing commute times and development pressure outside of the urban growth area, which could lead to natural resource impacts and higher household transportation costs. A "balance" of jobs and housing is achieved when a community attains roughly the regional average ratio.

Figure 2.3-5 highlights variation in the jobs-housing index among major subareas and counties of the region. All ratios were indexed to the regional average. Subareas in King County include "Sea-Shore" (Seattle, Shoreline), "East King" (Mercer Island, Newcastle, and all cities north to the county line, east of Lake Washington), and "South King" (Renton, Tukwila, Burien, and all cities south to the county line). Sea-Shore (1.32) and East King (1.26) have the highest indices of the six subareas, indicating they are relatively employment-rich areas. Meanwhile, the indices for Kitsap (0.71), Snohomish (0.77), and Pierce (0.78) counties are lower, indicating that they are relatively housing rich. South King (0.97) is roughly equivalent to the regional average.

Figure 2.3-5. 2017 Subarea Jobs-Housing Index[1]



Source: PSRC

[1] All jobs-housing ratios were indexed to the regional average.

2.4 Land Use

Land use policies drive urban and rural growth. With increased population, employment, and housing growth over the last decade, regional land use patterns have remained similar, with added population and employment focused in urban growth areas and additional dispersed growth outside of the urban growth area. This section updates regional land use, regional growth centers, and manufacturing/industrial centers, and provides new discussion of transit-oriented development.

2.4.1 Regional Land Use

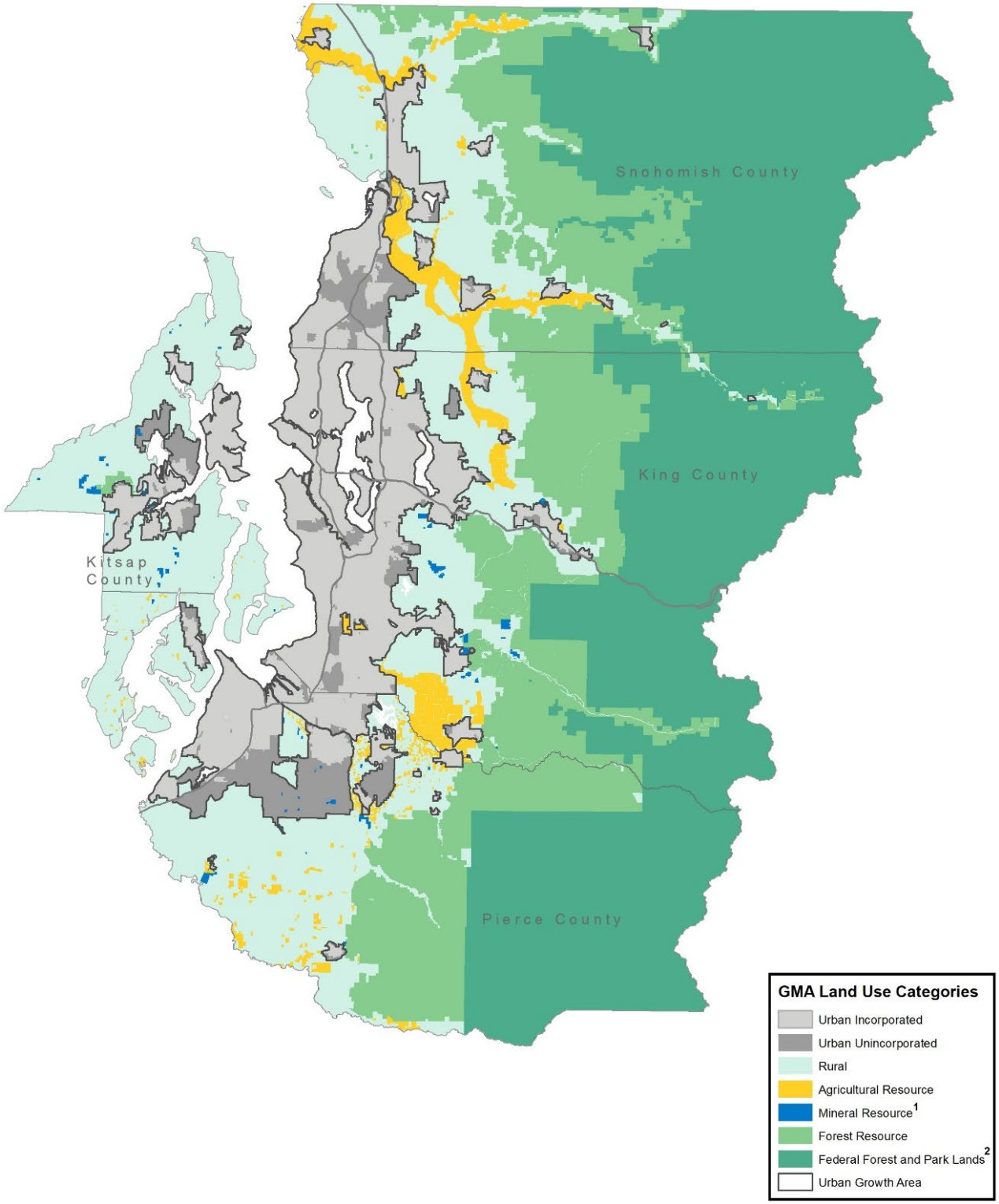
GMA defines three main land use types: urban, rural, and natural resource. Urban lands are divided into lands located within an incorporated municipality and urban unincorporated lands in counties. Natural resource lands are further defined as agricultural, forest, and mineral lands. The overall distribution of these land use types is depicted on Figure 2.4-1 and described in greater detail below. The total square miles by land use type as shown in Figure 2.4-2 is similar to that described in the VISION 2040 FEIS across the region and for each county.

The vast majority of the region's population, employment, and housing is contained inside the region's designated urban growth areas, as shown in Table 2.4-1. Throughout the region from 2005 to 2017, there was an increase in the percentage of population and housing within the urban growth area, from 85 to 87 percent for population and 86 to 88 percent for housing. The region's percentage of employment within the urban growth area has remained constant at 96 percent.

Growth Management Act (GMA): Establishes the underlying framework for local governments and state and regional agencies to establish comprehensive plans. Related to land use, these plans designate urban growth areas and describe how population and employment growth would be accommodated within each jurisdiction.

Urban Growth Areas: Areas where "urban growth shall be encouraged and outside of which growth can occur only if it is not urban in nature" (RCW 36.70A.110).

Figure 2.4-1. Regional Land Use

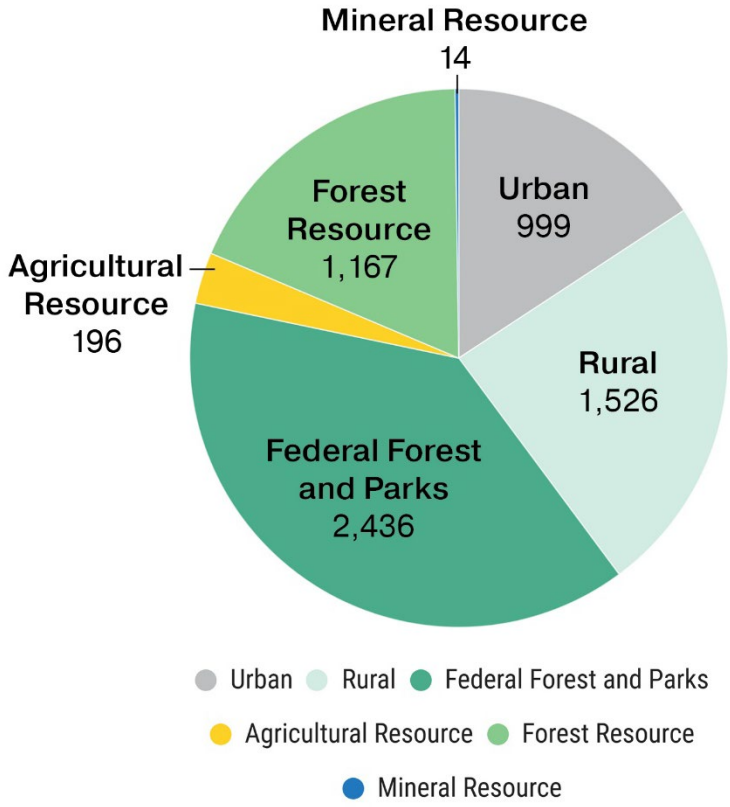


Source: PSRC, County Comprehensive Plans

Notes: [1] Snohomish County's mineral zoning overlay is not accounted for in this figure.

[2] National park and forest lands are designated as resource lands by some counties but not others; for consistency, all national park and forest lands are reported separately from resource lands in this map.

Figure 2.4-2. Land Area by Type Under GMA, Square Miles, 2017



Source: PSRC, County Comprehensive Plan and Zoning Data

Urban Lands: Lands where growth is intended to be concentrated to reduce conversion of undeveloped land and encourage development where public facilities and services exist or can be provided efficiently. These lands occur within a designated urban growth area.

Rural Lands: Rural lands are those lands not designated for urban growth, agriculture, forest, or mineral resources. These lands may consist of a variety of uses and densities.

Natural Resource Lands: Lands not already characterized by urban growth and characterized as one of the following:

- Agricultural lands that have long-term significance for commercial production.
- Forest lands that have long-term significance for commercial production.
- Mineral resource lands that have long-term significance for extraction of minerals.

Table 2.4-1. Population, Employment, and Housing Inside Designated Urban Growth Area, 2017

	Population	Percent in UGA*	Employment	Percent in UGA	Housing Units	Percent in UGA
King County	2,154,000	94%	1,456,000	98%	922,000	95%
Kitsap County	264,000	60%	104,000	79%	111,000	62%
Pierce County	859,000	81%	358,000	94%	346,000	81%
Snohomish County	789,000	83%	316,000	92%	308,000	83%
Region	**4,067,000**	**87%**	**2,233,000**	**96%**	**1,687,000**	**88%**

Source: PSRC, WA Office of Financial Management
* UGA = urban growth area

Figure 2.4-3 shows parcel sizes in the region's rural areas. The distribution of parcel sizes is similar to that in the VISION 2040 FEIS, showing that parcels smaller than five acres are the dominant size and are located throughout the land designated as rural. Larger parcels (over five acres) tend to be located further from the urban growth areas, with larger tracts in southwestern Pierce County and western Kitsap County. Compared to 2004, the current distribution of rural parcel sizes remains similar:

- 84 percent of parcels were less than five acres in size.
- 10 percent of parcels were between five and 10 acres in size.
- 6 percent of parcels were greater than 10 acres in size.

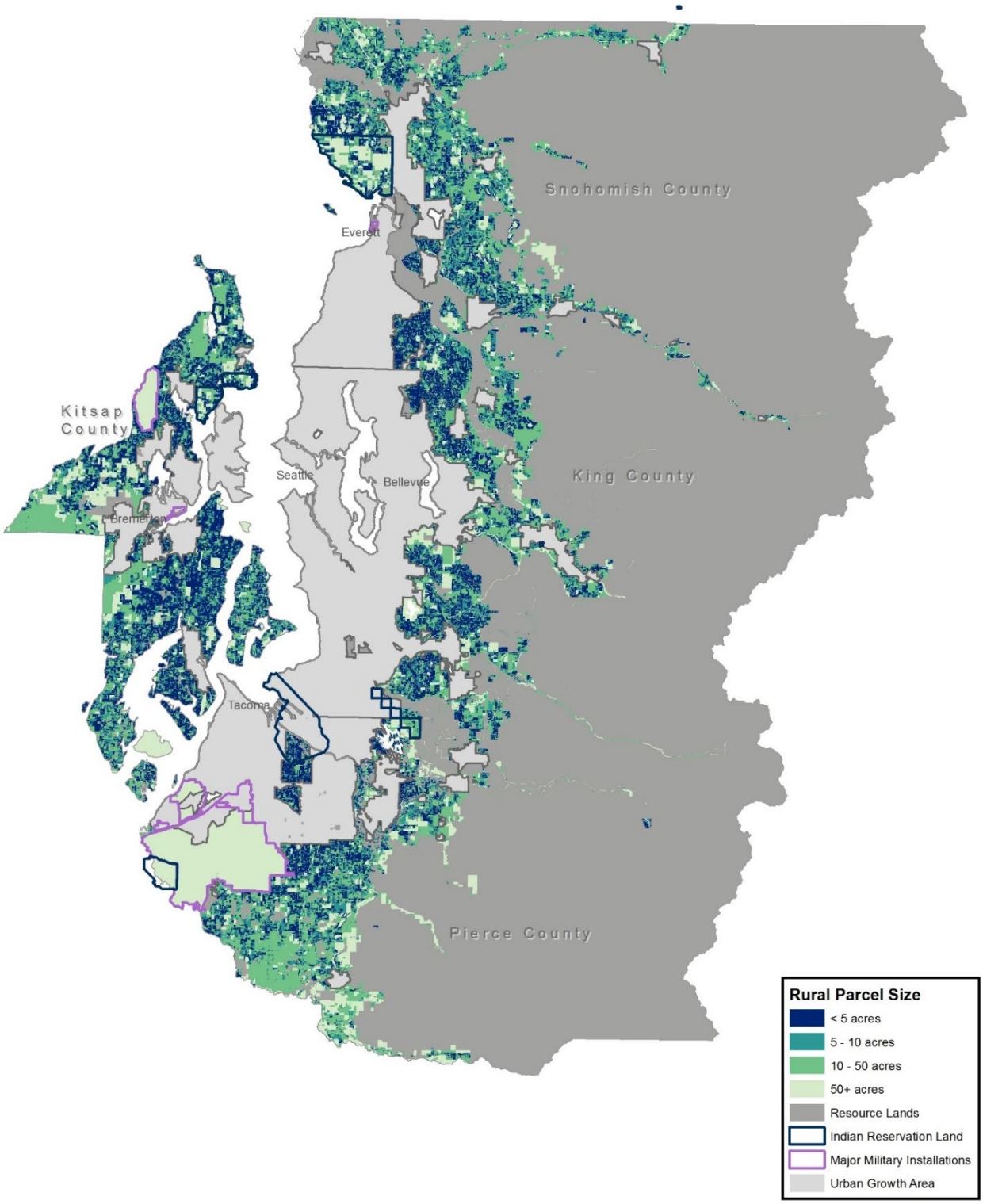
Total agriculture, forest, and mineral resource lands throughout the region are similar to those described in the VISION 2040 FEIS.

As described in the VISION 2040 FEIS, shorelines and critical areas are governed by the state of Washington's Shoreline Management Act and critical areas regulations.

The purpose of the Shoreline Management Act is to regulate development on the shoreline. The primary responsibility for administering shoreline regulations is assigned to local governments, with a significant oversight role by the Washington State Department of Ecology (Ecology).

Under GMA, cities and counties are directed to designate critical areas and adopt critical areas regulations. Critical areas include wetlands, critical aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas. The purpose of critical areas regulation is to preserve natural resources and protect public health and safety by limiting development in ecologically important areas and areas prone to natural hazards such as floods and landslides.

Figure 2.4-3. Parcel Size in Rural Areas



Source: PSRC

2.4.2 Regional Growth Centers and Manufacturing/Industrial Centers

Centers play a central role in VISION 2040, VISION 2050, and the Regional Growth Strategy. They guide regional growth allocations, advance local planning, inform transit service planning, and represent priority areas for PSRC's federal transportation funding. Growth in centers supports regional goals such as supporting multimodal transportation options, compact growth, jobs-housing balance, climate goals, and access to opportunity. There are two types of designated centers: regional growth centers and manufacturing/industrial centers.

Regional growth centers are focal points of higher-density population and employment, with efficient multimodal transportation infrastructure and services.

Manufacturing/industrial centers are large blocks of urban manufacturing and industrial uses served by the region's transportation network.

Figure 2.4-4 shows the designated regional growth centers and manufacturing/industrial centers. Designated regional growth centers are as described in the VISION 2040 FEIS, with the addition of Issaquah in King County and University Place in Pierce County. The manufacturing/industrial centers are the same as described in the VISION 2040 FEIS, with the addition of Sumner-Pacific in Pierce County and Cascade Industrial Center in Snohomish County. The South Kitsap Industrial Center name has been changed to Puget Sound Industrial Center–Bremerton. The 2013 Regional Centers Monitoring Report (PSRC 2014a) includes additional information on land uses, growth trends, and other existing conditions in regional centers. The 2016 Regional Centers Framework Update Background Paper provides additional data updates on growth trends in regional centers and the 2018 Regional Centers Framework Update provides designation and planning requirements for regional centers (PSRC 2016, PSRC 2018i).

In 2017, approximately 6 percent of the region's population was located in centers, which is a 2 percentage point gain over the year 2000. In 2017, 31 percent of the region's jobs were located in regional growth centers, and 10 percent of the region's jobs were located in manufacturing/industrial centers (PSRC 2018i). Regional growth centers added about 121,000 jobs from 2010 to 2017. Manufacturing/industrial centers added about 28,000 jobs from 2010 to 2017. From 2010 to 2017, 37 percent of regional job growth was located in regional growth centers and 8 percent was located in manufacturing/industrial centers.

Figure 2.4-4. Map of Designated Regional Growth Centers and Manufacturing/Industrial Centers

Source: PSRC

2.4.3 Transit-Oriented Development

Transit stations can serve as a link between land use and transportation—connecting residents and workers to jobs and services in the rest of the region and offering access to nearby civic and public spaces. Well-designed transit-oriented communities can lead to a range of substantial social and environmental benefits.

> **Transit-oriented development** is the development of housing, commercial space, services, and job opportunities near public transportation. Such development is intended to reduce dependency on automobiles, as well as to improve mobility and access between residences, jobs, and services (PSRC 2019b). Generally speaking, transit-oriented development results in compact and walkable communities built around transit stations. Transit-oriented development land uses are present in communities throughout the region although it functions differently at stations in or near manufacturing/industrial centers to protect industrial uses and jobs.

Transit-oriented communities have the potential to:

- Provide economic benefit to the region.
- Promote health and safety by encouraging walking and biking, cutting air pollution, reducing motor vehicle collisions, and increasing access to healthy food.
- Lower household expenses for transportation and support housing affordability.
- Reduce municipal infrastructure costs.
- Help meet the growing demand for "walkable communities."
- Reduce sprawl and thereby help conserve farms and natural ecosystems and protect water quality.
- Cut energy consumption and greenhouse gas emissions associated with both transportation and the built environment.

Since the VISION 2040 FEIS was published, transit-oriented development has occurred around existing light rail stations and other transit station areas. With Sound Transit's high-capacity transit expansion, the implementation of Kitsap County's Fast Ferries program, and the continued development of local transit investments around the region, these transportation investments have the potential to serve a large share of the region's growth.

To support this opportunity, a regional initiative—the Growing Transit Communities Partnership—has brought together a regional coalition of governments, non-profit organizations, business groups, and community stakeholders to promote the successful development of thriving and equitable communities within walking distance of current and planned public transportation services in the region (PSRC 2018c).

Table 2.4-2 shows the current population and employment in high-capacity transit station areas. High-capacity transit station areas are within a half-mile of light rail, commuter rail, ferry, and streetcar stops and a quarter mile from bus rapid transit stops. King County has

substantially higher percentages of population and employment located in high-capacity transit areas than the other counties, at 30 percent population and nearly 60 percent employment. Kitsap, Pierce, and Snohomish counties all have less than 10 percent of the population living near high-capacity transit. Pierce and Snohomish counties have approximately 25 percent of all employment located within high-capacity transit areas, and Kitsap County less than 20 percent.

Table 2.4-2. Percentage of Population and Employment in Proximity to High-Capacity Transit, 2017

	Percent Population and Employment in Proximity to High-Capacity Transit
King County	42%
Kitsap County	8%
Pierce County	14%
Snohomish County	11%
Region	29%

Source: PSRC

2.5 Transportation

Since the VISION 2040 FEIS, continued investment has been made throughout the region to add capacity to the transportation system—expanding transit service, improving roadways, and adding bicycle and pedestrian facilities. In addition to traditional capacity projects, over the last decade technology has been evolving and changing the transportation landscape. Established technologies such as transit signal priority, dynamic lane control, and mobile-based shared mobility services (Uber, Lyft) have been implemented throughout the region. Dockless bike share services are proliferating across the region, offering new transportation choices. Meanwhile, emerging technologies in the form of autonomous and connected vehicles are poised to potentially shift the transportation system in ways that are not completely understood.

This section describes the existing transportation system and planned investments that will contribute to changes in the affected environment compared to the VISION 2040 FEIS. The transportation system includes:

- Transit
- Active Transportation (bicycle and pedestrian network)
- Roadway Systems
- Ferry
- Regional Aviation System
- Intercity Passenger Rail and Passenger Bus
- Freight
- Transportation Demand Management
- Transportation Technology

The affected environment for VISION 2050 includes the planned investments described in the Regional Transportation Plan, which PSRC adopted in May 2018. This plan describes how the region will meet transportation needs over the next two decades and keep pace with expected growth (PSRC 2018c). It implements the VISION 2040 Regional Growth Strategy by targeting transportation investments that ensure people can get to work and recreation, freight and goods movement can supply businesses and people, and ports can continue to function as regional and global gateways.

2.5.1 Transportation System Capacity Improvements

The Regional Transportation Plan contains a variety of planned investments to increase mobility, both at the local and regional scale. Of the larger scale projects included in the plan, approximately:

- 70 percent of all projects are multimodal, containing elements that support a variety of travel options.
- 73 percent are within the designated urban growth area, 22 percent are partially within the urban growth area, and 5 percent are outside the urban growth area.
- 41 percent of the projects directly access a regional growth or manufacturing/industrial center, and 69 percent are within a city that contains a regional center.

Examples of anticipated transit, ferry, and roadway investments are depicted in Figure 2.5-1 and described in further detail below. In addition to being included in this SEIS, impacts of these system capacity projects were reviewed in the Transportation 2040 FEIS (PSRC 2010). Project-level environmental reviews will be conducted when the projects are ready to proceed.

Transit

Public transit supports the region's goals of providing transportation choices and access to opportunity, reducing air pollution, connecting to regional growth centers, and serving as a catalyst for economic and transit-oriented development. Since the VISION 2040 FEIS, substantial transit infrastructure expansion has been built and additional infrastructure is now planned. Public transportation boardings in the central Puget Sound region have grown faster since 2005 than in any other large metropolitan area in the United States. Kitsap Transit, Community Transit (serving Snohomish County), King County Metro, Pierce Transit, and Sound Transit have updated their long-range plans to meet the needs of the expanding population. The implementation of these transit agency plans will result in a robust transit network throughout the region. Highlights of service expansions from these transit agencies include:

- Sound Transit: Voters in the Sound Transit district passed the Sound Transit 2 investment package in 2008 and the Sound Transit 3 investment package in 2016. Sound Transit began operation of its light rail system in 2009 and updated its Long-Range Plan in 2014. Implementation of new light rail and bus rapid transit service is underway. Sound Transit 3 provides a plan and funding for connecting the region with various modes of high-capacity transit through 2040. The completion of Sound Transit 3 will result in approximately 116 miles of light rail transit, 90 miles of commuter rail, and expanded bus rapid transit and express bus service (Sound Transit 2016). Development of Sound Transit 3, along with continuing efforts to integrate public transit services, created an

impetus for agencies throughout the region to develop or update their own long-range transit plans, resulting in a robust transit network throughout the region.

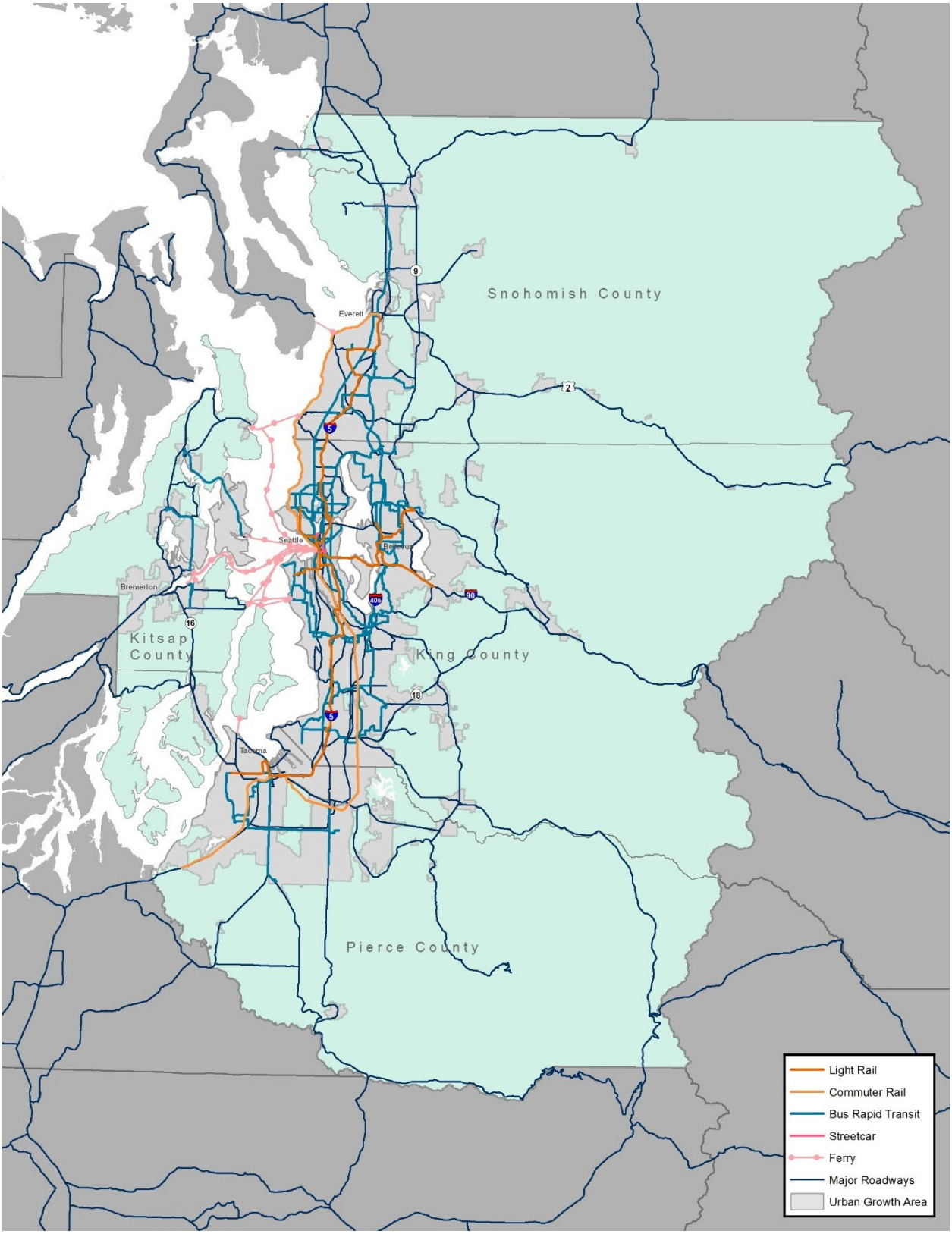
- King County Metro: King County Metro began service on its first RapidRide line in 2010. METRO CONNECTS, the King County Metro Long-Range Plan (adopted January 2017), envisions an expansion from six RapidRide bus rapid transit lines to 26 in 2040 and an overall system service increase of 70 percent by 2040 (King County Metro 2017).
- Pierce Transit: Destination 2040, the Pierce Transit Long-Range Plan (adopted April 2016) explores potential high-capacity transit options along key corridors (e.g., Route 1 – Pacific Avenue and 6th Avenue, and Route 2 – Bridgeport Way) as well as general service expansion throughout the county (Pierce Transit 2016). The agency is updating their long-range plan in 2020.
- Community Transit: Community Transit launched the state's first bus rapid transit line in 2009 between Everett and Shoreline. The Long-Range Transit Plan (adopted March 2011) identifies 13 transit emphasis corridors, six of which will support future bus rapid transit service expansion. Overall the plan will roughly double current service hours (Community Transit 2011).
- Kitsap Transit: The Kitsap Transit Long-Range Transit Plan presents a Transit Corridors Vision Map, which outlines service improvement focus areas that provide service to urban growth areas and connect them along designated transit corridors (Kitsap Transit 2016). New transit corridors between Bainbridge Island and Poulsbo and between Bremerton and Silverdale are anticipated in addition to corridor improvements along existing transit corridors.

Active Transportation

The active transportation network—infrastructure that serves pedestrians and bicyclists—is a critical element of the region's mobility strategies. The region now has over 450 miles of regional trails/shared-use paths (PSRC 2018c). The Regional Active Transportation Plan (Appendix L of the Regional Transportation Plan) provides a framework for how the region's communities can provide increased, connected, and safer options for people to walk and bike to their destinations. The plan includes a regional bicycle network and pedestrian networks to designated regional centers and transit station areas as a framework for regional and local nonmotorized transportation planning and investment.

Investments in active transportation identified in the Regional Transportation Plan are anticipated to result in a 50 percent increase in biking and walking for transportation purposes compared to 2017 conditions. This is a result of investments in the active transportation network and population and employment opportunities anticipated to be created near a more robust transit system.

Figure 2.5-1. Regional Transportation Network, 2040



Source: PSRC

Roadway Systems

The regional system currently has about 24,000 miles of roadways that carry more than 86 million vehicle miles of traffic per day. Major investments have occurred since the VISION 2040 FEIS, including the Connecting Washington state and local highway funding package approved in 2015 and various local initiatives, resulting in many projects in the Regional Transportation Plan being fully funded and moving toward completion. The arterial and highway investments included in the Regional Transportation Plan implement the VISION 2040 Regional Growth Strategy by creating and maintaining a highly connected network of multimodal roadway facilities, and by providing transportation choices and supporting various types of travel within the urban growth area, with a particular emphasis on improving accessibility to jobs and destinations.

Ferry

Passenger and auto ferry services support the region's land use and transportation objectives by providing an effective transportation option that can reduce travelers' dependence upon cars and reduce congestion. Over 24 million customers annually rely on the Washington State Ferries division's 23 vessels and 20 ferry terminals for safe, reliable transportation across Puget Sound.

The Regional Transportation Plan includes adding 16 new vessels by 2040 to replace older vessels as they come due for retirement, as well as to accommodate a forecast 30 percent increase in ridership by 2040. Between 2030 and 2040, four 144-car ferries and two 188-car ferries will need to be replaced. Terminal investments will be necessary to continue to operate efficient and productive auto and passenger ferry service. Washington State Ferries terminal investments in the plan include Mukilteo Multimodal Terminal relocation and improvements, and Seattle Colman Dock improvements and seismic upgrades.

In November 2016, Kitsap County voters approved a ballot measure that allowed Kitsap Transit to begin fast ferry service connecting Bremerton to downtown Seattle in July 2017 and Kingston to downtown Seattle in November 2018. Kitsap Transit has additional plans to add new passenger-only ferry routes, from Southworth to downtown Seattle. The plan includes improvements to existing passenger terminals, and new terminal facilities and docks to support the new cross-Sound routes. These include improvements at West Seattle, Bremerton, Port Orchard, Seattle, Kingston, and Southworth.

In addition, King County Marine Division operates popular passenger-only ferry service from Vashon Island and West Seattle to downtown Seattle, providing important additional water transportation options.

Regional Aviation System

The existing regional airport system consists of 24 public use airports and two military airfields. The portion of the regional airport system that is included in the metropolitan transportation system consists of the region's two primary airports—Sea-Tac International Airport and Boeing Field—and the region's four general aviation reliever airports—Paine Field, Renton Municipal Airport, Harvey Field, and Auburn Municipal Airport.

Several of these airports are in the process of updating master plans. The master planning processes will provide additional information in support of future regional transportation plans. One emerging theme is a need for a comprehensive technical assessment of capacity constraints in the regional air transportation system. PSRC received a grant from the Federal Aviation Administration to conduct a Regional Aviation Baseline Study, with an expected completion date of fall 2020. Regional planning for future system needs embraces the strategies and recommendations contained in the Washington Aviation System Plan completed in 2017 (Washington State Department of Transportation [WSDOT] 2017). One of those recommendations is that the state take the lead in addressing future airport capacity needs. Any future regional system planning process would likely take the form of a joint effort between PSRC, the state, and other key stakeholders.

Intercity Passenger Rail and Bus Service

Intercity passenger rail and intercity passenger bus services provide long-distance transportation and connections for all types of trips, offer an alternative to automobile and air travel, and can help reduce the congestion, energy use, and environmental impacts of highways. Notable service changes or planning updates include:

- In late 2019, WSDOT started developing a new Service Development Plan that will identify the next round of rail projects to reduce travel times, increase reliability, and increase capacity for Amtrak Cascades between Portland, Oregon, and Vancouver, British Columbia.
- Intercity bus service in the region is provided by a variety of private companies, including Greyhound, Bolt Bus, Northwest Trailways, and WSDOT-funded Dungeness Line. WSDOT is planning an update to its Intercity Bus Plan in the coming years.

Freight

Efficient movement of freight and goods through the transportation system is important in maintaining quality of life, strengthening the region's economy, and leveraging the central Puget Sound region's strategic position as a critical gateway for international trade. The Regional Transportation Plan notes that regional freight forecasts show growth in freight movement, with truck tonnage growing 56 percent, and freight rail tonnage growing 51 percent by 2040.

The central Puget Sound region's freight and goods transportation system consists of a multimodal network that includes roadway, rail, air, marine, and pipeline operations. This includes:

- Roadway facilities include major trade corridors, as well as national, state, and local roadway links. International trade for the central Puget Sound region is served by Interstate 5 (I-5) and Interstate 405 (I-405) for north-south connectivity and by Interstate 90 (I-90) for east-west connectivity, as well as State Route (SR) 3 and SR 16 for north-south connectivity in Kitsap County.
- Rail includes both Class 1 rail facilities of the BNSF and the Union Pacific railroad mainlines that support international and regional cargo as well as a number of short line railroads that support the regional industries.

- Marine and air cargo facilities include the Port of Everett, Northwest Seaport Alliance (cargo operations for ports of Seattle and Tacoma), and air cargo facilities at Sea-Tac, Boeing Field, and Paine Field.
- Pipeline capacity is provided primarily by the Olympic pipeline, which carries gasoline, diesel, and jet fuel along its 299 miles from Blaine, Washington, to Portland, Oregon.

Highway, transit, and local roadway projects that expand transportation capacity and improve mobility through transportation efficiency improvements, such as transportation demand management or technology, directly affect freight movement. The Regional Transportation Plan includes investments that will support freight movement. Some examples of strategic freight capacity projects in the regional plan include:

- Canyon Road Freight Corridor Improvements (Pierce County) — connects the planned employment center in Frederickson with the Port of Tacoma and destinations northward.
- 41st Street Rucker Avenue Freight Corridor (Everett) — arterial and access improvements from Port of Everett to I-5 on West Marine View Drive to Rucker Avenue to 41st Street with improvements to better accommodate over-dimensional freight traffic and increasing general freight traffic.
- South Lander Street Grade Separation (Seattle) — develop a grade separation of the roadway and the BNSF Railway mainline railroad tracks between 1st Avenue South and 4th Avenue South.
- WSDOT Puget Sound Gateway Program — the Puget Sound Gateway Program is comprised of two unique projects, SR 509 and SR 167, which, together, make major improvements to manage traffic congestion and improve freight mobility.

Additional details on freight and goods movements throughout the region are provided in Appendix J of the Regional Transportation Plan. In addition, PSRC's Freight Briefing Paper provides considerations for improving freight through local land use and regional transportation planning processes (PSRC 2019c).

2.5.2 Transportation System Efficiency Improvements

Transportation system efficiency improvements include strategies for enhancing system efficiency and mobility without adding capacity to the system. These improvements fall into two main categories: transportation demand management and transportation technology.

Transportation Demand Management

> **Transportation demand management** refers to activities that help people use the transportation system more efficiently by promoting alternatives to driving alone, shifting trips out of peak travel periods, or eliminating the need for trips.

Transportation demand management activities occur throughout the entire region and are implemented by a range of public and private sector organizations. These activities are beneficial to enhancing the existing transportation system because they can be tailored to address specific situations and contexts and can be implemented quickly and at low cost. Examples of enhancing

the existing system include parking management and shared mobility services such as bikeshare, carshare, and ride-hailing services. A complete list of objectives, strategies, and actions can be found in the Regional Transportation Demand Management Action Plan (Appendix F of the Regional Transportation Plan). Additional considerations on transportation technology (connected and automated vehicles and shared mobility services) and integration with parking, right-of-way and access, infrastructure, and development patterns can be found in PSRC's Technology Briefing Paper (PSRC 2019d).

Transportation Technology

The Regional Transportation Plan contains recommended regional strategies for both established and emerging technologies. The overall purpose is to make the best use of rapidly evolving technologies in the near term and to forge a path for leveraging benefits, minimizing disruptions, and aligning with regional policy goals in the long term. Both established and emerging technologies are critical and will likely become increasingly intertwined in the coming years.

Existing technology is in use today that provides operational efficiencies and mobility improvements for a variety of users. These include the use of Intelligent Transportation Systems such as freeway ramp metering, adaptive signals, coordination of traffic signals, transit signal priority, and other tools to improve traffic flow and safety for cars, buses, bicyclists, and pedestrians. In addition, a variety of information tools help travelers make more informed decisions and travel with greater efficiency and convenience. These include navigation and real-time traffic services (e.g., Waze, Google Maps), real-time arrival mobile applications (e.g., OneBusAway), options to pay fares and fees via mobile apps (e.g., PiercePay), and other tools that allow for more efficient and effective travel planning. Technology investments support projects such as managed lanes on the interstates, express toll lanes, and other innovative methods of managing travel flow.

Autonomous vehicles, also known as self-driving cars, are vehicles that navigate the roadway with limited or no human interaction. They use an array of in-vehicle technologies to process their surroundings, detect road signage and markings, and determine the most suitable navigation path.

Connected vehicle technology allows vehicles to transmit and receive important mobility, safety, and other information in real time. Communication can occur with other vehicles, traffic lights, pedestrians and bicyclists, and any other entity that may interact with or affect the vehicle.

In recent years, there has been a rapid increase of potentially transformative transportation technologies. Emerging technologies such as connected and autonomous vehicles have the potential to disrupt the transportation system and alter the way people travel. However, the technology landscape is in a constant state of change and is continuously evolving.

An increasing amount of private sector investment is going toward developing and advancing both autonomous vehicle and connected vehicle technology; however, projections of where and when the technologies will be available are wide-ranging. Additional detail on existing and emerging technologies is described in Appendix N of the Regional Transportation Plan and PSRC's Technology Briefing Paper (PSRC 2019d).

2.6 Air Quality and Greenhouse Gas Emissions

Over the last two decades, levels of many pollutants have decreased and air quality has improved overall. In 2017 and 2018, there were several periods when wildfire smoke caused degraded air quality (Puget Sound Clean Air Agency [PSCAA] 2018a, PSCAA 2018b). As the climate changes, wildfire smoke could increasingly degrade air quality. This section updates the status of the Puget Sound region for the six criteria air pollutants and greenhouse gas emissions.

2.6.1 Pollutants of Concern

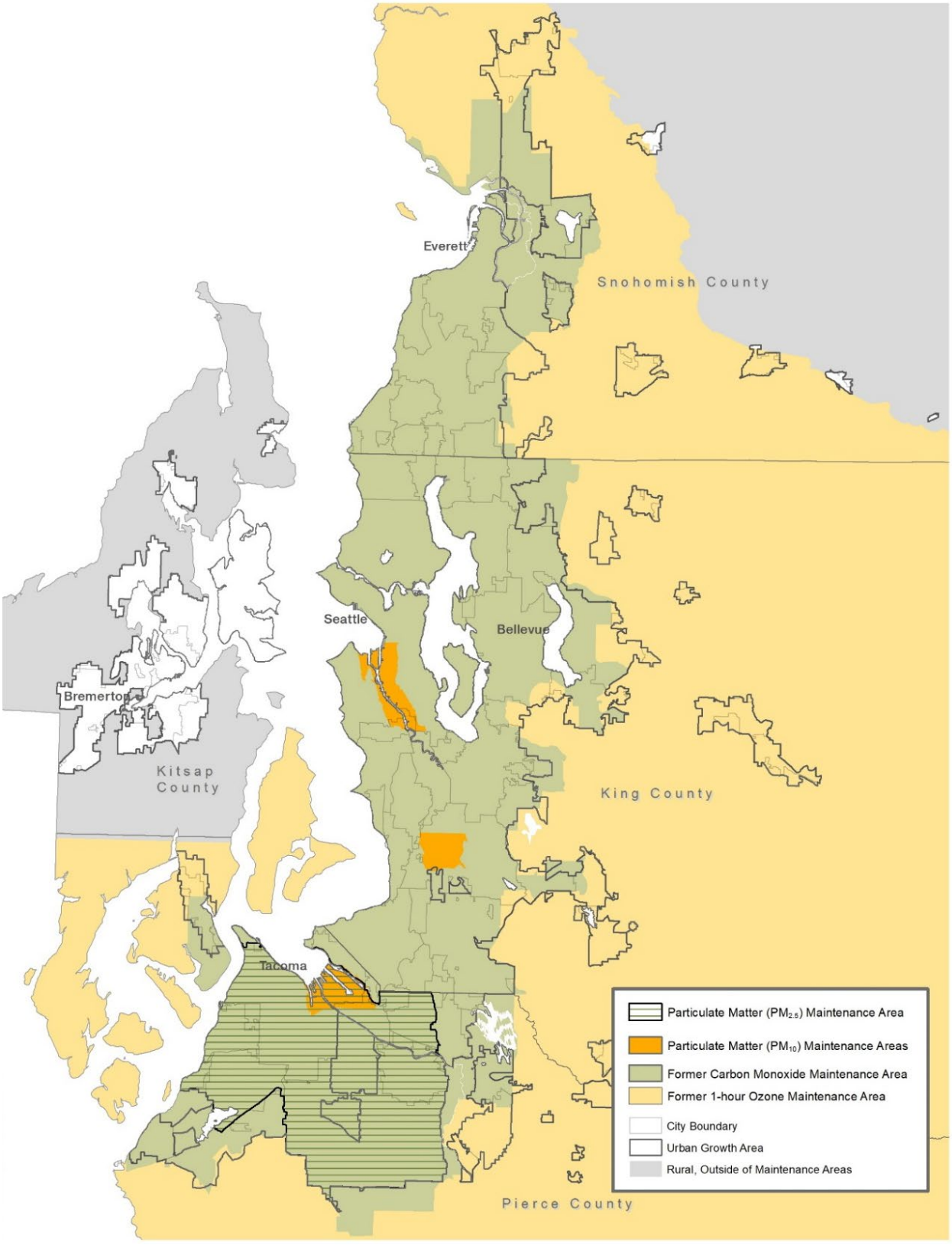
The description of the regional physical setting and details of each pollutant of concern remain the same as described in the VISION 2040 FEIS. The federal Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for six criteria air pollutants: particulate matter (PM) (fine particulates, $PM_{2.5}$; and coarse particulates, PM_{10}), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen dioxide (NO_2), and lead. Since the VISION 2040 FEIS, the NAAQS have changed slightly, with updated standards as shown in Appendix B.

Areas of the country that have experienced exceedances of the NAAQS may be designated by the EPA as "nonattainment" for a particular pollutant. The Clean Air Act requires states to develop a general plan to attain and maintain the NAAQS in all areas of the country, and a specific plan to attain the standards for each area designated nonattainment for any pollutant. These plans, known as State Implementation Plans, are developed by state and local air quality management agencies and submitted to the EPA for approval. A nonattainment area that has demonstrated pollutant concentration levels below the NAAQS may be redesignated to "attainment." These areas are subject to an EPA-approved maintenance plan included as part of the State Implementation Plan and are commonly referred to as maintenance areas.

The Puget Sound region is in attainment for all pollutants regulated by EPA. At various points in the past, the region has violated the federal standards for several pollutants, but PSRC has worked closely with the region's air quality consultation partner agencies—the EPA, the Federal Highway Administration, the Federal Transit Administration, Ecology, WSDOT, and PSCAA—to successfully achieve and maintain attainment of the standards set forth in the Federal Clean Air Act. Within the Puget Sound region, there is currently one $PM_{2.5}$ maintenance area and three PM_{10} maintenance areas (Figure 2.6-1). The Seattle-Tacoma area was previously a maintenance plan area for carbon monoxide and ozone but the 20-year period for those plans expired in 2016 as the areas continued to achieve federal air quality standards throughout the required maintenance plan period.

PSRC stays abreast of all current federal and state standards and adjusts accordingly when standards are revised. The region is currently meeting all federal and state air quality standards and continues to monitor for all pollutants.

Figure 2.6-1. Central Puget Sound Region Designated Maintenance Areas



Source: PSRC

2.6.2 Greenhouse Gas Emissions and Climate Change

Gases that absorb and trap heat in the atmosphere are called “greenhouse gases.” As the amount of greenhouse gases in the atmosphere increases, the amount of heat trapped by the atmosphere also increases, causing the overall warming of the planet. This warming is referred to as global warming. The impacts from global warming are referred to as climate change (PSCAA 2018c).

The major greenhouse gases include ozone, carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons. They come from both natural processes as well as human activities, though increases in the human-made greenhouse gases are most responsible for disrupting the balance of the atmosphere (PSCAA 2018c).

Many cities, counties, and other organizations in the region have adopted greenhouse gas emission reduction targets, which vary in breadth and timeframes. For example, King County adopted targets to reduce greenhouse gas emissions 25 percent by 2020, 50 percent by 2030, and 80 percent by 2050, from a 2007 baseline. In 2017, the PSCAA adopted the following regional targets for reducing greenhouse gas emissions:

- By 2020, reduce emissions to 1990 levels
- By 2030, reduce emissions to 50 percent below 1990 levels
- By 2050, reduce emissions to 80 percent below 1990 levels

The state of Washington's greenhouse gas emission reduction targets are to (Ecology 2019a):

- By 2020, reduce overall greenhouse gas emissions to 1990 levels
- By 2035, reduce overall greenhouse gas emissions 25 percent below 1990 levels
- By 2050, reduce overall greenhouse gas emissions 50 percent below 1990 levels

Policy around greenhouse gas emissions and climate change continues to evolve at the local, state, and national levels, and new provisions under consideration now and in the future may be applicable to future implementation of VISION 2050. Governor Jay Inslee has proposed updating the state’s greenhouse gas targets to be consistent with the most recent assessment of climate change science. In addition, the governor directed Ecology to prepare new guidance on assessment of greenhouse gas emissions and requirements for mitigation (Ecology 2019c).

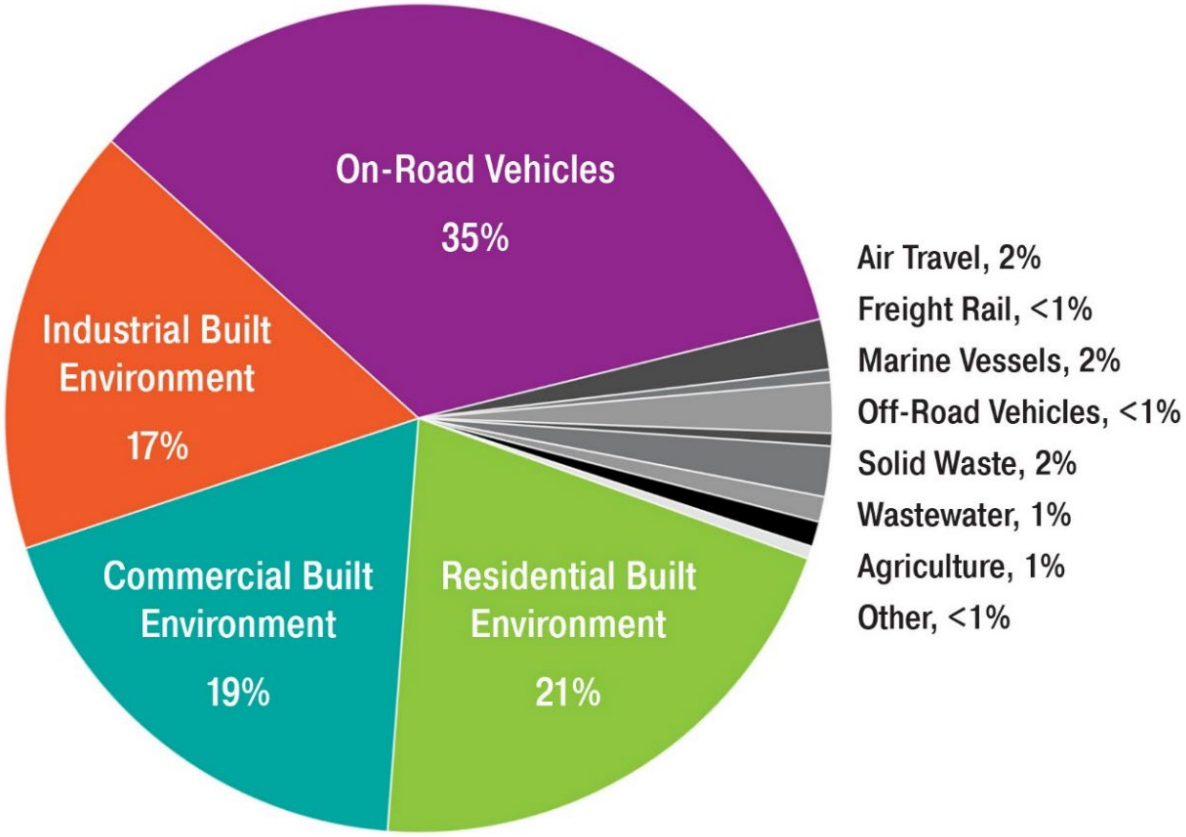
In 2005, PSCAA conducted the first comprehensive greenhouse gas inventory of its four-county area, which includes King, Pierce, Snohomish, and Kitsap counties. This report was updated for the year 2015 (PSCAA 2018c). Sources of greenhouse gas emissions in the region are shown in Figure 2.6-2. Because different methodologies were used for the greenhouse gas inventories, a direct comparison is not available from 2005 to 2015.

How are greenhouse gases inventoried?

PSCAA follows the U.S. Community Protocol—a framework for providing accurate community-level estimates of greenhouse gas emissions. The 2015 inventory for PSCAA adheres to the Community Protocol and includes emissions from transportation and building energy use, water and wastewater treatment and conveyance, land use changes, and solid waste transport and disposal.

The measure for reporting greenhouse gases is the CO_2e, or "carbon dioxide equivalent." CO_2e is a term for describing different greenhouse gases in a common unit. For any quantity and type of greenhouse gas, CO_2e signifies the amount of CO_2 that would have the equivalent global warming impact.

Figure 2.6-2. Sources of Greenhouse Gas Emissions for the PSCAA Area in 2015



Source: PSCAA

In addition, the report describes the following key findings:

- In 2015, the largest sources of community greenhouse gas emissions were the built environment (commercial, residential, and industrial sectors [57 percent]) and transportation (on-road vehicles, air travel, freight rail, marine vessels, and off-road vehicles [38 percent]).
- Emissions from solid waste (2 percent), wastewater (1 percent), and agriculture (1 percent) were minimal in the Puget Sound region in 2015.
- Passenger vehicles comprise the largest share of transportation emissions (74 percent), followed by freight and service vehicles (14 percent).

Regional greenhouse gas emission reduction efforts are supported by the Regional Transportation Plan's Four-Part Greenhouse Gas Strategy, consisting of strategies centered around land use, user fees, transportation choices, and technology. Major strides have been made in advancing the region's Four-Part Greenhouse Gas Strategy over the past several years. Of particular importance is the adoption of updated federal fuel economy and greenhouse gas standards for passenger vehicles and trucks. Implementation of the current Regional Transportation Plan and the land use pattern described in the VISION 2040 Regional Growth Strategy would result in a 24 percent reduction in greenhouse gas emissions from 2006 levels (PSRC 2018c).

The reduction of greenhouse gas emissions is not just a regional issue, but an issue of national and international importance. The Intergovernmental Panel on Climate Change (IPCC) issued a special report on understanding global warming and greenhouse gas emissions in the context of strengthening the global response to the threat of climate change (IPCC 2018). Key findings include (IPCC 2018):

- Human activities are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels, with a likely range of 0.8°C to 1.2°C. Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate.
- Warming from anthropogenic emissions from the pre-industrial period to the present will persist for centuries to millennia and will continue to cause further long-term changes in the climate system, such as sea level rise, and associated impacts.
- Future climate-related risks depend on the rate, peak, and duration of warming. Some impacts may be long-lasting or irreversible.
- Adaptation and mitigation are already occurring. Future climate-related risks would be reduced by the upscaling and acceleration of far-reaching, multilevel, and cross-sectoral climate mitigation and by both incremental and transformational adaptation.

The EPA also offers additional information on land use and development in the context of limiting greenhouse gas emissions and notes smart growth policies that contribute to both mitigating and adapting to climate change (EPA 2020). These factors include compact building patterns, reuse of existing infrastructure and buildings, location of key facilities in close proximity to limit driving, and preservation of green space. VISION 2050's Regional Growth Strategy alternatives and multicounty planning policies implement these strategies.

2.7 Ecosystems

The affected environment for several components of the ecosystem is similar to the description provided in Section 5.5.1 of the VISION 2040 FEIS. These resources include wildlife, aquatic resources, and biological diversity, as well as factors that affect ecosystems resources such as land use, impervious surfaces, and invasive species[2]. This section provides an updated discussion on resources that have experienced change: regionally significant habitat, threatened and endangered species, regional ecosystem planning and restoration efforts, and climate change.

2.7.1 Regionally Significant Habitat

The Washington Department of Fish and Wildlife's (WDFW) Priority Habitat and Species List shows that geographic distribution of priority habitat and species continue to favor undeveloped areas, major waterways, and green spaces (WDFW 2018). Priority habitat is largely outside of the urban growth area. Part of the goal for implementing an urban growth area is to allow non-urban areas to maintain their natural resource value. At a regional level, the distribution of regionally significant habitat is similar to that described in the VISION 2040 FEIS, but since that time there likely has been loss of habitat due to continued development outside of the urban growth area and on larger undeveloped parcels within the urban growth area (see Section 2.4). For instance, PSRC's Regional Open Space Conservation Plan reports that between 2010 and 2015 there were 1,589 permitted housing units in aquatic system lands[3] and 3,354 permitted housing units in natural lands[4] (PSRC 2018j). Continued development in these areas of higher ecological value leads to degraded ecosystems through fragmentation, loss of habitat, and water quality impacts.

2.7.2 Threatened and Endangered Species and Critical Habitat

The VISION 2040 FEIS discusses the designation of critical habitat under the Endangered Species Act. Section 7 of the Endangered Species Act requires federal agencies to consult with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service to assist the agencies in ensuring that federal actions are not likely to jeopardize the existence of a listed species or destroy or modify its designated critical habitat or essential fish habitat. Finally, Section 9 of the Endangered Species Act makes it unlawful to "take" individuals of an endangered or threatened species, which includes significant habitat modifications that would result in impairment of a species' essential behavioral patterns.

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[2] Note that, unless specified, "species" refers to all animal and plant species.

[3] Aquatic system lands include lands that support clean drinking water, mitigate flood hazards, and support healthy habitat for salmon and other aquatic life (PSRC 2018j).

[4] Natural lands are areas important for supporting wildlife, preserving ecosystems, and providing opportunities for recreation and experiencing nature (PSRC 2018j).

Key species listed as threatened or endangered under the Endangered Species Act include the Southern resident killer whale (orca), Hood Canal summer-run chum salmon, Puget Sound Chinook salmon, bull trout, and the marbled murrelet (small seabird that nests in old-growth forests). Additional species found regionally have been listed under the Endangered Species Act since the VISION 2040 FEIS was published and are described in the following list, along with whether critical habitat is present in the region (U.S. Fish and Wildlife Service 2018, National Oceanic and Atmospheric Administration [NOAA] 2018):

- Roy Prairie Pocket Gopher (threatened; no critical habitat has been formally designated within the region)
- Streaked Horned Lark (threatened; no critical habitat has been formally designated within the region)
- Yellow-billed Cuckoo (threatened; no critical habitat has been formally designated within the region)
- Oregon Spotted Frog (threatened; no critical habitat has been formally designated within the region)
- Taylor's Checkerspot (threatened; no critical habitat has been formally designated within the region)
- Puget Sound steelhead (threatened; critical habitat has been formally designated within the region)
- Puget Sound/Georgia Basin rockfish (threatened; critical habitat has been formally designated within the region)

2.7.3 Relevant Plans, Studies, and Court Rulings

Several plans have been developed since the 2008 publication of the VISION 2040 FEIS that inform regional ecosystem resources and strategies for preservation or restoration. The following summarizes the purpose of each plan and key findings.

The PSRC Regional Open Space Conservation Plan (PSRC 2018j) maps the regional open space network and identifies priority conservation actions needed to sustain open spaces and critical ecological systems. Some of these actions are relevant for VISION 2050 planning. This plan is discussed in greater detail in the Parks and Recreation section below. It includes identification of strategies for protection of key habitat areas through maintenance of a stable urban growth area, incorporation of the regional open space network into land use decisions, and restoration of habitat in high-value areas to support wildlife and recover salmon and orca populations.

As briefly described in the VISION 2040 FEIS, in 2007 the state Legislature formed the Puget Sound Partnership to focus on restoring and protecting the ecosystems in the Puget Sound. The 2019 State of the Sound (Puget Sound Partnership 2019) states that "Despite a significant investment of energy and resources from federal, tribal, state, and local governments and non-governmental partners, habitat degradation continues to outpace restoration." The plan describes in detail a series of ecosystem recovery goals and indicators ("vital signs") to track progress in meeting those goals. The Puget Sound Partnership tracks more than 50 indicators

of ecosystem condition (described in detail, here: https://vitalsigns.pugetsoundinfo.wa.gov/). These indicators are measures of ecosystem health that guide the assessment of progress toward Puget Sound recovery goals. Of these indicators with 2020 targets, four indicators are meeting or near the 2020 and the remaining 27 are below their 2020 target. Of the 27 indicators that are not projected to meet the 2020 target, 10 are showing progress, 3 are showing decline, 9 are having mixed results, and 7 are not changing (Puget Sound Partnership 2019).

Key takeaways from the 2019 State of the Sound report:

- The Center for Whale Research reported in August 2019 that the population of endangered Southern Resident orcas fell to 73[5].
- The primary factor contributing to the decline of the Southern Resident orcas is lack of Chinook salmon, the primary prey of Southern Residents. Likewise, Pacific herring, a critical food source for Chinook salmon, are also not faring well.
- The abundance of Chinook salmon is well below recovery goals and populations have changed very little since the species was listed as threatened in 1999. Likewise, Pacific herring stocks are currently below both their 2020 targets and baselines, set as a 25-year average from 1986 to 2010.
- Contaminants found in both Chinook salmon and herring, caused by pollution, contribute to these declines. Reported contaminant levels represent a health risk for the fish themselves and are risky enough for humans that fish consumption advisories seek to limit their consumption.

The 2018 State of Salmon in Watersheds (Governor's Salmon Recovery Office 2018) reports on the statewide status of salmon recovery and watershed health. As with the State of the Sound report, the 2018 State of Salmon report notes areas of improvement and also areas lacking progress. Key findings from this report include:

- The recovery goals for most Puget Sound Chinook salmon populations have been set, but none of the populations have reached these goals. Some populations have shown promising growth in recent years, while others continue to struggle.
- While the region is making progress in terms of hatcheries, harvest, and nearshore restoration, this progress is being offset with challenges in other areas such as general habitat loss, disease, predation, and invasive species.
- In addition, warming oceans, changing stream environments, shifting food webs, fish passage barriers, stormwater management considerations, poorly managed development, and climate change are playing a greater role.
- Puget Sound is home to 59 listed populations of Chinook salmon, steelhead, and bull trout, most of which continue to decline. The greatest challenge is balancing the needs of the more than 4 million people living in the Puget Sound region, while also protecting and restoring critical salmon habitat.

[5] The Southern Resident orca population continues to decline and as of January 2020, consisted of only 72 individuals (Orca Network 2020).

Washington's Statewide Wildlife Action Plan (WDFW 2015) is a comprehensive plan that informs conservation of the state's fish, wildlife, and habitat, and provides tools and resources to support conservation initiatives. The plan updates the 2005 Comprehensive Wildlife Conservation Strategy. The major changes include:

- Modification to criteria used to determine species of greatest conservation need.
- Significant changes to the way habitat was described and classified.
- Integration of climate change discussion.

The King County Land Conservation Initiative (King County 2017) builds on previous bonds and levy programs that have been enacted since the 1960s. This initiative aims to protect and secure 65,000 acres of high ecological value lands that are at highest risk in the next 30 years.

The Sustainable Lands Strategy was established in 2010 by Snohomish County, the Tulalip and Stillaguamish tribes, state and federal agencies, and agricultural and environmental stakeholders to improve coordination and generate progress for fish, farm, and flood management interests. The Sustainable Lands Strategy identified four major river reaches in Snohomish County on which to focus its multi-benefit planning approach to develop its own plan to address its unique needs and priorities. Plans have been developed or are in the process of being developed for the following river reaches: Lower Skykomish River, Lower Stillaguamish River, Stillaguamish River, and Snohomish River and Estuary.

In addition, several watershed-based Salmon Recovery Plans have been updated. This includes the 2015 Snohomish Basin Protection Plan, 2017 Lake Washington/ Cedar/Sammamish River Watershed Chinook Salmon Conservation Plan, and 2018 Salmon Habitat Protection and Restoration Strategy for the Puyallup and Chambers watersheds. The overarching strategies of these plans are to support salmon recovery efforts and prevent the degradation of salmon habitat.

In 2001, 21 northwest tribes, joined by the United States in U.S. v. Washington, sought a court determination that Washington state has a duty to preserve fish runs and habitat, specifically targeting state-owned culverts that impede fish passage. The resolution of the case in June 2018 in favor of the tribes ordered the state of Washington to fix or replace culverts that impede fish passage by 2030. The ruling affects WSDOT, the Washington State Department of Natural Resources (WDNR), WDFW, and the Washington State Parks and Recreation Commission (MRSC 2018). The state is currently working to repair or replace culverts that impede salmon migration.

These plans, studies, and court rulings highlight the challenges facing ecosystems in the Puget Sound region and the importance of preservation and restoration efforts; however, adequate funding of preservation and restoration is a concern. The 2019 State of the Sound report highlights that lack of funding continues to limit the implementation of near-term actions. Inadequate and unreliable funding continues to be a major barrier to achieving a healthy regional ecosystem, and the prohibitive costs to preserve and restore habitat could continue to be exacerbated as the region continues to grow.

2.7.4 Climate Change

As discussed in the VISION 2040 FEIS, the effect of climate change on ecosystems is highly complex and interrelated. Increased temperatures and altered precipitation patterns are leading to earlier flowering of plants, shifted species distributions, and changes in the timing of migration, hatching, and breeding for wildlife (Case et al. 2015).

Not all species respond similarly to climatic change, which makes ecosystem management challenging. Since the VISION 2040 FEIS, additional efforts have been undertaken to understand the climate change sensitivity of species in northwestern North America (Case et al. 2015). Managing species in the face of such changes will require an understanding of which species will be most susceptible to future climate change and what factors will increase vulnerability or resilience (Case et al. 2015). WDNR is using a Climate Change Vulnerability Index to distinguish species that may be most vulnerable to change throughout the state to guide policymakers and land managers to inform conservation efforts (WDNR 2018).

Maintaining habitat connectivity will also be important given the threat of climate change. Habitat connectivity allows wildlife populations to move safely to find food, reproduce, and migrate. As the climate has warmed over the past century, species have begun moving upward in both elevation and latitude. These shifts will become even more important over the coming century as climate change becomes more severe. Because landscapes are increasingly fragmented by human activities, providing and maintaining a connected network of habitats for wildlife to move through as conditions change will help conserve biodiversity into the future (Washington Wildlife Habitat Connectivity Working Group 2018).

Northwest coastal waters are among the most acidified in the world (Mote et al. 2014). Ocean acidification threatens culturally and commercially important marine species directly affected by changes in ocean chemistry (such as oysters) and those affected by changes in the marine food web (such as Pacific salmon). In addition, increasing coastal water temperatures and changing ecological conditions may alter the ranges, types, and abundance of marine species. Warmer water in regional estuaries (such as Puget Sound) may contribute to a higher incidence of harmful blooms of algae that could result in adverse economic impacts from beach closures affecting harvesting of shellfish (Mote et al. 2014). Additional climate change impacts on water resources are discussed in Section 2.8.

Climate change will likely alter forests throughout the region by increasing wildfire risk and insect and tree disease outbreaks, and by forcing longer-term shifts in forest types and species. These impacts will be driven by increased air temperature and prolonged droughts, which increase tree stress and mortality, tree vulnerability to insects, and fuel flammability (Case et al. 2015; WDFW 2015).

2.8 Water Quality and Hydrology

The affected environment for water resources remains similar to the discussion in Section 5.6.1 of the VISION 2040 FEIS for regional watersheds, general distribution of impaired waters, sole-source aquifers, critical aquifer recharge areas, large contiguous floodplains (Figure 2.8-1), wetlands, lakes, rivers, and streams. This section updates the affected environment for impervious surfaces, water-related climate change considerations, and updated stormwater regulations.

2.8.1 Impervious Surfaces

The VISION 2040 FEIS identified the amount of impervious surface as a key metric related to the health of the region's water resources. Increasing the amount of impervious surface may have numerous impacts stemming from altered stormwater hydrology. These impacts include reduced aquatic habitat from sediment transport and scour, degraded water quality through an increase of pollutants in stormwater, decreased aquifer recharge, and increased water temperature. In the last 20 years, regulations and policies have been implemented to control runoff and minimize hydrologic and water quality impacts from new development. In addition, stormwater management requirements for redevelopment can result in improvements to water quality, including emphasizing conservation and redirection (or repurposing) of water flows to wetland and wildlife basins to promote water resource recycling and aquifer recharge, as well as for natural areas, parks, and/or recreation purposes.

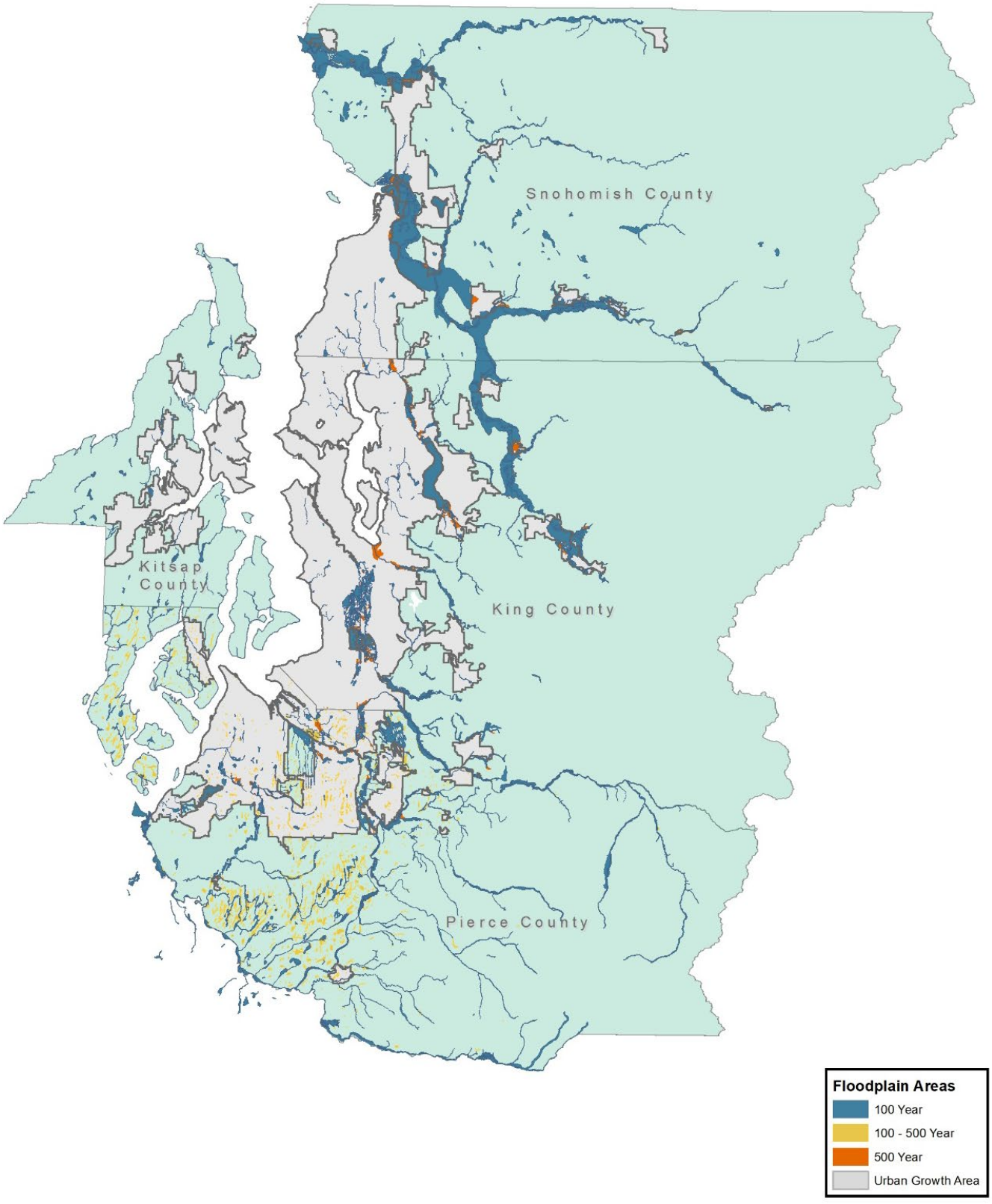
VISION 2040 FEIS Figure 5-6-2 depicted the areas in the region with 15 percent or greater impervious cover. This SEIS presents an updated analysis that models the total acreage of impervious surfaces throughout the region. These estimates for each county and the region are mapped in Figure 2.8-2 and shown in Table 2.8-1. King and Kitsap counties have the highest percentage of impervious surfaces at 9.4 and 9.1 percent, respectively, followed by Pierce County at 6.1 percent. Snohomish County has the lowest percentage of impervious surfaces at 4.0 percent.

Table 2.8-1. Impervious Surface Area by County, 2017

	Total Acres	2017 Impervious Surface Area (acres)	% of Area Covered by Impervious Surface
King County	1,374,000	129,600	9.4%
Kitsap County	255,000	23,400	9.2%
Pierce County	1,081,000	66,100	6.1%
Snohomish County	1,345,000	53,800	4.0%
Region	4,056,000	273,000	6.7%

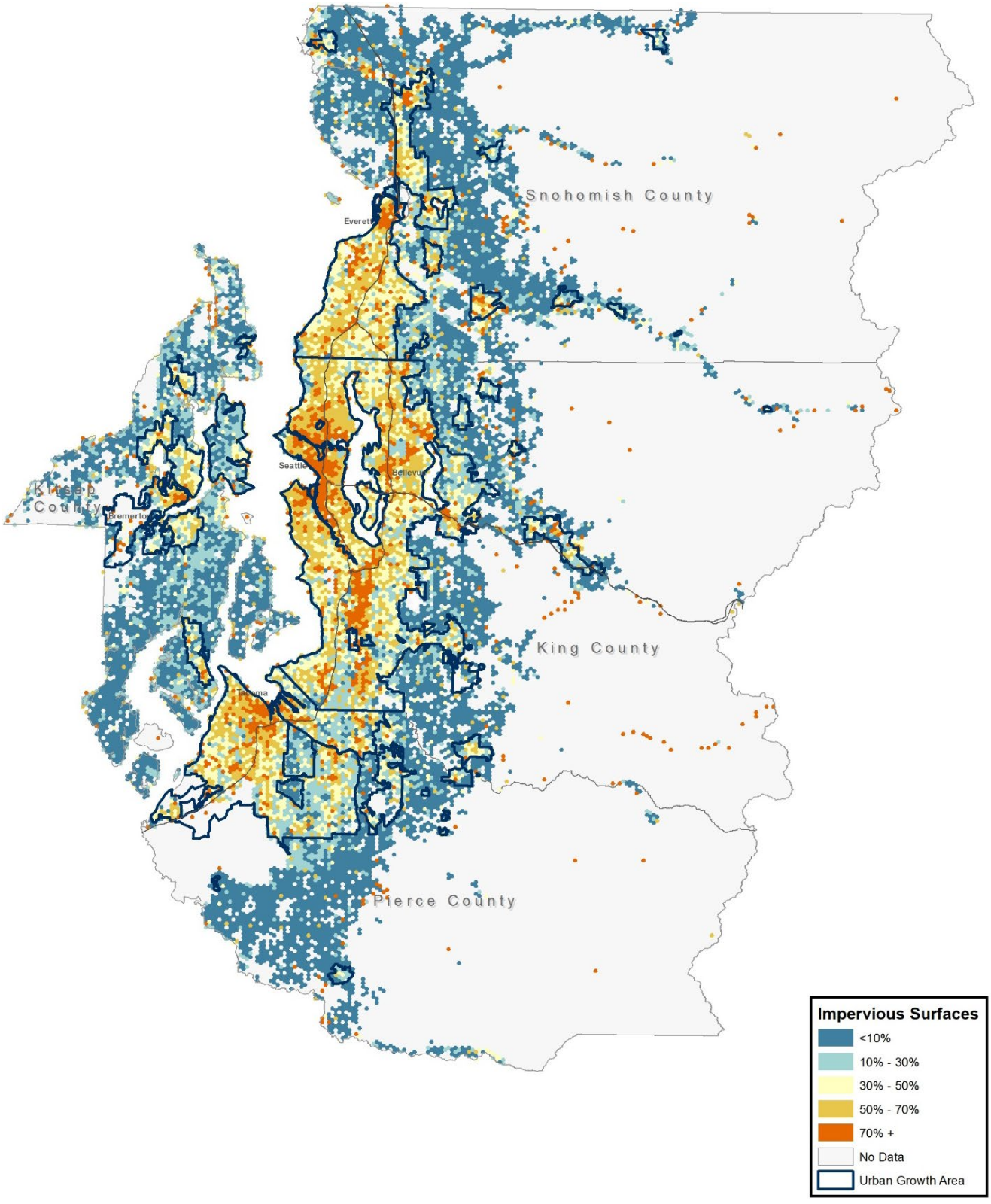
Source: PSRC, Parametrix

Figure 2.8-1. Floodplain Areas



Source: Federal Emergency Management Agency, county geographic information system departments

Figure 2.8-2. Impervious Surfaces



Source: PSRC, Parametrix

The analysis also calculated areas of uncontrolled/under-controlled impervious surfaces, defined as those impervious surfaces installed before stream-protection, duration flow-control stormwater management regulations were established and came into widespread practice (approximately 1996). If these areas are redeveloped, local hydrology and water quality would improve as the runoff from these surfaces is addressed through up-to-date stormwater management. Of the 273,000 total acres of impervious surfaces throughout the region, the majority (223,900 acres—or 82 percent) were built before more stringent stormwater regulations were established in approximately 1992 and came into widespread practice by 1996. Approximately 49,000 acres of newer impervious surfaces were built after 1996.

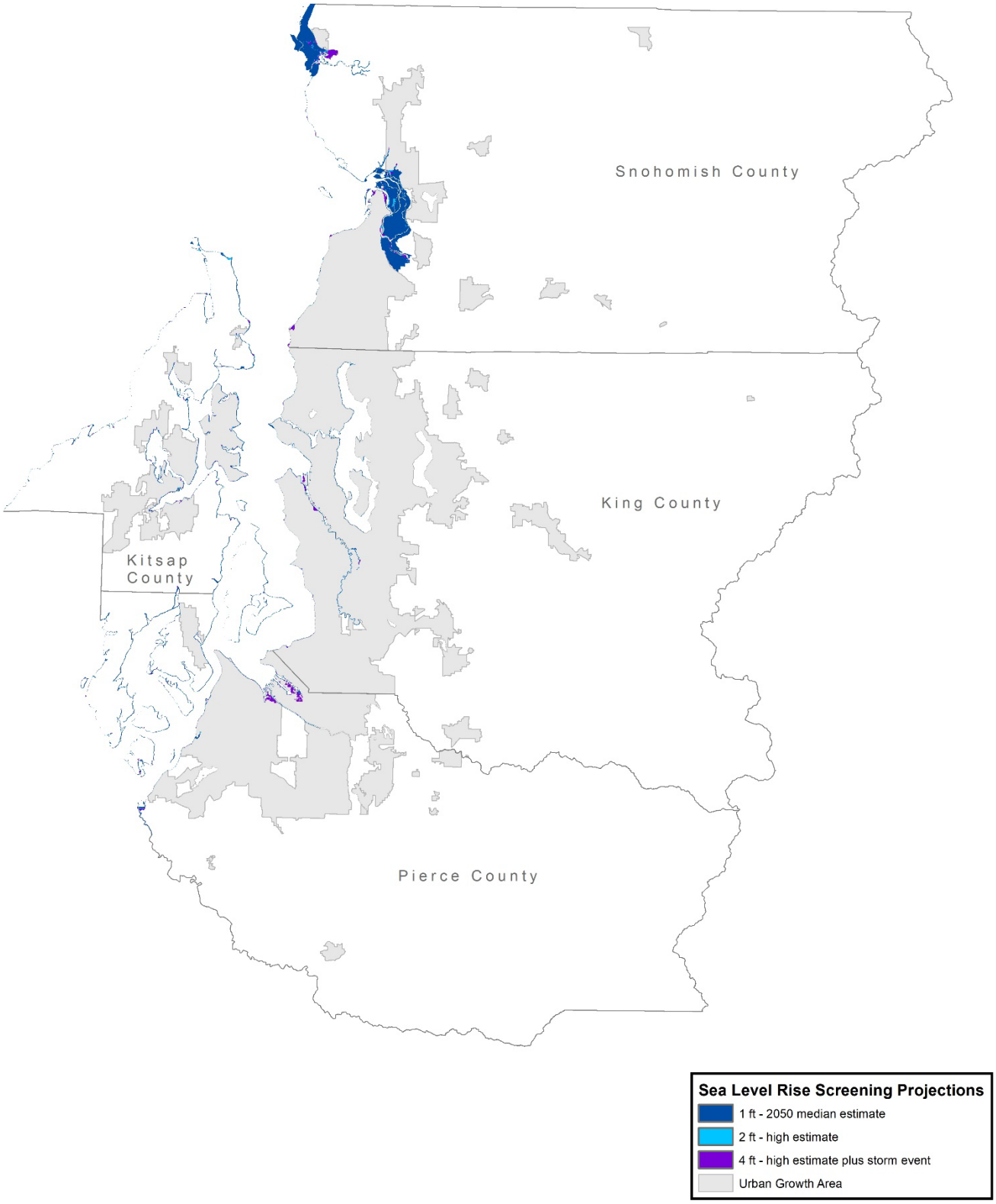
Although a direct comparison to the total amount of impervious surfaces from the VISION 2040 FEIS is not possible, new impervious surfaces (along with replaced impervious surfaces) generally increase as development occurs over time. Therefore, this analysis assumes that impervious surfaces have increased throughout the region since publication of the VISION 2040 FEIS.

2.8.2 Climate Change and Sea Level Rise

The 2014 National Climate Assessment (Mote et al. 2014) describes water quality and water supply-related impacts resulting from climate change. Increased air and water temperatures, more intense precipitation and runoff, and intensified droughts resulting from climate change could increase sediment loads, nitrogen concentrations, and other pollutant loads, thereby degrading water quality. Water supply may be affected through an increase in demand coupled with altered timing and quantity of streamflow. Effects include increased winter stream flows, reduced summer stream flows, decreased groundwater recharge, and prolonged droughts. Sea level rise, increasing frequency and intensity of storms and storm surges, and changes in surface and groundwater use patterns may compromise the sustainability of coastal freshwater aquifers and wetlands. As a result of these changes, water resource managers and planners must plan for new risks and vulnerabilities that may not currently be managed within existing practices.

In coastal areas, the effects of sea level rise also pose threats to coastal infrastructure, communities, and habitats. The Washington Coastal Hazards Resilience Network provides updated probabilistic relative sea level rise projections for 171 sites along Washington's coast, including sites in the central Puget Sound (Miller et al. 2018). These relative sea level rise projections can be used as a tool for communities to assess risk and for hazard mitigation planning. The Washington Coastal Hazards Resilience Network website (www.wacoastalnetwork.com) provides a Google map viewer and detailed mapping guidelines. Figure 2.8-3 illustrates potential areas of inundation in the region based on screening level projections of various sea level rise scenarios. The areas near the estuaries of the Stillaguamish, Snohomish, Duwamish, and Puyallup rivers and other low-lying coastal areas are most at risk of inundation. More detailed maps of potential inundation are available at the NOAA website (coast.noaa.gov/slr).

Figure 2.8-3. Areas of Potential Inundation



Source: NOAA Office for Coastal Management

2.8.3 Policies and Regulations

Federal, state, and local regulations are similar to those presented in the VISION 2040 FEIS. Since publication of the VISION 2040 FEIS in 2008, Ecology updated the Stormwater Management Manual for Western Washington (SWMMWW) in 2012 and amended it in 2014 and 2019. The updates include best management practices for protecting water quality from adverse stormwater impacts.

Cities and counties are required by their National Pollution Discharge Elimination System (NPDES) permit to adopt stormwater management regulations that meet or exceed the surface water protections established by Ecology's SWMMWW. Smaller cities or towns without an NPDES permit are not required to meet or exceed the regulations established by Ecology's SWMMWW.

In 2018, Washington state passed the Streamflow Restoration Law (RCW 90.94) in response to the "Hirst decision." Hirst was a 2016 Washington State Supreme Court decision that changed the way counties approve or deny building permits that use permit-exempt wells for a water source and limited a landowner's ability to get a building permit for a new home when the proposed source of water was a permit-exempt well (Ecology 2020a). The Streamflow Restoration Law helps restore streamflows while providing water for homes in rural areas (Ecology 2020a). The law clarifies how counties issue building permits for homes that use a permit-exempt well for a water source, and it directs local planning groups to develop watershed plans that offset impacts and achieve a net ecological benefit from new domestic permit-exempt wells (Ecology 2020a). The Legislature appropriated $300 million over 15 years to help with implementation of these projects (Ecology 2020a).

There are seven planning processes that impact these counties (Water Resource Inventory Areas 7, 8, 9, 10, 12, 13, 15). One plan is completed (Nisqually), and six planning processes are underway and scheduled for completion by June 2021. More information and updates on the planning process can be found at: https://ecology.wa.gov/Water-Shorelines/Water-supply/Streamflow-restoration

2.9 Public Services and Utilities

Since the VISION 2040 FEIS was published in 2008, counties, cities, towns, and special purpose districts have continued to plan for and provide public services and utilities that accommodate an increasing population and corresponding demand for services. This section describes utility planning updates, water supply considerations, and general service expansions that contribute to the affected environment for VISION 2050.

2.9.1 Utility Planning Updates

As described in the VISION 2040 FEIS, under GMA cities and counties are required to develop and adopt comprehensive plans that include long-range planning for future public service and utility needs. Among the requirements for comprehensive plans are a capital facilities plan element and utilities element.

The following summarizes the utility planning requirements for solid waste, wastewater, water, and stormwater utility providers:

- Solid waste – Each county is required to develop a Solid Waste Management Plan (RCW 70.95.020) to ensure solid waste and disposal capacity is in place over a 20-year period.
- Wastewater – Each wastewater utility is required to prepare a Comprehensive Sewer Plan (RCW 57.16) to document current operations and forecast future demand.
- Water – Each water utility is required to prepare a Water System Plan (WAC 246-290-100) to demonstrate how the system will address present and future needs.
- Stormwater – Larger cities and counties are required to adopt stormwater management regulations that meet or exceed the surface water protections established by Ecology's SWMMWW (discussed above in Section 2.8.3) to prevent adverse water quality impacts.

2.9.2 Water Supply Considerations

From 2000 to 2015, total public water supply consumption decreased from 546 million gallons per day to 393 million gallons per day. Use of groundwater and surface water sources remained similar to that described in the VISION 2040 FEIS in King, Kitsap, and Snohomish counties, while Pierce County saw a decrease in production from surface water and an increase in groundwater supply production (U.S. Geological Survey 2018). Specific sources of water described in the VISION 2040 FEIS remain the same, with Kitsap County primarily served by groundwater sources, and King, Pierce, and Snohomish counties primarily served by surface water from the three largest water purveyors—Seattle Public Utilities, Tacoma Water, and Everett Water/Snohomish Public Utility District.

The Water Supply Forum, a consortium of water suppliers in King, Snohomish, and Pierce counties, notes in the 2012 Regional Water Supply Update that water supply throughout the region is sufficient for current and future use. The document further states that "water is an increasingly precious commodity in some places, but in the central Puget Sound region there

will be sufficient quantities of high quality, great tasting water for the next 50 years, giving the region a competitive edge for the future... Collaborative planning and foresight have resulted in coordinated action that allows the region to deal with growth and uncertainty with well-planned but flexible portfolios of supply options" (Water Supply Forum 2012).

While the Puget Sound region anticipates the water supply is sufficient for current and future use, water resource managers and planners must plan for new risks and vulnerabilities such as climate change and unanticipated population growth. As noted in Section 2.8.2, climate change may exacerbate the current stresses on water resources from excessive water withdrawals, conflicts between water users, water quality degradation, and more frequent and intense droughts and floods (Ecology 2019b). In addition, wildfires, insect infestations, tree disease, land development, and other activities that can affect forests within these watersheds could alter the quality and quantity of drinking water available (Ecology 2019b).

To address some of these challenges, the Water Supply Forum published a Regional Water Supply Resiliency Project in 2016 with the purpose of helping the water utilities of King, Pierce, and Snohomish counties take proactive steps in evaluating and enhancing the region's water supply system resiliency across and between individual utility service area boundaries (Water Supply Forum 2016). Resiliency for water supply and quality was considered for the following risk events: earthquake, water quality risk events (wildlife, volcanic hazards, accidental contamination, etc.), drought, and climate change.

2.9.3 General Service Expansions

The provision of other services—fire protection and police services, health and medical services, and schools—is similar to that described in the VISION 2040 FEIS. In response to increased population and demand, additional services have been added since 2008. These services are planned for and provided in response to projected population growth, housing needs, and land use, as described below.

- Fire protection and police services: Fire districts (including some city fire departments) develop plans that are consistent with county, city, and town comprehensive plan elements that project future growth.
- Health and emergency medical services (including hospitals): Public health departments/agencies within each county inventory facilities, forecast future needs, and create finance plans to develop services to meet future needs.
- Schools: As noted in the VISION 2040 FEIS and required by GMA, the capital facilities plan of each county, city, and town requires inventory of existing schools owned by public entities, assessment of projected needs, and determination of new facility locations. Each plan also requires expansion of existing facilities and a six-year financing plan to fund all construction. In 2017, two GMA bills passed (codified in RCW 36.70A.211-213) that provide guidance on how new schools may be sited outside urban growth areas under limited circumstances, and how the extension of public facilities and utilities may be authorized to serve those schools.

2.10 Parks and Recreation

Open spaces provide considerable physical and mental health benefits, contribute to a high quality of life, and provide critical ecosystem habitat. This section updates Section 5.8.1 of the VISION 2040 FEIS and describes:

- Existing parks and open space resources
- Access to parks and open space
- Key findings from the PSRC Regional Open Space Conservation Plan
- Climate change

2.10.1 Existing Open Space Resources

The regional inventory of parks and open spaces is described in the Regional Open Space Conservation Plan. The categories of lands in this plan are different from those described in the VISION 2040 FEIS and provide more detail. The types and acreage of parks and open space within the region include[6]:

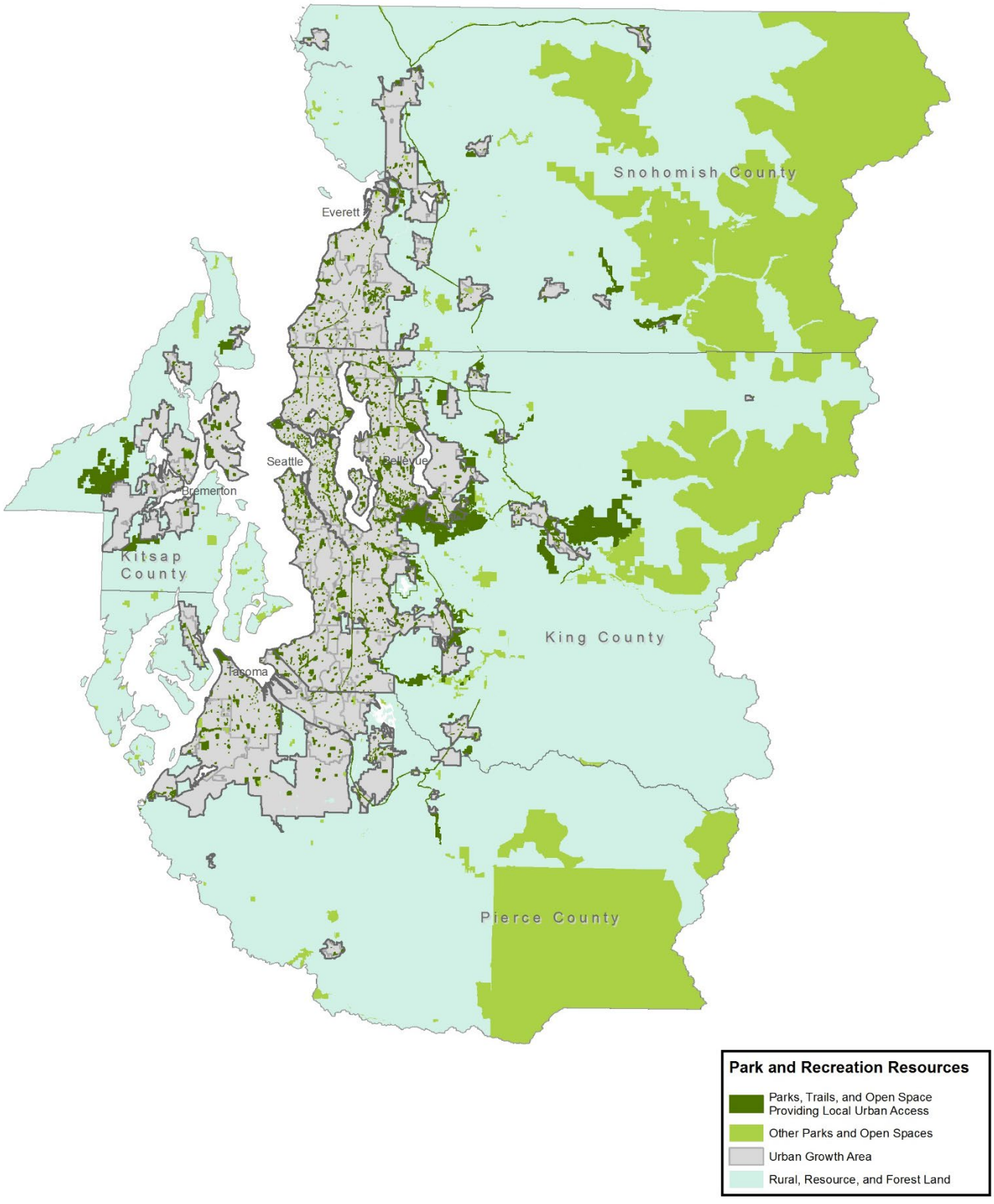
- Federal lands – 1.16 million acres
- State lands – 356,000 acres
- County lands – 69,700 acres
- Municipal lands – 35,000 acres
- Tribal lands – 126,000 acres
- Conservation non-profit land and easements – 39,750 acres

2.10.2 Park and Open Space Access

Figure 2.10-1 depicts the region's parks, trails, and open spaces. To evaluate access to parks and recreational facilities, the amount of the region's existing urban population that live within a quarter-mile distance of existing parks, trails, and open space was analyzed. Table 2.10-1 shows the current population located within one-quarter mile of these facilities. King County has the greatest share of urban population with proximate access to parks at 72 percent, followed by Snohomish, Pierce, and Kitsap counties with 46 percent, 39 percent, and 35 percent, respectively.

[6] Some of this land is not for parks or recreation (e.g., tribal lands, and some state and national forest lands that are for timber harvest).

Figure 2.10-1. Park and Recreation Resources in the Region



Source: PSRC

Table 2.10-1. Population Within One-Quarter Mile of Parks Providing Local Urban Access* in 2017

	Total Urban Population	Percent of Urban Population Within One-Quarter Mile Access
King County	2,024,000	72%
Kitsap County	158,000	35%
Pierce County	692,000	39%
Snohomish County	658,000	46%
Region	3,532,000	59%

Source: PSRC

* Note: The definition of "parks providing local urban access" includes parks, trails, and other open space facilities located within the urban growth area or within a one-quarter mile distance of the urban growth area boundary.

2.10.3 Park and Open Space Acreage per Resident

The acres of parks per 1,000 residents was calculated and is shown in Table 2.10-2. The general trends are similar to what was presented in the VISION 2040 FEIS, with Kitsap County having access to the greatest park acreage per resident, followed by King, Snohomish, and Pierce counties. Kitsap and Pierce counties saw slight increases in acreage per resident while King County, Snohomish County, and the region saw slight decreases.

Table 2.10-2. Parks Providing Local Urban Access* – Acreage Per 1,000 Urban Residents in 2017

	Parks Providing Local Urban Access (acres)	Population in Urban Growth Area	Acreage Per 1,000 Urban Residents
King County	61,300	2,024,000	30
Kitsap County	13,700	158,000	87
Pierce County	8,000	692,000	12
Snohomish County	11,400	658,000	17
Region	94,400	3,532,000	27

Source: PSRC

* Note: The definition of "parks providing local urban access" includes parks, trails, and other open space facilities located within the urban growth area or within a one-quarter mile distance of the urban growth area boundary.

2.10.4 Access to Wild Open Spaces

As the region works to increase access to parks and open spaces, it will be necessary to plan for potential impacts to these open spaces from increased use. More people visiting these natural areas can lead to more litter, erosion of trails and roads, and trampling of vegetation without management strategies for sustainable recreation (PSRC 2018j).

Another important access consideration is that a car is most often required to access these areas, which contributes to carbon emissions, leads to congestion at trailheads, increases safety concerns, and limits who can access wildlands. The necessity of having a car to access these areas creates a barrier for people with lower incomes because they are less likely to own a car (PSRC 2018j). In addition, a 2015 survey of visitors to the Mount Baker Snoqualmie National Forest found that only 11 percent of respondents identified as people of color, while people of color represent 35 percent of the region and 20 percent of the state.

Since the VISION 2040 FEIS, some programs have come online to improve access to recreation and open space. An example of this is King County's Trailhead Direct shuttle, which provides access to hiking areas from some urban areas during summer months.

2.10.5 PSRC Regional Open Space Conservation Plan

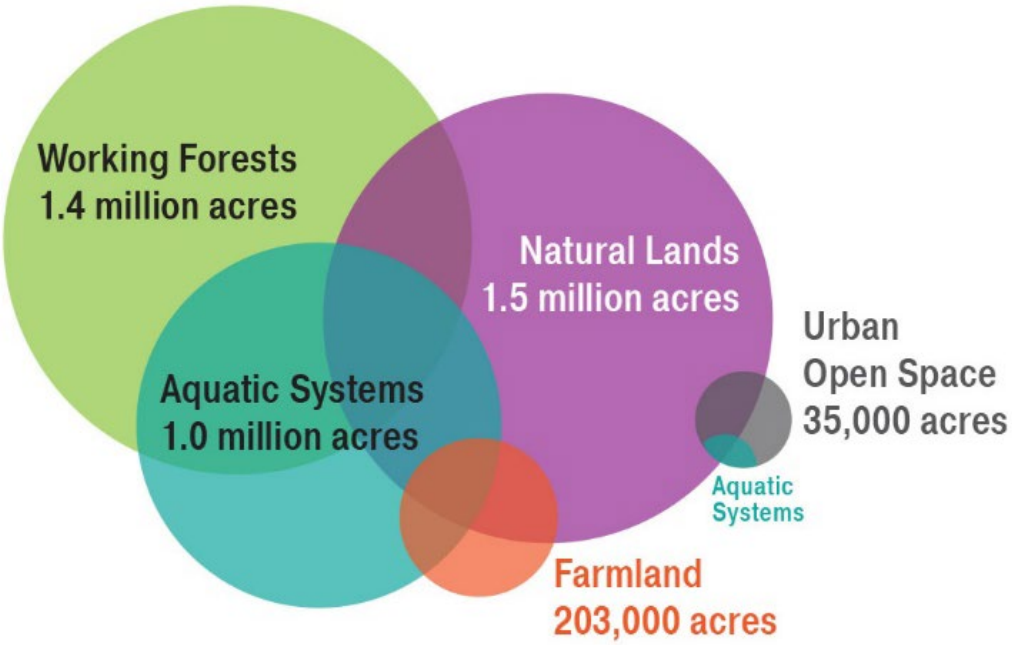
The PSRC Regional Open Space Conservation Plan (PSRC 2018j) maps the regional open space network, identifies strategies for conservation, and sets forth a plan for implementation. This plan envisions a future regional open space network not defined previously.

The regional open space network includes six categories of open space:

1. Natural lands are areas important for supporting wildlife, preserving ecosystems, and providing opportunities for recreation and experiencing nature.
2. Farmlands support agriculture. These lands provide local food options for the region's residents along with wildlife habitat, stormwater management, and many other ecosystem benefits.
3. Working forests are resource lands that support jobs and rural economies, provide timber and other materials, and support carbon sequestration, stormwater management, drinking water, and wildlife habitat.
4. Aquatic systems include lands that support clean drinking water, mitigate flood hazards, and support healthy habitat for salmon and other aquatic life.
5. Regional trails are active transportation corridors that provide access to the region's open spaces and connect communities and other important regional destinations. Often, trails are interconnected with rivers, floodplains, and farmlands.
6. Urban open space is the system of parks and green spaces that provide recreational, aesthetic, environmental, and health benefits within an accessible distance to the region's urban residents.

The approximate acreage of each category is shown in Figure 2.10-2.

Figure 2.10-2. Approximate Acreage of Each Category in the Regional Open Space Network



Source: PSRC 2018

The regional open space network is characterized by the following:

- 3.03 million acres of public and private land and 339 miles of trail.
- Approximately 70 percent of the regional open space network has long-term protection through public ownership and conservation easements; the remaining 30 percent is in private ownership without a conservation easement.
- About 463,000 acres of open spaces within the regional network are considered "at-risk." Of those, 104,000 acres of farmland are considered to be at-risk, 183,000 acres of working forest are considered to be at-risk, and 175,000 acres of intact habitat in natural lands and aquatic systems are considered to be at-risk.
- To complete the regional trail network, an additional 300 miles of trail are needed.
- To provide walkable access to parks and open space for urban residents, investments are needed in about 50 neighborhoods.

The Regional Open Space Conservation Plan recognizes the challenges facing open space—a strong economy accelerating growth and development, the increasing popularity of outdoor recreation, and insufficient funding for maintaining and providing access. In response to these challenges, the plan lays out strategies and an implementation plan to conserve and protect open space. Implementation of the plan can help avoid and mitigate impacts of development on the region's open spaces and help maintain the services that they provide, such as carbon sequestration, flood control, and outdoor recreation.

2.10.6 Climate Change

Open spaces in the region are integral to helping the region mitigate and adapt to climate change. Forests, forest soils, agricultural soils, estuaries, and wetlands store large quantities of carbon, preventing it from entering the atmosphere and contributing to additional warming. Forests in the region store 629 million equivalent tons of CO_2; conversion of these lands would result in much of this carbon entering the atmosphere (PSRC 2018j; I-Tree Landscape, 2017).

As the global climate changes, the regional climate will experience many changes as well. Open spaces help the region be resilient to these changes. With predicted increased frequency and intensity of flooding, undeveloped floodplains store flood waters and reduce the risk to developed areas downstream. Forested riparian areas help keep rivers cooler and healthier for fish, and open space in upland areas provides water storage. As wildlife habitat ranges shift to follow cooler habitats, open spaces provide corridors and stepping stones for wildlife movement. Tree canopy in urban areas reduces the effect of heat that can accumulate in developed areas, known as the urban heat island effect (PSRC 2018j).

2.11 Environmental Health

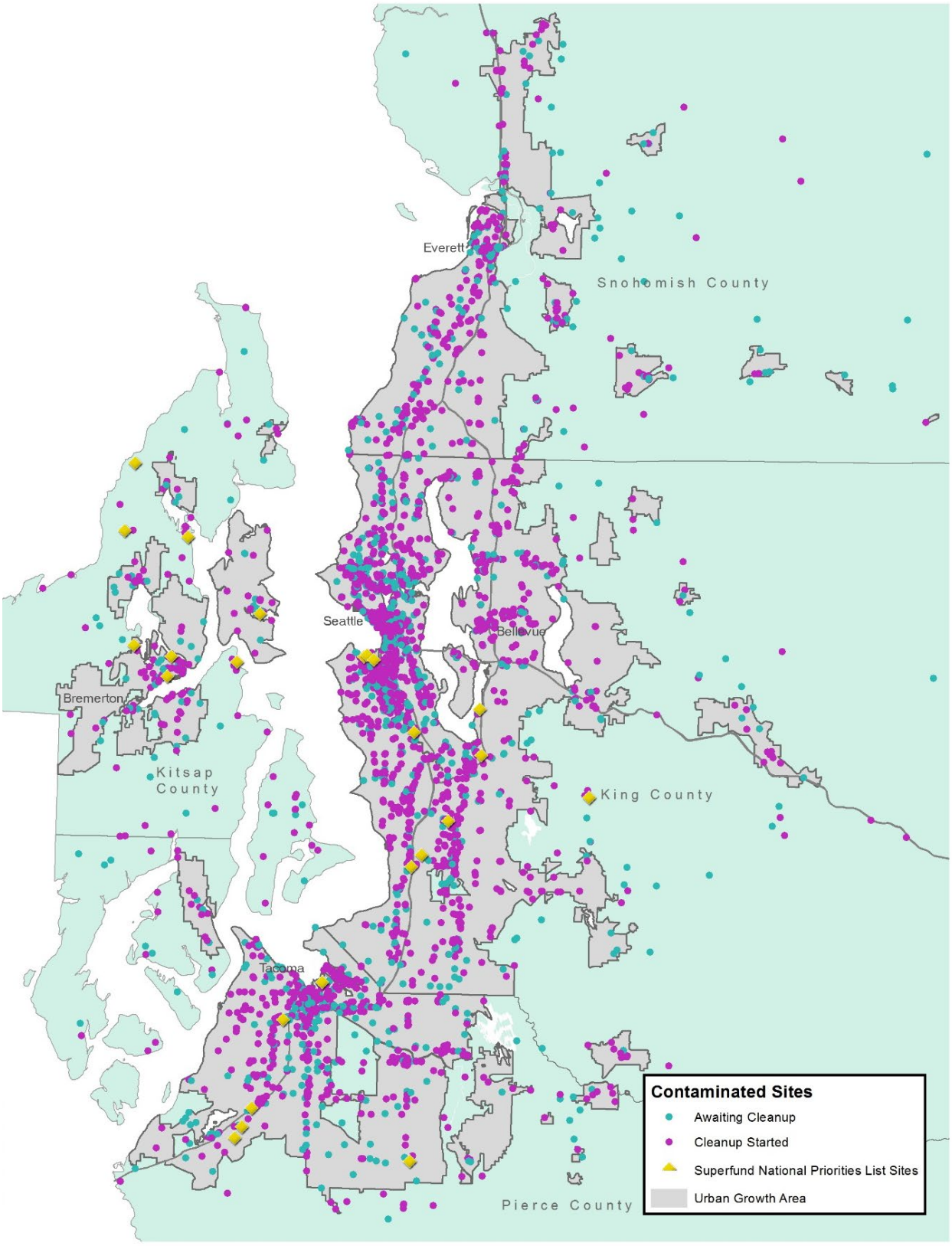
The affected environment for environmental health, which includes the locations, sources, and types of hazardous materials, is similar to Section 5.9.1 of the VISION 2040 FEIS. This section updates considerations for contamination and pollution, and human health benefits from both the built and natural environment.

2.11.1 Contamination and Pollution

As described in the VISION 2040 FEIS, potentially contaminated sites are present throughout the region, commonly along shorelines, major transportation corridors, and in industrial and manufacturing areas. For example, for almost 100 years, Asarco operated a copper smelter in Tacoma. Air pollution from the smelter settled on the surface soil of more than 1,000 square miles of the Puget Sound basin. Arsenic, lead, and other heavy metals are still in the soil as a result of this pollution (Ecology 2020b).

Although many sites have been replaced by residential and commercial development that have a lower risk of creating contaminated sites, some of these industrial and manufacturing industries have left a legacy of contamination and sites of potential environmental concern still exist throughout the region (Figure 2.11-1). Cleanup of contaminated sites is occurring in accordance with federal and state laws, leading to a gradual reduction in hazardous material sites, especially as these areas redevelop. With continued regulatory compliance and management requirements as redevelopment of these sites occurs throughout the region, it can be assumed that the overall number of potential significant hazardous waste sites from manufacturing and industrial uses will continue to decrease.

Figure 2.11-1. Contaminated Sites



Source: EPA, Ecology

2.11.2 Human Health

Public health concerns have traditionally focused on preventing the spread of disease and protecting people from unsafe water, polluted air, and hazardous waste. In recent years, the focus has shifted to the health implications of the built environment and natural environment.

Research findings from the Centers for Disease Control link the country's obesity epidemic in part to built environment considerations, including community design and travel choices. Physical inactivity is a growing health problem in the United States, contributing not only to obesity, but also to chronic diseases, such as diabetes and cardiovascular disease. Several Centers for Disease Control studies indicate that communities that feature a mix of land uses, are connected by pedestrian and bicycle infrastructure and transit, and rely less on driving have higher rates of physical activity. The Surgeon General has released a call to action to promote walkable communities, recognizing that being physically active is one of the most important steps that people of all ages and abilities can take to improve their health (PSRC 2018c). If development is not properly planned at the project level, there is potential to exacerbate localized air quality and noise impacts, and to adversely impact environmental health (see Section 4.4 and Section 4.14 for additional details).

In addition, research has found tradeoffs between time spent commuting and health-related outcomes. The greater time spent commuting, the less time available for activities such as physical exercise and food preparation. These factors indicate that longer commuting times may contribute to obesity and other poor health outcomes (Christian 2012).

PSRC's planning efforts seek to promote programs and investments that provide alternatives to driving, especially those that would improve the pedestrian and bicycle network in the region's communities. These investments can result in mobility choices that are healthier and safer. These projects and programs also have air quality benefits. The Regional Transportation Plan includes best practices that serve people of all ages and abilities safely. These strategies help both to increase physical activity and reduce barriers people may currently experience that prevent them from walking, biking, and taking transit.

The region's built environment—including the design of communities, the completeness of sidewalk networks, and the provision of open space—affects not only physical but also mental well-being. Land use practices improve public health by supporting the development of compact, accessible communities where walking and biking are viable means to get around, experience the local community, enjoy open spaces, and connect people to jobs and transit.

Recent research has shown that open spaces in urban areas provide both physical and mental health benefits. Open spaces, particularly those with high levels of tree canopy coverage, reduce the urban heat island effect and improve air quality by removing air pollutants (such as particulates, nitrogen dioxide, sulphur dioxide, and carbon monoxide). Open spaces also provide opportunities for exercise and recreation, which lead to improved cardiovascular health outcomes and reduced mortality. The Regional Open Space Conservation Plan (PSRC 2018j) provides additional details on the value of open space to physical and mental health.

PSRC's Health Briefing Paper (PSRC 2018k) notes that overall, Washington residents are healthier than in other states, with lower rates of obesity, diabetes, heart disease, and stroke mortalities. Overall, access to transit, active transportation, and clean air and water is improving. The progress has not been equitable, and health outcomes vary by place, race, and income. The Health Briefing Paper presents findings on health disparities such as the statewide disparity in life expectancy by race.

2.12 Energy

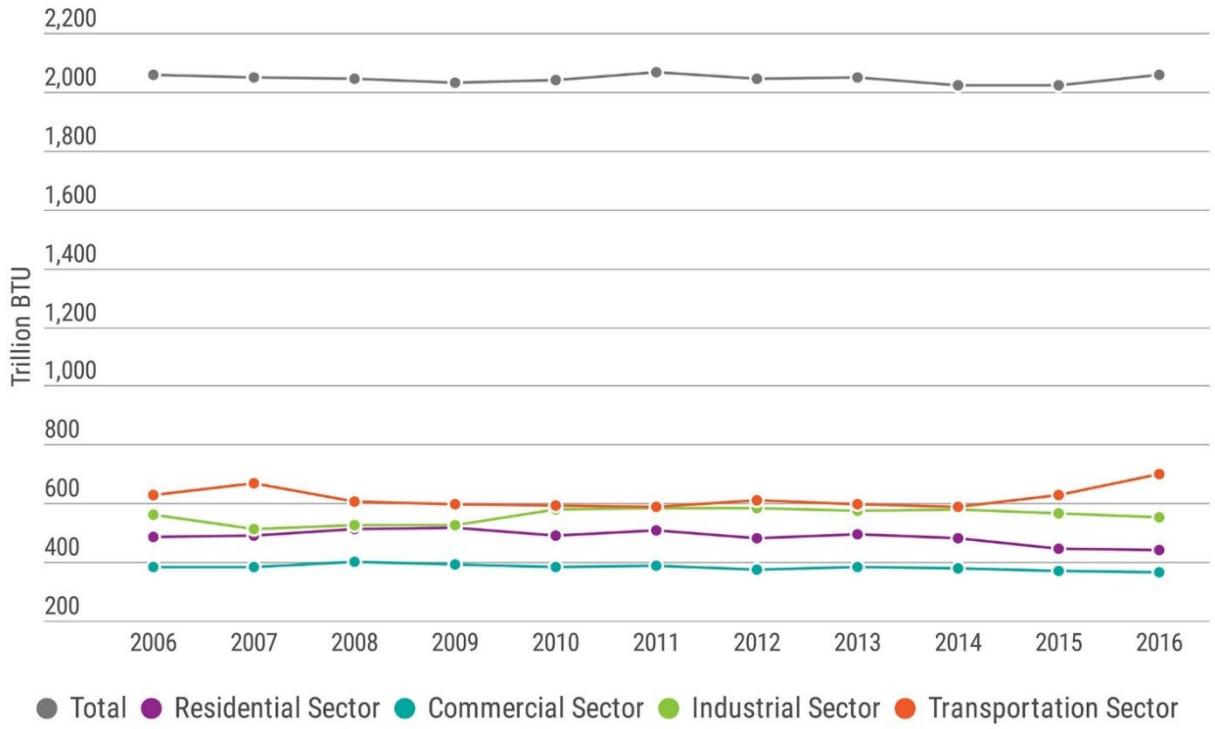
At a regional level, the affected environment for energy resources, including energy consumption, source, and availability, is similar to the description in Section 5.10.1 of the VISION 2040 FEIS.

Even with population growth, total energy consumption has remained largely constant over the last decade (Figure 2.12-1). The success of energy conservation efforts, sustainable building practices, and improved vehicle and fuel technologies during the past 10 years likely all contribute to a relatively steady level of energy consumption. However, the balance of sources and consumption has changed slightly as depicted in Figures 2.12-1 and 2.12-2. The use of renewable energy sources increased in the decade from 2006 to 2016, while the use of coal has decreased. From 2006 to 2016, consumption of renewable energy (primarily wind and biomass) increased from 6 to 10 percent, and electricity generated from renewable energy sources increased from 2 to 8 percent (Energy Information Administration [EIA] 2018a). Climate change implications resulting from greenhouse gas emissions are discussed in Section 2.6.

Primary energy is the **input** to the power plant that generates electricity—from sources such as coal, natural gas, or wind.

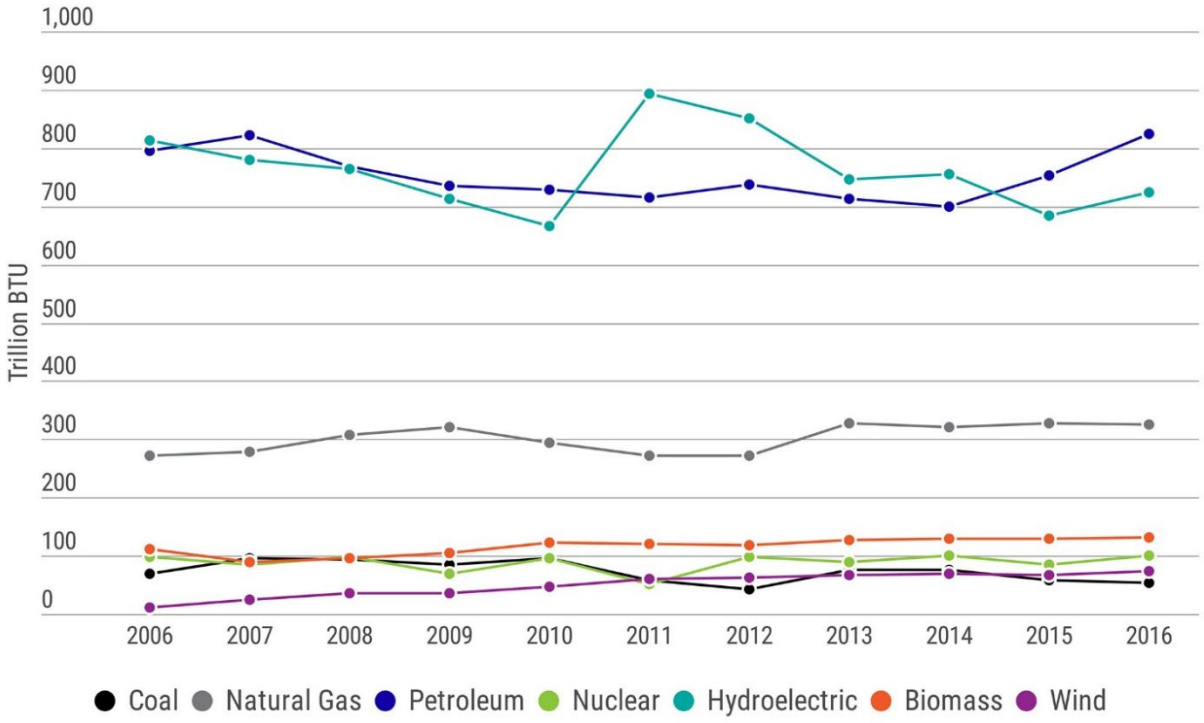
End-use energy is the **output** of the power plant that is consumed by homes, businesses, industry, and the transportation sector.

Figure 2.12-1. Washington State End-Use Energy Consumption Estimates, 2006–2016



Source: U.S. Energy Information Administration

Figure 2.12-2. Washington State Primary Energy Consumption Estimates, 2006–2016



Source: U.S. Energy Information Administration

2.13 Historic, Cultural, and Archaeological Resources

The types of historic, cultural, and archaeological resources and their distribution throughout the region have not changed substantially compared to the resources described in the VISION 2040 FEIS.

Historic properties are historic buildings, bridges, and sites more than 50 years old that are listed on the National Register of Historic Places, Washington Historic Register, and local historic registers. The majority of these sites are concentrated in urban areas.

Cultural properties refer to the beliefs, customs, and practices of a living community of people that have been passed down through generations. As noted in the VISION 2040 FEIS, the cultural significance of a property is derived from the role the property plays in a community's historically rooted beliefs, customs, or practices. Traditional cultural properties in the central Puget Sound region are primarily associated with local tribes. Chapter 5 and Appendix H (Equity Analysis) more broadly address communities, cultural establishments, or businesses associated with existing demographic conditions and changes in low-income communities and communities of color.

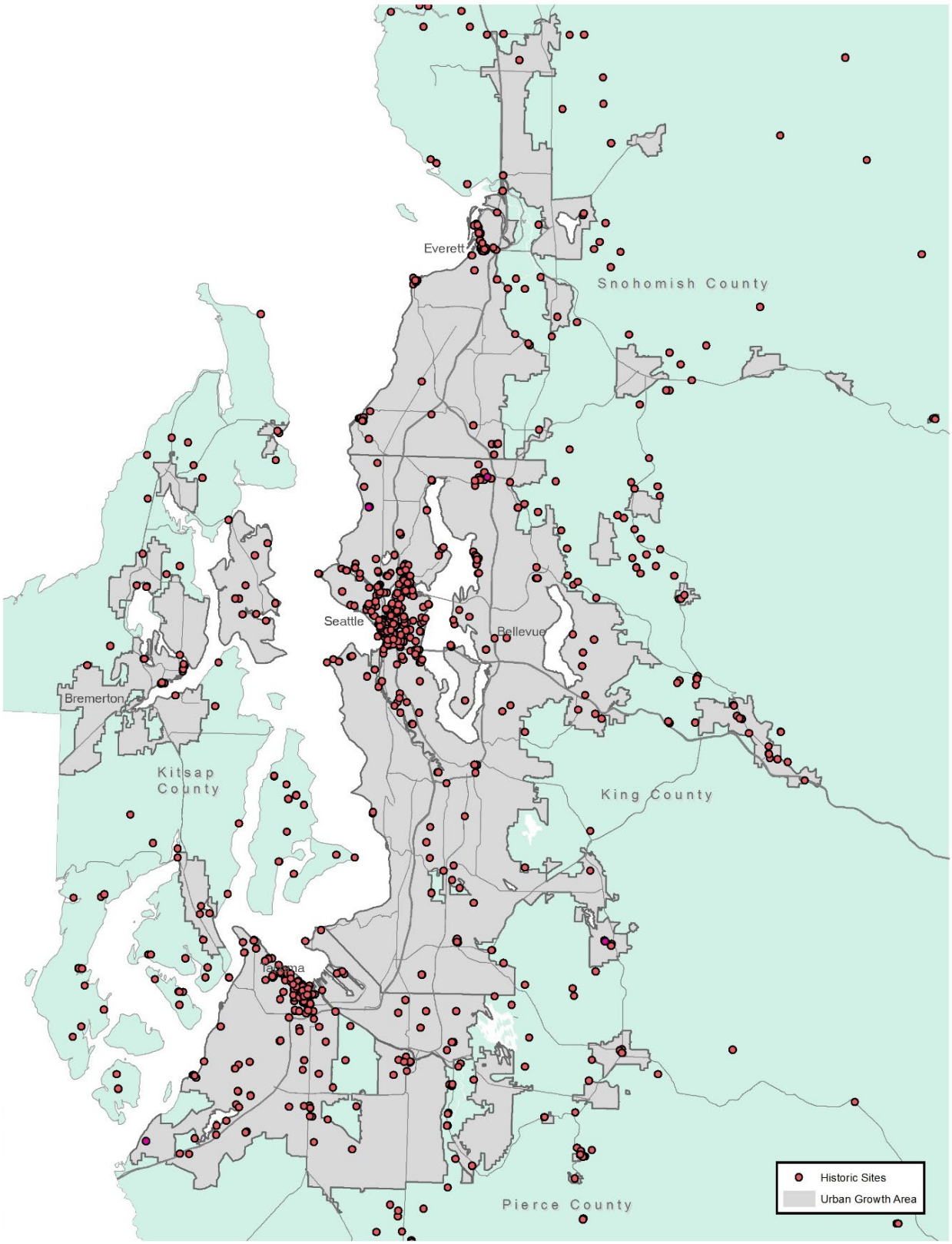
Archaeological sites in the region include shell middens, burials, lithic sites, wet sites, and rock shelters. These types of sites reflect a number of cultural uses including villages, camps, food gathering, and other seasonal activity sites beginning around 11,000 years ago. Most sites are associated with shorelines and watercourses.

Since the VISION 2040 FEIS, additional historic properties have become eligible for investigation and inclusion in historic registers. Historic properties listed in the National Register of Historic Places are shown in Figure 2.13-1. Note that Figure 2.13-1 is not intended to capture every historic site within the region; however, the intent is to show the prevalence of historic sites throughout the region.[7] It does not include inventoried properties that are 50 years of age and older that may be eligible, historic districts, or sites on city or county registers. In addition, there are thousands of archaeological sites present throughout the region that are not disclosable to the public.

As noted in the VISION 2040 FEIS, all types of archaeological, cultural, and historic resources (including sites, buildings, structures, districts, objects, and landscapes) are in need of protection as they are often in areas with high rates of development and redevelopment activities. In addition, sea level rise as a result of climate change threatens inundation of sites along shorelines.

[7] For additional localized information, the Washington State Department of Archaeology and Historic Preservation maintains a planning tool at: https://fortress.wa.gov/dahp/wisaardp3/

Figure 2.13-1. Historic Sites



Source: PSRC, National Register of Historic Places

2.14 Visual Quality

At a regional level, the affected environment for visual quality and aesthetic resources, including the description of the regional physical setting and current trends affecting the visual environment, is similar to the description in the VISION 2040 FEIS.

Natural resources provide visual features throughout the region. These include the scenic views of the Cascade and Olympic Mountains and foothills, and the many lakes and rivers in the region. Undeveloped forested areas, wetlands, creek and river corridors, and floodplains are also natural features that are valuable visual resources.

The urban and suburban visual resources are diverse and include iconic structures such as the Space Needle and the scenic downtown skylines of Seattle, Tacoma, Bellevue, and Everett. Industrial land uses such as shipping, manufacturing, and warehouses are prominent visual features located along parts of the waterfronts of Bremerton, Everett, Seattle, and Tacoma. Suburban visual features are also diverse and include single-family residential development along with retail and commercial development. Transportation and utility infrastructure is a prominent feature of the visual landscape in the urban and suburban communities throughout the region.

Rural areas are typically dominated by views of natural features, low-density development, rural architecture and landscapes, and agricultural activities.

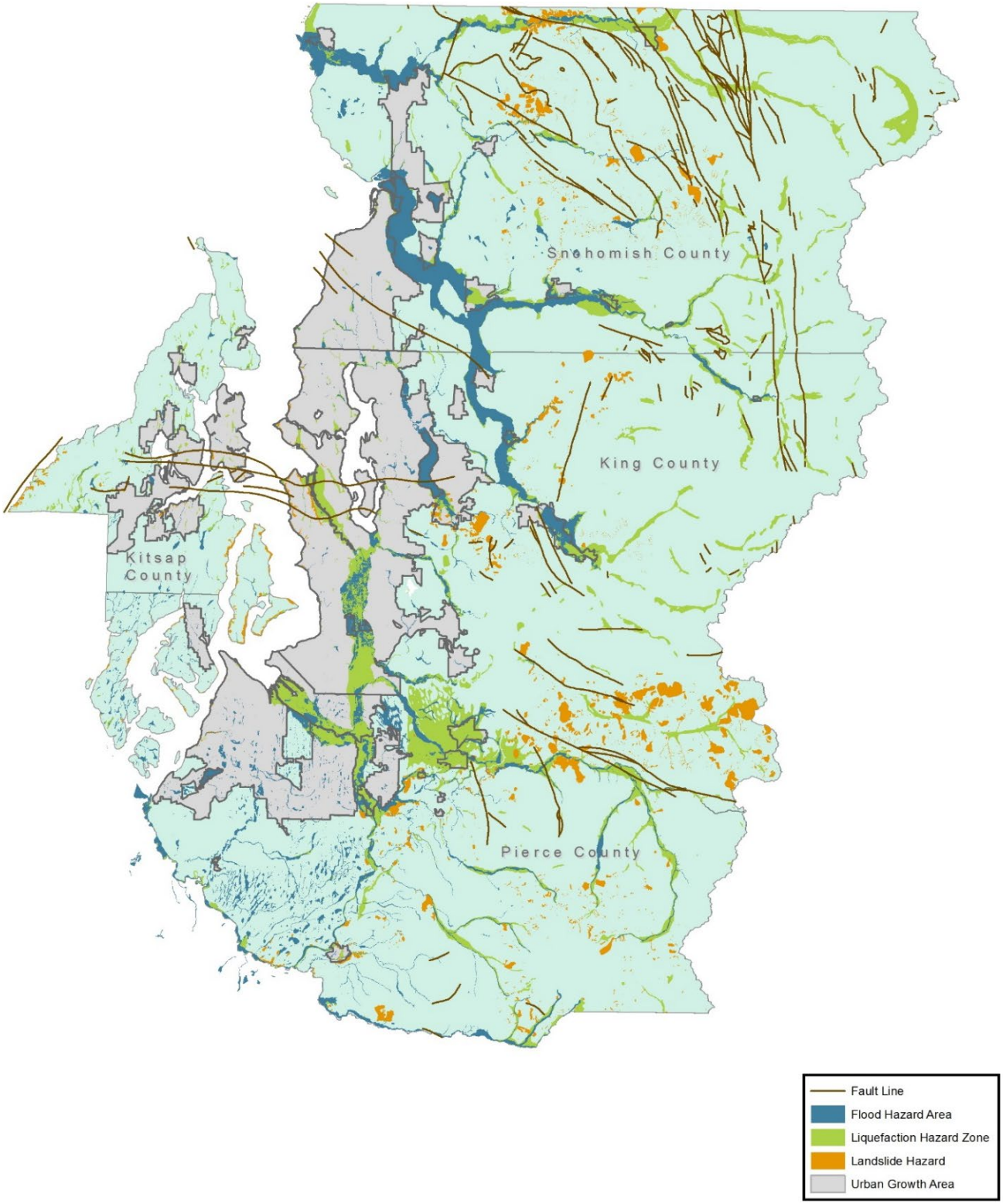
The trends described in the VISION 2040 FEIS that alter the visual environmental persist today. They include increased development in urban, rural, and open space areas; expanded road and transit systems; and increased density.

2.15 Earth

At a regional level, the affected environment, including the description of the regional physical setting and geology, primary geologic hazards, and current trends, is similar to the description in the VISION 2040 FEIS. The region is a geologically active area susceptible to earthquakes, landslides, volcanic hazards, flooding, and coal mine subsidence. Expanded discussion of flooding as a result of climate change is discussed in Section 2.8.

The VISION 2040 FEIS includes and references data about the location and extent of these hazards. Since the Oso landslide in 2014, increased attention has been paid to geologic hazards and incompatibility of residential land uses in high-hazard areas. City and county comprehensive plans account for physical conditions and geological hazards in planning for future land uses. The need for infrastructure and land use planning, building codes, and critical areas regulations to address these risks continues to be a priority throughout the region. Geologic hazard areas throughout the region are depicted in Figure 2.15-1. Note that Figure 2.15-1 is not intended to capture every geologic hazard area; however, the intent is to show the prevalence of many types of geologic hazards in the region.

Figure 2.15-1. Regional Geologic Hazard Areas



Source: WDNR

2.16 Noise

At a regional level, the affected environment, including the description of roadway noise, railway noise, transit noise, and airport noise, is similar to the description in Section 5.13.1 of the VISION 2040 FEIS.

As described in Section 2.5, transportation infrastructure has been expanded since the VISION 2040 FEIS was published. Types of noise generated by these modes of transportation are as described in the VISION 2040 FEIS but are now more widespread due to the construction and operation of additional infrastructure.

Road, rail, and air traffic sources account for the majority of noise in urban areas, with additional noise generated by commercial/industrial uses, construction, pets, and stereos/radios (King et al. 2012). Recent studies suggest that planning strategies emphasizing increases in urban development densities and mixed uses may lead to an increase in exposure to traffic, construction, and related urban environmental noise (King et al. 2012). It can be assumed that as the region has grown over the last decade, so have noise sources in the urban environment. Noise at a local level, however, would likely vary according to proximity to noise-related activities such as high-traffic roads and construction.

2.17 How Has the Regulatory Setting Changed Since VISION 2040?

Regulation and policy changes since the 2008 publication of the VISION 2040 FEIS are summarized in Table 2.17-1. Since 2008, local jurisdictions have updated comprehensive plans and enacted new policies, and new regulations and policies are also now in effect that were not contemplated in the VISION 2040 FEIS. Many of the federal and state regulations and policies remain in effect as described in the VISION 2040 FEIS, and these are described in Table 2.17-2.

Table 2.17-1. Regulation and Policy Changes Applicable to SEIS Resources

Regulation/ Policy	Type	Description and/or Updates since VISION 2040 FEIS	Applicable Resources in VISION 2050 SEIS
GMA	State	GMA has been amended several times since 2008. Most notably: • In 2009, RCW 36.70A.085 was added. The purpose of the legislation was "to ensure that local land use decisions are made in consideration of the long-term and widespread economic contribution of our international container ports and related industrial lands and transportation systems, and to ensure that container ports continue to function effectively alongside vibrant city waterfronts." • An amendment made during the recession extended the timeframe for periodic updates of local plans from 2011–2012 to 2015–2016, creating a significant delay from the time VISION 2040 was adopted to the time when local plans were adopted and implemented. • A major update to Buildable Lands provisions, siting schools in the rural area, and various updates related to development and critical areas provisions. • Key sections of the WAC were updated to address GMA provisions, which included changes to WAC 365-196-305 addressing the countywide and multicounty planning policies. • For more information, the Washington State Department of Commerce maintains a detailed list of amendments to GMA, available at the following link: https://deptofcommerce.app.box.com/s/6qllul1djytd3n52h37ioh7t04e8su86	Population, Employment, Housing, Land Use, Transportation, and many other resources
Shoreline Management Programs (under Shoreline Management Act)	Local	Cities and counties updated their Shoreline Master Programs to comply with updated Shoreline Management Act guidelines to protect shoreline ecological functions.	Ecosystems, Water
Critical Areas Regulations (under GMA)	Local	Cities and counties updated their Critical Areas Ordinances to incorporate updated science.	Ecosystems, Water, Earth
Regional Planning: VISION 2040, Regional Growth Strategy, and multicounty planning policies	Regional	Regional growth centers in University Place and Issaquah were designated and Sumner-Pacific and Cascade were designated manufacturing/industrial centers. Arlington, Bonney Lake, Covington, Fife, Lake Stevens, Maple Valley, Mill Creek and Monroe were reclassified from Small to Larger cities through VISION 2040 technical amendments. PSRC adopted the Regional Centers Framework in 2018, providing additional planning expectations for regional centers.	Population, Employment, Housing, Land Use, and other resources

Table 2.17-1. Regulation and Policy Changes Applicable to SEIS Resources (continued)

Regulation/ Policy	Type	Description and/or Updates since VISION 2040 FEIS	Applicable Resources in VISION 2050 SEIS
Countywide planning policies, local comprehensive plans	Local	Countywide planning policies and growth targets were updated since the FEIS for consistency with VISION 2040. City and county comprehensive plans, including policies and growth assumptions, were updated since the FEIS for consistency with VISION 2040.	Population, Employment, Housing, Land Use, Transportation, Ecosystems, and other resources
Clean Air Act	Federal	NAAQS (40 Code of Federal Regulations [CFR] part 50) were updated and are described in Section 2.6 and Appendix B.	Air Quality
National Pollutant Discharge Elimination System, Ecology, SWMMWW, and local stormwater regulations	State and local	Periodic issuance of the National Pollutant Discharge Elimination System permit and related updates to the state stormwater manual and local stormwater regulations. Additional detail provided in Section 2.8 above.	Water, Public Utilities
Clean Car Standards	State and federal	In 2018, National Highway Traffic Safety Administration and EPA proposed revised standards for light duty vehicles to freeze or reduce clean car standards (Center for Climate and Energy Solutions 2018). New standards have not been finalized.	Air Quality
Federal and state noise regulations and guidance for transportation sources	State and federal	Federal Transit Administration transit noise criteria were updated in 2006 (Federal Transit Administration Transit Noise and Vibration Impact Assessment). The VISION 2040 FEIS references criteria from 1995. FHWA noise abatement criteria (23 CFR Part 772) were last updated July 2010. Applicable Federal Aviation Administration and State Noise Criteria have not been updated since the VISION 2040 FEIS.	Noise, Transportation

Table 2.17-2. Regulations and Policies That Have Largely Remained the Same Since the VISION 2040 FEIS

Regulation/Policy	Type	Applicable Resources in VISION 2050 SEIS
Washington Clean Air Act (RCW 70.94)	State	Air Quality
Endangered Species Act	Federal	Ecosystems, Water
Clean Water Act Sections 303 (d), 401, 402, and 404	Federal	Ecosystems, Water, Public Utilities
Federal, state, and local permits/approval for infrastructure projects Federal regulations include, but are not limited to: National Environmental Policy Act, SEPA, Endangered Species Act, Clean Water Act, Migratory Bird Treaty Act, Fish and Wildlife Coordination Act, Coastal Zone Management Act, River and Harbors Act (Sections 9 and 10), Executive Order 13186, Executive Order 11988 State regulations include, but are not limited to: Hydraulic Project Approval, Aquatic Use Authorization	Federal, state, and local	Transportation, Ecosystems, Water, Public Utilities
State and federal regulations on hazardous materials State and federal regulations include, but are not limited to: Occupational Safety and Health Act of 1970, Washington Industrial Safety and Health Act, Model Toxics Control Act, Dangerous Waste Regulations, Comprehensive Environmental Response, Compensation and Liability Act	State and federal	Environmental Health, Air Quality
Federal, state, and local laws/ordinances related to historic and cultural resources State and federal regulations include, but are not limited to, Archaeology and Historic Preservation Washington State Legislative Declaration, Archaeological Sites and Resources (RCW 27.53), National Environmental Policy Act, SEPA, Shoreline Management Act, Section 106 of the National Historic Preservation Act, Section 4(f) regulations of the U.S. Department of Transportation, Archaeological Resources Protection Act of 1979	Federal, state, and local	Historic, Cultural, and Archaeological Resources
State and federal regulations related to erosion, landslide, seismic, mine, and volcanic hazards Regulations include: GMA Critical Areas Regulations and guidelines, Federal Emergency Management Agency flood programs, International Building Code seismic safety standards	State and federal	Earth


PSRC

3. Alternatives Evaluated

This environmental analysis includes distinct alternative patterns of future growth that were developed after a public comment and scoping process, extensive review by PSRC's Growth Management Policy Board, and input from regional staff and other stakeholders. These alternatives allow the environmental analysis to consider the effects of extending the VISION 2040 growth strategy to 2050 and the potential effects of adjustments to that strategy.

At the heart of VISION 2050 is a shared vision of how and where the region should grow. The Regional Growth Strategy provides a description of a desired overall physical development pattern that the central Puget Sound region will evolve into over time. The strategy for accommodating growth is organized around the state GMA concepts of urban, rural, and natural resource areas. The strategy asserts that the region will maintain a variety of places, such as active centers and central cities, small towns, and rural areas, into the future. Other than in natural resource lands and areas that do not plan under GMA, such as Indian Reservation Lands and Major Military Installations, the Regional Growth Strategy assumes that all types of communities will grow and accept forecasted regional growth, although at different rates by geography and county.

Under GMA, counties, in consultation with cities, are responsible for adopting 20-year growth targets. These population and employment growth targets are a key input to local comprehensive plans, ensuring that each county collectively is accommodating population growth and that jurisdictions have shared expectations for growth. Jurisdictions use growth targets to inform decisions about land use, transportation, and capital facilities in their 20-year comprehensive plans, and to ensure interjurisdictional coordination, a requirement of the GMA. The Regional Growth Strategy provides regional guidance for the countywide growth

target process. VISION 2050 includes an action to provide more detailed guidance about a variety of local circumstances that shape countywide growth targets including timing and type of transit investments, types of regional centers, and jobs-housing balance. Both the Regional Growth Strategy Background Paper and the VISION 2050 Alternatives Background Paper provide additional supplemental information about these planning factors (PSRC 2019e and 2019f). The Regional Growth Strategy defines a role for different types of places in accommodating the region's residential and employment growth and allocates a policy-informed share of regional and county growth to each geography.

The adopted Regional Growth Strategy aids coordination between local governments and service providers. Its distribution of growth is used as the basis for analyzing regional transportation plan updates and transportation-related environmental impacts, such as air pollution. Planning for growth helps the region plan for transportation and infrastructure needed to support that growth.

PSRC's Regional Macroeconomic Forecast estimates that the region will need to plan for another 1.8 million people and 1.2 million jobs (between 2017 and 2050). The forecast is based on an econometric model of population, households, and employment. The forecast used in this analysis is an estimate of future growth based on local and national factors and is intended to establish an informed basis for regional and subregional growth assumptions. The forecasted growth for 2050 is similar to the levels of growth studied in 2008 for the VISION 2040 FEIS, which anticipated an additional 1.7 million people and 1.2 million jobs from the study period of 2000 to 2040.

PSRC previously analyzed the accuracy of population and employment forecasts over time and demonstrated that actual levels of growth have largely aligned with both the population and employment forecast, with slightly more variability for long-range population projections (PSRC 2018l).

The Washington State Office of Financial Management (OFM) releases population projections every five years to inform GMA planning. OFM uses a different forecasting approach than PSRC, modeling births, deaths, and migrations through a cohort component model. The Medium Series is considered the "most likely" scenario under Washington Administrative Code (WAC 365-196-310). In PSRC's 2018 Regional Macroeconomic Forecast for 2040, the forecast is 3.5 percent higher than OFM's Medium Series projections and both forecasts reflect an upward adjustment from the previous series.

In 2017, OFM released supplemental information to extend the GMA projections from 2040 to 2050:

OFM Forecast Series	Projected Regional Population Growth 2017–2050
Low Series	700,000
Medium Series	1,448,000
High Series	2,542,000

These projections are meant to provide data for counties that need to establish their population growth targets beyond 2040 but do not represent the official OFM GMA population projections mandated by state statutes. Compared to the Regional Macroeconomic Forecast, OFM has projected slightly lower amounts of overall regional growth in its Medium Series for 2050, though the Medium Series is the closest to the regional forecast within their published range.

The VISION 2050 scoping notice and adopted scoping report assume a baseline growth forecast of 1.8 million people and 1.2 million additional jobs between 2017 and 2050. A variety of factors could affect the actual amounts of population and employment in the region by 2050. Those could include local and national economic conditions, climate change or other environmental factors, and housing affordability, any of which could increase or decrease the overall population and employment in the region by 2050. While the plan assumes a baseline amount of growth, this is an assumption based on the best information available today and does not represent an overall goal or policy statement of optimal levels of population and employment. Historical growth trends indicate that the region will continue to attract new residents and will achieve forecasted levels of growth by approximately 2050, which is the operating assumption of this environmental analysis. Fulfillment of the growth projections could occur somewhat sooner or take somewhat longer and growth is anticipated to continue after 2050.

3.1 How the Alternatives Were Developed

3.1.1 Process for Developing Alternatives

VISION 2040 includes a Regional Growth Strategy that uses seven separate geographic categories as a means to allocate the anticipated regional population and employment growth from 2000 to 2040. The seven geographic categories in VISION 2040 are: Metropolitan Cities, Core Cities, Larger Cities, Small Cities, Unincorporated Urban Growth Areas, Rural Areas, and Natural Resource Areas (containing Forest, Agriculture, and Mineral Resources). These categories reflect past population and employment distribution, growth anticipated in plans at that time, and the roles areas are expected to play in the region's future.

The VISION 2040 FEIS provides a robust analysis of a range of growth pattern alternatives formed around those geographic categories, including:

- Preferred Growth alternative, which became the adopted Regional Growth Strategy and represented a hybrid approach to accommodating future growth in a compact regional pattern.
- Metropolitan Cities alternative, which focuses the largest share of growth into the five Metropolitan Cities.
- Larger Cities alternative, which assumes suburban cities in the region would accommodate the bulk of future population and employment growth.

- Smaller Cities alternative, which has the most dispersed growth pattern with Small Cities and Unincorporated Urban Growth areas receiving a sizable amount of population and employment growth.

VISION 2050 extends the growth strategy an additional 10 years and considers adjustments that may account for changes to the region, growth patterns, and new policy direction. This Final SEIS considers four alternatives: Stay the Course (no action), Transit Focused Growth, Reset Urban Growth, and the Preferred Growth Alternative. These alternatives provide distinct options for analysis and consideration, while falling within the range of growth alternatives considered in the VISION 2040 FEIS.

The Stay the Course, Transit Focused Growth, and Reset Urban Growth alternatives were developed by the Growth Management Policy Board after consideration of public comments on scoping, the Taking Stock 2016 report (PSRC 2017b), input from PSRC staff and the Regional Staff Committee, and multiple board meetings held from late 2017 to November 2018. These alternatives were analyzed in the Draft SEIS. The Preferred Growth Alternative was developed based on the analysis presented in the Draft SEIS, public comments, supplemental data, and board perspectives.

Assumptions Guiding the Environmental Review

- Forecasts. VISION 2050 seeks to accommodate continued growth through the year 2050. The alternatives are based on the same regional forecasts for population and employment growth through the year 2050. These forecasts, based on widely accepted practices, anticipate that the region will grow to 5.8 million people and 3.4 million jobs by the year 2050.
- Build on VISION 2040. In order to comply with the objectives and mandates of the state GMA and to fulfill the purpose and need for action, VISION 2050 builds on the base of the policies and actions and Regional Growth Strategy adopted in VISION 2040. The focus of the update is to clarify aspects of the vision and make improvements that reinforce a common regional vision of greater environmental sustainability, access to opportunity, and a high quality of life. VISION 2050 is anticipated to continue to reflect GMA's objectives of containing the expansion of urban areas; conserving farmlands, forests, and open spaces; supporting more compact, people-oriented living and working places; and focusing a significant amount of new employment and housing into cities with vibrant urban centers.
- Regional Transportation Plan. The growth alternatives are being analyzed to determine (among other things) which is best served by the Regional Transportation Plan (adopted 2018). In a separate planning process that will follow the adoption of VISION 2050, the Regional Transportation Plan will be extended to 2050 and amended to address the preferred growth alternative selected in VISION 2050.

Selection of Growth Alternatives for Supplemental EIS Review

PSRC's Growth Management Policy Board acted on November 1, 2018, to identify three growth pattern alternatives to be included in the VISION 2050 Draft SEIS. The Growth Management Policy Board, Regional Staff Committee, Regional Staff Committee Co-Chairs Working Group, and Land Use Technical Advisory Committee contributed to development of the alternatives over the course of several months. The board and committees developed and reviewed preliminary growth scenarios, which were refined and narrowed down to alternatives for study. The Preferred Growth Alternative was developed in the fall of 2019, with action from the Growth Management Policy Board on December 5, 2019. The overall timeline for alternatives development is shown in Table 3.1-1.

Table 3.1-1. Timeline for Alternatives Development

Month	Development Stage
December 2017	Regional Staff Committee discusses the Regional Growth Strategy and growth trends.
January 2018	Growth Management Policy Board authorizes release of SEPA scoping notice. Executive Board discusses draft 2050 Macroeconomic Forecast.
February 2018	SEPA scoping period.
March 2018	Growth Management Policy Board discusses regional growth trends and Regional Growth Strategy update.
April 2018	Growth Management Policy Board reviews scoping comments.
May 2018	Land Use Technical Advisory Committee reviews use of the UrbanSim model and the no action methodology. Regional Staff Committee discusses regional geographies and objectives.
June 2018	Growth Management Policy Board adopts scoping report, holds extended session to discuss the Regional Growth Strategy. Regional Staff Committee discusses regional geographies and growth scenarios. Land Use Technical Advisory Committee discusses UrbanSim model, reviews no action methodology.
July 2018	Land Use Technical Advisory Committee discusses county shares and employment inputs for modeling. Regional Staff Committee discusses regional geographies, growth scenarios, and screening factors to evaluate growth scenarios.
September 2018	Growth Management Policy Board, Land Use Technical Advisory Committee, Regional Staff Committee, and the Regional Transit-Oriented Development Advisory Committee discuss draft growth scenarios and screening factor results, county shares, and goals for transit-oriented development.
October 2018	Growth Management Policy Board and Regional Staff Committee review refined growth scenarios and model results.
November 2018	Growth Management Policy Board selects alternatives for study.
February 2019	PSRC issues Draft SEIS.
March 2019	Growth Management Policy Board and Regional Staff Committee review Draft SEIS findings.

Table 3.1-1. Timeline for Alternatives Development (continued)

Month	Development Stage
April 2019	Growth Management Policy Board, Regional Staff Committee, and Land Use Technical Advisory Committee discuss process and objectives for the Preferred Growth Alternative.
May 2019	Growth Management Policy Board and Regional Staff Committee discuss Draft SEIS comments and a preliminary concept for the Preferred Growth Alternative. Land Use Technical Advisory Committee reviews the growth goal for centers and high-capacity transit station areas.
June 2019	Growth Management Policy Board and Regional Staff Committee discuss refinements to the draft Preferred Growth Alternative regional geographies and allocations.
July 2019	Growth Management Policy Board releases draft plan for public comment, including the draft Preferred Growth Alternative.
November 2019	Growth Management Policy Board reviews comments on draft plan and the Preferred Growth Alternative and incorporates amendments.
December 2019	Growth Management Policy Board incorporates final amendments and recommends draft plan to the Executive Board with its Preferred Growth Alternative.

Source: PSRC

Comments during the VISION 2050 scoping process encouraged considering a range of factors in distributing planned 2050 growth throughout the region, including:

- Recent historical growth and development trends, including trends that have supported the Regional Growth Strategy and trends that have diverged from the Regional Growth Strategy.
- Local land use and infrastructure capacity to accommodate growth.
- Levels of transportation accessibility, with a focus on current and future transit connections.
- Transit-oriented development, with a focus on opportunities to leverage regional investments in high-capacity transit.
- Designated centers, particularly regional growth centers and manufacturing/industrial centers, but also other types of centers.
- Jobs-housing balance within counties, other sub-regions, and localities, with a focus on impacts on transportation, economic development, and housing affordability.
- Market conditions that indicate current and potential growth potential and challenges.

VISION 2040's objectives for the Regional Growth Strategy are anticipated to continue to guide VISION 2050, including focusing the vast majority of growth in the urban growth area, in cities, and within centers, while seeking to maintain rural and resource lands and protect the environment.

3.1.2 How Regional Growth was Allocated

Regional Geographies

The Regional Growth Strategy implements the goals and policies of VISION 2040 by distributing planned growth using "regional geographies" that classify cities and unincorporated areas by roles and types. Grouping cities and other place types provides flexibility to counties and cities to identify appropriate growth targets for individual cities and unincorporated areas in each category, while acknowledging differing roles for accommodating growth. Within counties, the geographies are a starting point for countywide processes to allocate GMA growth targets in a more detailed way to individual jurisdictions.

PSRC reviewed issues raised during scoping and identified the following modifications to the regional geography classification system currently provided in VISION 2040:

- Differentiate current Small and Larger cities by existing and planned high-capacity transit (includes light rail, bus rapid transit, commuter rail, ferry, and streetcar).
- Identify urban unincorporated areas with high-quality transit service and planned incorporation or annexation.
- Recognize Major Military Installations.

Based on scoping comments, PSRC identified changes to the regional geographies and developed an updated classification of cities and urban unincorporated areas. Changes are intended to clarify different types of places, particularly for urban unincorporated areas and areas identified for transit-oriented development. Table 3.1-2 lists the classification of the region's cities and other areas according to these geographic categories. Figure 3.1-1 shows the distribution of the regional geographies. The Stay the Course Alternative allocations were converted to these updated geographies to allow comparison with the action alternatives.

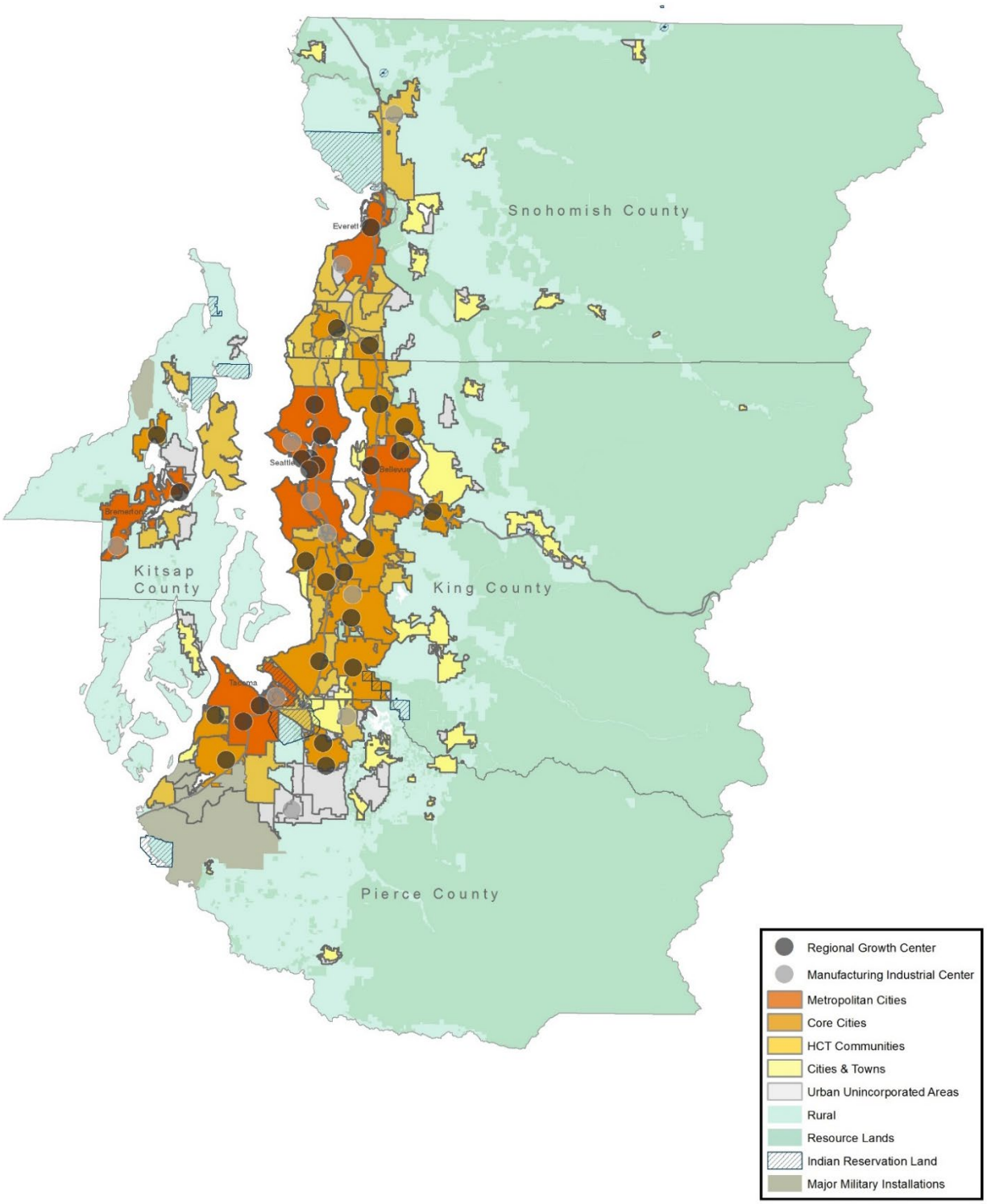
Table 3.1-2. Description of Regional Geographies – Stay the Course, Transit Focused Growth, and Reset Urban Growth Alternatives

Regional Geographies				
Metropolitan Cities | Central cities in the county that serves as civic, cultural, economic, and transportation hubs and have at least one regional growth center				
Bellevue	Bremerton	Everett	Seattle	Tacoma
Core Cities | Major cities and urban areas with transit and designated regional growth centers				
Auburn	Issaquah	Lynnwood	SeaTac	
Bothell	Kent	Puyallup	Silverdale	
Burien	Kirkland	Redmond	Tukwila	
Federal Way	Lakewood	Renton	University Place	
HCT Communities | Other cities and unincorporated urban areas (planned for annexation or incorporation) with high-capacity transit. High-capacity transit is defined as existing or planned light rail, commuter rail, ferry, streetcar, and/or bus rapid transit.				
Arlington	Everett MUGA	Lynnwood MUGA	Mukilteo MUGA	Sumner
Bainbridge Island	Federal Way PAA	Marysville	Newcastle	Tacoma PAA
Bothell MUGA	Fife	Mercer Island	North Highline	Woodinville
Des Moines	Fircrest	Mill Creek	Renton PAA	
DuPont	Kenmore	Mill Creek MUGA	Port Orchard	
Edmonds	Lake Forest Park	Mountlake Terrace	Poulsbo	
Edmonds MUGA	Larch Way Overlap	Mukilteo	Shoreline	
Cities & Towns | Cities and towns with local transit access or without fixed-route transit				
Algona	Covington	Hunts Point	Orting	Stanwood
Beaux Arts	Darrington	Index	Pacific	Steilacoom
Black Diamond	Duvall	Lake Stevens	Roy	Sultan
Bonney Lake	Eatonville	Maple Valley	Ruston	Wilkeson
Brier	Edgewood	Medina	Sammamish	Woodway
Buckley	Enumclaw	Milton	Skykomish	Yarrow Point
Carbonado	Gig Harbor	Monroe	Snohomish	
Carnation	Gold Bar	Normandy Park	Snoqualmie	
Clyde Hill	Granite Falls	North Bend	South Prairie	
Urban Unincorporated Areas | Urban areas without high-capacity transit and/or not affiliated for annexation or planned for incorporation				
All Remaining Urban Unincorporated Areas				
Rural | Designated Rural Lands				
All Designated Rural Areas				
Resource Lands* | Designated agricultural, mineral, and forest resource lands				
All Designated Resource Lands				
Indian Reservation Lands* | Permanent homelands of tribal nations designated through treaty, Executive, or Congressional Acts.				
Muckleshoot Indian Reservation, Nisqually Indian Reservation, Port Gamble Indian Reservation (Port Gamble S'Klallam Tribe), Port Madison Reservation (Suquamish Tribe), Puyallup Indian Reservation, Sauk-Suiattle Indian Reservation, Snoqualmie Indian Reservation, Stillaguamish Indian Reservation, Tulalip Indian Reservation				
Major Military Installations* | Installations with more than 5,000 enlisted and service personnel				
Joint Base Lewis McChord Naval Base Kitsap – Bangor Naval Base Kitsap – Bremerton Naval Station Everett				

Source: PSRC

MUGA = Municipal Urban Growth Area; PAA = Potential Annexation Area; * = Geography not allocated forecasted regional growth

Figure 3.1-1. Regional Geographies – Stay the Course, Transit Focused Growth, and Reset Urban Growth Alternatives



Source: PSRC

Similar to Natural Resource lands, Major Military Installations are assumed to maintain existing levels of population and employment across all alternatives. PSRC does not forecast change on military bases, given their growth forecasts are dependent on national and international circumstances. Major Military Installations in central Puget Sound vary greatly in size, activity, role, and urban form. Some are located within cities, while others are located within Urban Unincorporated areas or in the Rural areas. Per the updated Regional Centers Framework (PSRC 2018i), the VISION 2050 geographies identify the largest facilities with more than 5,000 enlisted and service personnel. Major Military Installations are not subject to planning requirements under GMA or VISION 2050, although Joint Land Use studies have been prepared for some installations in cooperation with surrounding jurisdictions.

As sovereign nations, tribes are not required to plan under GMA. Generally, for planning requirements, tribes are governed by the prevailing federal standard set by the U.S. Department of the Interior and U.S. Department of Transportation. However, GMA recognizes the importance of coordination and cooperation with tribes regarding environmental planning, land use, economic development, transportation, the provision of services, and other areas with mutual concerns (such as historic preservation). GMA planning does not preclude or change a tribe's participation abilities or rights. Indian Reservation Lands are not allocated specific levels of growth under the Regional Growth Strategy. Like Major Military Installations, the alternatives identify tribal lands as a regional geography for the purpose of recognizing and mapping areas that will likely see growth and change over time.

Regional Geographies – Preferred Growth Alternative

The Growth Management Policy Board incorporated several changes to the regional geographies in the Preferred Growth Alternative based on feedback and new information from local governments. In Kitsap County, unincorporated areas affiliated for annexation by cities were shifted to the city's regional geography to account for the local process to develop growth targets. The unincorporated community of Kingston was also reclassified as an HCT Community to account for its ferry service and plans for future incorporation. Changes in Pierce County reclassified some Urban Unincorporated areas as HCT Communities to account for upcoming action to designate additional Planned Incorporation Areas and plan for additional bus rapid transit service. Growth allocations were adjusted to account for these changes, as well. Table 3.1-3 lists the revised classification of the region's cities and other areas according to these geographic categories. Figure 3.1-2 shows the revised distribution of the regional geographies.

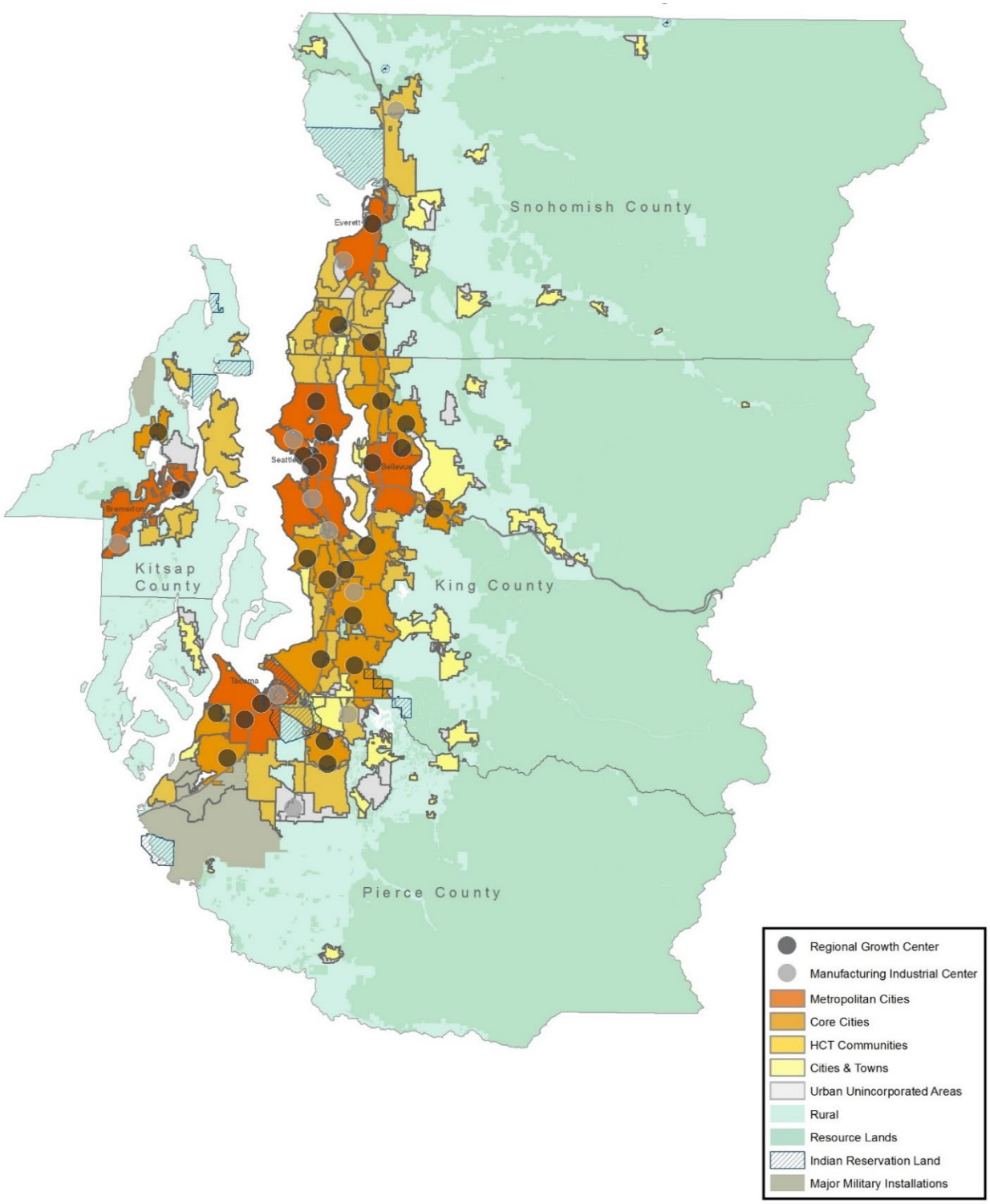
Table 3.1-3. Description of Regional Geographies – Preferred Growth Alternative

Regional Geographies				
Metropolitan Cities | Central cities in the county that serve as civic, cultural, economic, and transportation hubs and have at least one regional growth center				
Bellevue	Bremerton & UGA	Everett	Seattle	Tacoma
Core Cities | Major cities and urban areas with transit and designated regional growth centers				
Auburn	Issaquah	Lynnwood	SeaTac	
Bothell	Kent	Puyallup	Silverdale	
Burien	Kirkland	Redmond	Tukwila	
Federal Way	Lakewood	Renton	University Place	
HCT Communities | Other cities and unincorporated urban areas (planned for annexation or incorporation) with high-capacity transit. High-capacity transit is defined as existing or planned light rail, commuter rail, ferry, streetcar, and/or bus rapid transit.				
Arlington	Everett MUGA	Lynnwood MUGA	Mukilteo MUGA	Port Orchard & UGA
Bainbridge Island	Federal Way PAA	Marysville	Newcastle	Poulsbo & UGA
Bothell MUGA	Fife	Mercer Island	North Highline PAA	Shoreline
Des Moines	Fircrest	Mill Creek	Renton PAA	South Hill PIA**
DuPont	Kenmore	Mill Creek MUGA	Parkland-Spanaway-	Sumner
Edmonds	Kingston	Mountlake Terrace	Midland PAA**	Woodinville
Edmonds MUGA	Lake Forest Park	Mukilteo	Pierce Mid-County	
	Larch Way Overlap		(part)**	
Cities & Towns | Cities and towns with local transit access or without fixed-route transit				
Algona	Covington	Hunts Point	Orting	Stanwood
Beaux Arts	Darrington	Index	Pacific	Steilacoom
Black Diamond	Duvall	Lake Stevens	Roy	Sultan
Bonney Lake	Eatonville	Maple Valley	Ruston	Wilkeson
Brier	Edgewood	Medina	Sammamish	Woodway
Buckley	Enumclaw	Milton	Skykomish	Yarrow Point
Carbonado	Gig Harbor	Monroe	Snohomish	
Carnation	Gold Bar	Normandy Park	Snoqualmie	
Clyde Hill	Granite Falls	North Bend	South Prairie	
Urban Unincorporated Areas | Urban areas without high-capacity transit and/or not affiliated for annexation or planned for incorporation				
All Remaining Urban Unincorporated Areas				
Rural | Designated Rural Lands				
All Designated Rural Areas				
Resource Lands* | Designated agricultural, mineral, and forest resource lands				
All Designated Resource Lands				
Indian Reservation Lands* | Permanent homelands of tribal nations designated through treaty, Executive, or Congressional Acts.				
Muckleshoot Indian Reservation, Nisqually Indian Reservation, Port Gamble Indian Reservation (Port Gamble S'Klallam Tribe), Port Madison Reservation (Suquamish Tribe), Puyallup Indian Reservation, Sauk-Suiattle Indian Reservation, Snoqualmie Indian Reservation, Stillaguamish Indian Reservation, Tulalip Indian Reservation				
Major Military Installations* | Installations with more than 5,000 enlisted and service personnel				
Joint Base Lewis McChord Naval Base Kitsap – Bangor Naval Base Kitsap – Bremerton Naval Station Everett				

Source: PSRC

MUGA = Municipal Urban Growth Area; PAA = Potential Annexation Area; PIA = Planned Incorporation Area; * = Geography not allocated forecasted regional growth; ** Notable change from Table 3.1-2

Figure 3.1-2. Regional Geographies – Preferred Growth Alternative



Source: PSRC

County Shares

Once a framework for regional geographies was established, the next step for developing the action alternatives was to determine the shares of growth for each county. PSRC reviewed the Medium Series of the supplemental 2050 GMA population projections developed by OFM. Using the Medium Series, the percentage share to each county was applied to PSRC's Macroeconomic Forecast to determine the relative shares of growth to each county (Table 3.1-4). Compared to the updated shares used in the action alternatives, Stay the Course and previous projections from OFM anticipated lower shares of regional growth to King County and relatively higher shares to Kitsap, Pierce, and Snohomish counties. This shift of population growth represents an important difference, with approximately 200,000 more people in King County under the action alternatives than under Stay the Course (Table 3.1-5).

Table 3.1-4. Actual and Forecast Population Growth Shares by County

	2000–2017 Population % Shares (Actual)	2010–2017 Population % Shares (Actual)	2000–2040 Population % Shares (Stay the Course)	2017–2050 Population % Shares (Action Alternatives)
King County	53%	59%	42%	50%
Kitsap County	4%	4%	9%	5%
Pierce County	20%	17%	23%	21%
Snohomish County	23%	20%	26%	24%
Region Total	**100%**	**100%**	**100%**	**100%**

Source: PSRC

Table 3.1-5. Population Growth by County by Alternative, 2017–2050

	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
King County	872,000	661,000	872,000	872,000
Kitsap County	97,000	189,000	97,000	97,000
Pierce County	364,000	426,000	364,000	364,000
Snohomish County	424,000	480,000	424,000	424,000
Region	**1,756,000**	**1,756,000**	**1,756,000**	**1,756,000**

Source: PSRC

For employment, PSRC used county-level population-to-job ratios derived from present conditions to convert the revised baseline county population assumptions to employment. This approach assumes the current distributional pattern of population and jobs across the region today will carry into the future (Table 3.1-6). PSRC boards and committees provided guidance that the employment shares should be adjusted to encourage additional employment growth in Kitsap, Pierce, and Snohomish counties. As a result, the employment shares for the action alternatives reflect a 5 percent shift of employment from the original PSRC Baseline version (Table 3.1-7) from King County to Kitsap (+1 percent), Pierce (+2 percent), and Snohomish (+2 percent) counties.

Table 3.1-6. Actual and Forecast Employment Growth Shares by County

	2000–2017 Employment % Shares (Actual)	2010–2017 Employment % Shares (Actual)	2000–2040 Employment % Shares (Stay the Course)	2017–2050 Employment % Shares (PSRC Baseline)	2017–2050 Employment % Shares (Action Alternatives)
King County	57%	73%	57%	64%	59%
Kitsap County	4%	2%	5%	4%	5%
Pierce County	17%	11%	17%	15%	17%
Snohomish County	22%	14%	20%	17%	19%
Region Total	**100%**	**100%**	**100%**	**100%**	**100%**

Source: PSRC

Table 3.1-7. Employment Growth by County by Alternative, 2017–2050

	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
King County	682,000	662,000	682,000	682,000
Kitsap County	57,000	66,000	57,000	57,000
Pierce County	195,000	203,000	195,000	195,000
Snohomish County	225,000	228,000	225,000	225,000
Region	**1,158,000**	**1,158,000**	**1,158,000**	**1,158,000**

Source: PSRC

3.2 Stay the Course (No Action) Alternative

The Stay the Course Alternative (hereafter referred to as Stay the Course) is a direct extension of the VISION 2040 Regional Growth Strategy and assumes a compact growth pattern, focused in the largest and most transit-connected cities in the region with designated regional growth centers. The alternative serves as the required no action alternative that must be evaluated in accordance with SEPA.

Stay the Course continues to direct the largest shares of the region's future growth to the region's five major Metropolitan Cities: Seattle, Bellevue, Everett, Bremerton, and Tacoma. Growth is also focused into the region's Core Cities—those other cities with regional growth centers that are regional concentrations of growth and serve as economic and transportation hubs for the region.

In this alternative, considerable redevelopment would occur in the region's Metropolitan and Core Cities, with most new jobs reinforcing these areas as major regional employment centers. Job growth would be accompanied by a significant concentration of new residential growth,

often in the form of new high-rise and midrise apartments, condominiums, and townhouses built near job centers and in areas close to high-capacity transit systems.

Under Stay the Course, planned growth would continue be focused inside the urban area and, within the urban area, in cities with regional and subregional centers. Compared to historical trends, this alternative allocates less growth in Urban Unincorporated and Rural areas and more growth in cities. Growth in unincorporated urban growth areas is envisioned as occurring in affiliated annexation areas, and growth in rural areas is minimized as compared to past trends.

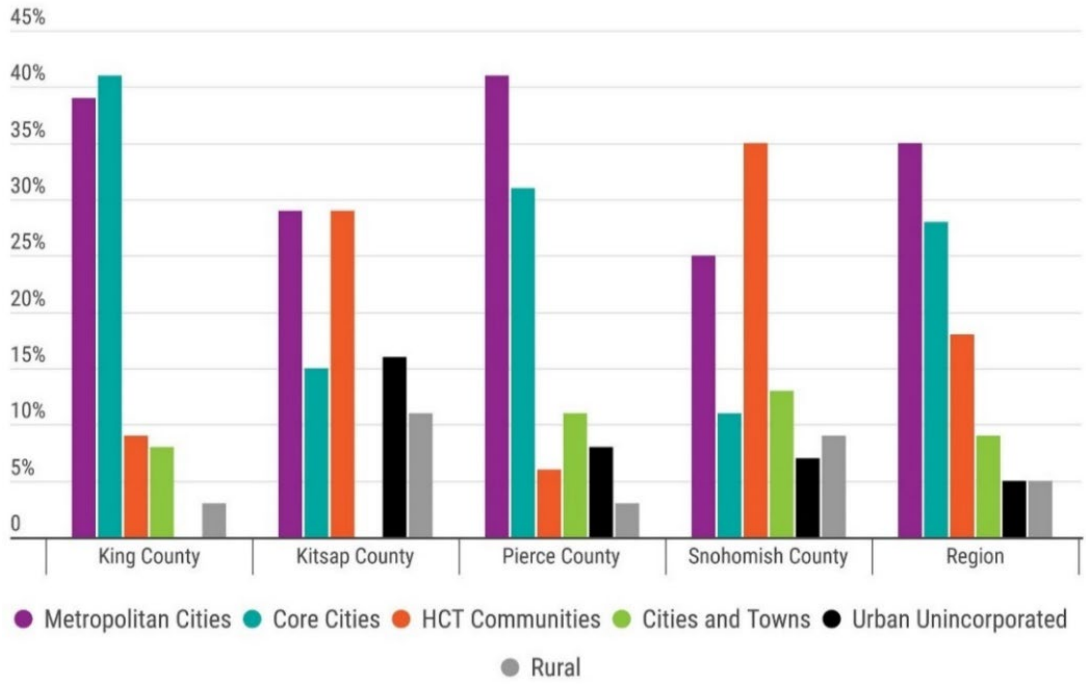
The alternative would continue to encourage a closer jobs-housing balance between the counties relative to 2000. As a direct extension of VISION 2040, Stay the Course would maintain the county growth shares in the current Regional Growth Strategy, including policy direction to increase employment distribution to Kitsap, Pierce, and Snohomish counties and increase population distribution to Kitsap and King counties, compared to the 2000 base year.

Stay the Course population and employment distribution for each regional geography is shown for the years 2017 to 2050 in Figure 3.2-1. This depicts the amount of growth remaining to achieve the shares adopted in VISION 2040. In some cases, actual growth patterns from 2000 to 2017 mean that some regional geographies are ahead of or behind the expected growth shares in VISION 2040. The shares of growth for Stay the Course assume all geographies meet the shares established in VISION 2040 starting from a 2000 base year; therefore, some growth shares may be lower or higher than shown in the adopted VISION 2040 plan to account for growth needed to achieve the plan during the remaining time period. The shares of growth in Stay the Course have also been updated to account for annexation and reclassification of some jurisdictions by PSRC's Executive Board.

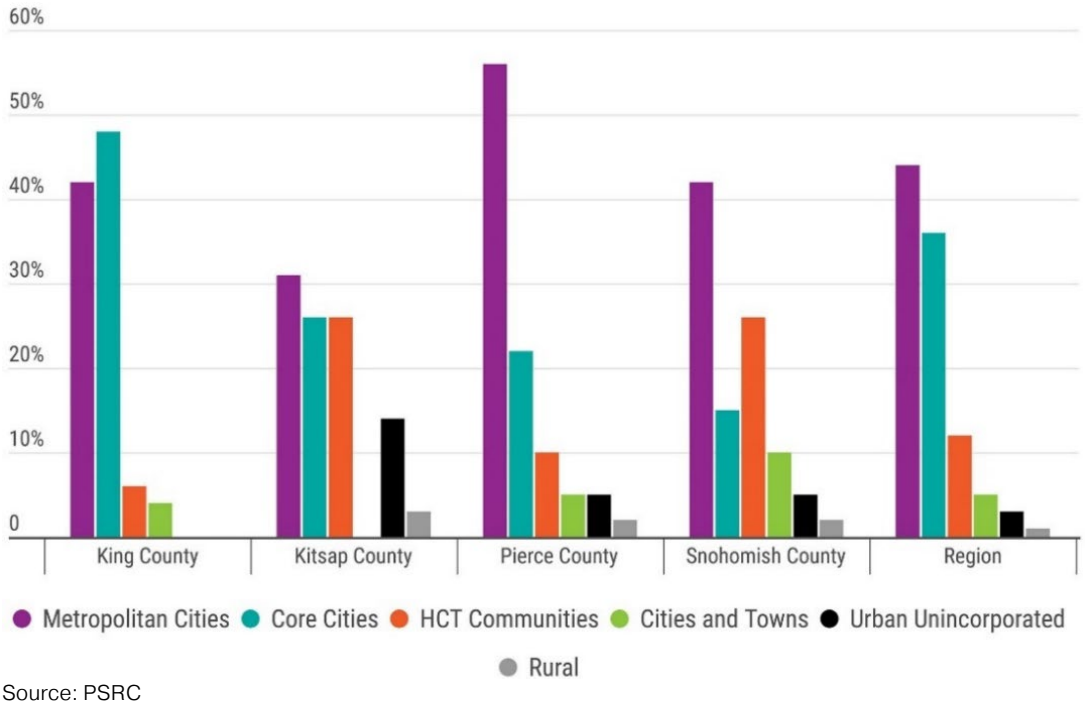
This alternative maintains the current Regional Growth Strategy allocation for shares of growth. For the purpose of this analysis, Stay the Course and subsequent data measures use the revised regional geographies described in Section 3.1.2. PSRC modeled this alternative starting with the existing VISION 2040 regional geographies and then calculated the results based on the revised system of regional geographies to allow for comparison with the action alternatives. For comparison purposes, distribution of growth under Stay the Course using the regional geographies adopted in VISION 2040 is provided in Appendix C.

Figure 3.2-1. 2017–2050 Population and Employment Percentage Share by Regional Geography: Stay the Course

Population



Employment



Source: PSRC

3.3 Transit Focused Growth Alternative

The Transit Focused Growth Alternative (hereafter referred to as Transit Focused Growth) considers a compact growth pattern based on the VISION 2040 Regional Growth Strategy that assumes accelerated growth near the region's existing and planned transit investments.

Transit Focused Growth has an explicit goal for 75 percent of the region's population and employment growth to occur within regional growth centers and within a quarter-mile to a half-mile from current and planned investments in high-capacity transit, including light rail, bus rapid transit, commuter rail, ferries, and streetcar. This would result in the largest shares of growth to Metropolitan Cities, Core Cities, and HCT Communities (Figure 3.3-1).

This alternative assumes a greater role for areas served by high-capacity transit outside of Metropolitan and Core Cities. The remaining share of population and employment growth not identified for regional geographies with high-capacity transit would be distributed largely within the urban growth area among areas not served by high-capacity transit.

Growth in unincorporated urban growth areas with existing or planned high-capacity transit and planned for annexation or incorporation would be similar to cities with high-capacity transit.

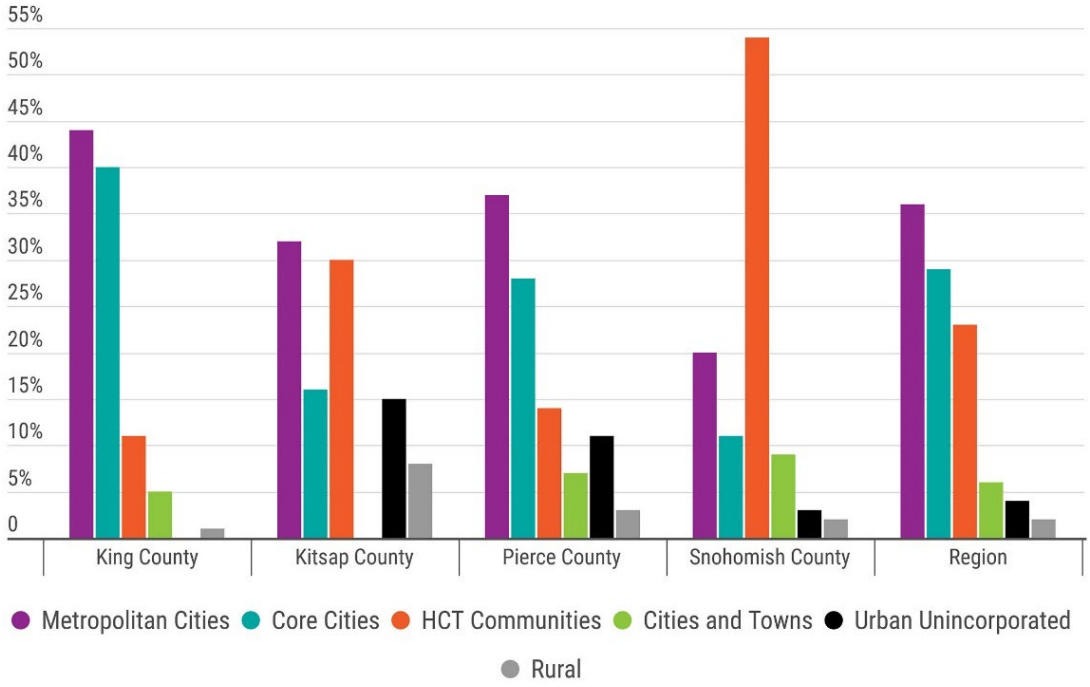
Growth in Rural areas would be the lowest of the alternatives, comprising just 2 percent of the region's population growth. Growth in Urban Unincorporated areas without access to high-capacity transit and unaffiliated unincorporated areas is the second lowest in this alternative, with 4 percent of population growth and 2 percent of employment growth.

Unlike Stay the Course, this alternative assumes a county distribution of growth based on the 2017 OFM 2050 population projections, which generally assumes higher levels of growth in King County and comparatively lower shares of growth in Kitsap, Pierce, and Snohomish counties. The alternative also encourages more dispersed employment growth by assuming a 5 percent policy-based shift of regional employment growth from King County to Kitsap (+1 percent), Pierce (+2 percent), and Snohomish (+2 percent) counties.

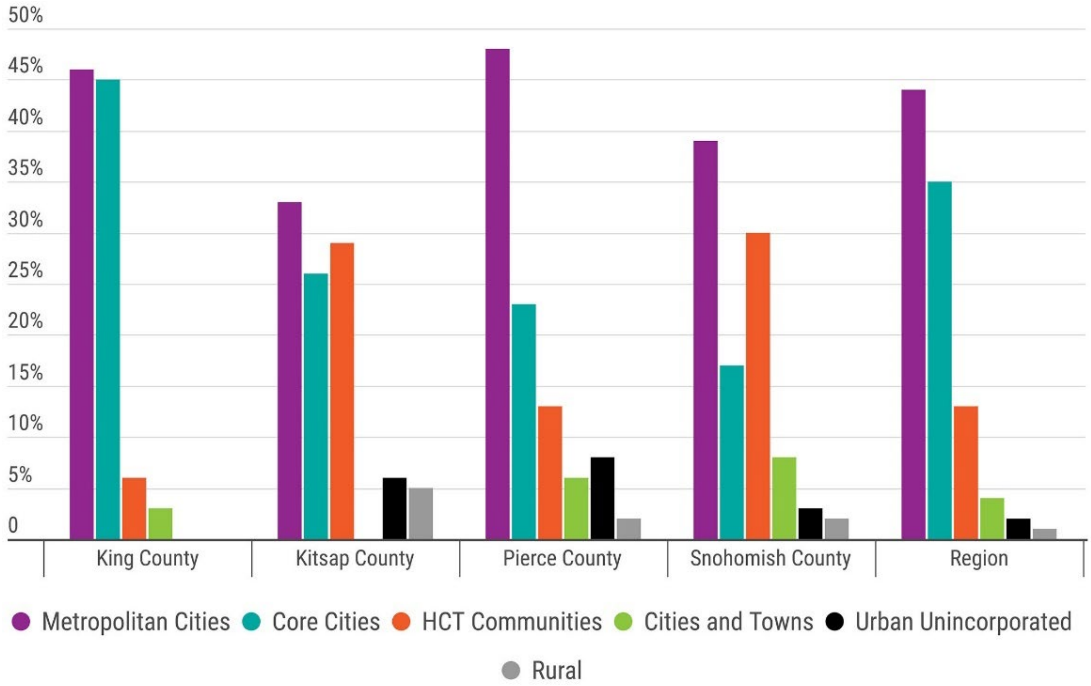
PSRC

Figure 3.3-1. 2017–2050 Population and Employment Percentage Share by Regional Geography: Transit Focused Growth

Population



Employment



Source: PSRC

3.4 Reset Urban Growth Alternative

The Reset Urban Growth Alternative (hereafter referred to as Reset Urban Growth) is based on VISION 2040 and shares similarities with actual growth patterns that occurred from 2000 to 2016 and assumes a generally more distributed growth pattern throughout the urban area.

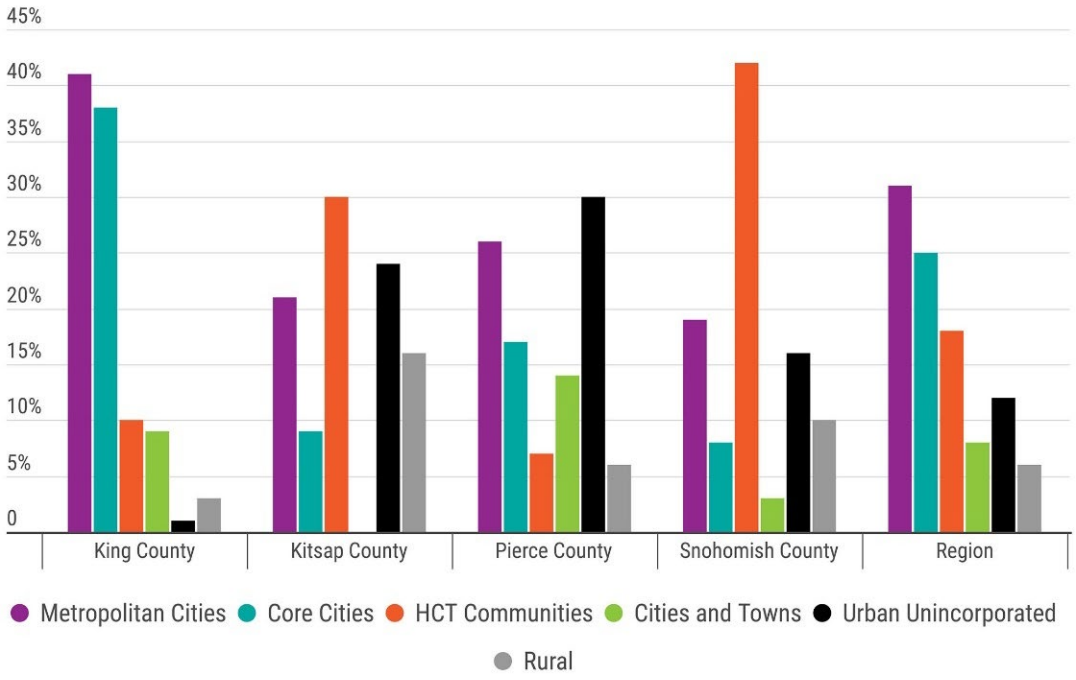
Reset Urban Growth would allocate the largest shares of growth to Metropolitan Cities and Core Cities and follow a pattern similar to Stay the Course, although the overall growth to Metropolitan Cities, Core Cities, and HCT Communities would be less compared to the other alternatives (Figure 3.4-1).

This alternative assumes growth pattern in Cities & Towns and Urban Unincorporated areas similar to currently planned land use capacity in those areas. The alternative uses Buildable Lands capacity, plus an additional 10 percent, to establish growth allocations for the Cities & Towns and Urban Unincorporated regional geographies. In using capacity to establish growth shares for Cities & Towns, the growth allocations are slightly lower than the Stay the Course Alternative, which used other planning assumptions from VISION 2040. Growth in Urban Unincorporated areas without access to high-capacity transit and in unaffiliated unincorporated areas is the highest in this alternative, with 12 percent of population growth and 6 percent of employment growth. Growth in Rural areas would be slightly higher than Stay the Course, at 6 percent of the region's population growth.

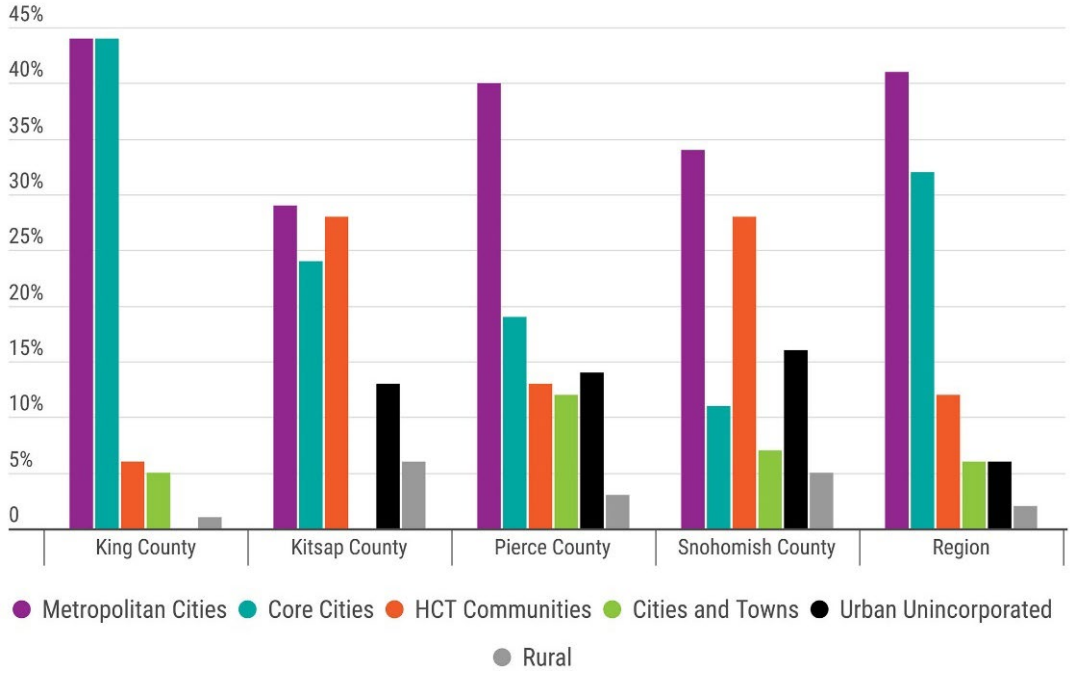
Unlike Stay the Course, this alternative assumes a county distribution of growth based on the 2017 OFM 2050 population projections, which generally assumes higher levels of growth in King County and comparatively lower shares of growth in Kitsap, Pierce, and Snohomish counties. The alternative also encourages more dispersed employment growth by assuming a policy-based 5 percent shift of regional employment from King County to Kitsap (+1 percent), Pierce (+2 percent), and Snohomish (+2 percent) counties.

Figure 3.4-1. 2017–2050 Population and Employment Percentage Share by Regional Geography: Reset Urban Growth

Population



Employment



Source: PSRC

3.5 Preferred Growth Alternative

Similar to Transit Focused Growth, the Preferred Growth Alternative considers a compact growth pattern based on the VISION 2040 Regional Growth Strategy that assumes accelerated growth near the region's existing and planned transit investments.

The Preferred Growth Alternative is primarily based on Transit Focused Growth, with adjustments to some growth allocations, regional geographies, and the high-capacity transit growth goal to reflect growth trends and local planning considerations. The alternative has an explicit goal for 65 percent of the region's population growth and 75 percent of employment growth to occur within regional growth centers and within a quarter-mile to a half-mile from current and planned investments in high-capacity transit, including light rail, bus rapid transit, commuter rail, ferries, and streetcar. This would result in the largest shares of growth to Metropolitan Cities, Core Cities, and HCT Communities (Figure 3.5-1) of all regional geographies.

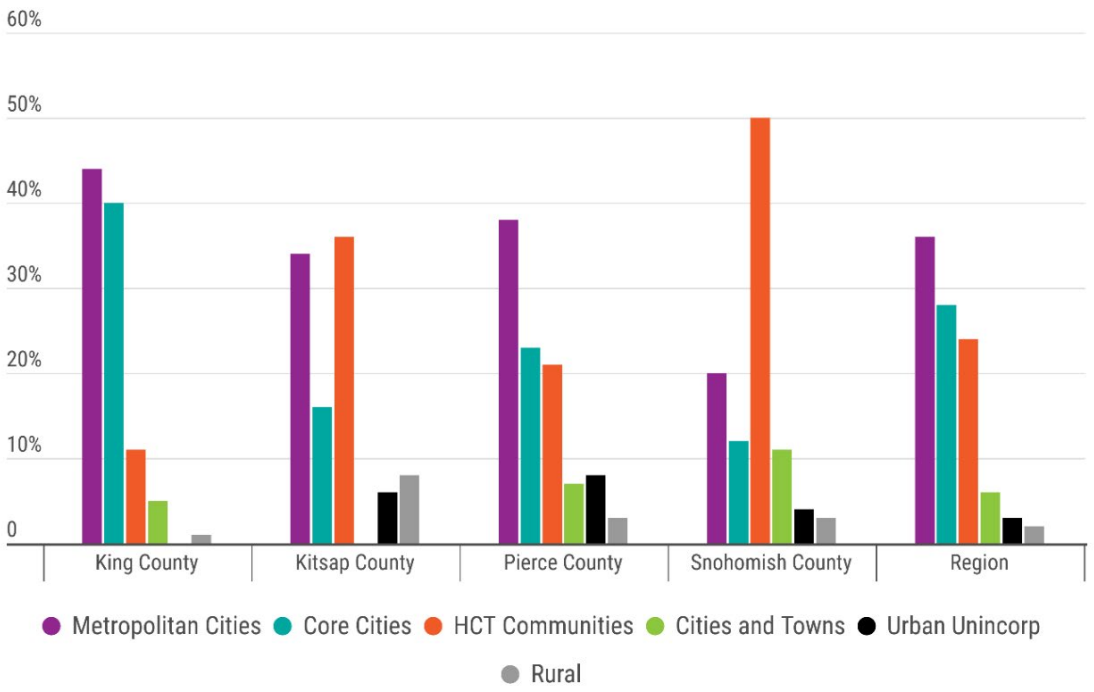
This alternative assumes a greater role for areas served by high-capacity transit outside of Metropolitan and Core Cities. The remaining share of population and employment growth not identified for regional geographies with high-capacity transit would be distributed largely within the remaining urban growth area.

Growth in unincorporated urban growth areas with existing or planned high-capacity transit and planned for annexation or incorporation would be similar to cities with high-capacity transit. Growth in Rural areas would be lower than Stay the Course, but would be similar to the Transit Focused Growth, comprising just 2 percent of the region's population growth. Growth in Urban Unincorporated areas without access to high-capacity transit and unaffiliated unincorporated areas is the lowest in this alternative, with 3 percent of population growth and 2 percent of employment growth, although some areas are classified under different regional geographies in this alternative.

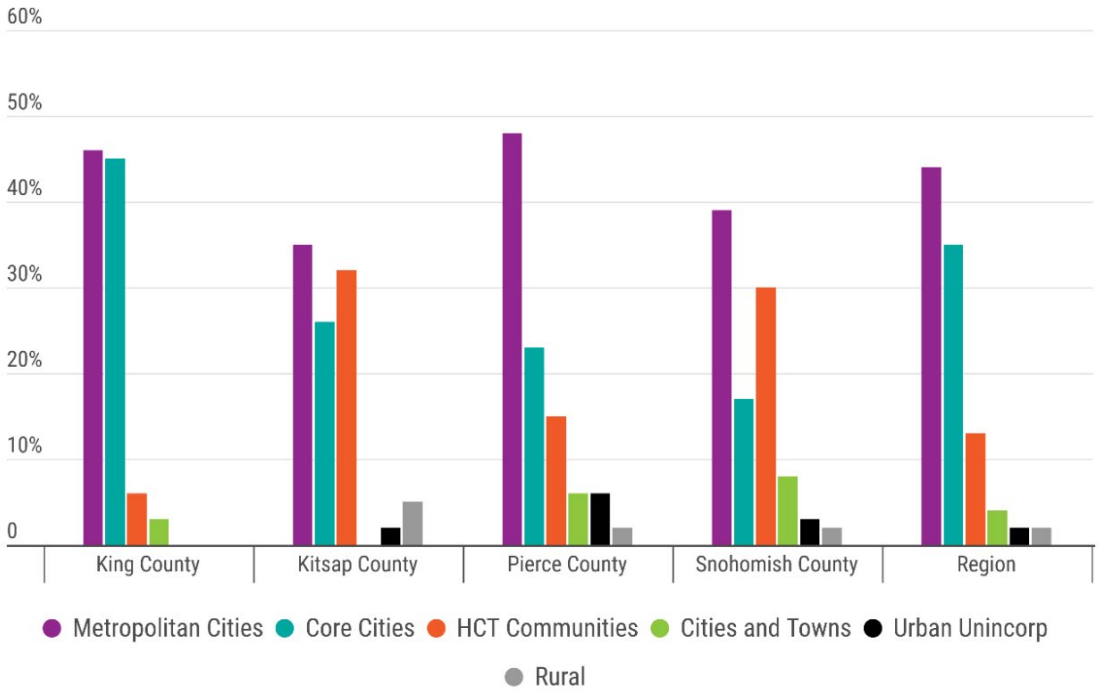
Like Transit Focused Growth, this alternative assumes a county distribution of growth based on the 2017 OFM 2050 population projections, which generally assume higher levels of growth in King County and comparatively lower shares of growth in Kitsap, Pierce, and Snohomish counties. The alternative also encourages more dispersed employment growth by assuming a 5 percent policy-based shift of regional employment growth from King County to Kitsap (+1 percent), Pierce (+2 percent), and Snohomish (+2 percent) counties.

Figure 3.5-1. 2017–2050 Population and Employment Percentage Share by Regional Geography: Preferred Growth Alternative

Population



Employment



Source: PSRC

The key differences between Transit Focused Growth and the Preferred Growth Alternative are the amount of growth planned for high-capacity transit stations and regional geographies. While Transit Focused Growth assumes 75 percent of future population and employment growth in centers and high-capacity transit station areas, the Preferred Growth Alternative assumes a lower total of 65 percent of population growth in these areas, based on growth trends, peer regions, and current capacity for growth. The Preferred Growth Alternative also includes additional Urban Unincorporated areas in the HCT Communities geography to reflect updated information from the counties on plans for high-capacity transit and planning for incorporation. Growth allocations for the Urban Unincorporated geography were reduced to reflect the smaller overall area included in the geography. The Preferred Growth Alternative also includes changes to some regional geography allocations. In Snohomish County, some population growth was reallocated from HCT Communities to (in descending order of magnitude) Cities & Towns, Urban Unincorporated Areas, Core Cities, and Rural areas. The Preferred Growth Alternative also includes some additional growth to Pierce County Metropolitan Cities and less growth to Core Cities than Transit Focused Growth.

3.6 Alternatives Comparison

A high-level summary comparing the alternatives is presented in Table 3.6-1. It describes the growth pattern and population and employment allocations by regional geography for the alternatives. A comparison of population and employment growth by alternative for each regional geography is shown in Figure 3.6-1.

Each of the alternatives has a distinct distribution of population and employment growth throughout the region as described in Sections 3.2 through 3.5 above. Population growth for each alternative is depicted in Figures 3.6-2 through 3.6-5. Maps showing employment growth are in Appendix B.

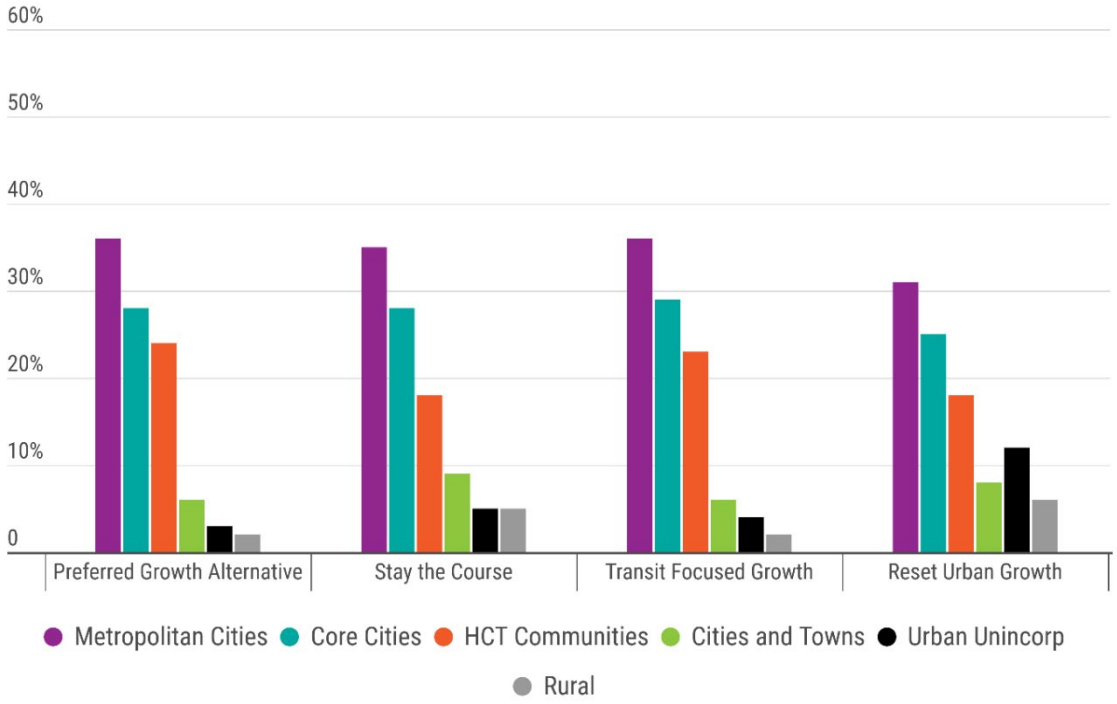
Table 3.6-1. Summary Comparison of Alternatives[1]

Topic	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
What would the growth pattern look like?	Compact growth pattern based on the VISION 2040 Regional Growth Strategy that assumes accelerated growth near the region's existing and planned transit investments.	Compact Growth focused in Metropolitan and Core cities with regional growth centers. Extends current growth plan.	Most compact growth pattern focused in high-capacity transit areas in Metropolitan, Core, and HCT Communities. Low growth in outlying areas.	Growth is more distributed throughout the urban growth area, while still assuming a large share of growth to Metropolitan and Core cities. Most growth in Urban Unincorporated and Rural areas.
Where would population growth go?	**Metropolitan Cities:** 36% **Core Cities:** 28% **HCT Communities**: 24% **Cities & Towns:** 6% **Urban Unincorporated:** 3% **Rural:** 2	**Metropolitan Cities:** 35% **Core Cities:** 28% **HCT Communities**: 18% **Cities & Towns:** 9% **Urban Unincorporated:** 5% **Rural:** 5%	**Metropolitan Cities:** 36% **Core Cities:** 29% **HCT Communities**: 23% **Cities & Towns:** 6% **Urban Unincorporated:** 4% **Rural:** 2%	**Metropolitan Cities:** 31% **Core Cities:** 25% **HCT Communities**: 18% **Cities & Towns:** 8% **Urban Unincorporated:** 12% **Rural:** 6%
Where would employment growth go?	**Metropolitan Cities:** 44% **Core Cities:** 35% **HCT Communities**: 13% **Cities & Towns:** 4% **Urban Unincorporated:** 2% **Rural:** 1%	**Metropolitan Cities:** 44% **Core Cities:** 36% **HCT Communities**: 12% **Cities & Towns:** 5% **Urban Unincorporated:** 3% **Rural:** 1%	**Metropolitan Cities:** 44% **Core Cities:** 35% **HCT Communities**: 13% **Cities & Towns:** 4% **Urban Unincorporated:** 2% **Rural:** 1%	**Metropolitan Cities:** 41% **Core Cities:** 32% **HCT Communities**: 12% **Cities & Towns:** 6% **Urban Unincorporated:** 6% **Rural:** 2%

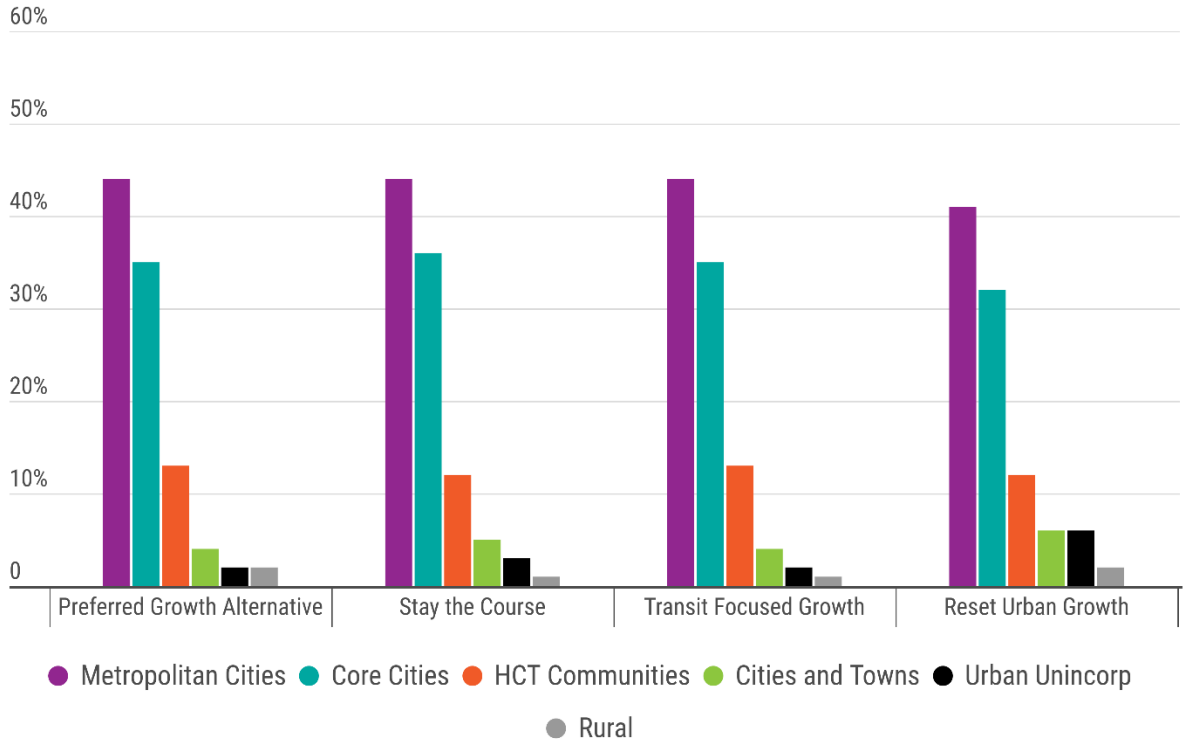
[1] Percentages may not total 100% due to rounding

Figure 3.6-1. Comparison of Growth Allocations by Alternative, 2017–2050

Population Growth

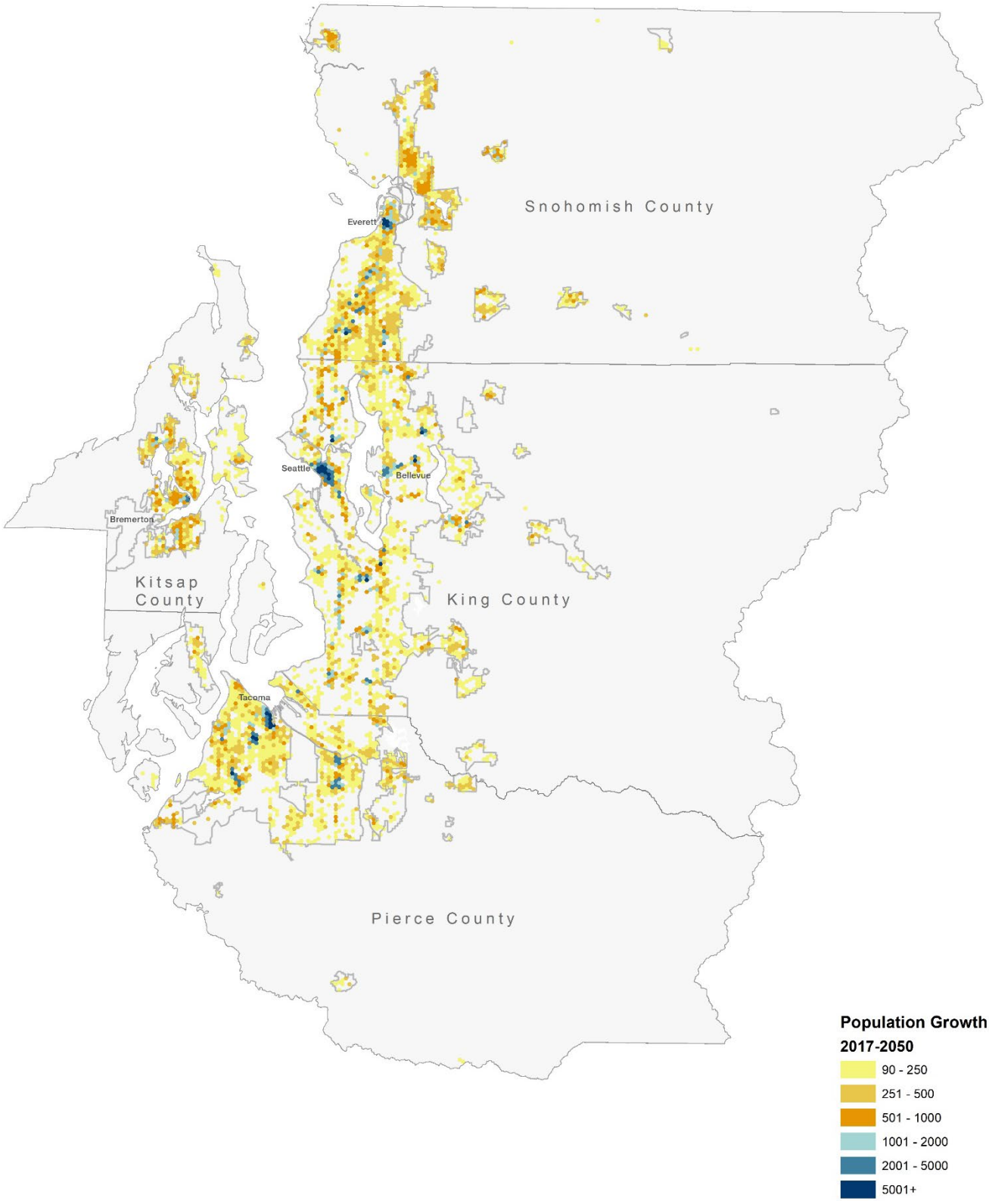


Employment Growth



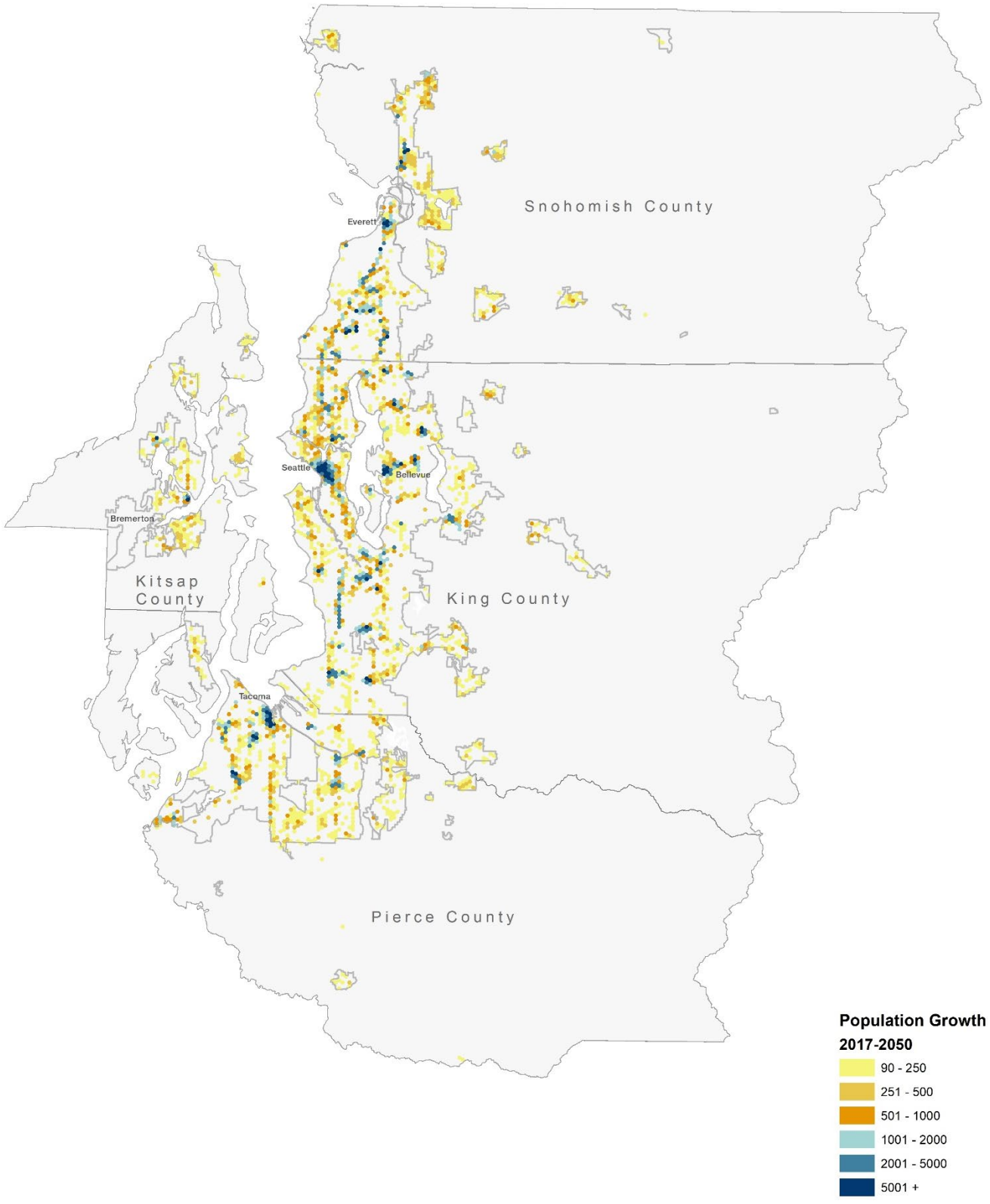
Source: PSRC

Figure 3.6-2. Stay the Course: Population Distribution, 2017–2050



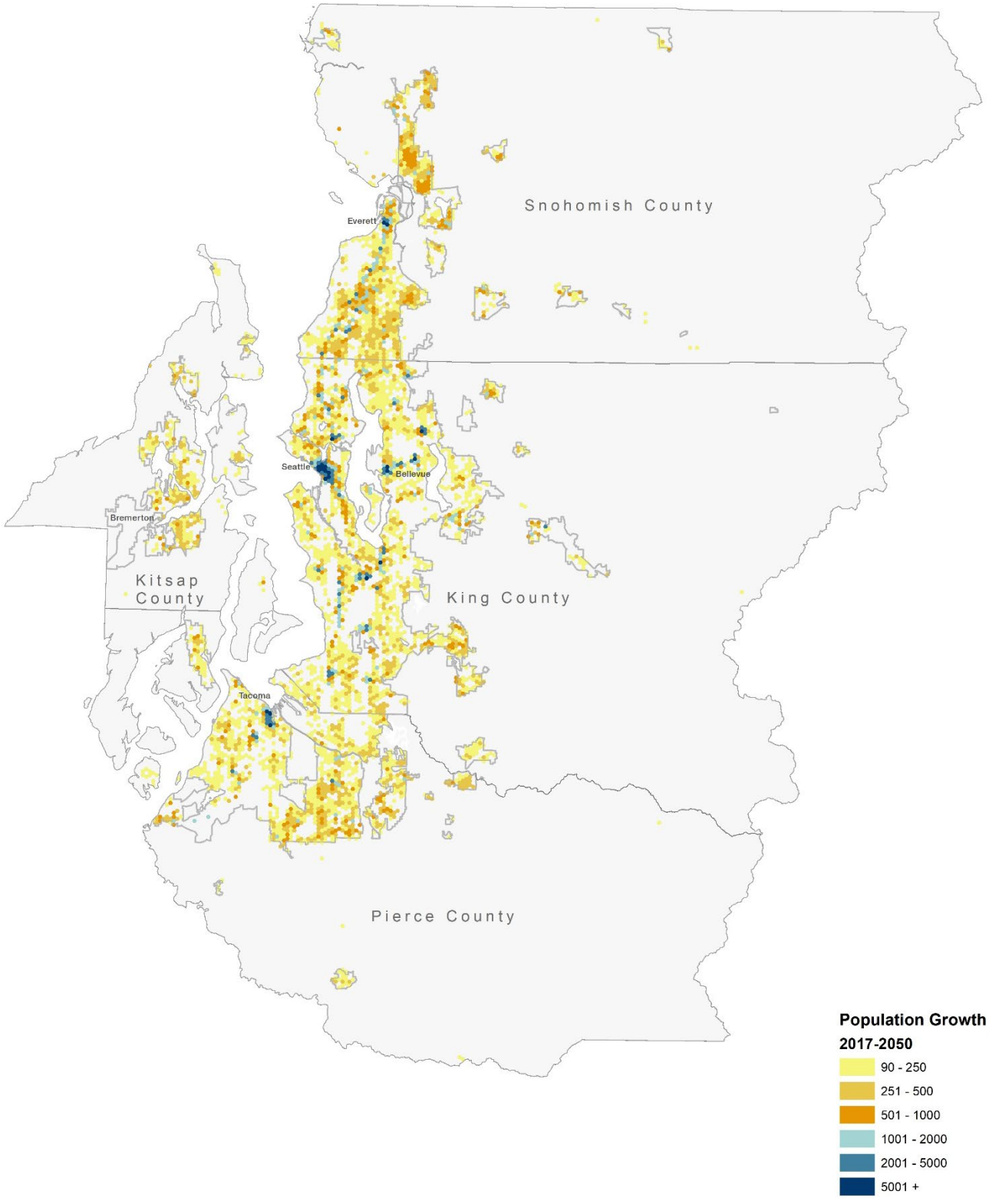
Source: PSRC

Figure 3.6-3. Transit Focused Growth: Population Distribution, 2017–2050



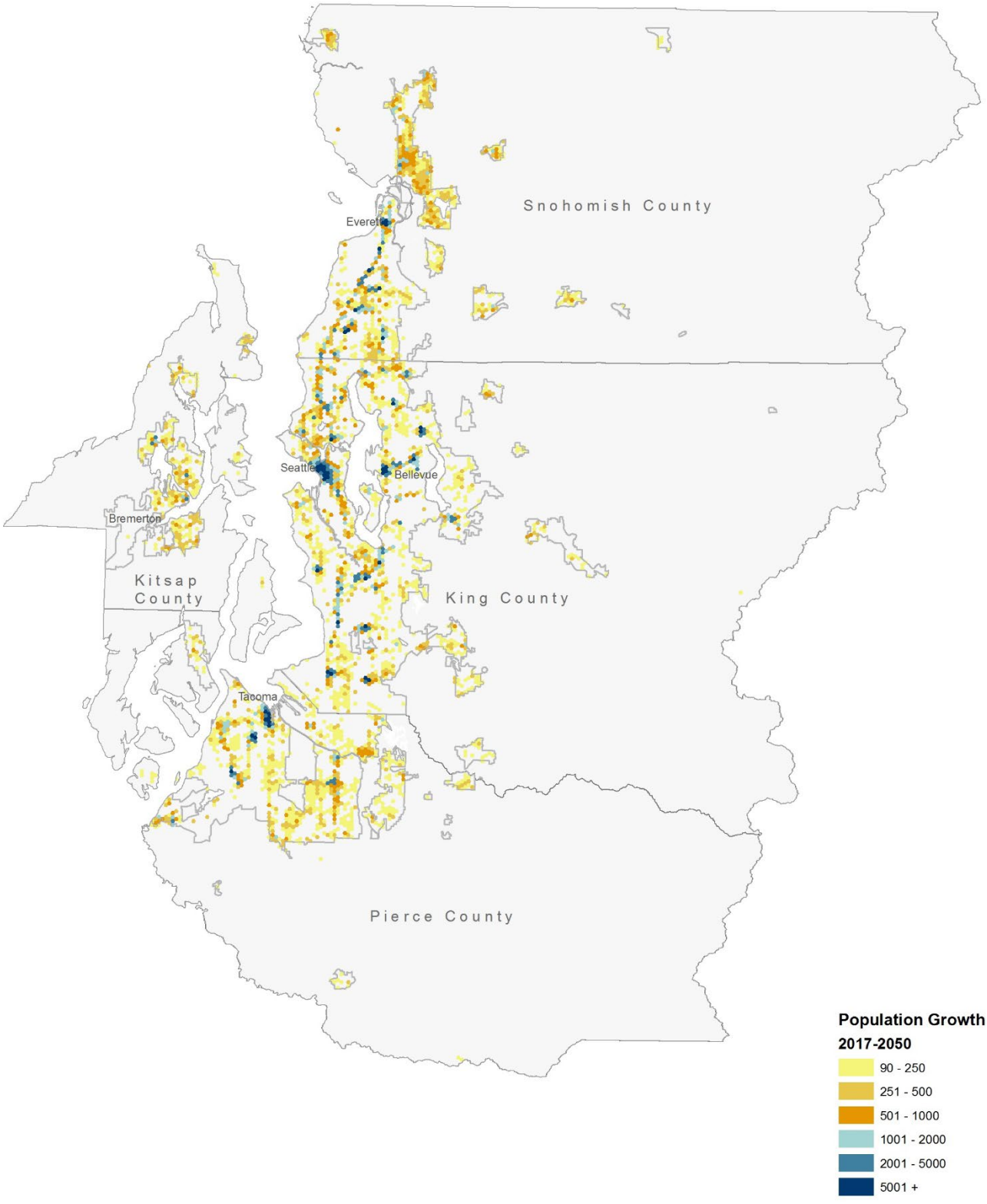
Source: PSRC

Figure 3.6-4. Reset Urban Growth: Population Distribution, 2017–2050



Source: PSRC

Figure 3.6-5. Preferred Growth Alternative: Population Distribution, 2017–2050



Source: PSRC


PSRC

4. Environmental Effects and Mitigation

This chapter describes how the central Puget Sound region's built and natural resources could be affected by each of the regional growth alternatives. For each resource, the analysis describes:

- Impacts common to all alternatives
- Impacts for each of the alternatives—Preferred Growth, Stay the Course (no action), Transit Focused Growth, and Reset Urban Growth alternatives
- Cumulative effects of the alternatives with other changes in the region
- Potential measures to mitigate impacts
- Social equity considerations (as applicable)
- Significant unavoidable adverse impacts

Comprehensive data supporting the impact analysis can be found in Appendix B.

4.1 Population, Employment, and Housing

This section describes regional impacts of the population and employment growth likely to occur under each of the alternatives and updates in VISION 2040 FEIS Section 5.1.2.

All alternatives assume the same amount of regional growth in population and employment from 2017 to 2050—1.8 million additional people and 1.2 million additional jobs. The difference

between alternatives is how the growth is allocated among the regional geographies—Metropolitan Cities, Core Cities, HCT Communities, Cities & Towns, Urban Unincorporated, and Rural areas—and among the region's four counties (described in detail in Sections 3.2 through 3.4). These differences impact jobs-housing balance and housing densities. Additional related topics that are discussed in other sections, include:

- Growth in proximity to high-capacity transit (Section 4.2)
- Jobs accessible by transit, biking, and walking (Section 4.3)
- Growth in areas at risk of displacement (Section 5.5)

What are cumulative effects?

Cumulative effects are project-related environmental effects in combination with the effects of other past, present, and reasonably foreseeable projects in the vicinity. In other words, they are the combined individual effects of multiple projects over time. SEPA requires the evaluation of cumulative effects as part of the EIS analysis.

What are mitigation measures?

Mitigation measures are procedures or actions taken to avoid, minimize, and mitigate project effects. The mitigation measures have been used to inform policies in VISION 2050. The VISION 2040 FEIS proposed mitigation measures, nearly all of which are still applicable. This Final SEIS includes those mitigation measures and proposes additional supplemental measures based on new technologies, programs, and policies since publication of the FEIS.

What are social equity considerations?

Social equity considerations are provided for several elements where impacts can be differentiated between the entire regional population and social equity communities. Two "equity geographies" are considered:

1. **People of color equity geographies** – Census tracts where over 50 percent of the residents today are people of color.
2. **Low-income equity geographies** – Census tracts where over 50 percent of the households today earn less than 200 percent of the federal poverty level.

Chapter 5 contains maps showing locations of these census tracts. These identified areas have current concentrations of people with low incomes and people of color, but this analysis recognizes regional distribution of these populations may change by 2050. The measures presented here are one way to consider differential impact of alternatives on areas with a majority of people of color and people with low incomes. Additional details about environmental justice can be found in Chapter 5 and Appendix H.

4.1.1 Analysis of Alternatives

4.1.1.1 *Impacts Common to All Alternatives*

All regional geographies and counties will need to accommodate a share of regional population and employment growth. Growth directed toward built areas will increase density and encourage infill and redevelopment. Growth in less-developed and rural areas would result in lower-density land uses and development pressures on natural resource lands. Under all alternatives, low-income households in affordable urban neighborhoods have the potential to be displaced by higher-income households unless adequate affordable housing opportunities or other supports are provided. As described in Section 2.3, moderate-density housing tends to provide more affordable housing choices than either low- or high-density housing options (PSRC 2018h).

4.1.1.2 *Comparison of Alternatives*

This section describes and compares impacts for the Preferred Growth, Stay the Course, Transit Focused Growth, and Reset Urban Growth alternatives. Supporting data for jobs-housing balance and housing growth by density is shown in Figures 4.1-1 and 4.1-2. Jobs-housing balance indices for 2017 are also shown in Figure 2.3-5.

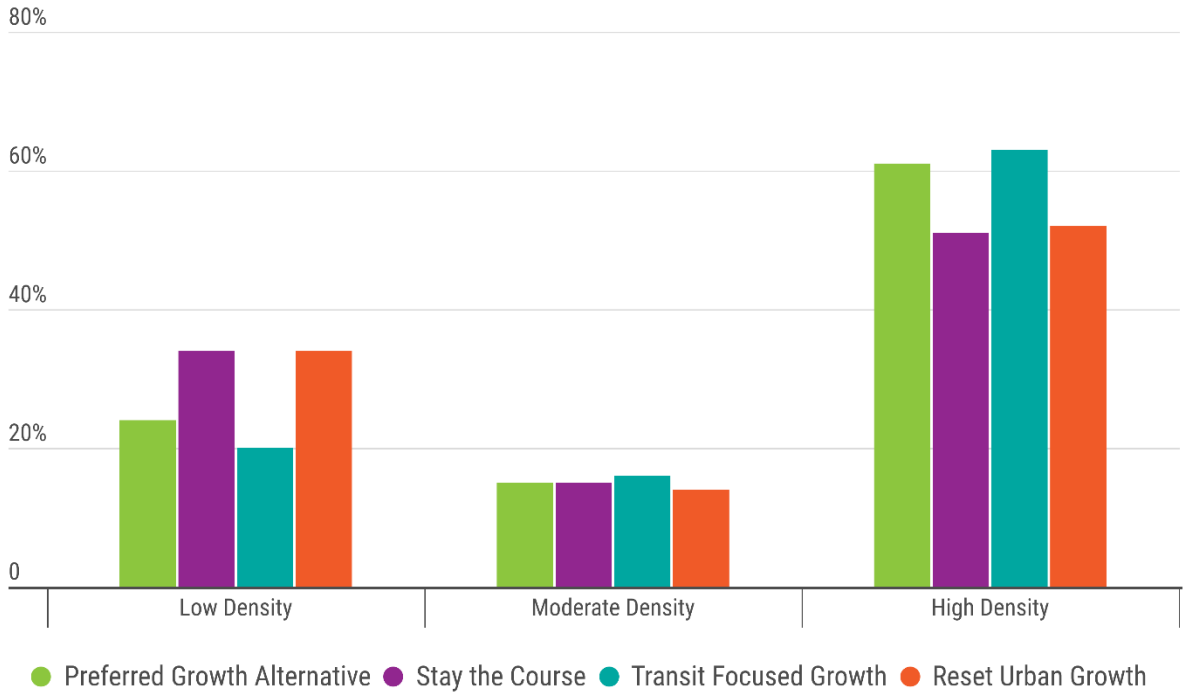
Jobs-housing balance is a planning concept that advocates for housing and employment to be located close together. A jobs-housing ratio (here, indexed to the regional average) compares the number of jobs in relation to the number of housing units in a given area. A lack of housing, especially housing affordable to moderate- and low-income households close to job centers, will push demand for affordable homes to more distant areas, increasing commute times and development pressure outside of the urban growth area, which could lead to natural resource impacts and higher household transportation costs. A "balance" of jobs and housing is achieved when a community attains roughly the regional average ratio.

Figure 4.1-1. Jobs-Housing Index

Source: PSRC

Note: Ratios are indexed to the regional average jobs-housing number to facilitate comparability between the 2017 base year and 2050 values. An index of 1.0 indicates when the balance between jobs and housing in a given area is equal to the regional average. An index higher than 1.0 indicates an employment-rich area, while an index lower than 1.0 indicates a housing-rich area. Subareas within King County include "Sea-Shore" (Seattle, Shoreline), "East King" (Mercer Island, Newcastle, and all cities north to the county line, east of Lake Washington), and "South King" (Renton, Tukwila, Burien, and all cities south to the county line).

Figure 4.1-2. Regional Housing Growth in Areas Zoned for Low-, Moderate-, and High-Density Development, 2017–2050



Source: PSRC
Note: Low density is defined as less than 12 units/acre, moderate density as 12-49 units/acre, and high density as 50+ units/acre. These groupings generally translate to single-family development; duplex, triplex, townhome, and low-rise apartment/condo buildings; and high-rise apartment/condo buildings.

Summary of Key Differences

Jobs-Housing Balance – Counties and subareas under the Preferred Growth, Transit Focused Growth, and Reset Urban Growth alternatives have similar jobs-housing ratio indices and would see a better balance of jobs throughout the region compared to Stay the Course.

Housing Growth by Density – Regionwide, the proportion of moderate-density housing (defined as between 12 and 49 units per acre) would be highest for Transit Focused Growth (16 percent), followed by the Preferred Growth Alternative and Stay the Course (15 percent), and Reset Urban Growth (14 percent). The proportion of high-density housing would be highest for Transit Focused Growth (63 percent), followed by the Preferred Growth Alternative (61 percent), Reset Urban Growth (52 percent), and Stay the Course (51 percent). The proportion of low-density housing would be highest for Stay the Course and Reset Urban Growth (34 percent), followed by the Preferred Growth Alternative (24 percent), and Transit Focused Growth (20 percent).

4.1.1.3 *Impacts of the Preferred Growth Alternative*

As described in Section 3.5, this alternative assumes that 65 percent of the region's population growth and 75 percent of employment growth will occur within regional growth centers and within a quarter- to a half-mile from current and planned high-capacity transit station areas, with the largest growth shares going to Metropolitan Cities, Core Cities, and HCT Communities. The alternative limits growth in Rural areas and assumes a greater role for areas served by high-capacity transit outside of Metropolitan and Core Cities. The alternative also encourages more regionally distributed employment growth by assuming a 5 percentage point policy-based shift of regional employment growth from King County to Kitsap, Pierce, and Snohomish counties.

Jobs-Housing Balance

The jobs-housing indices across the region are depicted in Figure 4.1-1. All of the subareas within King County would have a jobs-housing ratio indexed above 1.0, with the South King subarea at 1.03, Sea-Shore at 1.19, and East King at 1.29. Kitsap, Pierce, and Snohomish counties have jobs-housing ratio indices below 1.0, at either 0.80 or 0.81. Additional background on jobs-housing balance is provided in Section 2.3.

Housing Growth by Density

Under the Preferred Growth Alternative, proportions of housing growth by density at the regional level are 61 percent high density, 15 percent moderate density, and 24 percent low density (Table 4.1-1). At a county level, there are several large deviations from the regional average:

- King County would produce the largest proportion of high-density housing and the lowest proportion of low- and moderate-density housing. Due to the large population allocated to King County, this trend would drive the regional pattern.
- Kitsap County would produce the highest proportion of low- and moderate-density housing and the lowest proportion of high-density housing.
- Compared to the region, Pierce and Snohomish counties would have lower distributions in high-density housing, similar distributions of moderate density housing, and similar or higher proportions of low-density housing.

Table 4.1-1. Housing Growth in Areas Zoned for Low-, Moderate-, and High-Density Development, 2017–2050, by County for the Preferred Growth Alternative

	High-Density	Moderate Density	Low Density
King County	72%	12%	16%
Kitsap County	14%	22%	64%
Pierce County	47%	17%	36%
Snohomish County	56%	18%	25%
Region	**61%**	**15%**	**24%**

Source: PSRC

4.1.1.4 *Impacts of Stay the Course (No Action) Alternative*

Stay the Course assumes compact growth in regional growth centers and strong growth in Metropolitan and Core Cities as described in Section 3.2. In addition, some growth is dispersed throughout other suburban communities and outlying areas. The distribution of growth across counties is distinct from the other three alternatives, with more employment and especially population growth allocated to Kitsap, Pierce, and Snohomish counties. These patterns drive jobs/housing balance and housing densities.

Jobs-Housing Balance

The jobs-housing indices across the region with Stay the Course are depicted in Figure 4.1-1. All of the subareas within King County have a jobs-housing ratio indexed above 1.0, and range from 1.12 to 1.37, indicating that they are employment-rich areas. The jobs-housing ratio index is 1.12 for South King, 1.19 for Sea-Shore, and 1.37 for East King subareas. Kitsap, Pierce, and Snohomish counties have jobs-housing ratio indices ranging from 0.65 to 0.77, which means these areas have more housing than jobs compared to the region overall. The lowest jobs-housing ratio index—0.65—is in Kitsap County. Additional background on jobs-housing balance is provided in Section 2.3.

Housing Growth by Density

Under Stay the Course, proportions of housing growth by density at the regional level are 51 percent high density, 15 percent moderate density, and 34 percent low density (Table 4.1-2). At a county level, there are several large deviations from the regional average:

- King County would produce the largest proportion of high-density housing and the lowest proportion of low- and moderate-density housing. Due to the large population allocated to King County, this trend drives the regional pattern.
- Kitsap County would produce the highest proportion of low-density housing and the lowest proportion of high-density housing. Moderate-density housing growth would be slightly higher than the region.
- Pierce and Snohomish counties would have lower high-density housing distributions compared to the region. Moderate-density housing growth would be similar to the region, and low-density housing growth would be higher than the region.

Table 4.1-2. Housing Growth in Areas Zoned for Low-, Moderate-, and High-Density Development, 2017–2050, by County for Stay the Course

	High-Density	Moderate-Density	Low-Density
King County	66%	12%	22%
Kitsap County	14%	19%	66%
Pierce County	41%	18%	41%
Snohomish County	47%	16%	37%
Region	**51%**	**15%**	**34%**

Source: PSRC

4.1.1.5 *Impacts of the Transit Focused Growth Alternative*

As described in Section 3.3, this alternative assumes 75 percent of the region's population and employment growth will occur within regional growth centers and within a quarter- to a half-mile from current and planned high-capacity transit station areas, with the largest shares going to Metropolitan Cities, Core Cities, and HCT Communities. It minimizes growth in Rural areas and assumes a greater role for areas served by high-capacity transit outside of Metropolitan and Core Cities. As with the Preferred Growth and Reset Urban Growth alternatives, a larger amount of population and employment growth would occur in King County. These patterns drive jobs-housing balance and housing densities.

Jobs-Housing Balance

The jobs-housing indices across the region are depicted in Figure 4.1-1. All of the subareas within King County would have a jobs-housing ratio indexed above 1.0, with the South King subarea at 1.03, Sea-Shore at 1.19, and East King at 1.29. The largest jobs-housing ratio index is 1.29 in the East King County subarea. Kitsap, Pierce, and Snohomish counties have jobs-housing ratio indices below 1.0, at either 0.80 or 0.81.

Housing Growth by Density

At a regional level, proportions of residential housing growth from 2017 to 2050 under Transit Focused Growth are expected to consist of 63 percent high density, 16 percent moderate density, and 20 percent low density (Table 4.1-3). As shown in Table 4.1-3, at a county level:

- King County would have the largest proportion of high-density housing and the lowest proportion of low- and moderate-density housing compared to the other counties.
- Kitsap County would have the highest proportion of low- and moderate-density housing and lower proportions of high-density housing compared to the other counties.
- Pierce and Snohomish counties would fall in the range between King and Kitsap counties for all housing types. Snohomish County housing growth proportions would be similar to the region.

Table 4.1-3. Housing Growth in Areas Zoned for Low-, Moderate-, and High-Density Development, 2017–2050, by County for Transit Focused Growth

	High-Density	Moderate-Density	Low-Density
King County	73%	13%	14%
Kitsap County	20%	24%	55%
Pierce County	49%	20%	31%
Snohomish County	61%	21%	19%
Region	**63%**	**16%**	**20%**

Source: PSRC

4.1.1.6 *Impacts of the Reset Urban Growth Alternative*

As described in Section 3.4, Reset Urban Growth would result in increased growth to outlying areas. Under this alternative, and similar to Transit Focused Growth and the Preferred Growth Alternative, a larger amount of population and employment growth would occur in King County. The location of population and employment would be more dispersed throughout the urban growth area, with more growth occurring in rural areas. These patterns drive jobs/housing balance and housing densities.

Jobs-Housing Balance

The expected jobs-housing indices across the region for Reset Urban Growth are depicted in Figure 4.1-1. All of the subareas within King County are expected to have a jobs-housing ratio index above 1.0, with the South King subarea close to the regional index level at 1.02, Sea-Shore at 1.21, and East King at 1.27. Kitsap, Pierce, and Snohomish counties would have jobs-housing ratio indices ranging from 0.79 to 0.81.

Housing Growth by Density

Distribution of residential housing growth from 2017 to 2050 under Reset Urban Growth is expected to consist of 52 percent high density, 14 percent moderate density, and 34 percent low density (Table 4.1-4). At a county level (Table 4.1-4):

- King County would produce the largest proportion of high-density housing and the lowest proportion of low- and moderate-density housing of all the counties.
- Kitsap County would produce the highest proportion of low- and moderate-density housing and the lowest proportion of high-density housing of all the counties.
- Pierce and Snohomish counties would fall in the range between King and Kitsap counties for all housing types.

Table 4.1-4. Housing Growth in Areas Zoned for Low-, Moderate-, and High-Density Development, 2017–2050, by County for Reset Urban Growth

	High-Density	Moderate-Density	Low-Density
King County	66%	12%	22%
Kitsap County	8%	19%	73%
Pierce County	36%	17%	47%
Snohomish County	44%	16%	41%
Region	**52%**	**14%**	**34%**

Source: PSRC

4.1.2 Cumulative Effects

Cumulative effects for all of the alternatives on population, employment, and housing are expected to be similar to those described in VISION 2040 FEIS Section 4.1.3. Growth patterns outside of the four-county region may impact the concentrations of employment and housing within the region. In addition, growth could occur at varying rates throughout the region and may not be as balanced as desired.

Other external factors that could affect population and employment levels include localized and larger-scale economic trends. The price of land, housing affordability, and lending rates related to market factors could affect the supply and distribution of housing and employment in the region. Economic downturns, major changes in employment sectors, or rapid economic increases could also affect migration to and from the region, the rate of development and demand for housing, and the availability of jobs.

Overall, increases in population and employment will contribute to climate change as increased demand for energy, goods, and services and increased development of currently forested lands results in higher greenhouse gas emissions. Although these impacts are similar for all alternatives, the contribution of growth to climate change is inversely proportional to the compactness and density of new development.

4.1.3 Potential Mitigation Measures

Mitigation measures described in the VISION 2040 FEIS remain relevant and are summarized in Table 4.1-5, which also includes new mitigation measures. Comprehensive and detailed mitigation strategies on affordable housing can be found in the PSRC Housing Background Paper (PSRC 2018g) and Housing Innovations Program (https://www.psrc.org/housing-innovations-program-hip).

Table 4.1-5. Potential Mitigation Measures: Housing and Employment

Topic: Preserve and Encourage the Creation of Affordable Housing
Potential Mitigation Measures: • Encourage planning practices to analyze and track housing issues and needs.* • Pursue design guidelines, design approaches, new technology, and alternative design approaches for small-lot development, zero lot line development, and reduced setback requirements.* • Encourage regulatory approaches such as zoning changes, minimum density ordinances, performance zoning, and inclusionary zoning.* • Fund a grant program to incentivize the planning and creation of affordable housing zones. • Provide financial incentives such as fee exemptions, density bonuses, tax credits, or transfer of development rights programs.* • Develop consistent definitions for “affordable,” “low-income,” and “moderate-income” among jurisdictions.* • Encourage the adoption of affordable housing targets by local jurisdictions.* • Establish housing targets specific to identified regional growth centers.* • Perform regular review and updates to local land use regulations to ensure consistency with affordable housing goals.* • Prioritize regional funding for transportation projects that support affordable housing.

Table 4.1-5. Potential Mitigation Measures: Housing and Employment (continued)

Topic: Preserve and Encourage the Creation of Affordable Housing
• Rezone for increased density near transit and services. • Expand housing diversity, particularly moderate-density housing. • Increase housing supply with access to employment. • Streamline regulations and reduce development restrictions, such as minimum parking requirements. • Increase funding available for affordable housing through federal low-income housing tax credits, local or countywide housing levies, or other similar measures. • Prevent displacement and preserve "naturally occurring" affordable housing through sales tax waivers, low-interest loans/revolving loan funds for preservation, and code enforcement. • Pursue tenant protections by providing multi-jurisdiction support for local enforcement of codes and affordability, support local implementation and enforcement to prevent source of income discrimination, and create legal defense funds for local jurisdictions. Include pursuing protections against discrimination for the use of Section 8 and other vouchers. • Create rental property safety programs that ensure that all rental housing units comply with life and safety standards ensuring a safe place for tenants to live. • Assess, monitor, and report housing data and trends. • Encourage a wider range of affordable housing for seniors, for special needs populations, and housing that accommodates a variety of family sizes. • Seek to create collaborative public/private partnerships to increase affordable housing development and development of tenant protection policies. • Develop and use form-based codes and allow affordable housing by-right to streamline the approval process. • Create a Housing Trust Fund that can tap private or public funds or money from the fee-in-lieu of development option to create affordable housing. • Create land banks to acquire, hold, manage and develop vacant properties for affordable housing. • Develop lease-purchase programs. This allows residents to rent homes they will eventually own, locking in lower interest and mortgage rates, while improving their credit history and increasing their savings prior to taking ownership of the homes. • Enable tax increment financing or other value capture financing (e.g., Community Revitalization Financing, Local Infrastructure Financing Tool, Local Revitalization Financing, Landscape Conservation and Local Infrastructure Program, and Local Improvement District) in places most likely to experience gentrification to fund affordable housing. • Set up impact investing opportunities to fund affordable housing projects. • Allocate increased funding for tenant and project-based vouchers. • Encourage the use of location-efficient mortgages. • Prioritize housing resources for long-term residents to prevent displacement. • Adopt microunit or single-room occupancy policies. • Defer property tax payments for long-time homeowners until they sell. • Protect developers from legal action once their project is approved to reduce the risk and cost of creating affordable housing. • Deed-restrict affordable housing to prevent rent from increasing when areas become more attractive. • Permit a developer to pay cash (equal to the value of affordable housing on the site) to the jurisdiction in lieu of providing the affordable units, which will go to financing developments of affordable housing. • Provide upzones in exchange for affordable housing. • In negotiations for contributions from a jurisdiction (e.g., financing, contributing parking, environmental cleanup costs) the jurisdiction should require affordable housing units or a fee in lieu of this affordable housing in exchange. • Incorporate an affordability requirement for Transfer of Development Rights programs.

Table 4.1-5. Potential Mitigation Measures: Housing and Employment (continued)

Topic: Preserve and Encourage the Creation of Affordable Housing
• Preserve affordable housing by tracking the expiration dates of subsidized apartment complexes and facilitating efforts to renew these contracts or the sale of these units to owners that will renew them. • Offer incentives to owners to fix up their properties in need of repair. In exchange for these incentives, the owner would agree to set aside units for affordable housing. • Waive code enforcement fines in exchange for the owner completing rehabilitation and making affordability commitments. • Eliminate unnecessary large minimum lot size requirements. • Eliminate zoning that only allows for single-family lots. • Adopt Just Cause eviction ordinances which allow tenants to be evicted only for specific reasons ("just causes"). Legal evictions under these policies can include such things as a failure to pay rent or violation of the lease terms. • Strengthen renter protections. • Offer foreclosure assistance programs that assist homeowners (financially or otherwise) when they are at risk of foreclosure. These programs may be funded with federal grants. • Charge commercial linkage fees and affordable housing impact/linkage fees (charges on developers per square foot of new market-rate, for commercial development and residential developments, respectively). These revenues are used to develop or preserve affordable housing. • Adopt station area plans and/or policies for all HCT Communities that are expected to attract significant new population or employment growth. • Conduct an inventory of existing housing, including the cost, size, condition, and use of subsidies of existing units, as part of the housing needs assessment. Use this information to identify potential sites for preservation and/or replacement. • Identify properties that contain affordable units that are at risk of displacement or conversion. • Explore options for contributing capital to a transit-oriented development property acquisition fund. • Expedited permitting for projects that include affordable units.
Topic: Support Regional Economy and Employment
Potential Mitigation Measures: • Preserve adequate land at reasonable cost for land-intensive commercial industries.* • Direct growth and development away from lands that could be used for specific industries that are incompatible with that development. • Mitigate transportation impacts to promote economic prosperity and quality of life.* • Support established and emerging industry clusters. • Support businesses, ports, and agencies involved in trade-related activities. • Provide a supportive environment for business startups, small businesses, and locally owned businesses. • Encourage regionwide and statewide collaboration among business, government, education, military, and others. • Invest in infrastructure that connects designated centers. • Promote economic activity and employment growth that sustains diversity of family wage jobs. • Support a high-quality education system and training programs. • Use incentives and investments to create a closer balance between jobs and housing. • Implement Amazing Place, the Regional Economic Strategy (PSRC 2017a). • Support economic activity and employment in rural and natural resources areas compatible with those lands. • Adopt first source hiring ordinances to ensure that local residents are given priority for new jobs created by municipal financing and development programs. • Prioritize mixed-use housing projects that include affordable commercial space for small businesses. • Create zoning amendments for small-scale commercial nodes that are more appropriate for small businesses.

*Denotes measure from the VISION 2040 FEIS

4.1.4 Social Equity Considerations

Social equity considerations were analyzed for several of the measures described above. Data for each alternative specific to census tracts that are greater than 50 percent people of color and people with low incomes can be found in Appendix B.

Jobs-housing balance – The jobs-housing indices show an improved balance from 2017 under all alternatives for equity geographies. Census tracts that are greater than 50 percent people with low incomes and people of color are estimated to be jobs-rich areas in 2050, with jobs-housing indices well over the regional average of 1.0. A high jobs-housing index indicates that an area offers greater employment opportunities, but also that housing for these communities may be unaffordable or unavailable and could lead to housing affordability challenges and displacement risk. The jobs-housing index for census tracts that are greater than 50 percent people of color and people with low incomes show the most improvement towards balance under Transit Focused Growth, followed by the Preferred Growth Alternative. Under Reset Urban Growth, the jobs-housing index becomes more balanced for census tracts that are greater than 50 percent people of color and less balanced for census tracts that are greater than 50 percent people with low incomes compared to Stay the Course.

Housing density – Census tracts that are greater than 50 percent people with low incomes and people of color have relatively large proportions of moderate-density housing in 2017 compared to the region as a whole. By 2050 it is anticipated that the strong growth in high-density housing may decrease the overall proportion of moderate-density housing. As described in Section 2.3, moderate-density housing tends to be more affordable than either low- or high-density housing options (PSRC 2018h). Large amounts of growth in high-density housing and nominal growth in moderate-density housing in census tracts that are greater than 50 percent people of color and people with low incomes could indicate pressure on the availability of lower cost housing and the risk of displacing people of color and households with lower incomes.

4.1.5 Significant Unavoidable Adverse Impacts

As described in Section 5.1.5 of the VISION 2040 FEIS, population and employment growth would result in increased demand for housing and employment-related land uses, which could preclude other uses on currently undeveloped land and lead to a lack of affordable housing or commercial space. Additional planning for accommodating growth in some areas while limiting it in others would be required in many of the region's jurisdictions. Implementation of the mitigation measures listed in Section 4.1.3 of this Final SEIS would help avoid or reduce population, employment, and housing impacts.

4.2 Land Use

This section describes regional impacts to land use as a result of the population and employment growth likely to occur under each of the regional growth alternatives. This section updates VISION 2040 FEIS Section 5.2.2.

4.2.1 Analysis of Alternatives

4.2.1.1 *Impacts Common to All Alternatives*

Land use impacts common to all alternatives are similar to those described in the VISION 2040 FEIS, and include:

- General: At a regional level, all alternatives would generally be consistent with regional planning efforts; however, some cities and counties may require updates to policies and regulations to accommodate the action alternatives or achieve the growth pattern in Stay the Course. The actual changes in land use and development patterns that could occur with each alternative are complex and could be affected by the economy, transportation infrastructure, political leadership, and public input.
- Urban Land: Under all alternatives, the region's urban area would become denser. Increased density of the urban environment, while providing benefits through increased access to transit and less reliance on vehicles, could result in more crowding and noise and decreased localized air quality (described further in Sections 4.3, 4.4, and 4.14). Increased density in some areas could promote gentrification and increase the risk for displacement of people with low incomes (see Sections 5.4 and 5.5). If the increased density occurs through lower-density suburban development in areas that are currently minimally developed, infrastructure challenges such as delivery of water and sewer services may result and could lead to increased impacts to water and ecosystem resources (described further in Sections 4.5 through 4.7). In addition, an increase in density that shifts residential development patterns from single-family to denser multi-family development could affect the residential character of the community, including changes in residential aesthetics and environmental features such as open space and tree canopy. Increased density, infill, and redevelopment in urban areas adds pressure to convert industrial and freight-dependent areas such as ports, rail yards, truck parking, and warehousing. Increased density could also lead to increased traffic congestion if located in areas further from employment opportunities.
- Rural Land: The anticipated growth under all alternatives could potentially impact existing rural character if not properly sited or if it includes uses inconsistent with rural-based economic development, such as local services, farm, livestock, food processing, or other natural resource-based uses. Without adequate mitigation measures in place, development of the large number of existing vacant rural parcels in the region could

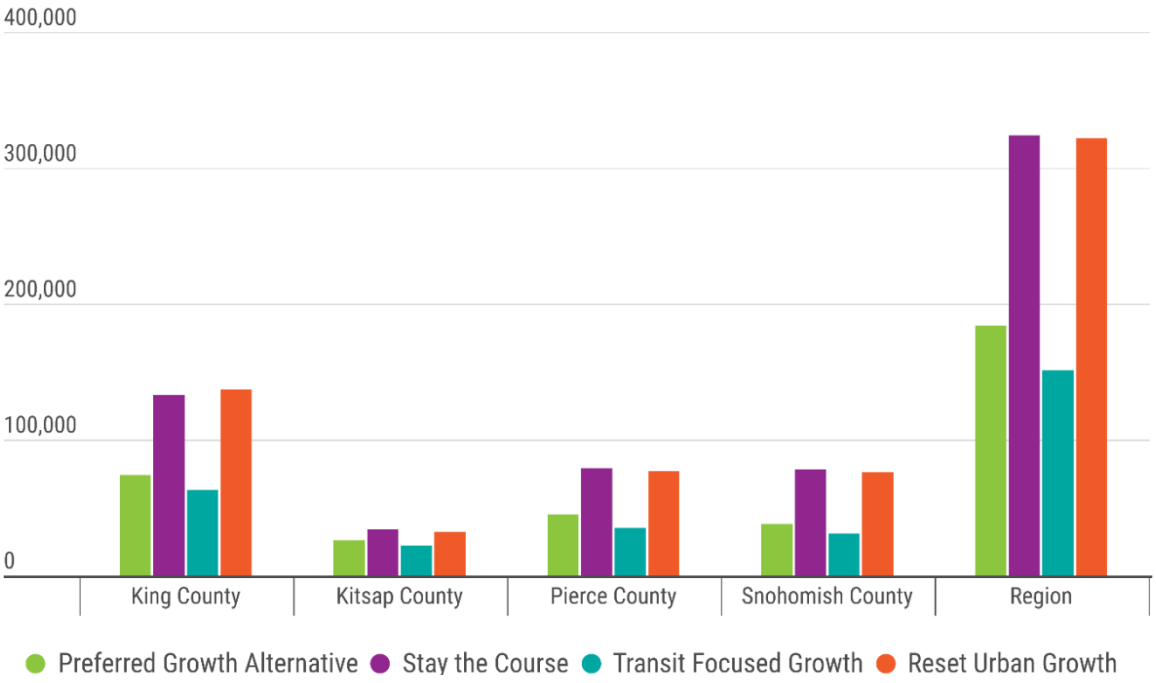
undermine the Regional Growth Strategy, reducing growth in urban areas, increasing transportation impacts, and increasing environmental impacts in rural areas.

- Natural Resource Land: Although none of the alternatives encourages growth in natural resource lands, growth close to natural resource lands can have environmental impacts and create pressure for conversion to other land use types. Alternatives that minimize growth close to natural resource lands are less likely to create potential conflicts between incompatible land uses and impacts to water resources, ecosystems, and infrastructure.
- Critical Areas: Similar to natural resource lands, growth close to critical areas can create pressure for conversion and potentially impact floodplains, steep slopes, wetlands, and streams (also see Sections 4.5 and 4.6).

4.2.1.2 *Comparison of Alternatives*

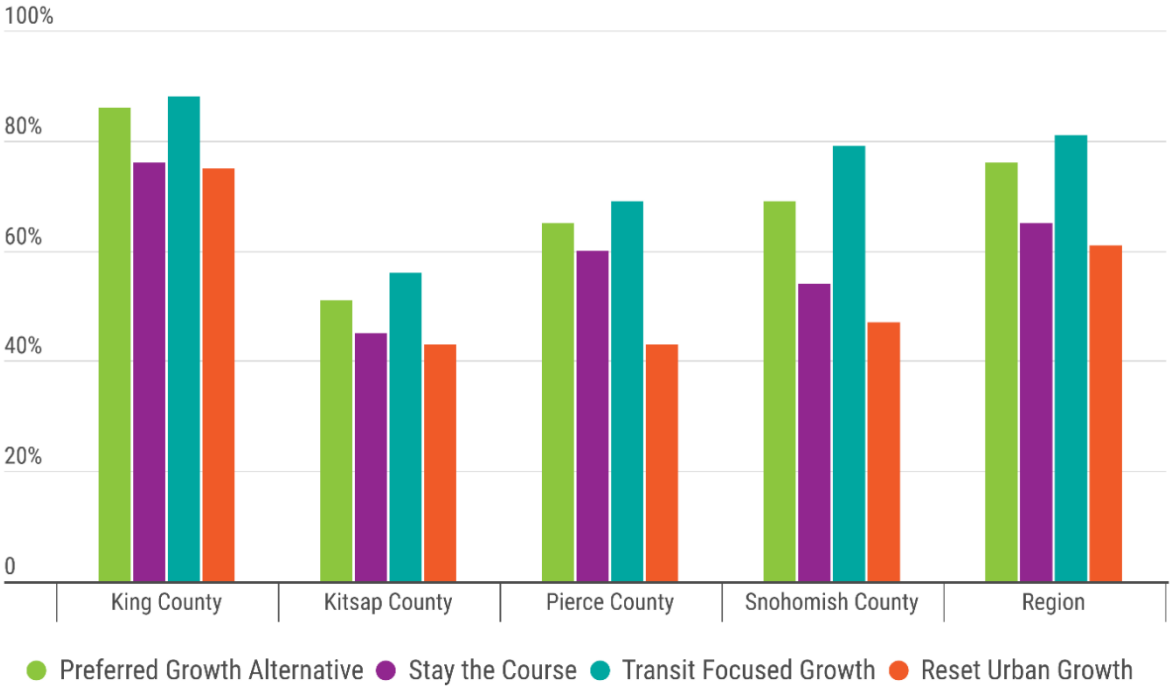
This section describes and compares impacts for the Preferred Growth, Stay the Course, Transit Focused Growth, and Reset Urban Growth alternatives for acres of developed land, proximity of growth near the urban growth boundary, and growth in proximity to high-capacity transit and all types of transit service. Supporting data for these measures are depicted in Figures 4.2-1 to 4.2-4.

Figure 4.2-1. Total Acres of Land Developed or Redeveloped, 2017–2050



Source: PSRC
Note: Most of the acreage developed is vacant land, but a portion includes redevelopment of previously developed land

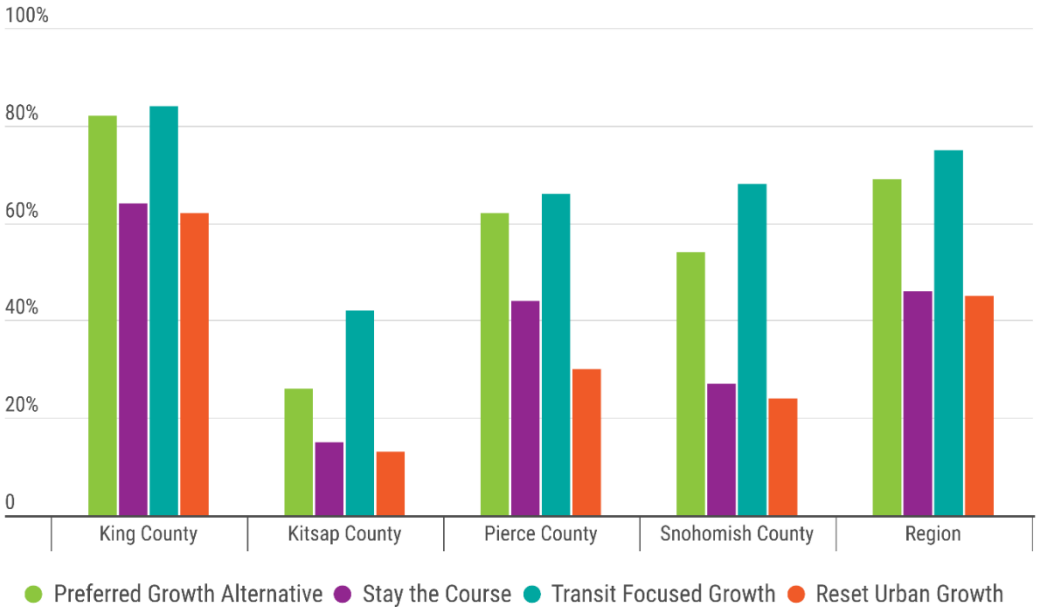
Figure 4.2-2. Population and Employment in Proximity to Transit Service, 2017–2050



Source: PSRC

Note: Proximity to transit service is defined as within one-half mile of light rail stations, streetcar stations, commuter rail stations, and ferry terminals, or within one-quarter mile of bus rapid transit and local transit stops.

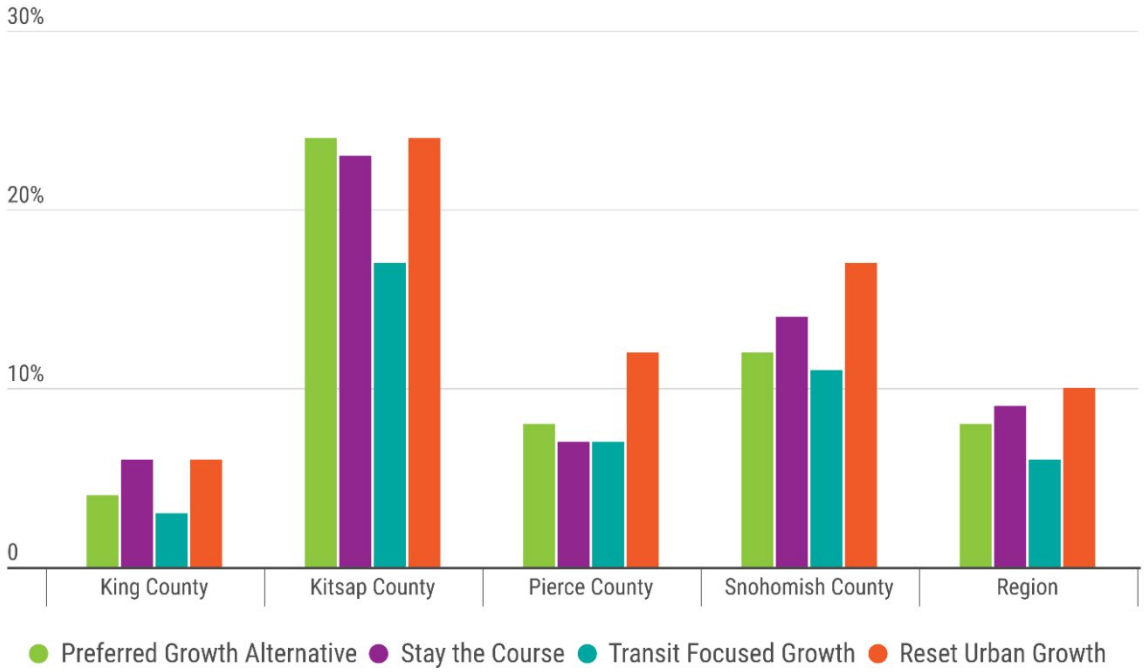
Figure 4.2-3. Population and Employment in Proximity to High-Capacity Transit Service, 2017–2050



Source: PSRC

Note: Proximity to high-capacity transit service is defined as within designated regional growth centers, within one-half mile of light rail stations, streetcar stations, commuter rail stations, and ferry terminals, or within one-quarter mile of bus rapid transit within the urban growth area

Figure 4.2-4. Population and Employment Within One-Quarter Mile of Urban Growth Area Boundary, 2017–2050



Source: PSRC
Note: Proximity is defined as within one-quarter mile of either side (inside/outside) of the urban growth area boundary.

Summary of Key Differences

General – Stay the Course is characterized by compact growth and considerable redevelopment and increased densities in urban areas. While much less growth is identified for Rural areas compared to historical trends, there are some potential impacts to natural resource lands and critical areas. Transit Focused Growth is similar to Stay the Course, but with a more compact development pattern around transit station areas and the least growth in Rural areas. As a result of having the most compact growth pattern overall, there would be fewer potential impacts to Rural areas, natural resource lands, and critical areas under Transit Focused Growth. The Preferred Growth Alternative has a similar compact development pattern compared to Transit Focused Growth, with slightly less population growth around high-capacity transit. Reset Urban Growth has the most dispersed development pattern and the most growth in Rural areas. This alternative would have the most potential impacts to Rural areas, natural resource lands, and critical areas as a result of more land-consumptive growth patterns and more growth in closer proximity to Rural and natural resource lands.

Acres of Developed Land – Regionwide, Transit Focused Growth would require the least amount of land to be developed or redeveloped—151,000 acres— followed by the Preferred Growth Alternative, which would require 184,000 acres. Stay the Course and Reset Urban Growth would require the most acreage to be developed or redeveloped (324,000 acres and 322,000 acres, respectively).

Proximity to Transit – At a regional level, growth in proximity to transit and high-capacity transit service would be highest under Transit Focused Growth, with 75 percent of the added population and employment occurring near high-capacity transit and 81 percent near all transit types. The Preferred Growth Alternative would also have high proportions of growth in proximity to transit, with 69 percent occurring near high-capacity transit and 76 percent in proximity to all transit. In comparison, growth in proximity to high-capacity transit and all transit service would be less under both Stay the Course and Reset Urban Growth.

Proximity to Urban Growth Area Boundary –Transit Focused Growth would have the least amount of growth in proximity to the urban growth area boundary (6 percent) and, therefore, would have the least potential impacts on Rural and natural resource lands. The Preferred Growth Alternative would have slightly greater impacts compared to Transit Focused Growth, with 8 percent of growth occurring near the urban growth area boundary. Both Reset Urban Growth and Stay the Course have larger amounts of growth in proximity to the urban growth boundary (9 percent and 10 percent, respectively), which would increase potential impacts to Rural and natural resource lands.

4.2.1.3 *Impacts of the Preferred Growth Alternative*

As described in Section 3.5, the Preferred Growth Alternative is characterized by a compact growth pattern based on the VISION 2040 Regional Growth Strategy that assumes accelerated growth near the region's existing and planned transit investments. This includes substantial population and employment growth in the region's Metropolitan Cities, Core Cities, and HCT Communities. The Preferred Growth Alternative would have:

- Considerable redevelopment and increased densities in urban areas. By concentrating population and employment growth in Metropolitan Cities, Core Cities, and HCT Communities, these urban geographies would see increased densities as mixed uses containing housing, jobs, services, and retail are directed into these areas. To accommodate increased density, considerable amounts of redevelopment would occur, along with a significant concentration of new residential growth that would likely be accommodated by moderate and higher-density housing built near employment centers and high-capacity transit facilities. Increased growth and density at high-capacity transit station areas would encourage transit-oriented development. Smaller amounts of growth directed to Cities & Towns and Urban Unincorporated areas would likely result in smaller increases in population density and commercial uses in and around city centers in those regional geographies, as well as additional lower-density residential development in outlying areas. This land use pattern would be a more compact development pattern present near high-capacity transit throughout the region compared to Stay the Course or Reset Urban Growth, but slightly less compact than Transit Focused Growth. Less development would occur in Cities & Towns and Urban Unincorporated areas compared to Stay the Course or Reset Urban Growth, and would be similar to Transit Focused Growth.

- Less development in Rural areas relative to past trends. Under the Preferred Growth Alternative, 2 percent of population growth and 1 percent of employment growth would occur in Rural geographies. This growth would likely occur in the form of lower density residential uses to accommodate added population and minor commercial development to serve population growth. Growth in Rural areas would be similar under Transit Focused Growth, and would be less development in Rural geographies compared to Stay the Course and Reset Urban Growth.
- Some potential impacts to natural resource lands and critical areas. While no growth is planned within natural resource lands and critical areas, growth occurring in proximity to the urban growth area boundary, particularly growth associated with Rural and Urban Unincorporated geographies, may have the potential to impact adjacent and nearby natural resource land (as discussed in greater detail below). Critical areas are present throughout urban, rural, and natural resources lands. Growth, particularly in Rural areas (and to some extent Unincorporated Urban areas), increases the potential for impacts since these areas tend to be minimally developed or undeveloped. Growth in these areas should be minimal and subject to Critical Areas Regulations in order to minimize potential impacts. Under the Preferred Growth Alternative, growth would be reduced in proximity to natural resource lands and critical areas compared to Stay the Course and Reset Urban Growth, and would be slightly increased compared to Transit Focused Growth.

Acres of Developed Land

Planned growth is estimated to result in approximately 184,000 acres of development, including redevelopment, throughout the region by 2050 (Figure 4.2-1). The largest amount of development, 74,000 acres, would occur in King County. Between 38,000 and 45,000 acres would be developed or redeveloped in both Pierce and Snohomish counties, along with 26,000 acres in Kitsap County.

Proximity to Transit

From 2017 to 2050, about 76 percent of the added population and employment would locate near all types of transit service under the Preferred Growth Alternative (Figure 4.2-2). In the same time period, King County would have the highest proportion of added population and employment located near transit (86 percent), while Kitsap County would have the lowest proportion (51 percent). Pierce and Snohomish counties would fall in the middle of this range, with approximately 65 percent and 69 percent of the added population and employment locating in proximity to any type of transit service, respectively.

Proximity to High-Capacity Transit

Growth around existing and planned[1] high-capacity transit—light rail, streetcar, commuter rail, bus rapid transit, and ferry terminals—can encourage transit-oriented development. When the zoning, streets, sidewalks, and local transit are in place to support transit-oriented

[1] Planned transit investments included those anticipated in the Regional Transportation Plan adopted in 2018.

development, they could result in numerous benefits such as reducing vehicle use, promoting walking and biking, and reducing sprawl. Additional benefits are described in Section 2.4.3. (This analysis looks at the regional growth pattern, but it does not account for local zoning or access improvements that may be necessary to support transit-oriented development.)

From 2017 to 2050, about 69 percent of the added population and employment would locate near high-capacity transit under the Preferred Growth Alternative (Figure 4.2-3). King County would have the highest proportion of added population and employment located near high-capacity transit (82 percent), while Kitsap County would have the lowest proportion (26 percent). Pierce and Snohomish counties would fall in the middle of this range, with approximately 62 percent and 54 percent of the added population and employment locating in proximity to high-capacity transit, respectively.

Proximity to the Urban Growth Area Boundary

As described above, growth occurring close to the urban growth area boundary could impact adjacent and nearby natural resource lands. Under the Preferred Growth Alternative, regional planned growth would be focused within the urban growth area, with 8 percent of population and employment growth occurring in proximity to the urban growth area boundary, higher than Transit Focused Growth but lower than Stay the Course and Reset Urban Growth (Figure 4.2-4). After Transit Focused Growth, the Preferred Growth Alternative would result in the least amount of potential impacts to natural resource lands in proximity to the urban growth area boundary. King County would have the smallest share of growth in proximity to the urban growth boundary, at 4 percent. Pierce and Snohomish counties are expected to experience a greater level of future growth near the urban growth boundary at 8 percent and 12 percent, respectively. Kitsap County would see the largest share of growth (24 percent) occurring near the urban growth boundary.

4.2.1.4 *Impacts of Stay the Course (No Action) Alternative*

As described in Section 3.2, Stay the Course is characterized by substantial population and employment growth in the region's Metropolitan Cities, Core Cities, and HCT Communities. Less growth would occur in Urban Unincorporated and Rural areas relative to past trends, but more compared to the Preferred Growth Alternative and Transit Focused Growth. Compared to the other alternatives, this alternative is expected to result in:

- Slightly reduced densities throughout Metropolitan Cities, Core Cities, and HCT Communities resulting in a slightly less compact urban development pattern compared to the Preferred Growth Alternative and Transit Focused Growth, and a slightly more compact development pattern compared to Reset Urban Growth.
- Slightly more growth in Cities & Towns and Urban Unincorporated areas compared to Preferred Growth Alternative and Transit Focused Growth, and slightly reduced compared to Reset Urban Growth. This would result in a more dispersed development

pattern throughout the region compared to the Preferred Growth Alternative and Transit Focused Growth.

- Under Stay the Course, 5 percent of population growth and 1 percent of employment growth would occur in Rural geographies. Although there would be less development in Rural areas relative to past trends, growth in Rural areas would be greater than the Preferred Growth Alternative and Transit Focused Growth, and reduced compared to Reset Urban Growth.
- Increased proximity of development to natural resource lands and critical areas compared to the Preferred Growth Alternative and Transit Focused Growth, and reduced compared to Reset Urban Growth. This would likely result in some adverse impacts on those areas compared to Preferred Growth Alternative and Transit Focused Growth

Acres of Developed Land

Planned growth is estimated to result in approximately 324,000 acres of development, including redevelopment, throughout the region by 2050 (Figure 4.2-1). The largest amount of development, 133,000 acres, would occur in King County. Pierce and Snohomish counties would have a similar amount of land developed, 79,000 and 78,000 acres, respectively. About 34,000 acres would be developed in Kitsap County.

Proximity to Transit

From 2017 to 2050, about 65 percent of the added population and employment would locate near all types of transit service under Stay the Course (Figure 4.2-2). In the same time period, King County would have the highest proportion of added population and employment located near transit (76 percent), while Kitsap County would have the lowest proportion (45 percent). Pierce and Snohomish counties would fall in the middle of this range, with approximately 60 percent and 54 percent of the added population and employment locating in proximity to any type of transit service, respectively.

Proximity to High-Capacity Transit

From 2017 to 2050, about 46 percent of the added population and employment would locate near high-capacity transit under Stay the Course (Figure 4.2-3). In the same time period, King County would have the highest proportion of added population and employment located near high-capacity transit (64 percent), while Kitsap would have the lowest proportion (15 percent). Pierce and Snohomish counties would fall in the middle of this range, with approximately 44 percent and 27 percent of the added population and employment locating in proximity to high-capacity transit, respectively.

Proximity to the Urban Growth Area Boundary

Under Stay the Course, regional planned growth would be focused within the urban growth area, with 9 percent of population and employment growth occurring in proximity to the urban growth

area boundary, higher than the Preferred Growth Alternative and Transit Focused Growth but lower than Reset Urban Growth (Figure 4.2-4). Of the alternatives, Stay the Course would result in the second-highest amount of potential impacts to natural resource lands in proximity to the urban growth area boundary. King County and Pierce County would have the smallest shares of growth in proximity to the urban growth boundary, at 6 percent and 7 percent, respectively. Kitsap and Snohomish counties are expected to experience a greater level of future growth near the urban growth boundary at 23 percent and 14 percent, respectively.

4.2.1.5 *Impacts of the Transit Focused Growth Alternative*

As described in Section 3.3, Transit Focused Growth is characterized by substantial population and employment growth in the region's Metropolitan Cities, Core Cities, and HCT Communities, with accelerated growth near the region's existing and planned transit investments. Compared to the other alternatives, Transit Focused Growth would have the most compact development pattern present near high-capacity transit throughout the region. In addition, the least amount of development would occur in Cities & Towns, Urban Unincorporated, and Rural geographies as well as in proximity to natural resource lands and critical areas resulting in reduced potential adverse impacts to rural and natural resource lands compared to the other alternatives.

Acres of Developed Land

Planned growth under this alternative is estimated to result in the development or redevelopment of approximately 151,000 acres throughout the region. The largest amount of development, 63,000 acres, would occur in King County. Approximately 35,000 acres would be developed or redeveloped in Pierce County, 31,000 acres in Snohomish County, and 22,000 acres in Kitsap County (Figure 4.2-1).

Proximity to Transit

From 2017 to 2050, about 81 percent of the added population and employment would locate near all types of transit service under Transit Focused Growth (Figure 4.2-2). In the same time period, King County would have the highest proportion of added population and employment located near transit (88 percent), while Kitsap County would have the lowest proportion (56 percent). Pierce and Snohomish counties would fall in the middle of this range, with approximately 69 percent and 79 percent of the added population and employment locating in proximity to any type of transit service, respectively.

Proximity to High-Capacity Transit

From 2017 to 2050, 75 percent of the region's added population and employment would locate in proximity to high-capacity transit (Figure 4.2-3). During this time period, King County would have the highest proportion of population and employment located in proximity to high-capacity transit (84 percent), while Kitsap would have the lowest proportion (42 percent). Pierce and Snohomish counties would fall in the middle of this range, with approximately 66

and 68 percent, respectively, of the added population and employment locating in proximity to high-capacity transit.

Proximity to the Urban Growth Area Boundary

Under Transit Focused Growth, approximately 6 percent of population and employment growth would occur in proximity to the urban growth area boundary, the lowest level of the alternatives (Figure 4.2-4). Therefore, Transit Focused Growth would have the least potential impacts to natural resources lands in proximity to the urban growth area boundary compared to the other alternatives. King and Pierce counties would have the smallest shares of growth in proximity to the urban growth boundary, at 3 percent and 7 percent, respectively. Kitsap and Snohomish counties show a greater level of future growth occurring near the urban growth boundary at 17 percent and 11 percent, respectively.

4.2.1.6 *Impacts of the Reset Urban Growth Alternative*

As discussed in Section 3.4, Reset Urban Growth is characterized by substantial population and employment growth in the region's Metropolitan Cities, Core Cities, and HCT Communities, as well as increased growth in Urban Unincorporated and Rural areas. Compared to the other alternatives, Reset Urban Growth would have:

- Reduced densities throughout Metropolitan Cities, Core Cities, and HCT Communities resulting in the least compact urban development pattern.
- More growth in Cities & Towns and Unincorporated Urban areas, resulting in the most dispersed development pattern throughout the region.
- Increased proximity of development to rural and natural resource lands and critical areas, potentially resulting in the most adverse impacts on those areas.

Acres of Developed Land

Planned growth is estimated to result in the development or redevelopment of approximately 322,000 acres throughout the region. The largest amount of development or redevelopment (137,000 acres) would occur in King County. Approximately 77,000 acres would be developed or redeveloped in Pierce County, 76,000 acres in Snohomish County, and 32,000 acres in Kitsap County (Figure 4.2-1).

Proximity to Transit

From 2017 to 2050, about 61 percent of the added population and employment would locate near all types of transit service under Reset Urban Growth (Figure 4.2-2). In the same time period, King County would have the highest proportion of added population and employment located near transit (75 percent), while Kitsap and Pierce counties would have the lowest proportion (43 percent). Snohomish County would fall slightly above the bottom of this range, with approximately 47 percent of the added population and employment locating in proximity to any type of transit service.

Growth in Proximity to High-Capacity Transit

From 2017 to 2050, 45 percent of the region's added population and employment would locate in proximity to high-capacity transit under Reset Urban Growth (Figure 4.2-3). King County would have the largest number of added population and employment located near high-capacity transit (62 percent), while Kitsap County would have the least (13 percent). Pierce and Snohomish counties would fall in the middle of this range with approximately 30 and 24 percent, respectively, of the added population and employment in proximity to high-capacity transit.

Growth Near the Urban Growth Area Boundary

Under Reset Urban Growth, approximately 10 percent of population and employment growth would occur in proximity to the urban growth area boundary, the highest of the alternatives (Figure 4.2-4). Reset Urban Growth would have the greatest potential impact to natural resource lands occurring in proximity to the urban growth area boundary compared to the other alternatives. King County would have the smallest share of growth in proximity to the urban growth boundary, at 6 percent. Pierce and Snohomish counties show a greater level of future growth occurring near the urban growth boundary at 12 percent and 17 percent, respectively. Kitsap County would see the largest share of growth (24 percent) occurring in proximity to the urban growth boundary.

4.2.2 Cumulative Effects

Cumulative effects for land use would be similar to those described in VISION 2040 FEIS Section 5.2.3. PSRC's land use model incorporates cumulative impacts into the modeling of land use, population, employment, and housing by predicting the distribution of future growth under each alternative (Appendix C).

As noted in the VISION 2040 FEIS, local jurisdictions may face challenges in improving their transportation and other infrastructure and facilities to accommodate planned growth. They also may face challenges with updating land use plans and regulations to support the anticipated growth pattern. If adequate infrastructure is not provided, this growth may lead to increased low-density development outside of the urban areas. If adequate levels of affordable housing are not provided in urban areas, this could also lead to undesired sprawl in Rural areas. Likewise, if adequate zoning capacity to support growth is not available in urban areas, it may lead to greater development outside of the urban area. If Rural areas and natural resource lands lack land use protections, greater development of those lands than anticipated by the growth alternatives may occur.

4.2.3 Potential Mitigation Measures

All of the alternatives are intended to reduce environmental impacts in comparison to unplanned growth. Unplanned growth would result in lower levels of growth in urban areas, higher levels of rural growth, and more conversion of resource lands in comparison to any of the alternatives. However, PSRC has identified a number of tools that can mitigate the impacts

of growth that would occur under any of the alternatives. The potential mitigation measures for land use impacts described in the VISION 2040 FEIS are still applicable and are summarized in Table 4.2-1, which also includes new mitigation measures.

Table 4.2-1. Potential Mitigation Measures: Land Use

Topic: General Land Use
• Local jurisdictions comply with GMA to identify imbalances between growth and infrastructure needs and identify discrete actions to mitigate impacts.* • Encourage "green" building practices.* • Work with jurisdictions to properly phase growth concurrent with needed infrastructure.
Topic: Urban Lands

• Implement centers development to accommodate growth.*
• Retain and increase the supply of industrial lands.*
• Ensure that residential growth is sited away from incompatible land uses such as manufacturing/industrial centers and high-impact industrial facilities.
• Promote design standards to make dense development more attractive and compatible with existing development.*
• Improve long-range planning for unincorporated areas.*
• Site schools and institutions in a way that reinforces growth management objectives.*
• Promote transportation investments that serve increased population and employment.*
• Promote higher densities near transit and encourage transit-oriented development.
• Develop center and transit-station subarea plans.
• Integrate environmental review and mitigation into the planning process and conduct community participation and visioning exercises to help guide planning, development, and investments.
• Provide amenities such as parks, plazas, trails, waterfront access, and cultural centers in denser areas to increase livability.
• Pursue measures that increase residential capacity (e.g., permit Accessory Dwelling Units, provide multifamily housing tax credits and density bonuses to developers, allow additional housing types in single-family zones).
• Encourage infill and redevelopment.
• Develop or strengthen brownfields programs.
• Apply development standards that limit and mitigate car-dependent land uses.
• Incorporate design standards that enhance walkability and character.
• Encourage developers to reduce off-street surface parking.
  – Create limits for the maximum amount of parking that can be included in a development.
  – Encourage the use of shared parking facilities.
  – Adopt on-street parking management strategies, such as metered parking and residential parking zones.
• Locate civic buildings in existing communities rather than in greenfield areas.
• Identify and protect remaining ecological areas and corridors within urban areas.
• Develop urban forestry programs.

Table 4.2-1. Potential Mitigation Measures: Land Use (continued)

Topic: Rural Lands, Resource Lands, and Critical Areas
• Promote programs that support rural-based economic development consistent with rural character.* • Where growth occurs, increase development densities and clustered development in rural areas to reduce conversion of rural land.* • Recognize subareas within rural lands throughout the four counties and provide flexibility and regional guidance to address the differences that exist between these areas.* • Design facilities and infrastructure according to rural standards that do not impact rural character or provide opportunities for increased development.* • Address level-of-service standards for all services in rural areas.* • Provide regional guidance on siting special-purpose district facilities.* • Use Transfer of Development rights programs to encourage compact and clustered development.* • Establish rural population and employment targets on allowable rural development.* • Consider programs, such as Transfer/Purchase of Development rights, to preserve rural and resource lands.* • Develop revenue sources to conserve lands.* • Provide for agricultural-related accessory uses on agricultural lands.* • Promote programs such as farmers markets to increase consumption of locally grown products.* • Provide for programs to acquire designated critical areas as public lands.* • Reduce allowed densities in rural areas outside of areas where growth is desired. • Implement the Regional Open Space Conservation Plan to protect farms, forests, and other high-value conservation lands in the regional open space network. • Partner with nongovernmental organizations to preserve natural resource lands. • Promote home-based occupations that are consistent with the rural area lifestyle and environment. • Develop strategies and tools to minimize development that is out-of-character with rural areas. • Plan for commercial, retail, and community services that serve rural residents to locate in neighboring cities and existing activity areas to prevent the conversion of rural land into commercial uses. • Do not allow urban net densities in rural and resource areas. • Avoid growth in rural areas that cannot be sufficiently served by roads, utilities, and services at rural levels of service.

*Denotes mitigation measure from the VISION 2040 FEIS

4.2.4 Social Equity Considerations

Under all alternatives, census tracts that have more than 50 percent people of color and people with low incomes have a larger percentage of population and employment located in proximity to all transit and high-capacity transit compared to the region as a whole. This indicates that residents in these communities would have improved access to transit but also could experience an elevated risk of displacement. Under the Preferred Growth Alternative and Transit Focused Growth, census tracts that have more than 50 percent people of color and people with low incomes would see the largest increase of growth in proximity to transit. Supporting data can be found in Appendix B.

4.2.5 Significant Unavoidable Adverse Impacts

As described in Section 5.2.5 of the VISION 2040 FEIS, significant unavoidable adverse impacts on land use may vary depending on the alternative. Regional and local plans, policies, and regulations may need to change to accommodate future growth as described in Section 4.2.1.1. Implementation of the mitigation measures listed in Section 4.2.3 of this Final SEIS would help avoid or reduce land use impacts.

4.3 Transportation

With continued regional population and employment growth between now and 2050, increased demand will be placed on the transportation system. To model travel behavior in 2050, all investments planned in the Regional Transportation Plan (PSRC 2018c) are assumed to be in place. This provides a backdrop for comparing effects of each regional growth alternative. The following sections describe transportation system performance for the following measures:

- Average daily vehicle miles and minutes – how far the average person is traveling each day by car and how much time is spent in a car for both commuting and personal trips.
- Average annual vehicle delay – the amount of time the average person spends in congestion each year.
- Transit ridership – the total number of times people use transit per year.
- Transportation mode share – the percentage of trips made by people driving alone, carpooling, using transit, walking, or biking.
- Jobs accessible by transit, biking, and walking – number of jobs located within a 45-minute transit trip, a one-mile walk trip, or a three-mile bike trip.

This section updates VISION 2040 FEIS Section 5.3.2.

4.3.1 Analysis of Alternatives

4.3.1.1 *Impacts Common to All Alternatives*

By 2050, the region will have added 1.8 million people and 1.2 million jobs, resulting in more dense and concentrated land use. Consistent with the adopted Regional Transportation Plan, all alternatives assume that by 2050 the transportation system is managed and financed through a system of express toll lanes on the highway network and the implementation of a road usage charge that varies by time of day, with the understanding that the Washington State Legislature must advance road usage charge laws and policies. The effects of road pricing are discussed in the Transportation 2040 FEIS (PSRC 2010). Expected growth, coupled with substantial increases in high-capacity transit service, an assumed peak/off peak road usage charge to replace the state

gas tax, more compact land uses and changing travel behavior, would result in impacts to the regional transportation system.

The following summarizes impacts common to all alternatives for key transportation measures. Additional data supporting these conclusions can be found in Appendix B. Compared to the baseline year of 2014,[2] it is anticipated that by 2050:

- **The average distance people drive and the amount of time spent in a vehicle each day would be lower**. These trip distance and time reductions result from more compact land uses, an increase in walking and biking, and peak/off peak road usage charges.
- **The average time people spend in congestion each year is forecast to increase**. Even though average distances and time spent driving each day are decreasing, regional congestion is anticipated to increase as a result of the added 1.8 million people and 1.2 million jobs.
- **Overall transit ridership is forecast to more than double**. Major high-capacity transit expansion including light rail, commuter rail, bus rapid transit, and fast ferry service, coupled with added population and employment located in proximity to high-capacity transit, would drive this growth in ridership.
- **For work-related travel (commuting trips), the percentage of trips made by driving alone would decrease substantially while walking, biking, and transit use would increase**. This is a result of expanded transit infrastructure and more concentrated land use patterns.
- **For personal (non-commute) trips, the percentage of trips made by driving alone or carpooling would decrease, walk trips would increase, and transit and bike trips would increase slightly**. Similar to commuting trips, this is a result of expanded transit infrastructure and more concentrated land use patterns.
- **Large increases would occur in the number of jobs accessible by transit, walking, or biking**. Accessibility increases over time due to continued job growth in the region, expanded transit, and a better jobs-housing balance.

The following geographic trends are similar across all alternatives. Supporting data for all transportation measures for all counties and regional geographies can be found in Appendix B. Compared to the baseline year of 2014, it is anticipated that by 2050:

- Residents of Pierce and Snohomish counties generally travel the furthest distances in a car per day, spend the most time in a car per day, and spend the most amount of time per year in traffic congestion. Pierce and Snohomish county residents who work in major employment centers travel further on regional freeways and experience the highest amounts of delay.

[2] The current SoundCast travel model operates on a 2014 base year, with key variables validated against PSRC's 2014 regional household travel survey. The analysis of alternatives is not significantly impacted by the use of 2014 as the base year (versus 2017) since any differences would be small compared to the expected change by the year 2050.

- Residents of Kitsap and King counties travel the shortest distances in a car per day, spend less time in a car per day, and spend the least amount of time per year in congestion. Kitsap County's lower daily miles and time spent in a car per person is in part due to generally lower levels of traffic congestion and increased ferry use. King County's lower daily miles and time spent in a car per person is due to greater access to jobs and more concentrated urban areas.
- People who live in Metropolitan and Core Cities regional geographies drive the shortest distances, spend less time in a car each day, and spend the least amount of time per year in congestion in part because of proximity to amenities, access to jobs, and higher transit ridership.
- People who live in Cities & Towns and Rural regional geographies travel the longest distances, spend the most time in a car each day, and spend the most time per year in congestion. This is due to dispersed land development patterns in these areas, greater distances to major job centers, and reduced access to transit.

4.3.1.2 *Comparison of Alternatives*

This section describes and compares impacts for the Preferred Growth, Stay the Course, Transit Focused Growth, and Reset Urban Growth alternatives for key transportation topics. Supporting data for these measures are depicted in Table 4.3-1 and 4.3-2, and in Appendix B, including more detail by corridor. For reference, the baseline year of 2014 is included to provide additional context on the magnitude of change from 2014 to 2050.

Table 4.3-1. Comparison of Key Regional Travel Measures

	Baseline (2014)	Preferred Growth (2050)	Stay the Course (2050)	Transit Focused Growth (2050)	Reset Urban Growth (2050)
Average Daily Vehicle Miles, per resident	16.1	12.8	13.3	12.7	13.4
Average Daily Vehicle Minutes, per resident	37.5	33.2	34.5	32.8	34.9
Average Annual Vehicle Delay Hours, per resident	21.3	28.2	30.2	27.5	31.2
Annual Transit Boardings	194 Million	504 Million	474 Million	507 Million	481 Million
Mode Share, for work trips	Drive alone: 71% Carpool:14% Transit: 6% Walk: 6% Bike: 3%	Drive alone: 62% Carpool:13% Transit: 10% Walk: 11% Bike: 4%	Drive alone: 63% Carpool:13% Transit: 9% Walk: 10% Bike: 4%	Drive alone: 61% Carpool:13% Transit: 10% Walk: 11% Bike: 4%	Drive alone: 64% Carpool:13% Transit: 9% Walk: 10% Bike: 4%
Mode Share, for personal trips (non-commute)	Drive alone: 33% Carpool:42% Transit: 5% Walk: 18% Bike: 1%	Drive alone: 28% Carpool: 39% Transit: 6% Walk: 25% Bike: 2%	Drive alone: 29% Carpool:40% Transit: 6% Walk: 23% Bike: 2%	Drive alone: 28% Carpool:39% Transit: 6% Walk: 25% Bike: 2%	Drive alone: 29% Carpool:40% Transit: 6% Walk: 23% Bike: 2%

Table 4.3-2. Average Jobs Accessible Per Resident by Travel Mode, by County

	Baseline (2014)	Preferred Growth (2050)	Stay the Course (2050)	Transit Focused Growth (2050)	Reset Urban Growth (2050)
King County					
Jobs within 45-minute Transit Trip*	192,600	457,900	421,400	461,100	425,800
Jobs within 1-mile Walk Trip	11,400	31,700	28,600	31,700	29,700
Jobs within 3-mile Bike Trip	64,900	131,000	123,400	130,800	126,000
Kitsap County					
Jobs within 45-minute Transit Trip*	4,200	15,600	17,500	17,600	14,400
Jobs within 1-mile Walk Trip	1,300	2,600	3,000	3,200	2,300
Jobs within 3-mile Bike Trip	7,900	14,900	16,900	15,600	13,700
Pierce County					
Jobs within 45-minute Transit Trip*	20,100	88,100	88,600	93,700	64,800
Jobs within 1-mile Walk Trip	2,200	8,000	8,000	8,500	5,700
Jobs within 3-mile Bike Trip	16,400	39,500	40,700	39,900	30,700
Snohomish County					
Jobs within 45-minute Transit Trip*	25,800	118,300	102,500	124,000	94,800
Jobs within 1-mile Walk Trip	2,000	6,900	5,600	7,200	4,600
Jobs within 3-mile Bike Trip	19,200	39,600	38,700	40,500	34,700
Region					
Jobs within 45-minute Transit Trip*	**114,300**	**289,600**	**251,400**	**293,600**	**263,100**
Jobs within 1-mile Walk Trip	**7,100**	**20,300**	**17,400**	**20,500**	**18,300**
Jobs within 3-mile Bike Trip	**42,800**	**87,500**	**79,600**	**87,700**	**82,100**

Note: Values represent the average number of jobs accessible per capita (resident) by home location.
*A 45-minute transit trip includes walk, wait, and in-transit time.

Summary of Key Differences

The following summarizes the differences between alternatives for key indicators in regional transportation system performance for 2050:

- Transit Focused Growth and the Preferred Growth Alternative, where growth would be in greater proximity to transit stations, would perform similarly. Transit Focused Growth and the Preferred Growth Alternative would have the lowest distance driven per day (12.7 and 12.8 miles, respectively) and the least amount of time spent in a vehicle per day (32.8 and 33.2 minutes, respectively) of the alternatives. Stay the Course and Reset Urban Growth would have slightly increased distances and times at 13.3 miles and 34.5 minutes for Stay the Course and 13.4 miles and 34.9 minutes for Reset Urban Growth.
- Compared to the baseline, the average time spent in congestion would increase the least under Transit Focused Growth at 27.5 hours annually per person, followed by the Preferred Growth Alternative at 28.2 hours. Stay the Course and Reset Urban Growth would see a further increase in time spent in congestion annually at 30.2 hours and 31.2 hours, respectively.

- The number of trips taken using transit would be the highest under Transit Focused Growth at 506.6 million transit trips annually, followed by the Preferred Growth Alternative at 504.2 million trips. Stay the Course would see the fewest trips at 473.7 million, and Reset Urban Growth would fall in the middle of the range at 481.1 million trips. Future boardings would be higher in locations that plan for transit-oriented development and enhance station access. Transit Focused Growth and the Preferred Growth Alternative would provide the greatest support for transit-oriented development.
- Generally, Transit Focused Growth, followed by the Preferred Growth Alternative would result in the largest number of jobs accessible by walking, biking, or transit, with the exception of Kitsap County. Stay the Course would have the most access to jobs in Kitsap County by biking of all the alternatives. However, for the region overall, Stay the Course would have the least access to jobs by walking, biking, or transit of all the alternatives.
- At a regional level, mode share would be similar for all of the alternatives.

4.3.1.3 *Impacts of the Preferred Growth Alternative*

The following summarizes key indicators for regional transportation system performance for 2050 for the Preferred Growth Alternative:

- Average daily vehicle miles traveled per person: 12.8 miles
- Average daily vehicle minutes traveled per person: 33.2 minutes
- Average annual vehicle delay per person: 28.2 hours
- Annual transit ridership: 504.2 million boardings

These indicators are a result of the compact growth pattern focused around designated regional growth centers and expanded high-capacity transit infrastructure and larger population allocation to King County compared to Stay the Course.

4.3.1.4 *Impacts of Stay the Course (No Action) Alternative*

The following summarizes key indicators for regional transportation system performance for the year 2050 for Stay the Course:

- Average daily vehicle miles traveled per person: 13.3 miles
- Average daily vehicle minutes traveled per person: 34.5 minutes
- Average annual vehicle delay per person: 30.2 hours
- Annual transit ridership: 473.8 million boardings

These indicators are a result of the compact growth pattern focused around designated regional growth centers associated with Stay the Course, and the distribution of growth from county and regional geographies adopted in VISION 2040.

4.3.1.5 *Impacts of the Transit Focused Growth Alternative*

The following summarizes key indicators for regional transportation system performance for the year 2050 for Transit Focused Growth:

- Average daily vehicle miles traveled per person: 12.7 miles
- Average daily vehicle minutes traveled per person: 32.8 minutes
- Average annual vehicle delay per person: 27.5 hours
- Annual transit ridership: 506.6 million boardings

These indicators are driven by this alternative's focus on more compact land use with specific emphasis on locating population and employment in proximity to high-capacity transit and larger population allocation to King County compared to Stay the Course.

4.3.1.6 *Impacts of the Reset Urban Growth Alternative*

The following summarizes key indicators for regional transportation system performance for the year 2050 for Reset Urban Growth:

- Average daily vehicle miles traveled per person: 13.4 miles
- Average daily vehicle minutes traveled per person: 34.9 minutes
- Average annual vehicle delay per person: 31.2 hours
- Annual transit ridership: 481.1 million boardings

These indicators are the result of the more dispersed growth pattern that characterizes Reset Urban Growth, as well as greater population allocated to King County compared to Stay the Course.

4.3.2 Cumulative Effects

The transportation modeling performed for this Final SEIS is a cumulative analysis based on results of travel demand modeling for the year 2050 and incorporates past actions as well as projected population and employment growth. In addition, the analysis includes specific major transportation investments through the year 2040 as described in the Regional Transportation Plan (PSRC 2018c), which was updated in May 2018. The model does not account for anticipated plan and zoning updates required under GMA and that may be expected at transit station areas to support transit-oriented development. The travel demand modeling results are reported for trips internal to the region; trips external to the region (a small percentage of trips where either the origin or destination is outside the region) are excluded. The travel demand modeling description can be found in Appendix C.

4.3.3 Potential Mitigation Measures

As described in the VISION 2040 FEIS, all alternatives could result in substantial increases in delay (congestion) in the region by 2050. Transportation infrastructure improvements may be needed beyond those currently contemplated in the Regional Transportation Plan (PSRC 2018c) to support regional mobility and the impacts of growth on transportation infrastructure.

The potential mitigation measures for transportation described in the VISION 2040 FEIS are still applicable and are summarized in Table 4.3-3, which also includes new mitigation measures.

4.3.4 Social Equity Considerations

Under all alternatives and compared to the region as a whole, residents in census tracts that are greater than 50 percent people with low incomes and people of color drive less and spend less time in traffic.

Residents of census tracts that are greater than 50 percent people with low incomes drive alone less and walk more for both work and personal trips compared to the region as a whole. Residents of census tracts that are greater than 50 percent people of color have a similar mode share compared to the region as a whole.

Residents of census tracts that are greater than 50 percent people with low incomes have greater access to jobs via walking, biking, or transit than the region as a whole. Residents of census tracts that are greater than 50 percent people of color have greater access to more jobs via transit and biking, but not walking.

4.3.5 Significant Unavoidable Adverse Impacts

Implementation of the mitigation measures listed in Section 4.3.3 of this Final SEIS and required mitigation measures for project-level actions would help avoid or reduce transportation impacts. No significant unavoidable adverse impacts are anticipated.

Table 4.3-3. Potential Mitigation Measures: Transportation

Topic: General Transportation
• Promote additional transit service including vanpool and carpool.* • Expand incident response systems.* • Adopt and implement policies that reduce the impacts of growth.* • Adopt policies to ensure preservation of freight intermodal sites and corridors.* • Ensure that the next Regional Transportation Plan update is in alignment with the Preferred Growth Alternative.* • Consider new and more frequent transit. • Encourage dedicated transit lanes. • Build out and promote a regional trail network. • Promote the ORCA Lift program and raise income level threshold so additional people with low incomes are eligible.

Table 4.3-3. Potential Mitigation Measures: Transportation (continued)

Topic: General Transportation
• Expand and improve current Transportation Demand Management programs (detailed recommendations in Appendix F of the Regional Transportation Plan [PSRC 2018c]). • Implement the Active Transportation Plan (detailed recommendations in Appendix L of the Regional Transportation Plan [PSRC 2018c]). • Leverage data to improve understanding of system performance, resources, and program benefits. • Continue to support and implement established Intelligent Transportation System technologies. • Foster emerging technologies consistent with the region's policy goals and prepare for potential disruptions. • Encourage cooperation between transit agencies and shared mobility providers, both motorized (ride-hailing, vehicle sharing, ride sharing, on-demand microtransit) and non-motorized (bike share and scooter), to improve first- and last-mile connections and expand mobility. • Promote traveler information tools that allow travelers to make informed transportation decisions and travel more efficiently. • Encourage jurisdictions to integrate technology-based mobility options (including connected and autonomous vehicles) into existing transportation systems and plans. • Promote land use development patterns—such as transit-oriented development—that shift trips from driving alone to transit, walking, or biking. • Where the street grid is not connected, add nonmotorized connections where possible. • Recognize the last 50 feet in goods delivery to help "manage the curb." • Encourage safe routes to school to include non-motorized routes and program support. • Work with transit agencies to connect rural communities with public transit. • Creatively provide other modes of transportation, such as transit feeder service, to major high-capacity transit stations. • Continue pursuing ferry services between Tacoma and Seattle. • Ensure concurrency of all modes of transportation, including parking reduction in high-density areas, when development occurs. • Assess the impacts of autonomous vehicles on future growth scenarios and the equity geographies. • Explore land value capture tools to help fund high-capacity transit, infrastructure, public amenities/services and affordable housing. • Explore developing affordable housing at or near high-capacity transit stations to capture improved land value. • Develop strategies in collaboration with local communities to implement "target zero" policies. • Implement active transportation infrastructure, including the Regional Bicycle Network, to connect on- and off-road facilities. • Include safety considerations and best practices when designing transportation facilities, such as high-visibility crosswalks markings, buffered or protected bike lanes, and other features that not only encourage walking and biking, but protect the safety of those users. • Prioritize funding to improve active transportation facilities in low-income areas and areas with a higher percentage of special needs populations. • Promote regional intergovernmental coordination to ensure mitigation is implemented and to improve understanding of transportation system performance.

*Denotes mitigation measure from the VISION 2040 FEIS.

4.4 Air Quality

This section updates VISION 2040 FEIS Section 5.4.2 and discusses vehicle pollutant emissions and greenhouse gases. The emission estimates described in this section were

developed using EPA's MOVES 2014a model (described in Appendix C), which is based on pollutant emissions from vehicles.

4.4.1 Analysis of Alternatives

4.4.1.1 *Impacts Common to All Alternatives*

Pollutant emissions in the central Puget Sound region have continued to decline over the last two decades. Projections for 2050 show a marked reduction in all pollutants across all alternatives (Table 4.4-1). This reduction is largely due to improved vehicle fuel economy, fleet turnover, and improved motor vehicle emission standards. Electrification will also lead to air quality and greenhouse gas reduction benefits. To illustrate the magnitude of this change, base year (2014) pollutant emissions are also included.

Table 4.4-1. Projected Pollutant Emissions (Tons Per Day)

	Base Year (2014)	Preferred Growth (2050)	Stay the Course (2050)	Transit Focused Growth (2050)	Reset Urban Growth (2050)
Carbon Monoxide	866.5	203.0	205.5	202.4	206.3
NO_X	150.1	21.2	21.6	21.1	21.8
Volatile Organic Compounds	50.5	6.3	6.4	6.3	6.4
CO_2e	47,187	39,429	40,507	39,140	40,900
PM_{10}	8.70	7.49	7.76	7.41	7.86
$PM_{2.5}$	5.27	1.56	1.60	1.54	1.62

All alternatives show a reduction in CO_2e, which is a measure used for reporting greenhouse gases. As described in Section 2.6, on-road vehicles were the largest source in the transportation sector—35 percent—of greenhouse gas emissions in the region in 2015 (PSCAA 2018c). Since energy-related CO_2 emissions are projected to remain relatively flat to 2050 (EIA 2018b), it can be assumed that a reduction in greenhouse gases from vehicle sources would contribute to an overall reduction in greenhouse gases throughout the region.

4.4.1.2 *Comparison of Alternatives*

This section describes and compares impacts for the Preferred Growth, Stay the Course, Transit Focused Growth, and Reset Urban Growth alternatives on air quality emissions. Supporting data are shown above in Table 4.4-1.

Summary of Key Differences

Transit Focused Growth and the Preferred Growth Alternative would have the lowest emissions and Stay the Course and Reset Urban Growth would have the most emissions of the alternatives.

4.4.1.3 *Impacts of the Preferred Growth Alternative*

A summary of pollutant emissions for the Preferred Growth Alternative is presented in Table 4.4-1. Pollutant emissions would decrease substantially compared to baseline conditions (2014), and emissions would be similar to Transit Focused Growth. These alternatives have the greatest emissions reductions. This decrease is driven by the compact land development patterns associated with this alternative, which is a factor in decreasing total vehicle miles traveled throughout the region.

4.4.1.4 *Impacts of Stay the Course (No Action) Alternative*

A summary of pollutant emissions for this alternative is presented in Table 4.4-1. Pollutant emissions would decrease substantially compared to baseline conditions (2014), and would be similar to Reset Urban Growth.

4.4.1.5 *Impacts of the Transit Focused Growth Alternative*

Pollutant emissions for Transit Focused Growth are shown in Table 4.4-1. Pollutant emissions would decrease substantially compared to baseline conditions (2014), and would be similar to the Preferred Growth Alternative.

4.4.1.6 *Impacts of the Reset Urban Growth Alternative*

A summary of pollutant emissions for Reset Urban Growth is shown in Table 4.4-1. Pollutant emissions would decrease substantially compared to baseline conditions (2014), and would be similar to Stay the Course. The dispersed growth pattern that characterizes this alternative would lead to an increase in total vehicle miles traveled throughout the region, and a corresponding increase in pollutant emissions.

4.4.2 Cumulative Effects

Cumulative effects are similar to those described in VISION 2040 FEIS Section 5.4.3. At a localized level, cumulative effects could include increases in particulate and diesel emissions from construction of new development. At a larger scale, compact, transit-focused growth patterns would reduce vehicle miles traveled; therefore, Transit Focused Growth and the Preferred Growth Alternative in particular would contribute to a small reduction in overall emissions, including those that contribute to global climate change. These larger scale impacts depend on actions taken both within and beyond the region.

4.4.3 Potential Mitigation Measures

Similar to the VISION 2040 FEIS, each of the alternatives is estimated to result in reduced emissions for each pollutant; therefore, mitigation to reduce these emissions would not be required. However, given that climate change and localized emissions are issues of importance in the region, potential measures to improve air quality are included. Mitigation

measures presented in the VISION 2040 FEIS would continue to be applicable. These measures, as well as other potential measures, are summarized in Table 4.4-2.

Table 4.4-2. Potential Mitigation Measures: Air Quality

Topic: Regional Emissions

• Continue the region's programs such as the truck idling reduction program and Clean Car Standards.*
• Continue to pursue diesel retrofits.*
• Advance low-carbon fuel technology.
• Pursue strategies to reduce ferry emissions.*
• Apply incentives to convert wood-burning devices.*
• Implement interdisciplinary planning and programs to reduce vehicle dependence.*
• Encourage alternative energy sources and cleaner technologies.*
• Advance and implement PSRC's Four-Part Greenhouse Strategy (PSRC 2018c).
  – Implement VISION 2040, balance jobs and housing, focus growth in centers and provide for efficient communities, advance and encourage transit-oriented development.
  – Transition the region to a user fee/roadway pricing system.
  – Continue to provide travelers alternatives to the single-occupant vehicle, including walking, biking, transit, and carpooling.
  – Support development of technology to dramatically reduce tailpipe emissions, including fleet electrification and fuel economy improvements.
• Promote energy-efficient buildings, equipment, and infrastructure through green building practices and retrofit of existing buildings.
• Purchase "green power" to reduce fossil fuel emissions and support alternative energy.
• Maintain and restore healthy forests, estuaries, and farmland to help with carbon sequestration and Incorporate trees and vegetation in urban development and retrofit projects.
• Encourage local jurisdictions to develop greenhouse gas reduction targets, programs, and policies.
• Consider proximity to sensitive populations (children, elderly) in siting development and transportation infrastructure.
• Advance state, regional, and local actions that support resilience and adaptation to climate change impacts.
• Encourage cities and counties to incorporate emission reduction policies and activities in their comprehensive planning.
• Track and report climate change vulnerabilities for communities of color and low-income communities.
• Explore programs or policies that boost climate change preparedness and reduce climate change risks for people of color and people with low incomes, particularly living in areas with higher risks, such as floodplains, and urban areas.
• Address impacts to vulnerable populations and areas that have been disproportionately affected by climate change.
• Provide education and resources to assist people of color and people with low incomes to address and cope with climate change, site specific contamination, and other health hazards.

Topic: Localized Emissions
• Identify localized air quality impacts, and prioritize mitigation projects for the most vulnerable populations. • Implement and enforce "no Idling" policies at transit centers or stations, ferry terminals, airports, central business districts, and other places where people routinely wait in their vehicles for extended periods of time. • Implement best practices to reduce air quality impacts from construction projects, such as use of clean diesel and electric construction equipment.

*Denotes mitigation measure from the VISION 2040 FEIS.

4.4.4 Social Equity Considerations

Climate change impacts are described throughout Chapter 4. For all alternatives, climate impacts or hazards from events such as heat waves, floods, and droughts pose challenges for all communities. However, communities of color and low-income communities may be more vulnerable and have more exposure to climate change risks and, therefore, have a reduced ability to cope with the impacts of these climate-related events compared to the region as a whole (University of Washington Climate Impacts Group et al. 2018). Communities of color and low-income communities are also at increased risk based on their location (e.g., in floodplains and urban areas). They are also at increased risk based on their livelihoods (e.g., agriculture, fisheries, construction) (University of Washington Climate Impacts Group et al. 2018). Between alternatives at a regional level, there are no discernable differences in climate change impacts on environmental justice populations. Additional information can be found at: https://cig.uw.edu/our-work/applied-research/an-unfair-share-report/. See Section 4.9 for social equity considerations for air quality related to environmental health.

4.4.5 Significant Unavoidable Adverse Impacts

As described in Section 5.4.5 of the VISION 2040 FEIS, no significant unavoidable adverse impacts are anticipated. Implementation of the mitigation measures listed in Section 4.4.3 of this Final SEIS and mitigation for project-level actions would help avoid or reduce localized air quality impacts.

4.5 Ecosystems

This section updates VISION 2040 FEIS Section 5.4.2 and describes impacts that could result from additional development associated with an added 1.8 million people and 1.2 million jobs to the region by 2050. Many of the ecosystem impacts are similar to those described in the VISION 2040 FEIS—reduction in habitat quality and quantity, habitat fragmentation, and alteration of vegetation cover—and will be briefly described. Impacts specific to each alternative are within the range of impacts described in the VISION 2040 FEIS but will be updated to supply additional context to the comparison between each of the regional growth alternatives.

4.5.1 Analysis of Alternatives

4.5.1.1 *Impacts Common to All Alternatives*

All alternatives would result in ecosystem impacts due to increased residential and commercial land development and expansion of infrastructure to serve the new development. These impacts are similar to those described in the VISION 2040 FEIS, and include:

- Development: Clearing and grading activities associated with development affects ecosystem functions through fragmentation, isolation, degradation of natural habitats,

alteration of species composition, disruption of hydrological systems, and modification of energy flow and nutrient cycling.

- Land Cover: All alternatives would result in vegetation removal and increased amounts of impervious surfaces (discussed in greater detail in Section 4.6). Areas with higher sensitivity to such changes would have greater risk of adverse effects on habitat quality and quantity for terrestrial and aquatic species.
- Transportation Infrastructure: Construction of transportation infrastructure contributes to the conversion of forested areas to paved areas. As described in Section 4.3, all alternatives are based on implementation of the transportation system as defined in the Regional Transportation Plan (PSRC 2018c).
- Habitat: Under all alternatives, specific impacts to regionally significant habitat areas associated with individual projects or localized actions would be determined through project-level planning, and impacts could be avoided or minimized through mitigation. In many cases, regionally significant habitat areas are protected by critical area ordinances and other regulations. As regionally significant habitat areas tend to occur more in rural areas than in cities, alternatives that minimize growth in rural areas and adjacent to natural resource lands could have fewer impacts.

Impacts due to growth as described for each regional geography are similar to the VISION 2040 FEIS and have been updated to reflect revised regional geography classifications for VISION 2050. For all alternatives, relative adverse impacts are likely to be greater if development occurs in less developed areas rather than already impacted urban areas.

- Metropolitan and Core Cities: Some high-quality ecosystems persist in these geographies. In many cases, such areas are protected in parks and by critical areas ordinances. In general, however, ecosystem resources in Metropolitan and Core Cities are less abundant and more degraded than in other geographies. As a result, the ecological impacts of development in these areas would likely be less severe than impacts of similar development in other geographies.
- HCT Communities: These areas are generally less developed than Metropolitan and Core Cities. Growth would likely occur by increasing density around high-capacity transit investments in urban areas that are close to existing city centers. These areas likely have less-intact ecosystems, similar to Metropolitan and Core Cities. Development in these areas could result in low to moderate impacts to ecosystems.
- Cities & Towns: These vary widely in size and development but are less built-out than Metropolitan, Core Cites, and HCT Communities. Growth would be accommodated by increasing density, but likely would be more dispersed than Metropolitan, Core Cites, and HCT Communities. Development in these areas could cause a proportionally larger alteration in land cover and vegetation than in more densely developed areas. Compared to denser urban areas, added infrastructure could pose a greater risk of bisecting currently intact functioning ecosystems and habitats. Increased development in these areas would be more likely to impact ecosystems.

- Urban Unincorporated: Most of these areas are located closer to the edge of the urban growth area and the level of development ranges from fairly developed to minimally developed. Impacts would be similar to Cities & Towns, but growth in these areas would likely have a greater impact on ecosystems given their proximity to rural and natural resource areas.
- Rural: Much of the land in rural areas is undeveloped or minimally developed. Development in these areas would be more likely to alter vegetation and land cover. In addition, regionally significant habitat is more likely to occur in these areas. Growth in these areas would have the most potential impacts to ecosystem functions and regionally significant habitat.

4.5.1.2 *Comparison of Alternatives*

The alternatives direct different proportions of population and employment growth into the regional geographies, as described in Sections 3.2 to 3.5. Alternatives directing a greater proportion of growth to Rural and Urban Unincorporated areas (and to some extent Cities & Towns) would be expected to pose a greater risk of adverse effects to ecosystems compared to an alternative that emphasizes growth in Metropolitan and Core Cities, where remaining ecosystems tend to be limited or already altered by previous development. This section describes and compares impacts for the Preferred Growth, Stay the Course, Transit Focused Growth, and Reset Urban Growth alternatives on ecosystem resources.

Summary of Key Differences

Development and land cover – As a result of more compact growth in urban areas and less dispersed growth throughout the remaining urban growth area, Transit Focused Growth would result in the least amount of total acres developed (151,000 acres) of all the alternatives. Therefore, Transit Focused Growth would have the least ecosystem impacts associated with vegetation removal and land disturbance. Stay the Course and Reset Urban Growth, the more dispersed growth alternatives, would require the most total acres for development (324,000 and 322,000 acres, respectively) and would have the most ecosystem impacts associated with vegetation removal and land disturbance. The Preferred Growth Alternative would result in development of 184,000 acres and would result in an increase of 33,000 acres of developed land compared to Transit Focused Growth.

Habitat – Under the Preferred Growth Alternative and Transit Focused Growth, the least amount of population and employment growth (approximately 12 percent of population growth and 7 percent of employment growth) would be directed to Cities & Towns, Urban Unincorporated, and Rural areas where regionally significant habitat would be more likely to occur. Therefore, the Preferred Growth Alternative and Transit Focused Growth would have the least impacts to regionally significant habitat of all the alternatives. Reset Urban Growth would direct the most amount of growth to Cities & Towns, Urban Unincorporated, and Rural areas (26 percent of population growth and 14 percent of employment growth), and would have the greatest impact on regionally significant habitat. Stay the Course would direct 19 percent of population growth and 9 percent of employment growth to Cities & Towns, Urban Unincorporated, and Rural areas, and would fall in the middle of this range.

4.5.1.3 *Impacts of the Preferred Growth Alternative*

A total of 184,000 acres would be developed throughout the region to accommodate growth under the Preferred Growth Alternative. This development would occur through compact development in already urban areas, with limited development dispersed throughout outlying areas.

Nine percent of population growth and 6 percent of employment growth would be directed to Cities & Towns and Urban Unincorporated areas combined, where regionally significant habitat would be more likely to occur. In addition, 2 percent of population growth and 1 percent of employment growth would be directed to Rural areas, which would likely experience the greatest impact on regionally significant habitat.

Development to accommodate growth under this alternative would result in reduced vegetation cover and habitat degradation, and impacts on regionally significant habitat would be minimized compared to Stay the Course and Reset Urban Growth.

4.5.1.4 *Impacts of Stay the Course (No Action) Alternative*

A total of 324,000 acres would be developed throughout the region to accommodate growth under Stay the Course. This development would occur through compact development in already urban areas, with some development dispersed throughout the urban growth area.

Fourteen percent of population growth and 8 percent of employment growth would be directed to Cities & Towns and Urban Unincorporated areas combined, where regionally significant habitat would be more likely to occur. In addition, 5 percent of population growth and 1 percent of employment growth would be directed to Rural areas, which would likely experience the greatest impact to regionally significant habitat.

Development to accommodate this growth under this alternative would result in reduced vegetation cover and habitat degradation, and would likely impact regionally significant habitat.

4.5.1.5 *Impacts of the Transit Focused Growth Alternative*

A total of 151,000 acres would be developed throughout the region to accommodate Transit Focused Growth. This development would focus on increased growth around high-capacity transit investments as well as in Metropolitan and Core Cities. This alternative would result in a compact urban growth pattern with the least amount of dispersed growth and sprawling development patterns.

Ten percent of population growth and 6 percent of employment growth would occur in Cities & Towns and Urban Unincorporated areas combined, where regionally significant habitat would be more likely to occur. In addition, 2 percent of population growth and 1 percent of employment growth would occur in Rural areas.

Development to accommodate growth under this alternative would result in reduced vegetation cover and habitat degradation, and impacts on regionally significant habitat would be minimized compared to Stay the Course and Reset Urban Growth.

4.5.1.6 *Impacts of the Reset Urban Growth Alternative*

Under Reset Urban Growth, 322,000 acres would be developed throughout the region to accommodate growth. This alternative focuses development throughout the urban area and in outlying cities and unincorporated urban areas, resulting in a more dispersed development pattern throughout the region. Similar to Stay the Course, 232,000 acres of development would occur on previously undeveloped lands, resulting in reduced vegetation cover and habitat degradation.

Twenty percent of population growth and 12 percent of employment growth would be directed to Cities & Towns and Urban Unincorporated areas combined, where regionally significant habitat would be more likely to occur. In addition, 6 percent of population growth and 2 percent of employment growth would be directed to Rural areas, which would likely experience the greatest impact to regionally significant habitat.

4.5.2 Cumulative Effects

Cumulative impacts for ecosystems are similar to those described in VISION 2040 FEIS Section 5.5.3. These include dramatic alteration of the landscape and ecosystem functions resulting from urban development of the region over the last 150 years. These changes are largely irreversible in areas where development has already occurred. Urban development will continue, though appropriate planning and mitigation could limit ecosystem impacts. Climate change is also likely to result in future impacts by altering hydrology, changing the types of habitat present in a given area, and affecting hunting and forage opportunities.

Differences in cumulative effects would derive from differences in impacts as well as each alternative's likelihood of supporting or disrupting regional ecosystem restoration efforts. Transit Focused Growth would be most supportive of land use policies that facilitate protection and preservation of ecosystems and habitats by focusing development in existing urban areas and would be less likely to impede ecosystem restoration efforts. Transit Focused Growth and the Preferred Growth Alternative would result in the least adverse cumulative effects on ecosystems. Reset Urban Growth, the most dispersed growth alternative, would have the most potential for adverse cumulative effects, and Stay the Course would fall in the middle of this range.

4.5.3 Potential Mitigation Measures

Potential mitigation measures are similar to those described in the VISION 2040 FEIS. Table 4.5-1 summarizes mitigation measures from the FEIS and includes additional mitigation measures.

4.5.4 Social Equity Considerations

For all alternatives, impacts from growth that degrade habitat can contribute to the decline of salmon and other plant and animal species of significance to tribes in the region (Treaty Indian Tribes in Western Washington 2011). Impacts to fisheries also affect low-income communities who fish to augment their food supply.

Table 4.5-1. Potential Mitigation Measures: Ecosystems

Topic: Ecosystems
• Preserve and restore open spaces, shorelines, riparian areas, and wetlands.* • Implement Green Street strategies and programs.* • Protect areas with high priority through avoidance or replacement.* • Provide market-based strategies and incentives to encourage conservation.* • Develop regional or watershed environmental plans.* • Enact conservation levies to preserve areas identified as high-priority habitat.* • Designate critical areas.* • Repair and replace culverts and remove other fish passage barriers to support fish passage and stream habitat restoration. • Encourage Green Development actions and strategies.* • Implement urban forestry programs that enhance ecosystem function in urban areas.* • Create fish ladders.* • Remove invasive species.* • Minimize new road construction that fragments ecosystems and habitat.* • Identify ecologically important areas in the areas around future transit stations so that future station-area planning can consider these areas and protect them where possible. • Encourage cities and counties to identify ecologically important areas (using both the Regional Open Space Conservation Plan (PSRC 2018j) and also local information) and incorporate this information into their planning decisions to the greatest extent practicable. • Identify and map habitat corridors and intact remaining habitat areas at the local jurisdiction level using the Regional Open Space Conservation Plan and other tools. • Design and construct transportation facilities to maintain species and ecosystem functions, considering hydrological and ecological connectivity.* • Create programs to encourage developers to pursue projects through redevelopment. • Support jurisdictions with their implementation of, monitoring of, and regular updates to Shoreline Master Programs and Critical Areas Ordinances. • Encourage policies that protect and create wildlife corridors along critical areas and shorelines. • Implement the Puget Sound Partnership's Action Agenda and the Governor's Orca Task Force recommendations. • Fully implement salmon recovery plans and meet Endangered Species Act requirements. • Implement the Regional Open Space Conservation Plan at the local level. • Promote rural land use and management practices that limit impact on open space services. • Encourage use of drainage systems that mimic natural systems (e.g., vegetated swales and rain gardens). • Locate, design, and maintain stormwater management facilities to maximize benefits to pond-breeding amphibians (Wind 2015). • Promote the preservation of on-site native vegetation, particularly mature trees. • Support funding mechanisms for fixing blocked culverts. • Explore ways to protect habitat through Transfer/Purchase of Development Rights programs, outright purchase, or conservation easement. • Seek funding sources for conservation such as countywide bond issues, ecosystem service markets, and public/private partnerships. • Use mitigation banking. • Support environmental stewardship and public education programs about ecosystem resources. • Protect and restore natural resources that sequester and store carbon such as forests, farmland, wetlands, estuaries, and urban tree canopy.

*Denotes mitigation measure from the VISION 2040 FEIS.

4.5.5 Significant Unavoidable Adverse Impacts

Significant unavoidable adverse impacts are as described in Section 5.5.5 of the VISION 2040 FEIS. As all alternatives would entail additional residential and commercial development and supporting infrastructure, they could have significant unavoidable adverse impacts to terrestrial and aquatic ecosystems depending on project-specific actions and their location. This would lead to alteration of land cover, removal of vegetation, and loss of habitat. Implementation of the mitigation measures listed in Section 4.5.3 of this Final SEIS would help avoid or reduce ecosystem impacts.

4.6 Water Quality and Hydrology

As discussed in Chapter 2, increasing impervious surfaces through development can result in potential adverse effects to water quality and hydrology. Projected population and employment growth would drive additional development throughout the region, likely resulting in increased impervious surface area. Water quality and hydrology impacts common to all alternatives are similar to those described in the VISION 2040 FEIS and will be briefly described. Impacts specific to each alternative are within the range of impacts described in the VISION 2040 FEIS and are updated to provide additional context to provide comparison between each of the regional growth alternatives. This section updates VISION 2040 FEIS Section 5.6.2.

4.6.1 Analysis of Alternatives

4.6.1.1 *Impacts Common to All Alternatives*

Many of the impacts common to all alternatives are similar to those described in the VISION 2040 FEIS, including:

- Construction impacts – construction activities can involve removal of vegetation and soil disturbance, causing erosion and water quality impacts. Construction activities and associated rainfall runoff controls are required to meet permitting requirements that should prevent or minimize adverse impacts.
- Impaired waters – impaired waters are widespread throughout the region; therefore, all alternatives would likely result in some development around both impaired waters and non-impaired waters. Future redevelopment around impaired waters could provide an opportunity to improve water quality through upgrades and improvements to stormwater treatment systems that currently may not meet current standards.
- Other water resources – sole-source aquifers, critical aquifer recharge areas, large contiguous floodplains, wetlands, lakes, rivers, and streams are located throughout the region. All alternatives could have impacts on these resources if development occurs in proximity to these resources. Development within and near these water resources is regulated and any impacts would be mitigated under local jurisdictions' stormwater management codes, critical areas codes, and shoreline master programs, as applicable.

- Impervious surfaces – all alternatives would result in an increase in the amount of impervious surface in the region, as a result of added residential, commercial, and infrastructure development required to support an additional 1.8 million people and 1.2 million jobs in the region. Increasing the amount of impervious surfaces may alter stormwater hydrology, reduce aquatic habitat from sediment transport and scour, decrease aquifer recharge, degrade water quality through an increase of pollutants in stormwater, and increase water temperature.
- Sea level rise – all alternatives would experience the effects of sea level rise as described in Section 2.8 depending on the rate of climate change and the effectiveness of mitigation actions. The areas near the estuaries of the Stillaguamish, Snohomish, Duwamish, and Puyallup rivers and other low-lying coastal areas are most at risk of inundation from sea level rise, which may directly impact some cities and industrial lands at the ports of Everett, Seattle, and Tacoma.

4.6.1.2 *Comparison of Alternatives*

This section describes and compares impacts for the Preferred Growth, Stay the Course, Transit Focused Growth, and Reset Urban Growth alternatives on water resources. Impervious surfaces and land development patterns are key measures related to the health of the region's water resources. Data for impervious surfaces added to the region for each alternative is shown in Table 4.6-1. In comparing the alternatives, the following factors are important:

- New Development Compared to No Development – Current stormwater management codes require the most effective, reasonably available technologies to minimize water quality impacts when land is converted from undisturbed conditions. However, in previously undeveloped areas, avoiding development altogether will result in less impact to water quality than new development compliant with current stormwater management codes.
- Less Redevelopment Compared to More Redevelopment – In areas developed before more stringent stormwater regulations were in place, alternatives that focus growth and redevelopment to these locations could trigger new control of previously unmanaged impervious runoff or upgrades to older stormwater management systems, resulting in an overall beneficial impact to water quality. Redeveloping more of these outdated areas and updating controls to current standards result in more of a benefit to water quality.
- New Development Compared to Redevelopment – Where the option is available, focusing growth in previously developed urban areas where runoff is not managed to current standards and updating controls to current standards will result in less impact on water quality than focusing the same growth in previously undeveloped areas that add new impervious controlled surfaces under current standards.

Table 4.6-1. Total Impervious Surface Added Through New Development and Redevelopment, Acres, 2017-2050

	Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
King County	5,100	7,500	4,200	8,000
Kitsap County	1,300	2,200	1,100	1,800
Pierce County	5,500	7,900	4,500	8,000
Snohomish County	3,200	5,100	2,400	4,800
Region	**15,100**	**22,600**	**12,200**	**22,600**

Source: PSRC, Parametrix

Summary of Key Differences

Total impervious surface added through new development and redevelopment (resulting in adverse water quality impact) — Transit Focused Growth would result in the least amount of impervious surface added to the region (12,200 acres) followed by the Preferred Growth Alternative (15,100 acres). Reset Urban Growth and Stay the Course would result in the most amount of impervious surface added to the region (22,600 acres).

Redevelopment in areas with outdated stormwater controls (resulting in potential water quality benefit) – Stay the Course would redevelop 32,100 acres and would result in the greatest redevelopment benefit of the alternatives. Transit Focused Growth would redevelop 22,000 acres of old impervious surfaces and would result in the least redevelopment benefit of the alternatives. The Preferred Growth Alternative and Reset Urban Growth would fall in between this range with 25,800 and 30,300 acres of old impervious surfaces redeveloped, respectively.

Overall conclusion – In general, the difference in potential impacts on water quality between the alternatives is limited. However, given that growth in Metropolitan, Core Cities, and HCT Communities would likely result in reduced adverse impacts, and growth in Cities & Towns, Urban Unincorporated, and Rural areas would have the potential to increase adverse impacts, Transit Focused Growth and the Preferred Growth Alternative would have the lowest overall water quality and hydrology impacts.

4.6.1.3 *Impacts of the Preferred Growth Alternative*

Under the Preferred Growth Alternative, 15,100 acres of new impervious surface would be added to the region. Most of the growth in acres of impervious surface added would occur in King and Pierce counties; however, the largest increase would occur in Pierce County.

A portion of additional development added to the region would occur through redevelopment and increasing density of existing developed parcels that were developed prior to enactment of stringent stormwater standards. Growth through redevelopment of older parcels would improve existing stormwater facilities on approximately 25,800 acres, leading to potential water quality improvements on those redeveloped lands.

4.6.1.4 *Impacts of Stay the Course (No Action) Alternative*

Under this growth alternative, 22,600 acres of new impervious surface would be added to the region. Most of the growth in acres of impervious surface added would occur in King and Pierce counties; however, the largest increase would occur in Pierce County.

A portion of additional development added to the region would occur through redevelopment and increasing density of existing developed parcels that were developed prior to enactment of stringent stormwater standards. Growth through redevelopment of older parcels would improve existing stormwater facilities on approximately 32,100 acres, leading to potential water quality improvements on those redeveloped lands.

4.6.1.5 *Impacts of Transit Focused Growth*

An added 12,200 acres of new impervious surface would occur under Transit Focused Growth. As with other alternatives, most added acres would occur in King and Pierce counties, with the largest increase occurring in Pierce County.

Growth through redevelopment of older parcels would improve existing stormwater facilities on approximately 22,000 acres, leading to potential water quality improvements on those redeveloped lands.

4.6.1.6 *Impacts of Reset Urban Growth*

With Reset Urban Growth, there would be an added 22,600 acres of new impervious surface in the region. As with the other alternatives, this would primarily be distributed between King and Pierce counties (both 8,000 acres).

Growth through redevelopment of older parcels would improve existing stormwater facilities on approximately 30,300 acres, leading to potential water quality improvements on those redeveloped lands.

4.6.2 Cumulative Effects

Cumulative effects would be similar to those described in Section 5.6.3 of the VISION 2040 FEIS. Development and human activity over the last 150 years have dramatically changed water resources by hardening watersheds and altering shorelines, rivers, and floodplains physically and chemically through added contamination. Growth throughout the region has the potential to continue to alter water resources, though this could be lessened through redevelopment of land and transportation infrastructure. Climate change (discussed in Section 2.8.2) also plays a role in impacts by degrading water quality, altering water supply timing and quantity, increasing flooding, and causing increases in sea level and coastal erosion.

4.6.3 Potential Mitigation Measures

The potential mitigation measures for water quality and hydrology impacts described in the VISION 2040 FEIS are still applicable and are summarized in Table 4.6-2, which also includes new mitigation measures.

Table 4.6-2. Potential Mitigation Measures: Water

Topic: Water Resources
• Improve stormwater detention and treatment systems, including "green" stormwater infrastructure.* • Pursue low-impact development techniques to minimize impervious surface.* • Strengthen critical areas ordinances and develop conservation plans.* • Restore buffers.* • Transfer development rights to reduce development potential.* • Implement "best practice" construction practices.* • Control land use in areas susceptible to groundwater contamination. • Limit development of impervious surfaces over recharge areas.* • Update development standards to minimize impervious surface.* • Pursue water conservation and reuse measures, where appropriate.* • Consider green development standards.* • Reduce need for additional or expanded roadways.* • Use cleaner fuels.* • Implement the Puget Sound Partnership Action Agenda and Water Resource Inventory Area Salmon Recovery/Habitat Protection plans. • Conduct integrated watershed planning, including at the sub-basin level where appropriate. • Retrofit (with updated stormwater controls) areas and transportation facilities not likely to be redeveloped in the near term. • Prioritize watersheds for stormwater retrofits that provide opportunities to restore salmon habitat and redevelop urban centers (Washington State Department of Commerce 2016). • Develop programs that encourage the private sector to take an active role in creating cost-effective regional stormwater management opportunities on private land (NRDC 2018a). • Use the Clean Water State Revolving Funds to support climate-resilient communities (NRDC 2018b). • Continue research and implementation of innovative stormwater best management practices. • Develop recommendations for incentives to encourage infill and redevelopment. • Charge surface water management fees to allow jurisdictions to efficiently manage stormwater and incentivize the construction and use of effective stormwater infrastructure (PSRC 2014b). • Implement PSRC's Four-Part Strategy to reduce greenhouse gas emissions. • Implement elements of the Regional Open Space Conservation Plan that help preserve water resource lands, natural areas, and aquifer recharge areas. • Discourage siting of hazardous industries and essential public services within the 500-year floodplain. • Identify and address the impacts of climate change on the region's hydrological systems. • Replace failing septic systems within the urban growth area with sanitary sewers or alternative technology that is comparable or better. • Use innovative and state-of-the-art design and techniques when replacing septic tanks to restore and improve environmental quality.

*Denotes mitigation measure from the VISION 2040 FEIS.

4.6.4 Social Equity Considerations

For all alternatives, impacts from growth that degrade water quality and habitat can contribute to the decline of salmon and other plant and animal species of significance to tribes in the region (Treaty Indian Tribes in Western Washington 2011). Impacts to fisheries also affect low-income communities who fish to augment their food supply.

4.6.5 Significant Unavoidable Adverse Impacts

As described in Section 5.6.5 of the VISION 2040 FEIS, significant unavoidable adverse impacts are similar to the impacts discussed above and include:

- Water quality and quantity impacts resulting from added impervious surfaces and point and non-point discharges of pollutants to receiving waters
- Additional water consumption, causing diversions and water withdrawals from surface and groundwater sources

Implementation of the mitigation measures listed in Section 4.6.3 of this Final SEIS would help avoid or reduce water quality impacts.

4.7 Public Services and Utilities

This section updates VISION 2040 FEIS Section 5.7.2 and describes impacts that could result from growth in the region through 2050.

4.7.1 Analysis of Alternatives

4.7.1.1 *Impacts Common to All Alternatives*

As the region adds approximately 1.8 million people and 1.2 million jobs through 2050, demand for additional utilities including energy (described in Section 4.10), solid waste, sanitary sewer, water, and stormwater are anticipated. In addition, general service expansions of fire and police services, health and medical services, schools, and other public services would be anticipated. Impacts common to all alternatives are as described in the VISION 2040 FEIS. The impacts under all alternatives would be as follows:

- Solid Waste: Expansion of existing and/or addition of new transfer stations may be needed to accommodate increased solid waste generation.
- Sanitary Sewer: Expansion and/or replacement of pipes and wastewater treatment facilities would likely be needed to handle increased demand caused by growth.
- Water Supply: Increased supply or reduced demand (through conservation) may be needed to meet projected demand through the region into 2050. All alternatives would likely require updated and extended water distribution infrastructure. In addition, uncertainty from climate change may present new risks and vulnerabilities for water resource managers and planners throughout the region.
- Stormwater: Expansion and/or replacement of pipes, flow control facilities, and water quality treatment facilities would likely be needed to handle increased impervious surfaces and pollution-generating activities caused by growth.

- Fire, Police, Health and Medical, and Other Public Services: Additional services would be needed throughout the region to serve the planned growth. Existing facilities may need to be expanded or new facilities built.
- Schools: New, expanded, or remodeled schools will be necessary for all alternatives. Locations and impacts may vary slightly by alternative. For all growth alternatives, siting new schools will be challenging as urban areas increase in density and available land is developed. Existing rural character could be potentially impacted if new schools that serve urban populations are sited in rural lands.
- Cost: Upgrading, maintaining, and adding new utilities and services require financial resources across all alternatives. These costs may generally be lower when growth is directed to compact areas.

Under all alternatives, agencies responsible for providing utilities and public services would engage in long-range planning to ensure future projected demands would be met (as described in Section 2.9.1).

4.7.1.2 *Comparison of Alternatives*

The provision of services and required infrastructure is driven by land development patterns associated with each regional growth alternative. Impacts for the alternatives considered here are within the range of impacts described in the VISION 2040 FEIS. This section describes and compares impacts for the Preferred Growth, Stay the Course, Transit Focused Growth, and Reset Urban Growth alternatives on public services and utilities.

Summary of Key Differences

The concentrated population and employment growth in the Transit Focused Growth and Preferred Growth alternatives is directed to Metropolitan Cities, Core Cities, HCT Communities, and Cities & Towns which would slightly increase the strain on infrastructure and facilities in these areas compared to other alternatives. The slightly reduced allocations of growth to these areas in Reset Urban Growth would slightly reduce the strain placed on existing infrastructure and facilities compared to other alternatives. The Transit Focus Growth and Preferred Growth alternatives would likely result in lower total water use than the other alternatives due to the lower water use per housing unit associated with multi-family and denser housing.

However, under the Transit Focused Growth and Preferred Growth alternatives, growth is minimized to Urban Unincorporated and Rural areas, which would result in reduced strain on existing utilities and reduced need for expansion of infrastructure and facilities into areas not currently served compared to other alternatives. Under Reset Urban Growth, the additional growth allocated to Urban Unincorporated and Rural areas would strain existing utilities and require the addition of new utilities and the need to expand infrastructure and facilities into areas not currently served. In addition, under the Growth Management Act, sewer expansion into rural areas is not permissible (except under certain circumstances), which would require the expanded use of septic systems to accommodate population growth in Rural areas.

4.7.1.3 *Impacts of the Preferred Growth Alternative*

Strong growth in Metropolitan and Core Cities, HCT Communities, and Cities & Towns would require capacity expansion of existing, or addition of new, infrastructure to serve areas where existing infrastructure would be strained. To serve these areas, the capacity of existing infrastructure would likely need to be expanded and updated, or new infrastructure and facilities would need to be built.

Population growth in Urban Unincorporated areas (3 percent) and Rural areas (2 percent) would be reduced under Preferred Growth Alternative compared to Stay the Course and Reset Urban Growth, indicating a reduced demand for new or extended infrastructure in these areas. This may reduce the need to construct or expand facilities in these less-developed areas and help to preserve rural and open spaces and minimize impacts to ecosystem and water resources. Growth in Urban Unincorporated and Rural areas is slightly reduced compared to Transit Focused Growth.

4.7.1.4 *Impacts of Stay the Course (No Action) Alternative*

Strong growth focused in Metropolitan Cities, Core Cities, HCT Communities, and Cities & Towns would place a strain on existing infrastructure.

Population growth allocated to Urban Unincorporated (5 percent), and Rural areas (5 percent) could require expansion of current infrastructure compared to the Preferred Growth Alternative and Transit Focused Growth, and would be slightly reduced compared to Reset Urban Growth. Some potential exists for expanding infrastructure and facilities into areas that are not currently served, but this could be costly and conveyance facilities could have impacts on ecosystem and water resources that are more likely to be present in these areas.

4.7.1.5 *Impacts of the Transit Focused Growth Alternative*

Similar to the Preferred Growth Alternative, focused growth in Metropolitan and Core Cities, HCT Communities, and Cities & Towns would require capacity expansion of existing or addition of new infrastructure to serve these areas where existing infrastructure would be strained.

Limited population growth in Urban Unincorporated (4 percent), and Rural areas (2 percent) may reduce the need to construct or expand facilities in these less-developed areas and help to preserve rural and open spaces, and reduce impacts to ecosystem and water resources. Impacts would be similar to the Preferred Growth Alternative and reduced compared to Stay the Course and Reset Urban Growth. Growth in Urban Unincorporated areas is slightly increased compared to the Preferred Growth Alternative.

4.7.1.6 *Impacts of the Reset Urban Growth Alternative*

Growth in Metropolitan and Core Cities, HCT Communities, and Cities & Towns would require expansion of existing or addition of new facilities in these areas.

In addition, Reset Urban Growth would have the greatest allocation of population growth to Urban Unincorporated (12 percent) and Rural areas (6 percent) compared to the other alternatives and could increase the demand for construction of new infrastructure and facilities, resulting in the greatest potential for impacts to ecosystem and water resources in these areas.

4.7.2 Cumulative Effects

Regional cumulative effects would be similar to those described in the VISION 2040 FEIS. The primary cumulative impact would be that service providers would need to expand their services, infrastructure, and facilities to meet the needs of growth. These service expansions could increase public costs and impact environmental resources.

If the impacts of climate change are accelerated or occur at a different magnitude than predicted, infrastructure may need to be relocated or replaced in affected areas or away from shorelines. The water supply could become contaminated in affected areas if climate change events or other disasters damage infrastructure.

4.7.3 Potential Mitigation Measures

Potential mitigation measures described in the VISION 2040 FEIS continue to be applicable and are summarized in Table 4.7-1, which also includes new mitigation measures.

Table 4.7-1. Potential Mitigation Measures: Public Services and Utilities

Topic: General
• Implement conservation and demand-reduction measures.* • Create effective emergency and disaster planning programs.* • Employ incentive programs to utilize innovative/alternative technologies and conservation practices.* • Research and promote "smart cities" practices—using data and analytics to optimize utility performance (smart meters and monitoring, smart grid technology). • Consider developing best management practices and model policies for cities and counties to easily adopt. • Encourage service providers to collaborate to provide the most affordable utility services to customers while minimizing adverse impacts. • Direct infrastructure investments in equity geographies and underserved areas to address health and economic disparities. • Co-locate essential public services around transit facilities. • Encourage infill and missing-middle developments within urban growth areas where infrastructure capacity can support additional development. • Prioritize improving existing infrastructure where capacity exists for infill development. • Develop utility and public services resiliency plans to prepare for sea level rise, increased flooding and storm surge, and other impacts from climate change.

Table 4.7-1. Potential Mitigation Measures: Public Services and Utilities (continued)

Topic: Solid Waste
• Implement significant waste prevention measures, including supporting reuse, repair, and food rescue efforts; promote sustainable consumption. • Divert all organics from landfill disposal, including food, yard, and garden compostable materials, as well as wood, into adequately sized and sited organics processing facilities. • Ensure that all residents (including multifamily) and businesses have access to recycling and organics collection services. • Ensure that collected materials are responsibly managed and become feedstock in the manufacture of new products. • Establish a circular economy approach in the region, working with the private sector to develop needed processing, sorting, and remanufacturing capacity for our recyclables and organic materials. • Establish product stewardship systems that ensure widespread access to services and responsible management of those materials. • Ensure that all community members are provided with equitable services and are equitably engaged in outreach and educational efforts, including through collaborative creation of messages and materials. • Ensure that processed organic materials are returned to soils for the maximum carbon sequestration value.
Topic: Water, Sanitary Sewer, and Stormwater
• Promote water conservation and reuse options, where appropriate.* • Store water and release when needed.* • Study water availability and demand at regional and local levels.* • Develop, update, and implement strategic plans for water, wastewater, and stormwater facilities. • Address emerging issues such as contaminants of emerging concern and identify where investments will have the most significant environmental return. • Employ measures to conserve water and improve collection systems.* • Investigate interties and options for sharing supplies.* • Investigate localized climate change impacts to prepare for possible impacts on water supply. • Improve urban water management and install permeable pavement, drought-tolerant landscaping, and water-efficient fixtures. • Encourage green infrastructure: design rooftops to capture rainwater, install rain gardens. • Implement PSRC's Four-Part Strategy to reduce greenhouse gas emissions. • Implement elements of the Regional Open Space Conservation Plan that help preserve water resource lands, natural areas, and aquifer recharge areas. • Update antiquated wastewater regulations that limit density and do not consider efficient appliances (e.g., low-flow toilets). • Site and plan for relocation of hazardous industries and essential public services away from the 500-year floodplain.
Topic: Other Services (fire, police, medical, schools, etc.)
• Identify opportunities to share services and facilities.* • Encourage proactive collaboration between cities, counties, school districts, and other special service districts to understand capacity needs and support development sites for new schools and other facilities. • Prioritize school district purchase of surplus governmental property. • Preserve adequate land in anticipated growth areas at a reasonable cost for school infrastructure. • Regularly review and update local regulatory approaches, including code requirements and permitted uses in zones, with the intent to facilitate and prioritize school siting. • Pursue opportunities for shared use of public property. • Increase local investment in off-site public infrastructure to support the location of a school needed to serve permitted growth. • Ensure that new residential development pays its fair share of the cost of the school capacity needed to support the permitted growth project.

*Denotes mitigation measure from the VISION 2040 FEIS.

4.7.4 Social Equity Considerations

Compact development patterns where pre-existing utilities are located would help keep utility and living costs down for all residents of the region—especially beneficial for residents with low incomes. The Preferred Growth Alternative and Transit Focused Growth would result in the most compact development patterns and less growth in Rural and Urban Unincorporated areas. The more dispersed development pattern associated with Reset Urban Growth may require more expansion or development of utilities and services compared to the other alternatives, which could add utility and living costs, an adverse impact to low-income communities.

4.7.5 Significant Unavoidable Adverse Impacts

Similar to Section 5.7.5 of the VISION 2040 FEIS, all alternatives are likely to impact public service providers in unplanned ways. Institutional constraints exist that may affect implementation of future service provisions, such as:

- Uncertainty and disincentives for sharing resources
- Limited funding to support site acquisition and building in compact urban areas

Implementation of the mitigation measures listed in Section 4.7.3 of this Final SEIS would help avoid or reduce public services and utilities impacts.

4.8 Parks and Recreation

This section updates VISION 2040 FEIS Section 5.8.2 and describes impacts that could result from growth in the region through 2050. The analysis in this section is based on existing parks, trails, and other open space facilities located in the urban growth area or within one-quarter mile of the urban growth area boundary. Potential new future parks and facilities are not accounted for in this impact analysis.

4.8.1 Analysis of Alternatives

4.8.1.1 *Impacts Common to All Alternatives*

Impacts common to parks, open space, and recreational facilities within the urban growth areas under all alternatives are similar to those described in the VISION 2040 FEIS. The addition of 1.8 million people to the region would impact existing park and recreation resources unless new parks and facilities are added at both the local and regional level. These impacts would include:

- Increased use, and in some locations, crowding. Increased use could lead to degradation of the recreational experience and potential degradation of the natural and open space resources.

- Increased demand for jurisdictions to redevelop existing parks and develop, operate, and maintain new facilities, which would increase capital and operating expenses.
- The additional use of and demand for resources would likely increase conflicts between different types of recreational users and reduce the convenience of access.
- New development not properly planned with consideration of parks and open space needs, such as those identified in the Regional Open Space Conservation Plan (PSRC 2018j), would lack access to parks, open spaces, and recreational resources within the urban growth area.

In addition to impacts to parks as described in the VISION 2040 FEIS, there is potential for impacts at a regional level for facilities outside of the urban growth area. At a regional level, access to wild open spaces such as national parks, forests, and wilderness areas would experience similar adverse impacts under all alternatives. The population growth in the region could substantially strain management of these resources, including trail and road maintenance and vegetation and ecosystem preservation. Because many people arrive at these resources by car, access would increase greenhouse gas emissions, and without mitigation, trailheads would likely become increasingly congested, impacting natural resources around access points and creating safety concerns.

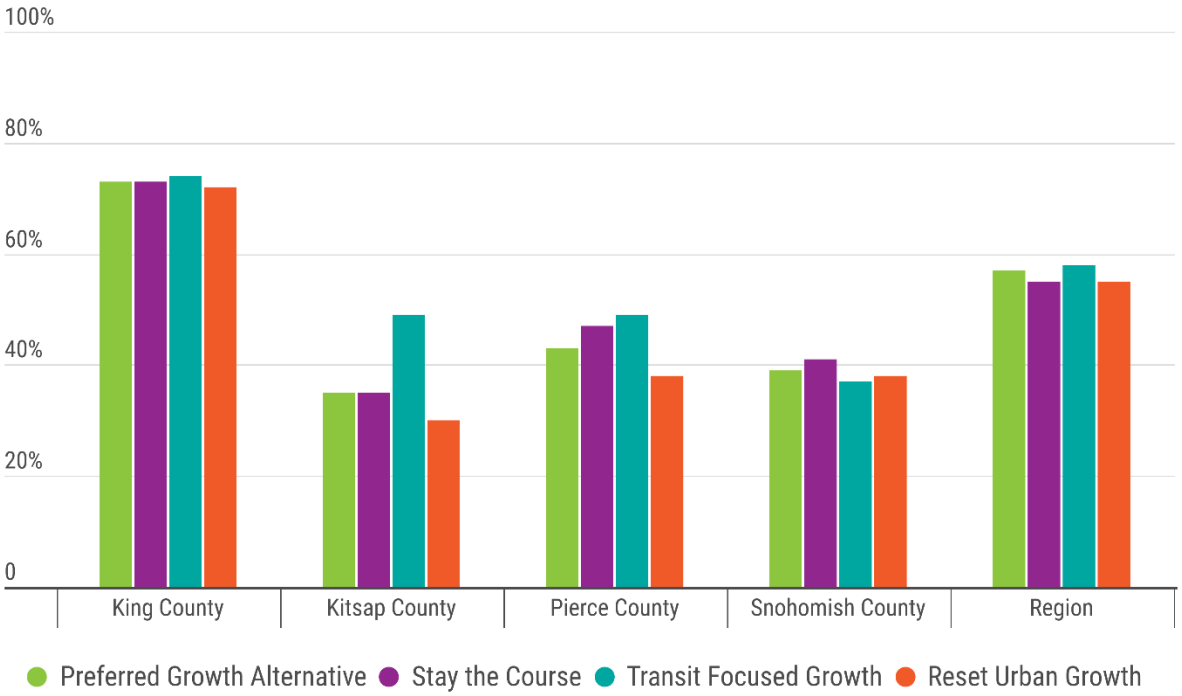
4.8.1.2 *Comparison of Alternatives*

This section describes and compares impacts for the Preferred Growth, Stay the Course, Transit Focused Growth, and Reset Urban Growth alternatives on parks and recreation resources. This analysis considers each alternative's distribution of population within one-quarter mile of existing facilities to compare ease of access to existing parks and open space. Figure 4.8-1 shows supporting data for this measure.

Summary of Key Differences

At a regional level, Transit Focused Growth would result in the greatest proportion of the population growth (58 percent) occurring within one-quarter mile of existing parks, trails, and open space facilities, followed by the Preferred Growth Alternative (57 percent). Both Stay the Course and Reset Urban Growth would have slightly less population growth (55 percent) occurring within one-quarter mile of parks and recreation resources.

Figure 4.8-1. Urban Population Growth in Proximity to Parks Providing Local Urban Access, 2017–2050



Source: PSRC

Note: Proximity is defined as within one-quarter mile; parks providing local urban access is defined as currently existing parks, trails, and other open space facilities located in the urban growth area or within one-quarter mile of the urban growth area boundary.

4.8.1.3 *Impacts of the Preferred Growth Alternative*

Under the Preferred Growth Alternative, 57 percent of the region's urban population growth would be located in proximity to parks providing local urban access. King County would see the greatest share of urban growth in proximity to local parks at 73 percent, and Kitsap County would have the lowest share at 35 percent. Pierce County and Snohomish County would fall in the middle of this range with 43 percent and 39 percent, respectively, of urban population growth located in proximity to local parks.

4.8.1.4 *Impacts of Stay the Course (No Action) Alternative*

Under Stay the Course, 55 percent of the region's urban population growth would be located in proximity to parks providing local urban access. King County would see the greatest share of urban growth in proximity to local parks at 73 percent and Kitsap County would have the lowest share at 35 percent. Pierce County and Snohomish County fall in the middle of this range with 47 percent and 41 percent, respectively, of urban population growth located in proximity to local parks.

4.8.1.5 *Impacts of the Transit Focused Growth Alternative*

It is estimated that Transit Focused Growth would result in 58 percent of regional urban population growth being located in proximity to parks providing local urban access. Growth in King County would have the greatest access at 74 percent and Snohomish County the lowest at 37 percent. Pierce County and Kitsap County fall in the middle of this range with 49 percent of urban population growth located in proximity to parks.

4.8.1.6 *Impacts of the Reset Urban Growth Alternative*

Under Reset Urban Growth, 55 percent of regional urban population growth would be located in proximity to parks providing local urban access. Growth in King County would have the greatest access at 72 percent and Kitsap County the lowest at 30 percent. Pierce County and Snohomish County fall in the middle of this range (both 38 percent), of urban population growth located in proximity to parks.

4.8.2 Cumulative Effects

Cumulative effects would be as described in VISION 2040 FEIS Section 5.8.3, and could include the following:

- Population growth and associated development may limit available land for development of parks, open space, and recreational facilities, creating competition for available land and higher land costs.
- An aging population (described in Section 2.1) could result in higher levels of park use and different types of use.
- Increased development may conflict aesthetically with nearby existing parks, open space, and recreational resources.

4.8.3 Potential Mitigation Measures

Potential mitigation measures listed in the VISION 2040 FEIS would still be applicable, and this list is expanded to include new measures. These measures are described in Table 4.8-1.

Table 4.8-1. Potential Mitigation Measures: Parks and Recreation Resources

Topic: Parks and Recreation Resources
• Develop level-of-service guidelines for parks and recreation facilities that allow local jurisdictions flexibility in determining the appropriate standards.* • Commit to planning, funding, and constructing new and updated parks and recreational facilities. Funding could occur through a variety of sources, including parks levies, state and federal grants, open space bonds, conservations futures, real estate excise taxes, and impact investing (PSRC 2018j). • Develop comprehensive programs for acquiring land for public use.* • Adopt local development impact fees for parks.* • Commit funding for maintenance and enhancements of existing facilities.* • Adopt local park development, enhancement, and maintenance levies.*

Table 4.8-1. Potential Mitigation Measures: Parks and Recreation Resources (continued)

Topic: Parks and Recreation Resources

• Preserve and enhance access to and interpretation of natural features.*
• Redevelop areas such as brownfield sites and closed mining sites as public recreation facilities.*
• Consider joint recreational uses when developing new infrastructure and facilities.*
• Consider new neighborhood parks in centers and transit station areas as density increases.
• Plan for and provide public transportation, sidewalks, and trail systems that enhance access to recreational facilities.*
• Incentivize private developers to provide recreation and open spaces such as public parks, trails, and indoor recreation facilities with development projects. Consider incentives to encourage public private partnerships.*
• Plan recreational resources on a regional or statewide scale.*
• Expand use of joint operating agreements between schools and local jurisdictions.*
• Support existing organizations and the creation of new organizations that provide access to regional recreation resources.
• Recommend that jurisdictions within Urban Growth Areas place a priority on setting aside sufficient land for new parks and recreation facilities in advance of development.
• Include bike lanes, broad sidewalks, and shared-use paths in comprehensive planning for new transportation and recreation development and redevelopment designed to be practical, useful, and safe for all likely users of the transportation system.
• Encourage coordination with local recreational organizations to enhance education, trail signage, and other programming with an aim towards better recreational stewardship.
• Promote a regional approach to coordinate, plan, fund, and share best practices for protecting tree canopy coverage.
• Plan for accommodating changes to park uses as demographics shift over time.
• Identify open space and recreation needs within communities of color and low-income communities to design appropriate and affordable parks and recreation programs. Consider scholarships and collaborate with health professionals to prescribe Park Rx to foster the use of parks and recreation services among the underserved.
• Encourage “green streets” as places for recreational and other purposes. Adopt form-based codes to create connected open spaces along streets to form urban linear parks for physical activity and social interaction.
• Encourage Transfer of Development Rights provisions to create public open space and preserve historic/cultural assets within urban settings.
• Implement the Regional Open Space Conservation Plan with consideration of parks planning at the local level and prioritize underserved communities for improvements and investments.
• Coordinate open space protections and trail construction with anti-displacement strategies.
• Investigate alternative transportation modes to access regional park resources, and support specialized transit options to access recreational opportunities.
• Implement the Regional Open Space Conservation Plan, including the following:
  – Incorporate open space conservation into all levels of planning.
  – Protect remaining key habitat areas.
  – Support urban open space and increase access to nearby open space for urban residents.
  – Build a regional trail network.
  – Enhance stewardship on open space lands.
  – Restore habitat in high-value areas.
  – Coordinate planning among and within agencies, jurisdictions, tribes, and organizations.
  – Engage the community to ensure that new and upgraded facilities meet their needs.
  – Build multi-benefit green infrastructure, such as stormwater parks and river trails.

*Denotes mitigation measure from the VISION 2040 FEIS.

4.8.4 Social Equity Considerations

In particular, the necessity of having a car to access regional parks, open space, and recreational resources creates a barrier for people with lower incomes who are less likely to own a car. Other barriers to enjoying these open spaces for people with low incomes include the cost of an access pass and lack of leisure time, equipment, and familiarity with hiking and camping (PSRC 2018j).

Under all alternatives and compared to the region as a whole, more growth would occur in census tracts that are greater than 50 percent people with low incomes and people of color with access to local parks. Within these equity geographies, Transit Focused Growth results in the highest access to parks for residents, followed by the Preferred Growth Alternative and Stay the Course. Large amounts of growth could indicate displacement risk for people with low incomes unless mitigated as discussed in Section 4.1.4. Increased demand could impact existing parks (described above in Section 4.8.1.1). If not mitigated, lower income populations, who have fewer options to travel beyond their local parks than higher income populations, could be more affected by growth.

4.8.5 Significant Unavoidable Adverse Impacts

Significant unavoidable adverse impacts to recreational resources would likely occur as a result of population growth under all alternatives and would be similar to those detailed in Section 5.8.5 of the VISION 2040 FEIS and the impacts described above. These adverse impacts would include crowding, increased costs of facility operations and maintenance, user conflicts, and degradation of natural resources. Intensity and distribution of impacts could correspond to population growth at the local level. Implementation of the mitigation measures listed in Section 4.8.3 of this Final SEIS would help reduce and avoid some of these impacts to parks and recreation.

4.9 Environmental Health

This section updates VISION 2040 FEIS Section 5.9.2 and describes environmental health impacts from contamination and the built environment. The analysis of impacts considers potential redevelopment of contaminated sites, physical activity, access to open space, and noise and air quality impacts.

4.9.1 Analysis of Alternatives

4.9.1.1 *Impacts Common to All Alternatives*

Impacts common to all alternatives would be as described in VISION 2040 FEIS Section 5.9.2 for contamination and pollution. These impacts would be both adverse and beneficial and include the following:

- Development or redevelopment could occur in contaminated areas and expose construction workers or people living near construction activities to contamination or pollution.
- Growth in contaminated areas would result in a beneficial impact through cleanup activities.

Contaminated areas are generally focused in established cities, along waterfronts, and in transportation corridors. Potential for encountering contamination diminishes further away from these areas. Rural areas have localized contamination but the overall potential for encountering contamination is lower in these areas.

Physical activity and access to health services tend to be greater in cities, urban areas, and areas with access to transit. Physical activity and access to health services are reduced in rural areas.

The regional growth alternatives would have both adverse and beneficial impacts on human health beyond those discussed in the VISION 2040 FEIS. Human health impacts that would be common to all alternatives include the following:

- Increasing walking, biking, and transit as forms of transportation promotes healthy lifestyles.
- Increasing density of the urban environment could cause localized adverse air quality and noise impacts if not properly planned for and mitigated.
- Sunlight has been shown to lower blood pressure, reduce the risk of heart attack and stroke, and promote other health benefits (University of Edinburgh 2013). Increasing density may locally introduce "blocking" of sunlight, which could contribute to decreased health outcomes such as obesity and other factors (Fleury et al. 2016). However, compact development patterns encourage active transportation modes that increase time spent outside, potentially increasing exposure to sunlight.
- Access to open spaces provides physical and mental health benefits and contributes to a high quality of life, especially for people living in cities and urban areas (PSRC 2018j). Providing increased access to open space and green spaces promotes mental health and encourages physical activity.

4.9.1.2 *Comparison of Alternatives*

Urban environments with transit access and greater access to health services are shown to have increased public health. All alternatives have increased transit access compared to baseline, which could result in improved public health. The compact development pattern of Transit Focused Growth could potentially provide greater health benefits, whereas the more dispersed pattern of Reset Urban Growth could potentially result in slightly decreased benefits to public health. The Preferred Growth Alternative would have slightly fewer public health benefits compared to Transit Focused Growth followed by Stay the Course.

At a regional level, there are no discernable environmental health differences between alternatives due to contaminants. Any localized impacts related to cleanup of contaminated areas, air quality, or noise from specific development projects would be assessed and mitigated through applicable regulatory processes for those projects.

4.9.2 Cumulative Effects

Although increased development could result in a higher potential for release of hazardous materials, development that is managed in compliance with applicable regulations would result in a cumulative beneficial impact to environmental health through site cleanup activities.

The regional cumulative effects for human health would be similar for all alternatives. Planned projects that promote alternative transportation modes and transit-oriented development would provide benefits by reducing vehicle miles traveled and air emissions. However, with the additional development needed to accommodate the planned population and job growth, an increase in localized noise and air quality impacts could occur in some urban areas.

4.9.3 Social Equity Considerations

For all alternatives, environmental health inequities exist, and health outcomes vary by place, race, and income. Based on locations of people of color and people with low incomes, these populations may experience localized air quality and noise impacts from proximity to transportation infrastructure. Between alternatives at a regional level, there are no discernable environmental health differences on environmental justice populations. Increased access to transit, denser and more walkable communities, and increased access to parks and open space could provide increased health benefits to low-income communities and communities of color if mitigation measures are successfully implemented to prevent displacement of these vulnerable populations.

4.9.4 Potential Mitigation Measures

The potential mitigation measures described in the VISION 2040 FEIS would continue to be applicable. A summary of these is provided in Table 4.9-1, along with additional mitigation measures.

Table 4.9-1. Potential Mitigation Measures: Environmental Health

Topic: Contamination and Pollution
• Promote incentives to encourage brownfield redevelopment.* • Seek alternatives to chemical-intensive activities and petroleum-based fuels.* • Discourage chemical-intensive industries from operating in high-priority conservation areas.* • Continue to comply with local, state, and federal hazardous materials regulations.* • Consider encouraging redevelopment of contaminated sites through public/private partnerships and other creative financing strategies (Li et al. 2016).
Topic: Human Health
• Create walkable cities with parks, greenbelts, bike paths, and mixed-use development. • Enact stringent air emissions policies.* • Improve education related to environmental and public health.* • Explore opportunities to provide free or low-cost healthcare and dental care to low-income communities; consider opportunities such as “pop-up clinics.” • Utilize technological advances such as electrification of vehicles and ships and cleaner fuels to mitigate impacts to environmental health. • Encourage jurisdictions to perform a community health impact assessment (PSRC 2014b). • Support implementation of the Regional Open Space Conservation Plan and develop or preserve green infrastructure, parks, and open spaces in urban areas (see Section 4.8 for additional information). • Implement pedestrian-oriented design strategies such as small block sizes and dense mix of land uses, and ensure connectivity of walkways (PSRC 2014b). • Identify opportunities to implement complete streets and provide facilities to promote walking and biking (PSRC 2014b).

Table 4.9-1. Potential Mitigation Measures: Environmental Health (continued)

Topic: Human Health
• Monitor health outcomes and identify and address health disparities, • Establish policies that support healthy food retail and development programs that encourage more choices at the neighborhood scale (PSRC 2014b). • Pursue strategies to decrease localized air quality impacts (see Section 4.4.3). • Pursue strategies to decrease localized noise impacts (see Section 4.14). • Encourage biophilic urban design principles, low-impact development, and urban tree canopy and green/cool roofs to mitigate air, water, micro-climate, and climate change impacts.

*Denotes mitigation measure from the VISION 2040 FEIS.

4.9.5 Significant Unavoidable Adverse Impacts

As described in Section 5.9.5 of the VISION 2040 FEIS, development and redevelopment to accommodate growth will occur under all alternatives and could result in exposure to contamination. However, all development should occur in compliance with local, state, and federal regulations, resulting in minimal risk. In addition, cleanup of contaminated sites would be possible under all alternatives, resulting in a beneficial impact. These impacts are not anticipated to result in significant unavoidable adverse impacts.

Human health impacts such as increased noise and decreased air quality associated with increasing urbanization could be reduced by mitigation but not wholly avoided. Implementation of the mitigation measures listed in Section 4.9.3 of this Final SEIS would help reduce or avoid these impacts.

4.10 Energy

This section updates VISION 2040 FEIS Section 5.10.2 and describes impacts that could result from growth in the region through 2050. Regional or state energy consumption projections are not available. Although the general mix of energy sources (Section 2.12) varies between Washington state and the nation, they would generally follow consumption trends similar to those projected for the nation as a whole. Energy consumption at a national level is projected to increase as population increases. Although a range of scenarios is possible, the Reference case[3] projection estimates an increase in the rate of total energy consumption of 0.4 percent per year (EIA 2018b). These projections are not predictions of what will happen, but rather modeled projections of what may happen, given certain assumptions and methodologies. Energy market projections are subject to much uncertainty, as many of the events that shape energy markets

[3] The Reference case projection assumes trend improvement in known technologies along with a view of economic and demographic trends reflecting the current views of leading economic forecasters and demographers. The Reference case generally assumes that current laws and regulations affecting the energy sector are unchanged throughout the projection period. The potential impacts of proposed legislation, regulations, and standards are not included (EIA 2018b).

and future developments in technologies, demographics, resources, and land use development patterns cannot be forecast with certainty (EIA 2018b).

The Clean Energy Transformation Act was adopted by the state of Washington in May 2019 (Washington State Department of Commerce 2020). The Clean Energy Transformation Act requires that at least 80 percent of the electricity used in Washington must come from sources that are either renewable or do not emit greenhouse gases by 2030. By 2045, all electricity used in Washington must come from sources that are either renewable or do not emit greenhouse gases (Ecology 2020). In addition, transportation electrification is occurring rapidly, and under the Clean Buildings for Washington Act, natural gas efficiency standards will improve.

Impacts under each of the regional growth alternatives would be similar to the range of impacts considered in the VISION 2040 FEIS. All alternatives would likely increase demand for energy and associated development of facilities that distribute these energy sources. All alternatives would assume the implementation of the Four-Part Greenhouse Gas Strategy, which includes technological initiatives to reduce energy consumption from the transportation sector. These initiatives include improvements in vehicle fuel economy and electrification of the region's transportation system (PSRC 2018c). There could be minor differences between alternatives, as described below.

Impacts to renewable resources were not discussed in the VISION 2040 FEIS. Given the national projections for an increase in renewables, the adoption of the Clean Energy Transformation Act, and the recent regional trends showing an increase in consumption of primarily wind and biomass renewable energy resources (Section 2.12), it can be inferred that demand for renewable resources in the region would increase in the future. To meet this demand, it is anticipated that construction of wind turbines, biomass plants, and solar infrastructure would be needed. The construction of more energy efficient buildings, retrofit of existing buildings with energy efficient systems, and energy efficiency programs offered by utilities can help to lower demand for energy.

Summary of Key Differences

All alternatives are characterized by strong growth in Metropolitan Cities, Core Cities, and HCT Communities, which would require expansion of existing or addition of new infrastructure to serve these areas.

Growth in Cities & Towns, Urban Unincorporated, and Rural areas may require construction or expansion of facilities where open spaces and undeveloped land occur; however, associated impacts would be limited for the Preferred Growth Alternative and Stay the Course and minimized under Transit Focused Growth. Reset Urban Growth is characterized by a greater allocation of growth to Cities & Towns, Urban Unincorporated, and Rural areas, which could increase the demand for construction of new infrastructure into areas not currently served.

Cumulative effects would be the same under all alternatives as described in the VISION 2040 FEIS. Impacts to energy resources could be influenced by drought, climate change, national and state policy, energy costs, and availability. Drought and climate change impacts could reduce river flows, which would affect the production of hydroelectric power. Natural gas and petroleum are particularly susceptible to international actions and market conditions, and the region relies on imports of those products.

Significant unavoidable adverse impacts are as described in the VISION 2040 FEIS. They include higher energy prices, habitat reduction from construction of new infrastructure, and air pollution and greenhouse gas emissions from burning fossil fuels as these materials are phased out between now and 2045, as well as reduced availability of non-renewable resources.

Potential mitigation measures would include those described in the VISION 2040 FEIS, in addition to new strategies. These measures are summarized in Table 4.10-1. In addition, see Table 4.4-2 for related measures.

Table 4.10-1. Potential Mitigation Measures: Energy

Topic: Energy
• Pursue energy conservation strategies.* • Coordinate planning of energy utilities with transportation and other infrastructure projects.* • Promote alternative energy sources that do not emit greenhouse gases. • Promote green building practices for residential, commercial, and infrastructure development. • Pursue the development of energy management technology as part of meeting the region's energy needs.

*Denotes mitigation measure from the VISION 2040 FEIS.

4.11 Historic, Cultural, and Archaeological Resources

This section updates VISION 2040 FEIS Section 5.11.2 and describes impacts that could result from growth in the region through 2050. Projected population and employment growth will result in development throughout the region. Areas experiencing development would potentially encounter historic, cultural, and archaeological resources that are previously unknown or newly eligible.

At a regional level, impacts would be similar under all alternatives and within the range of impacts considered in the VISION 2040 FEIS. Development could alter landscapes and properties with archaeological, cultural, or historic resources through damage and destruction, as well as through secondary visual, noise, and air pollution impacts. These resources are distributed throughout the region, with a concentration of historic buildings, artifacts, and resources in older cities. All alternatives focus strong growth in Metropolitan and Core Cities and would have the potential to impact historic, cultural, and archaeological resources through development and redevelopment activities.

The altering of landscapes and properties with archaeological, cultural, or historic resources is a concern for many, particularly local tribes. Growth could lead to neighborhood change if resources such as historic buildings used by the community or current residents are altered. Chapter 5 and Appendix H (Equity Analysis) more broadly address historic urban communities, cultural establishments, and businesses associated with existing demographic conditions and changes in low-income communities and communities of color.

Cumulative effects are within the range of impacts discussed in the FEIS. Significant unavoidable adverse impacts include the destruction and permanent loss of historic, cultural, and archaeological resources.

Potential mitigation measures from the VISION 2040 FEIS are applicable and are listed in Table 4.11-1, in addition to new strategies.

Table 4.11-1. Potential Mitigation Measures: Historic, Cultural, and Archaeological Resources

Topic: Historic, Cultural, and Archaeological Resources
• Use local planning and zoning techniques to identify and protect historic and cultural resources.* • Provide tax incentives to encourage preservation and rehabilitation of historic and cultural resources.* • Use fee-simple acquisition or protective easements to control historic and cultural resources, and seek and identify historic, cultural, and archaeological resources that have been overlooked or neglected.* • Provide early education, awareness, and proactive tools and programs for developers to use at an early stage of project development. • Maintain rural areas, heritage corridors, and agricultural production districts. • Consider provisions that, should site historical resources be disturbed, those resources would be reconstructed or otherwise memorialized in the construction activities or design of later development (including creation of structures offering honor or tribute). • Consider the potential impact of development to culturally significant sites and tribal treaty fishing, hunting, and gathering grounds.

*Denotes mitigation measure from the VISION 2040 FEIS.

4.12 Visual Quality

This section updates VISION 2040 FEIS Section 5.12.2. Development associated with projected population and employment growth would result in visual quality impacts similar to, and within the range of, impacts described in the VISION 2040 FEIS. New and renovated residential, commercial, and industrial buildings and expanded infrastructure could impact viewsheds and visual character throughout the region. These impacts include the following:

- Development in existing outlying and rural areas would potentially convert undeveloped spaces to other uses and may not be consistent with community visual character.
- Development in existing urban areas would result in an increase in density, height, and scale of new and redeveloped areas, which could impede viewsheds and increase shading.
- Beneficial impacts could include redevelopment of aging infrastructure and poorly maintained properties, resulting in improvement to visual quality. If properly planned and designed, new development could be an attractive addition to the views and visual

character of communities and could help create new community identity or enhance the existing sense of place.

Impacts would be similar under all alternatives and within the range of impacts considered in the VISION 2040 FEIS. Minor differences that could occur between alternatives are described below.

Summary of Key Differences

Development in urban areas would result in larger and taller buildings than existing development. Impacts could be both negative and positive and would be similar for all alternatives. Some development in outlying and rural areas could result in negative visual impacts and would be slightly reduced under Transit Focused Growth and the Preferred Growth Alternative and slightly increased under Stay the Course and Reset Urban Growth.

Cumulative effects are within the range of and similar to the impacts and benefits discussed above. As a result of growth, areas in the region may experience significant unavoidable adverse impacts through the obstruction of scenic views and displacement of natural and historic resources. These impacts would be as described in the VISION 2040 FEIS.

Impacts to visual resources could be mitigated through the strategies presented in the VISION 2040 FEIS, as well as new strategies, and are summarized in Table 4.12-1.

Table 4.12-1. Potential Mitigation Measures: Visual Quality

Topic: Visual Quality
• Pursue architectural design standards, design ordinances, design review, view preservation ordinances, context-sensitive design, and sign standards and ordinances.* • Implement Main Street, Great Streets, Complete streets, and Green streets programs.* • Cluster development to minimize open space displacement.* • Preserve, restore, and enhance natural features.* • Plan for and provide parks, recreation, and open space.* • Preserve historic and vernacular architecture.* • Plan for a visually interesting and stimulating urban environment, including pedestrian-friendly design.* • Incorporate building provisions for sun and air access.* • Provide incentives for preserving and planting vegetation.* • Plan transportation facilities to minimize visual impacts of increased traffic, roadways, and parking.* • Relocate utilities underground.* • Develop standards for designing sites and structures to strengthen Dark Night Sky objectives. • Emphasize or require the preservation and planting of vegetation to provide green infrastructure in support of environmental health, visual quality, and social equity.

*Denotes mitigation measure from the VISION 2040 FEIS.

4.13 Earth

This section updates VISION 2040 FEIS Section 5.13.2 and describes impacts that could result from growth in the region through 2050. Impacts from natural hazards could occur throughout the region and are similar to those described in the VISION 2040 FEIS. Areas at higher risk are generally managed through critical area regulations and other jurisdictional regulations.

Nonetheless, impacts from earthquakes, landslides, volcanic activities, and floods could result in damage to buildings and infrastructure, disruptions to utilities, economic losses, and injuries and loss of life. These impacts would be the same under all alternatives.

Impacts from landslide hazards, flooding, seismic activity, and coal mine subsidence are the same as described in the VISION 2040 FEIS. In addition, flooding resulting from climate change could cause additional impacts beyond those described in the VISION 2040 FEIS. These impacts would be the same under all alternatives.

Cumulative effects would be as described in the VISION 2040 FEIS. Other than flooding, which could be influenced by growth upstream of the region, geologic conditions would be relatively unaffected by factors outside the region. Significant unavoidable adverse impacts would be as described in the VISION 2040 FEIS. None of the alternatives completely prohibit development on sites at risk for geologic hazards. In addition, the region is susceptible to earthquake and volcanic disasters that would severely and adversely impact many, if not all, of the region's residents.

Mitigation could be implemented to limit the impacts from geologic hazards. Potential mitigation measures are as described in the VISION 2040 FEIS, in addition to new strategies, and are summarized in Table 4.13-1.

Table 4.13-1. Potential Mitigation Measures: Earth

Topic: Earth
• Continue disaster response planning and community education programs.* • Explore programs or policies that boost disaster preparedness and reduce risks for people of color and people with low incomes. • Provide ongoing updates of floodplain assessments to account for sea level rise and storm surge associated with climate change conditions as they evolve. • Continually evaluate infrastructure and retrofit to withstand the effects of sea level rise and other localized risks (landslides, geologic activity, etc.). • Increase resilience by identifying and addressing the impacts of climate change and natural hazards on water, land, infrastructure, health, and the economy. Prioritize actions to protect the most vulnerable populations. • Engage in regional resilience planning and climate preparedness, including development of a regional inventory of climate hazards, assistance to member organizations, and continued research and coordination with partner agencies such as the Puget Sound Climate Preparedness Collaborative. • Strengthen critical areas ordinances, development codes, and building standards for structures located within hazard areas.* • Retrofit existing buildings and infrastructure for protection from earthquakes.* • Continue research into geologic hazard risk.*

*Denotes mitigation measure from the VISION 2040 FEIS.

4.14 Noise

This section updates VISION 2040 FEIS Section 5.14.2 and describes impacts that could result from growth in the region through 2050. Under all alternatives, noise impacts would be likely and similar to those described in VISION 2040 FEIS. These impacts include the following:

- Growth in urban areas would likely increase localized noise impacts to people through an increase in the number of noise sources (e.g., vehicles, construction equipment, and emergency vehicles), and an increase in population density.
- Growth in rural areas would result in fewer potential noise impacts to people. Although noise sources would increase, noise receptors would likely be dispersed. New noise sources in rural areas that are closer to natural and critical areas could have potential impacts to wildlife, which would be assessed at the project-specific level.

At a regional level, there are no notable differences in noise impacts between alternatives. Noise impacts could occur at a local level if not properly mitigated. As noted in the VISION 2040 FEIS, alternatives for growth and urbanization differ in terms of where uses and activities are concentrated and how people and goods move between areas. For example, concentrating growth in a particular area likely could increase traffic and associated noise levels on nearby roads. The effect of transportation-generated noise depends on the proximity of noise-sensitive land uses to the noise source, and it would not be discernable at a regional level. Instances of this would include the recently opened Paine Field Passenger Terminal, whereas localized impacts from this facility would be evaluated at project level but would not have impacts on a regional level. Similar to those described in the VISION 2040 FEIS, cumulative effects would generally occur through construction-related noise impacts. Construction impacts would vary throughout the region and would depend on the timing and location of construction activities. Specific impacts would be analyzed and mitigated at the project level.

Significant unavoidable adverse impacts would be as described in the VISION 2040 FEIS and are not anticipated under any of the alternatives.

Mitigation measures would be evaluated at a project level for roadway and transit projects and construction activities. These measures, in addition to new mitigation measures for urban noise sources, are summarized in Table 4.14-1.

Table 4.14-1. Potential Mitigation Measures: Noise

Topic: Roadway or Transit Noise
• Acquire land for buffer zones or construction of noise barriers.* • Implement airport noise abatement and mitigation programs.* • Align roadways or tracks away from noise-sensitive land uses, and locate new noise-sensitive uses away from these noise sources.* • Design and maintain tracks and wheels to reduce squeal and other noise.* • Reduce engine noise by maintaining transit vehicles.* • Construct noise barriers or berms.* • Install noise insulation in buildings within the noise contour.* • Encourage vehicle trip reduction.* • Require trucks to use designated routes.* • Employ traffic management measures.* • Increase vegetation and plant trees.* • Employ noise-reducing urban design and building siting.*
Topic: Construction Noise
• Construct enclosures or walls to surround equipment.* • Install mufflers or other noise-reducing devices, or use quieter equipment.* • Maintain equipment.* • Impose time restrictions on equipment use.* • Implement construction time restrictions on equipment use.* • Respond to and enforce existing local noise regulations concerning construction activities and consider more protective policies at the local level to reduce construction related noise impacts. • Research and recommend innovative technologies and strategies to manage construction related noise.
Topic: General Noise
• Encourage tools and techniques that mitigate noise for outdoor design, including features such as green areas and porous asphalt (Magrini and Lisot 2015). • Promote use of building materials (e.g., acoustic plaster, absorbing shading devices) that increase surface absorption (Margrini and Lisot 2015). • Pursue additional investigation of urban design strategies, including building geometry and façade design that could reduce noise impacts. • Ensure that adequate resources are in place to respond to and enforce existing noise regulations. • Consider programs to ensure that noise mitigation required during a permitting process is being followed, such as during annual business license approvals.

*Denotes mitigation measure from the VISION 2040 FEIS.


CHUCK CARROLL
BOB SCHLOBOHM
GEORGE FLEMING
TICKETS
PLAYER GUEST TICKETS
PSRC

5. Environmental Justice

5.1 Background

Environmental justice has become an integral part of the transportation planning process in the United States. The concept of "environmental justice" is derived from Title VI of the Civil Rights Act of 1964 and other civil rights statutes, and was first put forth as a national policy goal by presidential Executive Order 12898, issued in 1994, which directs "each federal agency to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."

This chapter updates the environmental justice analysis published in the VISION 2040 FEIS. It has been completed as part of PSRC's Title VI plan. A supplemental analysis of racial and social equity implications of regional growth alternatives can be found in Appendix H.

The U.S. Department of Transportation issued its internal Order to Address Environmental Justice in Minority Populations and Low-income Populations in 1997 and issued an updated Order in May 2012 (U.S. Department of Transportation Order 5610.2(a)), which continues to promote the principles of environmental justice in all Departmental programs, policies, and activities. In this analysis, "people of color" is used in lieu of the term "minority."

Environmental Justice

Equal protection from environmental hazards for individuals, groups, or communities regardless of race, ethnicity, or economic status. This applies to the development, implementation, and enforcement of environmental laws, regulations, and policies, and it implies that no population of people should be forced to shoulder a disproportionate share of negative environmental impacts of pollution or environmental hazard due to a lack of political or economic strength.

Equity (also Social Equity)

All people have the resources and opportunities to improve the quality of their lives and reach their full potential. Differences in life outcomes cannot be predicted by race, class, or any other identity. Those affected by poverty, communities of color, and historically marginalized communities are engaged in decision-making processes, planning, and policy making.

In 2003, PSRC developed a baseline regional demographic profile as an initial step toward better integrating environmental justice into its transportation work program. Since then it has been updated regularly to present current demographic data describing the central Puget Sound region to identify population groups and communities to be considered for subsequent environmental justice analyses and activities (PSRC 2018f). The purpose of developing an environmental justice demographic profile is to compile key demographic data on people of color, people with low incomes, and other populations of interest, and to identify the locations of communities within the region with significant concentrations of people of color and people with low incomes in order to facilitate and enhance environmental justice analyses, outreach, and other planning activities.

Executive Order 12898 and the U.S. Department of Transportation, Federal Highway Administration, and Federal Transit Administration orders on environmental justice define environmental justice populations as those persons belonging to any of the following groups:

People of Color

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

People with Low Incomes

- Low income—a person whose household income (or in the case of a community or group, whose median household income) is at or below the U.S. Department of Health and Human Services poverty guidelines. States and localities may, however, adopt a higher threshold for low income as long as the higher threshold is not selectively implemented and is inclusive of all persons at or below the U.S. Department of Health and Human Services poverty guidelines. This analysis uses a threshold of 200 percent of the federal poverty level.

Other Populations

- While the various orders on environmental justice require consideration of only people of color and people with low incomes as defined above, discussions of other populations protected by Title VI and related nondiscrimination statutes—such as the elderly and disabled—are encouraged in addressing environmental justice and Title VI in federally sponsored transportation programs, policies, and activities. Appendix H provides further discussion of these populations.

5.2 Analytical Methods

The methodology used to conduct the environmental justice analysis was consistent with the U.S. Department of Transportation Order and similar to the VISION 2040 FEIS. It included the following:

- The study area was identified as the four-county region. Census tracts within the study area were identified and 2016 American Community Survey 1-Year Estimates demographic data was obtained.
- The demographic data was used to identify locations of people of color and people with low incomes.
- Using this data, public outreach efforts were developed to engage and involve people of color and people with low incomes. This process is described in detail in Section 5.3.
- Based on past and present outreach efforts, concerns and needs of people of color and people with low incomes were identified and documented in Section 5.3 and throughout the discussion of the affected environment.
- Using the process described above, along with information analyzed throughout the development of the SEIS, benefits, impacts, and mitigation were identified to assess whether VISION 2050 Regional Growth Strategy alternatives could result in disproportionately high and adverse effects for people of color and people with low incomes.

5.3 Community Outreach

Providing meaningful public involvement opportunities to people of color and people with low incomes to involve them in the decision-making process is a key component of environmental justice. In implementing plan development and related environmental review activities, PSRC has undertaken numerous public outreach efforts. These efforts include providing opportunities for public comment with ample notice, analyzing comments collected, and responding appropriately. Outreach efforts specifically targeting people with low incomes and people of color are summarized below.

5.3.1 Past Environmental Justice Outreach

The PSRC Public Participation Plan (adopted in 1994 and most recently updated in 2018) specifically outlines the public review process the agency must conduct to prepare regional plans pursuant to state and federal laws (PSRC 2018d). Strategy 4 of the plan specifically addresses the agency's commitment to involve people with low incomes and people of color in the planning process:

> Strategy 4. Proactively encourage and solicit the involvement of all, including, but not limited to, the transportation disadvantaged, minorities, non-English-speaking, older adults, people with disabilities, and low-income households.

The agency produces the Central Puget Sound Demographic Profile that compiles demographic data on people of color and people with low incomes in the region (PSRC 2018f). PSRC uses this data to identify the locations of communities within the region with significant concentrations of people of color and people with low incomes to facilitate and enhance environmental justice analyses, outreach, and other planning activities.

Other public outreach and planning processes that preceded the VISION 2050 planning process, including efforts to specifically involve people of color and people with low incomes, are summarized in the appendices of several prior PSRC environmental documents, including Appendix B of the Regional Transportation Plan (PSRC 2018c).

5.3.2 VISION 2050 Environmental Justice Outreach

PSRC is engaging many communities in planning for VISION 2050. However, broad and representative public involvement in comprehensive planning is a challenge for all groups, and the more abstract the policy, the more difficult it is to engage the broader community. Reaching out to environmental justice communities presents additional challenges, such as cultural or historical differences that impede outspokenness about or willingness to engage in government issues, language or literacy barriers, a perception that community feedback will

not be reflected in the plan, fear of not being welcome at meetings that are attended by people who are racially different, and access to childcare or transportation to attend meetings.

To help overcome language barriers, populations with limited English proficiency have been identified using information on race and ethnicity and guidelines from the U.S. Department of Justice. The Department of Justice recommends that agencies consider providing language translation services if an ethnic group with a primary language other than English comprises 5 percent or more of an area. Many census tracts in the region have Asian and Hispanic populations greater than 5 percent. Additional census data confirms that the most common non-English languages spoken are Spanish and Chinese (PSRC 2018f). Other non-English languages commonly spoken in the region are Tagalog, Korean, and Vietnamese. PSRC advertises in public meeting notices that translation services are provided upon advance request.

PSRC builds on past relationships to continue engaging the community and make all outreach activities as accessible as possible. To do so, an increasing number of materials are translated into multiple languages, all online materials are reviewed for their accessibility by people using screen readers, outreach materials are made available both electronically and in hard copy, and public meetings are held in locations accessible by transit and at accessible times. During each major phase of the development of VISION 2050, PSRC distributed hard copies of planning documents and promotional materials to local libraries in all four counties. The Final SEIS distribution list includes jurisdictions, tribes, agencies, interested individuals, service providers, businesses, and organizations, including many entities that represent environmental justice interests (see Appendix G, Distribution List).

Scoping

PSRC hosted five listening sessions during the SEPA scoping of VISION 2050 to provide in-person opportunities for stakeholders to provide feedback on project scoping. To engage people of color and people with low incomes in these events, PSRC leveraged contacts at community-based organizations and work done for the 2018 update to the Regional Transportation Plan to spread the word. Sessions were held in the late afternoon in different locations throughout the region to be accessible to the widest range of stakeholders. In addition to providing input in facilitated breakout sessions, attendees were able to fill out comment forms that were included in scoping comments. Listening session attendees had the option to provide contact information to continue to receive updates on VISION 2050.

PSRC worked with a consultant during scoping to conduct a statistically valid survey to gather feedback from residents living in the central Puget Sound region regarding their opinions toward growth and growth-related topics including housing, environmental stewardship, access to services, and regional growth management planning and coordination. The survey was also available in Spanish and Chinese—for both the online and phone versions of the survey—to include populations with limited English proficiency. A statistically valid number of Spanish- and Chinese-speaking households were contacted to ensure responses were representative of the population.

Online Survey

In addition to the statistically valid survey, an online survey was made available during plan development. The online survey included the same questions as the statistically valid survey and was made available in Spanish, Chinese, Tagalog, Korean, and Vietnamese in addition to English.

To distribute the survey to people with low incomes and people of color, PSRC leveraged contacts at community-based organizations. The survey was also made available in printed format as requested.

Survey participants had the option to provide their contact information to continue to receive updates on VISION 2050.

Draft SEIS

PSRC convened five open houses in each of the counties to provide information and engage the public on the Draft SEIS. Sessions were held in the early evening in different locations throughout the region to ensure accessibility for the widest range of stakeholders. Information on PSRC, VISION 2050, the proposed growth alternatives, and the Draft SEIS impacts analysis was provided. Participants could fill out written forms, which were recorded as comments, or they were directed to an online comment portal.

Youth Outreach

PSRC staff met with middle-school and high-school-age students to better understand their priorities and visions of the future of their communities. Municipal youth committees from the cities of Arlington, Bellevue, Edmonds, Issaquah, Mukilteo, and Tacoma invited PSRC to participate in their meetings. Staff met with over 100 students and heard their thoughts on the current state of their city and how they would like it to grow. Local elected officials also participated in some of the discussions.

Draft VISION 2050 Plan

PSRC held back-to-back, in-person events at five different locations around the region to provide information and engage with people. The first half of each workshop featured a brief presentation and small-group discussions focused on policy areas. The public were invited to the workshops to take a deeper dive into the subject matter.

The drop-in style open houses were oriented towards members of the public and held in the evening following the workshops. A brief presentation about VISION 2050 was given, and attendees could browse stations organized by policy area. PSRC staff was available to talk to people and answer questions throughout both events. Attendees could fill out paper comment forms at the events or learn more about how to engage through other means.

PSRC developed an online open house that mirrored the in-person open houses to reach residents who could not attend in-person events. The online open house was available for the entire 60-day public comment period, and it was available for translation into nine different languages (Vietnamese, Tagalog, Chinese, Korean, German, French, Spanish, Russian, and Arabic).

In an effort to meet people in their communities, PSRC had a table at four community events during the draft VISION 2050 plan comment period. Events included Burien's B-Town Fiesta, the Pierce County Fair, the Evergreen State Fair, and the Bremerton Farmers Market. Staff talked to hundreds of residents in each of the four counties and shared information about PSRC's mission and the draft plan, including how to view and comment on the draft plan. PSRC had information available in 10 different languages at these events so that people could learn more about the draft plan.

PSRC is active on Facebook, Instagram, and Twitter. These platforms were used to keep the public comment period in the forefront over the comment period. PSRC boosted posts and paid for Facebook and Google ads to increase visibility. PSRC identified areas with higher percentages of people of color and/or people with low incomes to target advertisements to increase engagement and awareness of regional planning.

To expand reach into the networks of community-based organizations, especially those serving environmental justice communities, PSRC developed an outreach toolkit for partners consisting of links to recorded webinars and other materials to help spread the word about how residents could engage and provide feedback on the draft plan.

To reach non-English-speaking residents during the draft VISION 2050 plan comment period, PSRC translated a postcard-style handout into nine different languages (Vietnamese, Tagalog, Chinese, Korean, German, French, Spanish, Russian, and Arabic) and distributed them to more than 50 community-based organizations around the region. These cards encouraged residents to visit the online open house and engage in the process.

Community Partners

The Community Partners is a group of local stakeholders established during the 2018 update of the Regional Transportation Plan. The group provides guidance to PSRC on equitable outreach to communities of color and people with low incomes, identifies opportunities for collaboration with community groups, and informs other aspects of the plan.

PSRC continues to work with the Community Partners to update VISION 2050. Discussion items included displacement risk analysis, opportunity mapping, community outreach, and the social equity work plan.

Peer Networking Series

PSRC hosts a TOOLBOX Peer Networking Series focused on best practices and resources for local planning and implementation. During the VISION 2050 update, PSRC conducted quarterly three-hour work sessions to provide community members and local practitioners with an opportunity to explore topics in depth. Information gathered during breakout discussions was communicated back to PSRC's Growth Management Policy Board.

These free events provided opportunities to learn more about specific topics related to VISION 2050, become familiar with tools and resources, and discuss these topics in facilitated breakout groups. Sessions included housing availability and affordability, land use and transportation technology, and social equity in regional goals and policies.

Focus Groups

Focus groups were conducted in the fall of 2018 to allow key stakeholders who address social equity issues, including representing environmental justice populations, to weigh in on proposed equity analysis tools to be applied to VISION 2050 and tactics for furthering community outreach. Focus groups conducted in Bremerton, Shoreline, and SeaTac addressed data availability and needs, outreach techniques, and how to incorporate equity into VISION 2050.

Tribal Coordination

Section 6.4.3 of the VISION 2040 FEIS describes the tribes in the region and tribal interests and coordination. For VISION 2050, PSRC sent letters to tribal governments within the region for the VISION 2050 scoping process in early 2018, the Draft SEIS issuance in February 2019, and the draft VISION 2050 plan in July 2019. PSRC has also been communicating with tribes through in-person meetings and phone calls. Tribal interests, priorities, and ways to improve coordination on regional planning issues were discussed at these meetings. Several tribes reviewed and provided written comment on sections of the draft VISION 2050 plan. In addition, many tribes are members of PSRC and have representation on boards and committees.

5.4 Affected Environment

Demographics in the region have changed considerably since 2000. This section will provide an updated description of:

- Demographic trends since 2000.
- Current demographics.
- Key findings related to environmental justice populations for housing affordability, displacement, transportation equity, and health equity.

The affected environment in the VISION 2040 FEIS included data and information from the 2000 census available at the time of publication. This section updates the census information and demographic data (as described in Section 6.2 of the VISION 2040 FEIS) to show the current trends and demographics of the region. Additional detailed information can be found in Appendix H and the Central Puget Sound Demographic Profile (PSRC 2018f).

5.4.1 Trends

The central Puget Sound region continues to become more diverse. Notable demographic trends between 2000 and 2016 include (PSRC 2018e):

- People of color represent 81 percent of the population growth since 2000, and 35 percent of the total population in the region.
- Hispanic/Latinx[1] populations have grown 130 percent since 2000, and now represent 10 percent of the population.
- Asian/Pacific Islander populations have grown 88 percent since 2000 and currently represent 13 percent of the region's population.
- People of color are more geographically dispersed throughout the region (Figure 2.1-4).
- On a percentage basis, people with low incomes have increased slightly in all counties and the overall region since 2000.

5.4.2 Current Demographics

Tables 5.4-1 and 5.4-2 provide estimates on people of color and people with low incomes in the region. People of color, or non-White persons including White persons of Hispanic/Latinx origin, comprised 34.7 percent of the region's total population in 2016. People of color comprised the largest share of the population in King County (39.1 percent), followed by Pierce County (32.5 percent), Snohomish County (29.4 percent), and Kitsap County (23 percent).

[1] Latinx is a gender-neutral term used in this document for a person of Latin American origin or descent.

Table 5.4-1. Estimated Population by Race and Hispanic/Latinx Origin, 2016

	Total Population	Race (all categories)					Hispanic or Latinx (of any race)	Total People of Color (non-White including White/ Hispanic)
		White	Black or African American	American Indian and Alaska Native	Asian/ Pacific Islander	Other race or two or more races[1]		
Central Puget Sound	**4,064,000**	**2,835,000**	**218,000**	**33,000**	**542,000**	**437,000**	**394,000**	**1,412,000**
King County	2,150,000	1,393,000	131,000	11,000	378,000	236,000	205,000	840,000
Kitsap County	265,000	213,000	7,000	3,000	14,000	28,000	20,000	61,000
Pierce County	861,000	630,000	56,000	11,000	65,000	100,000	91,000	280,000
Snohomish County	788,000	598,000	24,000	8,000	85,000	72,000	78,000	231,000
Central Puget Sound	**4,064,000**	**69.8%**	**5.4%**	**0.8%**	**13.3%**	**10.7%**	**9.7%**	**34.7%**
King County	2,150,000	64.8%	6.1%	0.5%	17.6%	11.0%	9.5%	39.1%
Kitsap County	265,000	80.6%	2.5%	1.1%	5.1%	10.7%	7.6%	23.0%
Pierce County	861,000	73.1%	6.5%	1.3%	7.6%	11.6%	10.6%	32.5%
Snohomish County	788,000	75.9%	3.1%	1.0%	10.8%	9.2%	9.9%	29.4%

Source: 2016 American Community Survey 1-Year Estimates

[1] This refers to a combination of two or more races or a race other than Black, American Indian and Alaskan Native, Asian, Native Hawaiian and Other Pacific Islander, or Hispanic.

Table 5.4-2. Estimated Population Below Poverty Threshold, 2016

	Population for whom poverty status is determined	Income		
		Below 100% of poverty level	Below 150% of poverty level	Below 200% of poverty level
	Estimate	Estimate	Estimate	Estimate
Central Puget Sound	**4,002,000**	**386,000**	**618,000**	**883,000**
King County	2,121,000	196,000	306,000	438,000
Kitsap County	258,000	26,000	44,000	62,000
Pierce County	846,000	102,000	157,000	230,000
Snohomish County	777,000	61,000	112,000	153,000
Central Puget Sound	**100%**	**9.6%**	**15.4%**	**22.1%**
King County	100%	9.3%	14.4%	20.6%
Kitsap County	100%	10.0%	16.9%	23.9%
Pierce County	100%	12.1%	18.5%	27.2%
Snohomish County	100%	7.9%	14.4%	19.7%

Source: 2016 American Community Survey 1-Year Estimates

In 2016, the regionwide poverty rate was 9.6 percent. The poverty rate was highest in Pierce County (12.1 percent) and lowest in Snohomish County (7.9 percent). Table 5.4-2 also reports statistics for the percentage of the region's population below 150 percent and 200 percent of the federal poverty level in 2016. These statistics indicate that substantial numbers of families and individuals in the region have incomes above the federal poverty level but within a range that may still be considered lower income, particularly when considering the cost of living in the central Puget Sound region. Federal poverty thresholds are not adjusted for regional, state, and local variations in the cost of living, which is on average higher in the central Puget Sound region relative to most other areas of the United States because of higher local housing costs (PSRC 2018f).

Poverty rates are higher, and median household incomes generally lower, for people of color than the White population or total population overall. Past overtly discriminatory government policies, modern discriminatory practices, and existing neutral policies that do not recognize the uneven playing field are some of the factors contributing to these present inequities. While the poverty rate for the Asian population is similar to that of the total population, it can be more than double for other racial and ethnic groups. Asians have the highest median income for the region and in King County, but there is wide variation in median income by both county and race/ethnicity. Most racial/ethnic groups saw significant increases in median income between 2014 and 2016. The largest increases in income are found among American Indians (24 percent), Some Other Race[2] (26 percent), and those of Hispanic ethnicity (14 percent).

Persons with disabilities are shown to have significantly higher rates of poverty than the total population overall, whereas poverty rates for the elderly population are significantly lower. The poverty rate for children under 18 is generally about 2 percentage points higher than for the general population, although the difference in Pierce County is twice that of the other counties and of the region overall.

Households with a person of color, low-income households, households with an elderly householder, and households with one or more people with disabilities are more likely than the average household in the region to have no vehicle. These data indicate that the transportation needs of these households—especially for public transit—are significantly different from the average household.

Distribution of environmental justice populations, including people of color and people with low incomes, is shown in Figures 5.4-1 and 5.4-2. Methodology for creating these maps, in addition to maps depicting the geographic distribution of each race, can be found in the Central Puget Sound Demographic Profile (PSRC 2018f).

Figure 5.4-1 shows that people of color are concentrated in the more urban areas of the region, particularly along the I-5 and I-405 corridors, with an especially strong presence in south Seattle, south King County, and central/south Tacoma. This is a result of various policies and practices that have funneled these residents into certain communities. Restrictive covenants and redlining practices of the early to middle 20th century limited housing options for people of color. By the time these policies and practices ended with the 1968 Fair Housing Act, home price appreciation ensured that many neighborhoods were too expensive for households of color. The result was a segregated region (Rothstein 2017).

[2] This refers to a combination of two or more races or a race other than Black, American Indian and Alaskan Native, Asian, Native Hawaiian and Other Pacific Islander, or Hispanic.

Each community of color has a uniquely different residential pattern of settlement across the region. The Black/African American community, constituting 5.4 percent of the region's total population, has a strong presence in south Seattle, the Renton-Tukwila area, and in parts of Tacoma. The American Indian/Alaskan Native community, while constituting less than 1 percent of the region's total population, can be identified on and near the various Indian Reservation Lands in central Puget Sound. The Asian/Pacific Islander community, the region's largest community of color at 13.3 percent of total population, is widely dispersed throughout central Puget Sound, with a much greater presence in east and south King County and in southwest Snohomish County than other communities of color. Asian/Pacific Islanders have an especially strong presence in south and southwest Seattle. The Hispanic/Latinx population, which comprises 9.7 percent of the region's total population, has a strong presence in south Everett, south King County, and Tacoma.

Concentrations of poverty (Figure 5.4-2) can be seen throughout the region's urban core, particularly along the I-5 corridor in Snohomish County, in central and south Seattle, and in south King County, Bremerton, and central and south Tacoma.

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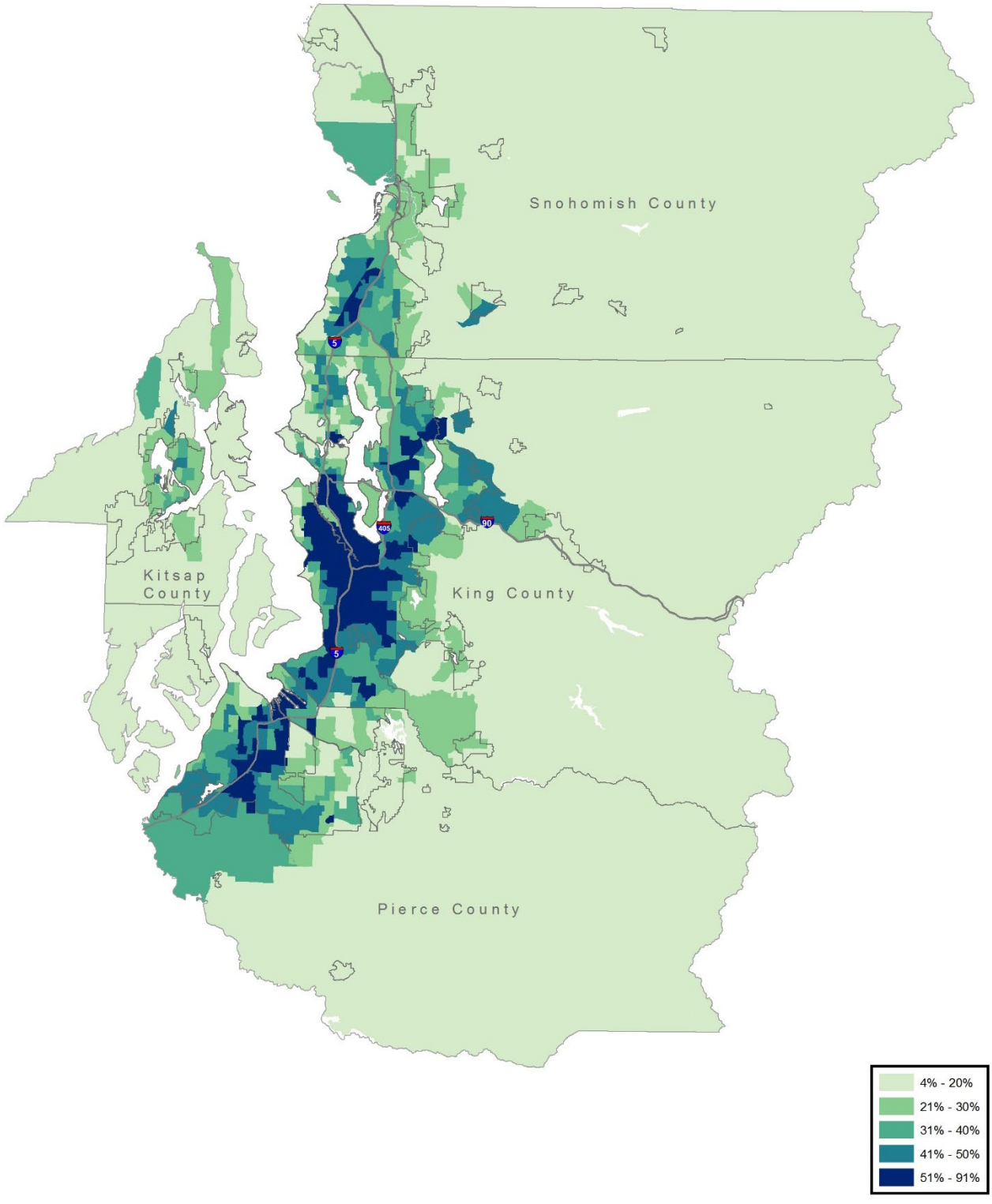
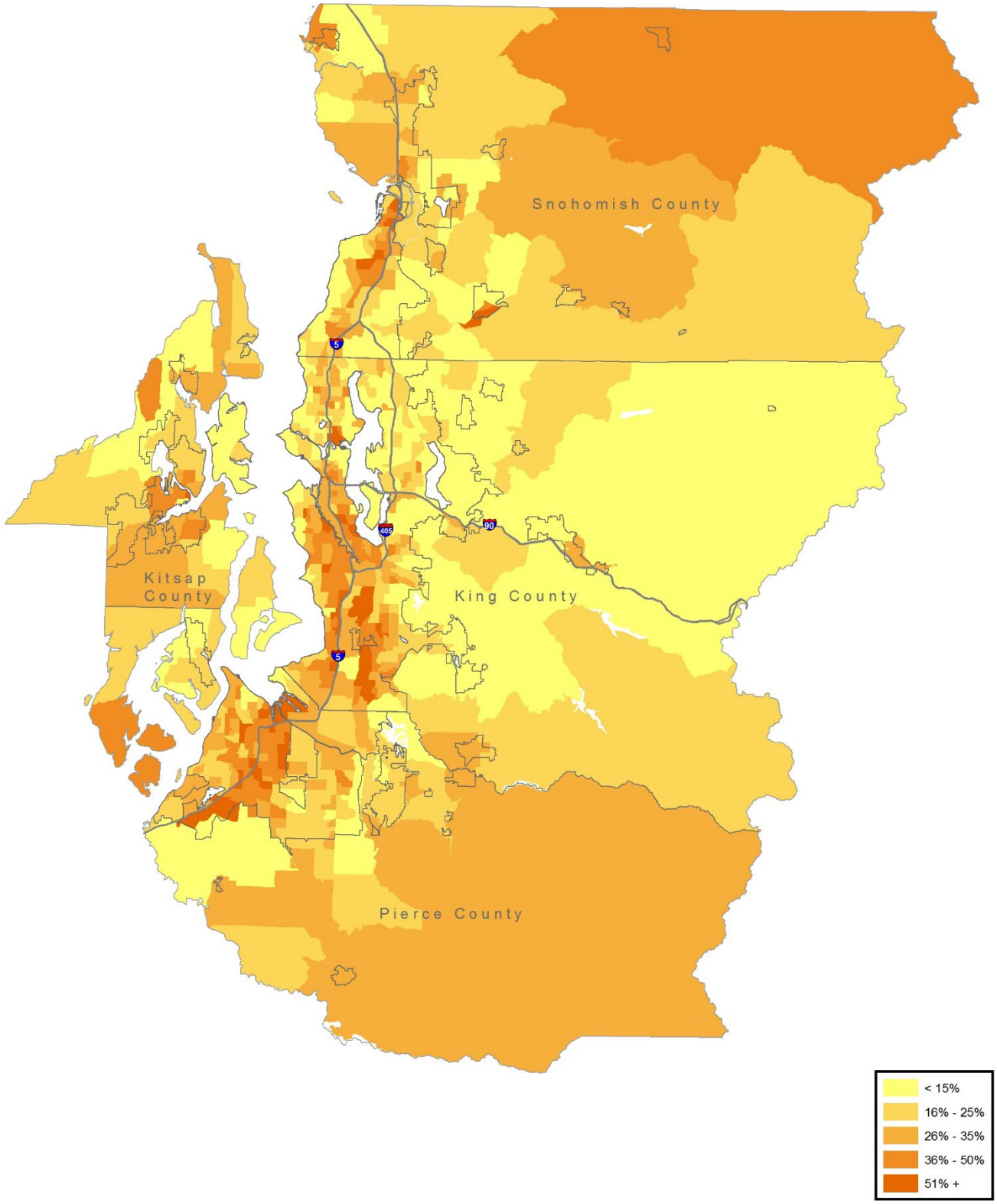
Figure 5.4-1. Distribution of People of Color, 2016



Source: 2016 American Community Survey 1-Year Estimates

Figure 5.4-2. Distribution of People With Low Incomes, 2016



Source: 2016 American Community Survey 1-Year Estimates

5.4.3 Equity Geographies

"Equity geographies" are areas with higher percentages of people of color and/or people with low incomes. Areas are considered "equity geographies" under the following conditions:

1. People of color equity geographies – Census tracts that are greater than 50 percent people of color.
2. Low-income equity geographies – Census tracts where over 50 percent of the households earn less than 200 percent of the federal poverty level.

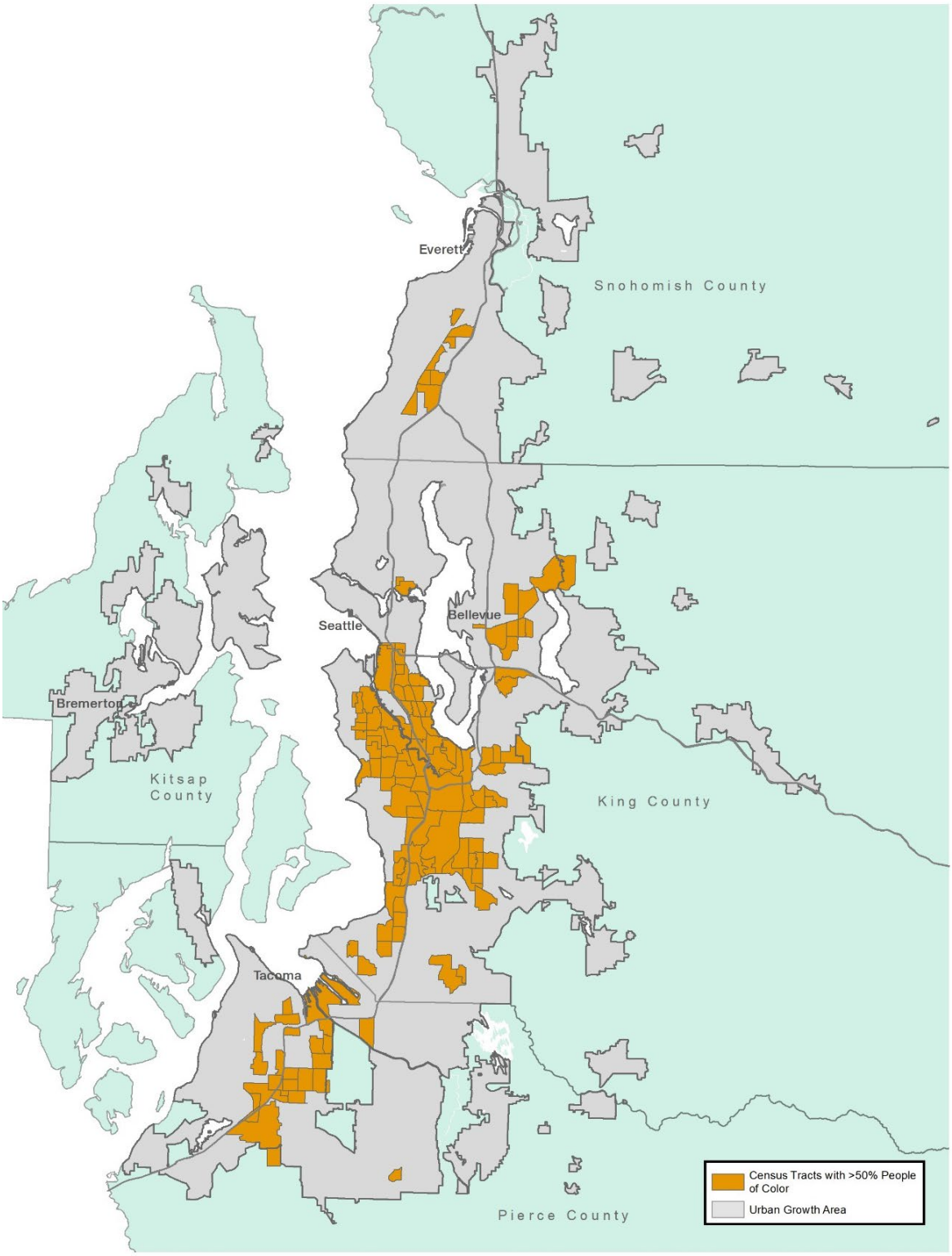
Equity geographies are based on current demographics. The purpose of identifying these areas is to estimate how existing populations may be impacted by growth and change, and by extension, how future populations could be as well.

The geographic locations of the equity geographies are illustrated in Figures 5.4-3 and 5.4-4. Social equity considerations are provided for several topics where impacts can be differentiated between the entire regional population and census tracts that are greater than 50 percent people with low incomes and people of color. These impacts are summarized in Section 5.5 and discussed in detail throughout Chapter 4 and the supplemental equity analysis in Appendix H.

5.4.4 Displacement Risk and Growth Pressures

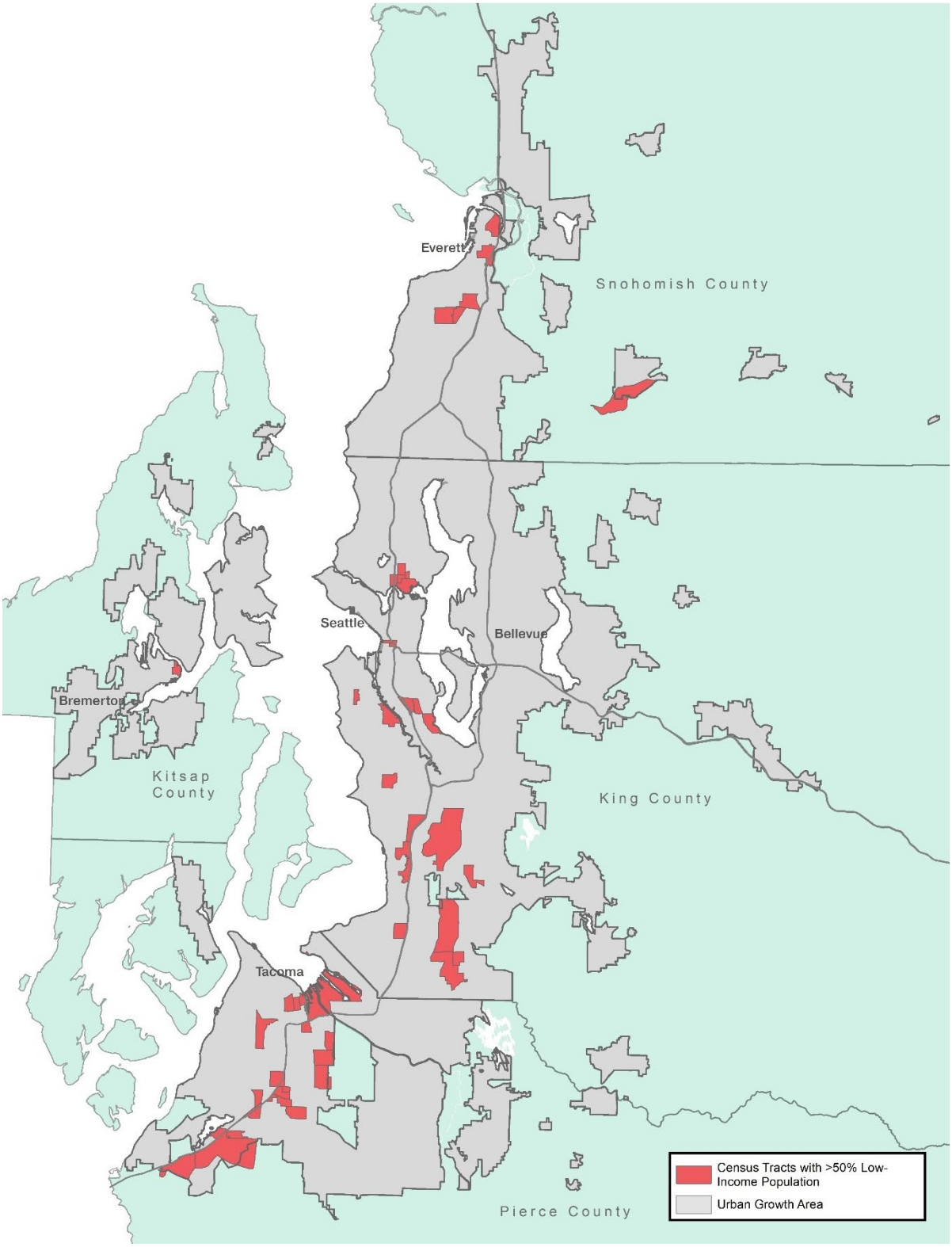
Housing affordability, displacement risk, and growth pressures are areas of interest throughout the region for environmental justice populations. Housing affordability is described in Section 2.3. With a surge in demand for housing that has outpaced the increase in housing supply, the region is experiencing an affordability crisis that is impacting environmental justice populations. Homeownership opportunities are becoming less accessible to middle- and lower-income households (PSRC 2018g). Greater variations are occurring in housing ownership opportunities when analyzed by the race/ethnicity of the households. A strong relationship exists between race/ethnicity, income, and home ownership. The majority of Black and Hispanic households are renters, while the majority of White and Asian households are homeowners. On average, White and Asian households earn over 20 percent more than Black and Hispanic households. Black households experience the largest disparity in income of the groups analyzed. Regionwide, a Black household earns one-third less than the regional median income (PSRC 2018g).

Figure 5.4-3. Census Tracts That Are Greater Than 50 Percent People of Color



Source: U.S. Census Bureau, PSRC

Figure 5.4-4. Census Tracts That Are Greater Than 50 Percent People With Low Incomes



Source: U.S. Census Bureau, PSRC

People with low incomes, people of color, and residents in neighborhoods where households are predominately renters are at a higher risk of displacement and gentrification.

Displacement occurs when housing or neighborhood conditions force residents to move. Displacement can be physical, when building conditions deteriorate or redevelopment occurs, or economic, as costs rise.

Gentrification is the influx of capital and higher-income, more highly educated residents into lower-income neighborhoods.

Depending on the local and regional context, displacement may precede gentrification or the two may occur simultaneously. Several key factors drive gentrification and displacement: proximity to attractive features such as rail/transit stations and job centers and location in a strong real estate market (PSRC 2018g). Gentrification and displacement are regional issues, as they are inherently linked to shifts in the regional housing and job market. PSRC's Housing Background Paper explores changes in percentages of White non-Hispanic residents and changes in median household income as ways to track past trends in displacement. These changes in neighborhood characteristics can help identify areas where displacement may be occurring. Areas with documented displacement include the Central District in Seattle and the Hilltop neighborhood in Tacoma. Both neighborhoods saw an increase in White residents and median household income, indicating a change in the demographics of the residents who can afford to live in these neighborhoods (PSRC 2018g).

Growth can provide beneficial opportunities, such as greater access to jobs and services, for marginalized people of color and people with low incomes who are able to stay in their neighborhoods. Growth also provides the opportunity to expand the supply of housing choices, including affordable housing, where demand is highest—near transit, jobs, education, and services. Transit-oriented development has the potential to reduce the combined household costs of housing and transportation when paired with affordable housing strategies. Due to these benefits, a focus on increasing housing opportunities for these residents, rather than avoiding growth in these areas, may be warranted.

To assess risk to people of color and people with low incomes, PSRC developed tools to identify areas at greater risk of displacement as well as areas of greater opportunity that may experience growth pressures.

Displacement Risk is a composite of indicators representing five elements of neighborhood displacement risks: socio-demographics, transportation qualities, neighborhood characteristics, housing, and civic engagement. The data from these five displacement indicators were compiled into a comprehensive index of displacement risk for all census tracts in the region. A "Displacement Risk Index" is determined by sorting all census tracts based on their index scores. Areas of higher displacement risk represent the top 10 percent of scores among all tracts.

Growth in areas of opportunity is based on the "Opportunity Index," which represents a comprehensive index of five key elements of neighborhood opportunity and positive life outcomes: education, economic health, housing and neighborhood quality, mobility and transportation, and health and environment. The level of opportunity score (very low, low, moderate, high, very high) is determined by sorting all census tracts into quintiles based on their index scores. Areas of opportunity for this measure are defined as those areas that score "Moderate to Very High Opportunity"—which represent the top 60 percent of scores among all tracts. Areas of opportunity that experience greater proportions of growth may experience an increased risk of displacement.

Additional detail on the displacement risk and opportunity index measures and methodology can be found in Appendix C.

In 2017, 10 percent of the regional population was located in areas of higher displacement risk, as defined by the displacement risk measure. Seventy percent of people in the census tracts that are greater than 50 percent people with low incomes were in areas of higher displacement risk. Thirty-nine percent of people in the census tracts that are greater than 50 percent people of color were in areas of higher displacement risk. This evaluation shows that these communities are at substantially greater risk of displacement than the region as a whole (see Appendix H for maps and additional analysis detail and Appendix C for a description of methodology). Impacts from displacement are varied. They can include negative health effects, disruption of social and community structure and support, and long-term financial strain and inhibited economic mobility (Causa Justa 2015; Desmond and Kimbro 2015; Hwang and Ding 2016).

In 2017, the percentage of population living in areas of moderate to high opportunity throughout the region was 59 percent. Thirty-five percent of people in the census tracts that are greater than 50 percent people with low incomes were located in areas of opportunity and 52 percent of people in the census tracts that are greater than 50 percent people of color were located in areas of opportunity. These disparities in outcomes compared to the region as a whole indicate the need to improve access to educational, economic, health, housing, and transportation opportunities for these equity geographies (see Appendix H).

5.4.5 Transportation Equity

This Final SEIS continues to emphasize the importance of transportation equity presented in the VISION 2040 FEIS and Regional Transportation Plan. Equitable access to transportation includes the ability to choose between various transportation options, ensuring that costs are affordable, and ensuring that travel times are reasonable for all people. An equity analysis was performed as part of the Regional Transportation Plan (Appendix B) and found that major investments in transit and increased density would lead to better accessibility, more walking and biking, and increased transit ridership. Census tracts that were greater than 50 percent people of color and people with low incomes were projected to experience greater benefits

from planned transportation improvements than the region as a whole. However, steps must be taken to ensure residents can remain in these communities to experience these benefits.

5.4.6 Health Equity

VISION 2050 emphasizes the importance of health equity. The Washington State Department of Health has developed a "Health Disparities Map," which is an interactive mapping tool that compares communities across the state for environmental health disparities. The map shows pollution measures such as diesel emissions and ozone, proximity to hazardous waste sites, and social vulnerability to hazards. In addition, it displays information regarding poverty and cardiovascular disease. The interactive mapping tool can be found at: https://fortress.wa.gov/doh/wtn/WTNIBL/.

In general, environmental health disparities are high throughout much of the region. These disparities are present in the equity geographies depicted in Figures 5.4-3 and 5.4-4.

5.5 Analysis of Impacts

Table 5.5-1 captures impacts and benefits to environmental justice populations by element for the alternatives. The table also includes the differences between alternatives for growth in areas of opportunity and areas of higher displacement risk.

For the elements of earth and visual quality and aesthetic resources, impacts are not anticipated to be different for environmental justice populations or between the alternatives at the regional level. For these elements, impacts to environmental justice populations would be similar to those described in VISION 2040 FEIS Section 6.5.

For analyses using equity geographies, impacts to census tracts that are greater than 50 percent people of color and people with low incomes are modeled using existing locations of these communities. It is likely that the locations of these communities would change by 2050, but the general impacts described would remain similar.

Table 5.5-1. Environmental Justice Impacts and Benefits

Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
Element: Population, Employment, Housing			
Jobs-housing balance: The Preferred Growth Alternative shows a better balance of jobs and housing for census tracts that are greater than 50 percent people with low incomes or people of color compared to Stay the Course and Reset Urban Growth. The ratios are still well above the regional average, indicating these communities are jobs-rich and housing may be less affordable or available. **Housing densities:** Growth in moderate-density housing accounts for 15 percent of added housing at a regional level for the Preferred Growth Alternative, tied with Stay the Course. The second-highest level of moderate-density housing stock growth overall for census tracts that are greater than 50 percent people with low incomes or people of color.	**Jobs-housing balance:** Tied with Reset Urban Growth, Stay the Course shows less improvement in the balance of jobs and housing for census tracts that are greater than 50 percent people with low incomes or people of color compared to the Preferred Growth Alternative and Transit Focused Growth. Census tracts that are greater than 50 percent people with low incomes or people of color are estimated to be very jobs-rich areas in 2050, with jobs-housing ratios well over the regional average. **Housing densities:** Growth in moderate-density housing accounts for 15 percent of added housing at a regional level, tied with the Preferred Growth Alternative. The third-highest level of moderate-density housing stock growth overall for census tracts that are greater than 50 percent people with low incomes or people of color.	**Jobs-housing balance:** Transit Focused Growth shows a better balance of jobs and housing for census tracts that are greater than 50 percent people with low incomes or people of color compared to the other alternatives, with jobs-housing ratios still well above the regional average. **Housing densities:** Growth in moderate-density housing accounts for 16 percent of added housing at a regional level for Transit Focused Growth, the highest of the alternatives. The highest level of moderate-density housing stock growth overall for census tracts that are greater than 50 percent people with low incomes or people of color.	**Jobs-housing balance:** Tied with Stay the Course, Reset Urban Growth shows less improvement in the balance of jobs and housing for census tracts that are greater than 50 percent people with low incomes or people of color compared to the Preferred Growth Alternative and Transit Focused Growth, with jobs-housing ratios well over the regional average. **Housing densities:** Growth in moderate-density housing accounts for 14 percent of added housing at a regional level for Reset Urban Growth, the lowest level of the alternatives. The lowest level of moderate-density housing stock growth overall for census tracts that are greater than 50 percent people with low incomes or people of color.
For all alternatives, and as described in Section 2.3, moderate-density housing tends to provide more affordable housing choices than either low- or high-density housing options.			
Element: Land Use			
Census tracts that are greater than 50 percent people of color and people with low incomes have a higher percentage of population and employment growth located in proximity to **high-capacity transit** (87 percent and 92 percent, respectively) compared to Stay the Course, Reset Urban Growth, and the region as a whole (69 percent). Census tracts that are greater than 50 percent people of color and people with low incomes have a higher percentage of population and employment growth located in proximity to **all transit service** (87 percent and 90 percent, respectively) compared to Stay the Course,	Census tracts that are greater than 50 percent people of color and people with low incomes have lower percentages of population and employment growth located in proximity to **high-capacity transit** (62 percent and 68 percent, respectively) compared to the Preferred Growth Alternative and Transit Focused Growth but higher compared to Reset Urban Growth and the region as a whole (46 percent). Absolute values were taken into consideration for this analysis. Census tracts that are greater than 50 percent people of color and people with low incomes have lower percentages of population and	Census tracts that are greater than 50 percent people of color and people with low incomes have the highest percentage of population and employment growth located in proximity to **high-capacity transit** (89 percent and 92 percent, respectively) compared to the other alternatives and the region as a whole (75 percent). Census tracts that are greater than 50 percent people of color and people with low incomes have the highest percentage of population and employment growth located in	Census tracts that are greater than 50 percent people of color and people with low incomes have lower percentages of population and employment growth located in proximity to **high-capacity transit** (63 percent and 68 percent, respectively) compared to the other alternatives but higher compared to the region as a whole (45 percent). Census tracts that are greater than 50 percent people of color and people with low incomes have lower percentages of population and employment growth located in proximity to **all transit service**

Table 5.5-1. Environmental Justice Impacts and Benefits (continued)

Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
Reset Urban Growth, and the region as a whole (76 percent).	employment growth located in proximity to **all transit service** (76 percent and 82 percent, respectively) compared to the Preferred Growth Alternative and Transit Focused Growth but higher compared to Reset Urban Growth and the region as a whole (65 percent).	proximity to **all transit service** (88 percent and 90 percent, respectively) compared to the other alternatives and region as a whole (81 percent).	(75 percent and 79 percent, respectively) compared to the other alternatives but higher compared to the region as a whole (61 percent).
For all alternatives, these communities would have improved access to transit but would likely experience elevated risk of displacement.			
Element: Transportation			
For census tracts that are greater than 50 percent people of color and people with low incomes, transportation benefits under the Preferred Growth Alternative are generally slightly less than Transit Focused Growth and better than Stay the Course and Reset Urban Growth. Benefits to these areas are better than the region as a whole. These benefits include less driving and time spent in traffic, increased walking, and greater access to jobs via walking, biking, and transit.	For census tracts that are greater than 50 percent people of color and people with low incomes, transportation benefits under Stay the Course are generally slightly better than Reset Urban Growth and less than the Preferred Growth Alternative and Transit Focused Growth. Benefits to these areas are better than the region as a whole.	For census tracts that are greater than 50 percent people of color and people with low incomes, transportation benefits under Transit Focused Growth are slightly better than the Preferred Growth Alternative and better than Stay the Course, Reset Urban Growth, and the region as a whole.	For census tracts that are greater than 50 percent people of color and people with low incomes, transportation benefits under Reset Urban Growth are generally slightly less than Stay the Course and more noticeably less than the Preferred Growth Alternative and Transit Focused Growth. Benefits to these areas are better than the region as a whole.
Element: Ecosystems and Water Quality and Hydrology			
For all alternatives, impacts from growth that degrade habitat and water quality can contribute to the decline of salmon and other plant and animal species of significance to tribes in the region. Impacts to fisheries also affect low-income communities who fish to augment their food supply.			
Element: Public Services and Utilities, Energy			
For the Preferred Growth Alternative, similar to Transit Focused Growth, compact development where existing utilities are located would help keep utility and living costs down, a benefit to low-income communities.	Stay the Course would benefit to low-income communities less than the Preferred Growth Alternative and Transit Focused Growth due to its less compact development pattern.	For Transit Focused Growth, similar to the Preferred Growth Alternative, compact development where existing utilities are located would help keep utility and living costs down, a benefit to low-income communities.	More dispersed development may require more expansion or development of utilities and services compared to the other alternatives, which could add utility and living costs, an adverse impact to low-income communities.
For all alternatives, growth would require expansion or development of new facilities.			

Table 5.5-1. Environmental Justice Impacts and Benefits (continued)

Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
Element: Parks and Recreation			
Local parks resources: For census tracts that are greater than 50 percent people with low incomes or people of color, the Preferred Growth Alternative results in the second-highest access to parks for residents. Access would be higher than the region as a whole.	**Local parks resources:** For census tracts that are greater than 50 percent people with low incomes or people of color, Stay the Course results in the lowest access to parks for residents. Access would be higher than the region as a whole.	**Local parks resources:** For census tracts that are greater than 50 percent people with low incomes or people of color, Transit Focused Growth results in the highest access to parks for residents. Access would be higher than the region as a whole.	**Local parks resources:** For census tracts that are greater than 50 percent people with low incomes or people of color, Reset Urban Growth results in the third-highest access to parks for residents. Access would be higher than the region as a whole.
For all alternatives, low-income communities would experience reduced access to regional resources that are primarily accessed by car. As noted in Section 4.8.4, people with low incomes are less likely to own a car. Other barriers to enjoying these open spaces for low-income communities include the cost of an access pass and lack of leisure time, equipment, and familiarity with hiking and camping (PSRC 2018j). Access to regional parks access would be similar for all alternatives for low-income communities and people of color.			
Element: Environmental Health, Air Quality, and Noise			
For all alternatives, and as described in Section 2.11.2 and 5.4.6, environmental health inequities exist, and health outcomes vary by place, race, and income. Based on locations of people of color and people with low incomes, these populations may experience localized air quality and noise impacts from proximity to transportation infrastructure. Between alternatives at a regional level, there are no discernable environmental health differences on environmental justice populations. Increased access to transit, denser and more walkable communities, and increased access to parks and open space could provide increased benefits to low-income communities and communities of color if mitigation measures are successfully implemented to prevent displacement of these vulnerable populations.			
Element: Historic, Cultural, and Archaeological Resources			
For all alternatives, development could alter landscapes and properties with archaeological, cultural, or historic resources. Archaeological and traditional cultural properties in the region are primarily associated with local tribes. Growth can also lead to gentrification and displacement, resulting in loss of cultural resources for communities of color and low-income communities. See the displacement section (Section 5.4.4) for more specific analysis of displacement risk.			
Element: Growth in Opportunity Areas			
For census tracts that are greater than 50 percent people with low incomes, growth in opportunity areas (moderate to very high opportunity) would be lower (50 percent) under the Preferred Growth Alternative than Transit Focused Growth and more than Stay the Course and Reset Urban Growth. For census tracts that are greater than 50 percent people of color under the Preferred Growth Alternative, growth in opportunity areas is the same as Transit Focused Growth (63 percent) and higher than Stay the Course and Reset Urban Growth.	For census tracts that are greater than 50 percent people with low incomes and people of color, growth in opportunity areas would be lower (40 percent and 54 percent, respectively) under Stay the Course than the other alternatives.	For census tracts that are greater than 50 percent people with low incomes, growth in opportunity areas would be higher (55 percent) under Transit Focused Growth than the other alternatives. For census tracts that are greater than 50 percent people of color, growth in opportunity areas is the same under Transit Focused Growth as the Preferred Growth Alternative (63 percent) and higher than Stay the Course and Reset Urban Growth.	For census tracts that are greater than 50 percent people with low incomes and people of color, growth in opportunity areas would be higher (46 percent and 62 percent, respectively) under Reset Urban Growth than Stay the Course and lower than the Preferred Growth Alternative and Transit Focused Growth.

Table 5.5-1. Environmental Justice Impacts and Benefits (continued)

Preferred Growth	Stay the Course	Transit Focused Growth	Reset Urban Growth
For census tracts that are greater than 50 percent people with low incomes and people of color, growth will occur in areas of opportunity for all of the alternatives, which could improve access to opportunity but may elevate growth pressures. Mitigation measures would need to be considered to help prevent displacement of vulnerable populations.			
Element: Growth in Areas of Higher Displacement Risk			
For census tracts that are greater than 50 percent people with low incomes, growth in areas of higher displacement risk is the same under the Preferred Growth Alternative as Transit Focused Growth (92 percent) and more than Stay the Course and Reset Urban Growth. For census tracts that are greater than 50 percent people of color, growth in areas of higher displacement risk under the Preferred Growth Alternative would be more than the other alternatives (60 percent). For growth in the region as a whole under the Preferred Growth Alternative, 22 percent of population growth would occur in areas of higher displacement risk, also pointing to an elevated displacement risk compared to Stay the Course and Reset Urban Growth.	For census tracts that are greater than 50 percent people of color and people with low incomes, growth in areas of higher displacement risk would be the lowest of all the alternatives (90 percent and 53 percent, respectively) under Stay the Course. For growth in the region as a whole under Stay the Course, 17 percent of population growth would occur in areas of higher displacement risk.	For census tracts that are greater than 50 percent people with low incomes, growth in areas of higher displacement risk under Transit Focused Growth is the same as the Preferred Growth Alternative (92 percent) and more than Stay the Course and Reset Urban Growth. For census tracts that are greater than 50 percent people of color, growth in areas of higher displacement risk would be lower (59 percent) under Transit Focused Growth than the Preferred Growth Alternative and more than Stay the Course and Reset Urban Growth. For growth in the region as a whole, 23 percent of population growth would occur in areas of higher displacement risk, also pointing to an elevated displacement risk compared to Stay the Course and Reset Urban Growth.	For census tracts that are greater than 50 percent people with low incomes, growth in areas of higher displacement risk under Reset Urban Growth is more (91 percent) than Stay the Course and lower than the Preferred Growth Alternative and Transit Focused Growth. For census tracts that are greater than 50 percent people of color, growth in areas of higher displacement risk under Reset Urban Growth would be more (55 percent) than Stay the Course and lower than the Preferred Growth Alternative and Transit Focused Growth. For growth in the region as a whole under Reset Urban Growth, 17 percent of population growth would occur in areas of higher displacement risk.
For census tracts that are greater than 50 percent people of color and people with low incomes, relative amounts of growth in areas of higher displacement risk under all the alternatives would be much higher than the region as a whole, indicating that mitigation would be needed to help prevent displacement.			
Element: Climate Change			
For all alternatives, climate impacts or hazards from events such as heat waves, floods, and droughts pose challenges for all communities, as described in Chapter 4. However, communities of color and low-income communities may be more vulnerable and have more exposure to climate change risks and, therefore, have a reduced ability to cope with the impacts of these climate-related events compared to the region as a whole (University of Washington Climate Impacts Group et al. 2018). Communities of color and low-income communities are also at increased risk based on their location (e.g., in floodplains and urban areas). They are also at increased risk based on their livelihoods (e.g., agriculture, fisheries, construction) (University of Washington Climate Impacts Group et al. 2018). Between alternatives at a regional level, there are no discernable differences in climate change impacts on environmental justice populations. Additional information can be found at: https://cig.uw.edu/our-work/applied-research/an-unfair-share-report/.			

5.6 Cumulative Effects

The affected environment (Section 5.4) reflects past and present cumulative impacts on people of color and people with low incomes. Future cumulative effects on people of color and people with low incomes are described in Table 5.5-1, and slight differences are noted between alternatives. Alternatives that concentrate growth in communities of color and low-income communities could have greater cumulative impacts if adequate coordination and mitigation measures are not implemented.

5.7 Potential Mitigation Measures

Potential mitigation measures described in the VISION 2040 FEIS remain applicable and are described in Table 5.7-1, along with additional mitigation measures that may be considered. Additional mitigation measures related to environmental justice and social equity can be found in Chapter 4 within the mitigation tables associated with specific elements of the environment.

Table 5.7-1. Potential Mitigation Measures: Environmental Justice

Topic: Environmental Justice
• Incorporate demographic analyses and community involvement with people of color and people with low incomes at the local level and project level.* • Interview social service providers to verify demographic analyses and understand specific local needs and effective methods for outreach and public involvement.* • Perform additional and ongoing outreach to involve people of color and people with low incomes.* • Use demographic analyses and outreach results to prevent new or expanded uses and other public infrastructure from having a disproportionate impact on environmental justice populations.* • Implement planning and design efforts to improve areas where living conditions and land uses erode good health.* • Develop programs to maintain and expand the supply of affordable housing.* • Promote planning processes that account for living-wage jobs within reasonable commute distances. • Support affordable housing initiatives in proximity to employment centers. • Promote local programs to develop and support community anchoring activities like job training and small business development programs, job search services, community gardens, food banks and community low income support service centers. • Provide a supportive environment for business startups, small businesses, and locally owned businesses. • Promote planning processes and partnerships to create pathways to living wage careers. • Engage with the Legislature to expand local tools and funding to support affordable housing in transit station areas.

*Denotes mitigation measure from the VISION 2040 FEIS.

5.8 Significant Unavoidable Adverse Impacts

Significant unavoidable adverse impacts are discussed for each element in Chapter 4. Loss of affordable housing and displacement would likely be adverse impacts to people of color and people with low incomes. Implementation of the mitigation measures listed in Section 5.7 and throughout Chapter 4 of this Final SEIS would help to reduce or avoid these impacts.

5.9 Environmental Justice Determination

Implementation of appropriate mitigation strategies will be necessary to avoid disproportionately high and adverse effects on people of color and people with low incomes under any of the alternatives. Homelessness and housing affordability are currently issues of high public concern and could worsen unless effective measures are implemented to address them. Local and regional elected officials are considering and implementing a number of measures to increase affordability and production of housing as well as provision of additional services for homeless populations intended to create successful pathways out of homelessness. The State Legislature is currently considering measures that would provide additional local option revenue sources that could be directed to target housing affordability and homelessness in the region. All of these are consistent with the suite of potential mitigation measures identified in this SEIS. Environmental justice populations may be disproportionally burdened with other elements, such as climate change, under any of the alternatives, and local and regional decision-makers should consider mitigation strategies for these large-scale impacts. Additional environmental justice analyses should be completed as part of future plans, project-level planning, and environmental review.

6. Multicounty Planning Policies

This chapter discusses the background and purpose of multicounty planning policies and provides a summary of the policies in VISION 2050, differences from VISION 2040 policies, and their environmental effects. The set of multicounty planning policies recommended for VISION 2050 by the Growth Management Policy Board are at the end of this chapter. Chapter 7 of the VISION 2040 FEIS provides additional detail and describes the likely environmental effects of the policies in VISION 2040.

All comments received on the VISION 2050 Draft SEIS during the public comment period were reviewed and considered in the development of the draft Preferred Alternative and draft policies. The Preferred Growth Alternative and draft policies were released in a draft VISION 2050 plan for review in July 2019, followed by a 60-day public comment period and public hearing. Input and feedback received during the draft VISION 2050 plan comment period was reviewed and considered to inform revisions to the policies and preferred Regional Growth Strategy.

6.1 How Multicounty Planning Policies are Used

VISION 2040 includes the multicounty planning policies for the four-county region adopted under the authority of GMA (RCW 36.70A.210 (7)). Multicounty planning policies have both a practical and a substantive effect on the comprehensive plans of cities and counties. The policies provide a common, coordinated policy framework for local plans and other large-scale planning efforts in the region, including countywide planning policies, functional plans

developed by PSRC, and plans developed by other groups and agencies, such as Sound Transit and others.

The multicounty planning policies are designed to support implementation of the Regional Growth Strategy, including concentrating growth within the region's designated urban growth area and limiting development in resource and rural areas. The policies provide an integrated framework for addressing planning for regional collaboration, growth, the environment, climate change, land use, housing, the economy, transportation, and public services.

Multicounty planning policies provide an opportunity for local elected officials in the region to craft collective solutions that may not be appropriate in other parts of the state. Such policies are developed around issues that the central Puget Sound region holds in common. The policies serve as statements of shared values and they are designed to address what is to be accomplished and why.

Finally, multicounty planning policies provide assurance to local jurisdictions that those issues with broad benefit that would be difficult for individual localities to address alone will be addressed regionwide, within a collaborative framework—rather than 86 fragmented and unilateral ones. More information on the background and assessment of VISION 2040's multicounty planning policies is in Chapter 7 of the VISION 2040 FEIS.

This Final SEIS identifies potential impacts of the Regional Growth Strategy Alternatives, along with measures to mitigate those impacts. The multicounty planning policies describe how to address these impacts and implement mitigation measures. Multicounty planning policies do not specifically regulate or restrict existing project-level approvals or planning processes.

6.2 Multicounty Planning Policies

The multicounty planning policies are structured under VISION 2050's nine topic areas: regional collaboration, Regional Growth Strategy, environment, climate change, development patterns, housing, economy, transportation, and public services. The policies address issues of a regional nature in a way that provides guidance for implementation, often through local actions. When multicounty planning policies are less detailed, countywide planning policies and local comprehensive plans are the appropriate mechanisms for providing more detail.

Input on the project scope confirmed that VISION 2040's policies provide a strong foundation and should be largely retained, with updates for emerging policy areas and changing conditions (PSRC 2018b). Some changes were made to strengthen or clarify policies. The multicounty planning policies have been revised to be consistent with the Preferred Growth Alternative.

6.3 Update Process Overview

PSRC gathered input on VISION 2050's policies in several ways. A scoping process conducted under SEPA was designed to inform the public, PSRC member jurisdictions, interest groups, affected tribes, and government agencies about the project and to gather comments about the key issues that should be addressed, including goals and policies.

The Growth Management Policy Board and other PSRC boards and committees discussed VISION 2040's policies and potential updates. During these meetings, boards and committees had conversations about where policies need to be added, strengthened, and clarified. The VISION 2050 background papers helped to inform the discussions (Appendix E).

Projects completed since VISION 2040 was adopted also provided direction for policy updates. For example, the Growing Transit Communities Strategy provides policy guidance in many areas, including social equity, transportation, and development patterns. The Regional Centers Framework Update project informs discussions on centers policy. The Regional Open Space Conservation Plan informs discussions on the environment, recreation, and resource lands.

Following the 2015-2016 cycle of local comprehensive plan updates, a PSRC project called Taking Stock 2016 assessed the collective efforts of the region's counties and cities to implement VISION 2040 (PSRC 2017b). Taking Stock 2016 highlighted key VISION 2040 strategies that positively influence local plans and shape the region, as well as strategies and tools that require more work and updated policies.

This Final SEIS identifies potential impacts of the Regional Growth Strategy alternatives and measures to mitigate those impacts. The multicounty planning policies address these impacts and help to implement the mitigation measures.

6.4 VISION 2050 Multicounty Planning Policies, Actions, and Environmental Effects

The multicounty planning policies in VISION 2050 are structured with an overarching goal, policies, and actions in the nine topic areas discussed below. Goals speak to the desired end states for each of the topic areas. They set the tone for the integrated approach and common framework for the policies. The policies are generally broad and overarching, addressing issues of a regional nature in a way that provides guidance for implementation. Following the policies, a range of regional, countywide, and local implementation actions are included that lay out responsibilities for implementing the policies. All the actions in VISION 2040 have been replaced by new actions in VISION 2050. Potential environmental effects, including benefits, are also described for each topic area.

6.4.1 Regional Collaboration

Purpose of Policies. The purpose of regional collaboration policies is to address implementation of VISION 2050 overall and to identify those areas where regionwide collaboration is critical.

Goal and Policy Summary. VISION 2050's regional collaboration goal is as follows: "The region plans collaboratively for a healthy environment, thriving communities, and opportunities for all."

The VISION 2050 regional collaboration policies promote coordination with tribes, ports, the military, jurisdictions, agencies, and adjacent jurisdictions to facilitate a common vision and consistent approach to implementing VISION 2050. The policies also advance equity, improve public health, and prioritize funding. Several policies direct the prioritization of transportation funding to support centers. One policy promotes coordinated efforts to restore Puget Sound and its watersheds. Another policy calls for recognizing the beneficial impacts of military installations, as well as their challenges for nearby communities. The policies also provide a deadline for updating countywide planning policies (2021), and they identify the need to monitor the implementation of VISION 2050. In addition, they call for exploring and supporting new and existing sources of funding and identifying necessary changes to regulatory, pricing, taxing and expenditure practices to help implement VISION 2050.

Summary of Actions. Regional collaboration actions include providing support for countywide and local plan updates, tracking the implementation of VISION 2050 through a monitoring program, developing a regional equity strategy, investigating new funding sources, and communicating with state agencies and the Legislature to advance VISION 2050 and support fiscal sustainability. One action calls for developing an outreach program for VISION 2050 to member jurisdictions, regional stakeholders, and the public. Other actions call for consideration of regional funding for projects that improve access to military installations and contribute to Puget Sound recovery.

Differences from VISION 2040. The regional collaboration section in VISION 2040 was called "General." It contained similar coordination, monitoring, and communication polices. Policies to advance equity, improve health, and recognize the impacts of military installations have been expanded from VISION 2040. Policies related to the prioritization of transportation funding were moved from other sections of VISION 2040 and relocated here. The policies and actions also expand on the funding challenges for local governments and other agencies.

Environmental Effects. Enhanced regional collaboration is expected to make more efficient use of limited funding and other resources and result in transportation, environmental, equity, and health benefits. The Regional Collaboration Policies would help to implement the mitigation measures and practices identified in Chapters 4 and 5 of this SEIS. For example, the SEIS identifies current health disparities, with health outcomes varying by race, income, and place. Measures to mitigate these health disparities are listed in Table 5.7-1, such as the

following: “Implement planning and design efforts to improve areas where living conditions and land uses erode good health.” This measure is addressed by MPP-RC-3, which calls for making reduction of health disparities and improvement of health outcomes across the region a priority when developing and carrying out regional, countywide, and local plans.

6.4.2 Regional Growth Strategy

Purpose of Policies. The purpose of the Regional Growth Strategy policies is to advance a preferred pattern of growth to minimize environmental impacts, support economic prosperity, advance social equity, promote affordable housing choices, improve mobility, make efficient use of urban land and infrastructure, and keep working lands working.

Goal and Policy Summary. VISION 2050’s Regional Growth Strategy goal is as follows: “The region accommodates growth in urban areas, focused in designated centers and near transit stations, to create healthy, equitable, vibrant communities well-served by infrastructure and services. Rural and resource lands continue to be vital parts of the region that retain important cultural, economic, and rural lifestyle opportunities over the long term.”

The VISION 2050 Regional Growth Strategy policies promote planning for growth consistent with the numeric allocations in the Regional Growth Strategy, including focusing growth in urban areas, centers, and transit station areas and using urban land efficiently. Policies call for attracting 65% of the region’s residential growth and 75% of the region’s employment growth to regional growth centers and high-capacity transit station areas and for encouraging growth in countywide centers. The policies also call for Metropolitan Cities to provide additional housing capacity, particularly missing middle housing capacity, in response to evidence of high displacement risk or rapid job growth and for avoiding new development capacity inconsistent with the Regional Growth Strategy.

Policies related to rural areas call for reducing rural growth rates over time, maintaining rural landscapes and lifestyles, protecting resource lands and the environment, and supporting the establishment of a regional funding source to acquire conservation easements in rural areas. Policies address implementing the Regional Growth Strategy through regional policies, countywide planning policies, growth targets, and local plans and flexibility with countywide growth targets (provided that growth targets support the Regional Growth Strategy). Another policy calls for identifying strategies, incentives, and approaches to facilitate the annexation and incorporation of unincorporated urban areas.

Summary of Actions. VISION 2050 Regional Growth Strategy actions call for tracking and evaluating growth and development and reporting on urban growth area changes, annexation activity, and countywide coordination practices. One action calls for PSRC to participate in and provide guidance on the target setting process. Local actions call for jurisdictions to accommodate growth targets and implement the Regional Growth Strategy in the next update of local comprehensive plans and for countywide planning organizations to reconcile target discrepancies. Another local action calls for measures to improve the jobs-housing balance,

particularly in Metropolitan and Core Cities experiencing high job growth. Actions also support a regional conservation fund focusing on Rural areas and outreach to implement the plan. Guidance in the chapter addresses alignment between local growth targets, comprehensive plans, and the Regional Growth Strategy.

Differences from VISION 2040. VISION 2040 Regional Growth Strategy policies were contained in the development patterns section. VISION 2040 contained similar policies related to protecting rural and resource lands, focusing growth in urban areas and centers, and using urban land efficiently. VISION 2040 placed less emphasis on focusing growth in high-capacity transit station areas and did not contain policies on flexibility with countywide growth targets, funding for conservation easements, or displacement. VISION 2040 also did not include specific policies to avoid new development capacity inconsistent with the Regional Growth Strategy, increasing housing capacity in Metropolitan Cities, and encouraging growth in designated countywide centers. More general guidance on aligning growth targets was included in an appendix.

Environmental Effects. Focusing growth in high-capacity transit station areas could result in additional benefits related to the environment, transportation, and housing choice. However, Regional Growth Strategy policies encourage focusing growth in areas of higher displacement risk, as discussed in this Final SEIS. The Regional Growth Strategy policies would help to implement the mitigation measures and practices identified in Chapters 4 and 5 of this SEIS. Table 4.1-5 identifies measures to mitigate the potential displacement impacts. MPP-RGS-7 helps to implement these measures by calling for Metropolitan Cities to review housing needs and existing density in response to evidence of high displacement risk and/or rapid increase in employment and to provide additional housing capacity in response to rapid employment growth.

Measures to mitigate and avoid potential growth impacts on rural and resource lands, such as promoting higher densities near transit and using transfer of development rights programs, are provided in Table 4.2-1. These measures are implemented through several policies on increasing urban densities and establishing regional funding sources to acquire conservation easements (MPP-RGS-6, 8, and 15).

6.4.3 Environment

Purpose of Policies. The purpose of the environment policies is to maintain and improve the natural and built environments.

Goal and Policy Summary. VISION 2050's environment goal is as follows: "The region cares for the natural environment by protecting and restoring natural systems, conserving habitat, improving water quality, and reducing air pollutants. The health of all residents and the economy is connected to the health of the environment. Planning at all levels considers the impacts of land use, development, and transportation on the ecosystem."

The environment policies promote developing and coordinating on regionwide environmental strategies; using integrated and interdisciplinary approaches for environmental planning; maintaining and improving air and water quality, soils, and natural systems; ensuring a healthy environment for all; minimizing the impacts of development through innovative and environmentally sensitive development practices; using the best available information; and reducing and mitigating noise and light impacts, particularly on vulnerable populations.

Policies also promote enhancing urban tree canopy and native vegetation, supporting environmental stewardship, protecting open space and wildlife corridors, and improving access to open space, particularly for underserved communities. Water resources are supported through policies on preserving and enhancing habitat, maintaining and restoring natural hydrological functions and water quality, reducing stormwater impacts, reducing the use of toxic products, and restoring shorelines, watersheds, and estuaries. Environment policies also address air quality standards and reducing pollutants from transportation activities.

Summary of Actions. VISION 2050 actions call for regional and local open space planning and integrated and coordinated watershed planning, including culvert removal.

Differences from VISION 2040. VISION 2040 contained similar environment policies. VISION 2050 policies place additional emphasis on advancing social equity, mitigating light pollution, supporting environmental stewardship, enhancing tree canopy, improving access to open space, and improving water quality and Puget Sound health. Climate change policies have been moved to a separate chapter on climate change.

Environmental Effects. The environment policies state the intention to maintain the natural environment by protecting important features, reducing pollutants, and using state of the art planning methods. In many cases, the provisions would create more specific mechanisms to preserve and conserve the natural environment and to improve conditions related to human health (such as environmental health, noise and vibration, parks and recreation, and air pollution).

The environment policies would help to implement the mitigation measures and practices identified in Chapters 4 and 5 of this SEIS. Measures to mitigate potential environmental impacts, such as preventing habitat degradation and air and water pollution, are provided in Tables 4.4-2, 4.5-1, and 4.6-2. These measures are implemented through many policies on protecting habitat and open space, managing stormwater, and reducing air toxics (MPP-EN-10 through 22).

6.4.4 Climate Change

Purpose of Policies. The purpose of the climate change policies is to reduce the region's contribution to and to prepare for the impacts of climate change.

Goal and Policy Summary. VISION 2050's climate change goal is as follows: "The region substantially reduces emissions of greenhouse gases that contribute to climate change in

accordance with the goals of the Puget Sound Clean Air Agency (50% below 1990 levels by 2030 and 80% below 1990 levels by 2050) and prepares for climate change impacts."

VISION 2050 climate change policies address climate change mitigation through advancing work that reduces greenhouse gas emissions and building energy use, expands conservation and alternative energy sources, electrifies the vehicle fleet, reduces vehicle miles traveled, promotes energy management technologies, and protects and restores natural resources that sequester and store carbon. Climate change adaptation is addressed through policies that support mitigating impacts on vulnerable populations, advancing actions that increase resilience, relocating hazardous industries and essential public services away from the 500-year floodplain, and protecting water resources.

Summary of Actions. VISION 2050 actions call for implementation, monitoring, and update of the region's Greenhouse Gas Strategy and for engaging in resilience planning and climate preparedness, both at the regional and local scale. Equity is emphasized in these actions.

Differences from VISION 2040. Climate change has become a more urgent issue since VISION 2040 was adopted, and effective mitigation measures and climate change impacts are better understood. VISION 2050's climate change goal is in line with the goals adopted by the Puget Sound Clean Air Agency in 2017. VISION 2040 contained similar climate change policies, although VISION 2050's policies are more detailed and have additional emphasis on social equity and resilience. Climate change policies were contained in the Environment section of VISION 2040.

Environmental Effects. Impacts from climate change are expected to become more severe. Some of the cumulative impacts sections in Chapter 4 discuss climate change impacts. VISION 2050's climate change policies are expected to result in decreased greenhouse gas emissions and greater levels of carbon sequestration compared to current levels. Although VISION 2050's policies cannot eliminate future climate impacts, they would help the region to reduce greenhouse gas emissions and to prepare for climate change impacts.

The climate change policies would help to implement the mitigation measures and practices identified in Chapters 4 and 5 of this SEIS. Climate change mitigation measures such as promoting energy efficient buildings, fleet electrification, and carbon sequestration are provided in Tables 4.4-2. These measures are implemented through the many climate change policies, including those on reducing building energy use, electrifying the transportation system, and protecting natural resources that sequester carbon (MPP-CC-2, 3, and 4).

6.4.5 Development Patterns

Purpose of Policies. The purpose of the development patterns policies is to encourage sustainable development that is well-designed, well-connected, equitable, and focused in urban areas and centers.

Goal and Policy Summary. VISION 2050's development patterns goal is as follows: "The region creates walkable, compact, and equitable transit-oriented communities that maintain unique local character, while creating and preserving open space and natural areas."

VISION 2050 policies address urban development patterns by promoting high-quality, compact communities, connectivity of the street network, and transformation of underutilized lands. Community character is addressed through policies that protect historic, visual, and cultural resources, including tribal treaty fishing, hunting, and gathering grounds. Social equity is addressed through policies that call for eliminating health disparities and for inclusive community engagement, planning, and investments.

Community development and health is addressed by policies that support urban design, the arts, community-centered and safe transportation and infrastructure projects, development of parks and public spaces, coordination among service providers and developers, enhancement of the food system, and development of health-promoting design guidelines. Efficient design is addressed through policies that encourage developing higher-performing energy and environmental standards, accommodating a broader range of project types, and designing with natural boundaries and systems and other linear systems that cross jurisdictional boundaries.

Centers are addressed through policies that call for supporting center development, evaluating center planning, designating countywide centers, and providing a framework for designating and evaluating regional centers. Unincorporated urban lands are addressed through policies that support affiliation, annexation, and incorporation and the coordination of services and development standards. Rural and resource lands are addressed by policies that promote environmentally sensitive land use and development practices, encourage appropriate densities, and avoid new fully contained communities, new major roads in rural areas, rural fragmentation, and development that is out of character and built under old standards. Open space and resource lands are addressed through policies that support the viability of agriculture and forestry, avoid the conversion of resource lands and incompatible uses on adjacent land, focus growth in urban areas, and protect open space, natural resources, and critical areas.

Unwanted encroachment and compatibility are addressed through policies that avoid incompatible uses and development on land adjacent to airports, military land, industrial lands, and tribal reservation lands. Policies on concurrency encourage programs that support growth goals, including accessible centers and multimodal transportation.

Summary of Actions. VISION 2050 regional actions call for implementing the regional centers framework, updating the analysis of industrial lands and reviewing industrial lands preservation policies, implementing the Growing Transit Communities Strategy, developing guidance for densities in high-capacity transit station areas, developing guidance for concurrency programs, and supporting planning for unincorporated urban areas. Local actions call for

identifying and cleaning up underused lands, developing regional center and station area plans, and establishing mode split goals and demand management strategies.

Differences from VISION 2040. Compared to VISION 2040, VISION 2050 policies have additional emphasis on social equity, transit station area planning, active transportation, countywide centers, tribal lands and cultural resources, unincorporated urban areas, and avoidance of inappropriate rural growth. Some VISION 2040 development patterns policies were moved to the Regional Growth Strategy Section in VISON 2050.

Environmental Effects. Development patterns policy updates in VISION 2050 would help achieve benefits such as protecting natural resource lands, critical areas, and natural resources; concentrating growth inside the urban growth area, inside cities, and inside regional and countywide centers; improving jobs-housing balance; limiting growth in rural areas; and enhancing health. The updates would also reinforce VISION 2040's development patterns policies related to social equity, center and station planning, and rural growth.

The development patterns policies would help implement the mitigation measures identified in Chapters 4 and 5 of this SEIS. Measures to mitigate potential land use impacts, such as encouraging redevelopment and promoting attractive and compatible urban development, are provided in Table 4.2-1. Policies on redeveloping underutilized lands, community engagement, and design standards are examples of policies that help to implement those mitigation measures (MPP-DP-4, 8, 9, and 10).

6.4.6 Housing

Purpose of Policies. The housing chapter in VISION 2050 stresses that housing is a basic need for all people. The purpose of the housing policies is to encourage coordinated strategies, policies, and actions to ensure that the region's housing needs are met.

Goal and Policy Summary. VISION 2050's housing goal is as follows: "The region preserves, improves, and expands its housing stock to provide a range of affordable, accessible, healthy, and safe housing choices to every resident. The region continues to promote fair and equal access to housing for all people."

The VISION 2050 housing section includes policies to address housing stock, choice, affordability, diversity, and density. The policies promote jobs-housing balance, coordination, and best practices for residential development. They encourage the construction, preservation, and ownership of homes—including for special needs and middle- to low-income households. The policies recognize the importance of having employment, services, and transportation options close to home and the benefit of housing choices near centers and transit. The policies also call for identifying potential displacement and mitigating those impacts to the extent feasible.

Summary of Actions. VISION 2050 regional actions call for developing a regional housing strategy, providing technical assistance, and supporting coordination with the state Legislature

and agencies. Local actions include conducting housing needs and policy assessments, providing affordable housing incentives, and developing anti-displacement strategies.

Differences from VISION 2040. VISION 2050 provides the opportunity to increase the overall supply of housing and housing affordability. VISION 2050 has additional emphasis on housing as a regional issue, low-income housing, displacement identification and mitigation, housing opportunities for communities of color, compact housing near transit and in regional growth centers, and moderate-density housing. Policies to support affordable housing near transit leverage the region's investments in transit and help to mitigate the risk of displacement.

Environmental Effects. Housing policy updates in VISION 2050 would help to create a greater supply of housing, affordable for all economic segments. This would help mitigate for displacement risk, which has been identified as a potential impact for all growth strategy alternatives. Additional benefits would include supporting shorter-distance commuting and more homeownership opportunities.

The policies help to implement the mitigation measures identified in Chapters 4 and 5 of this SEIS. Measures to mitigate impacts on housing affordability, such as increasing density and expanding housing diversity, are provided in Table 4.1-5. Policies promoting compact and diverse housing choices help to implement those mitigation measures (MPP-H-1, 2, 6, and 9).

6.4.7 Economy

Purpose of Policies. The purpose of VISION 2050's economy policies is to support a healthy regional economy.

Goal and Policy Summary. VISION 2050's economy goal is as follows: "The region has a prospering and sustainable regional economy by supporting businesses and job creation, investing in all people, sustaining environmental quality, and creating great central places, diverse communities, and high quality of life."

The VISION 2050 economy section includes policies to address business climate and competitiveness, emerging industry clusters, supportive infrastructure, education, training, mitigation of displacement, community development, arts and culture, rural economic activity, and widely shared prosperity. Policies also address foundational economic topics such as housing, the environment, centers, growth, and transportation.

Summary of Actions. VISION 2050 regional actions call for coordinating economic development efforts, implementing and updating the Regional Economic Strategy, supporting local economic development planning, and providing economic data. One action calls for identifying regional roles to help achieve the Regional Growth Strategy job growth allocations. The local action calls for updating or adopting economic development elements in comprehensive plans.

Differences from VISION 2040. VISION 2050 places additional emphasis on airports and seaports as important economic assets, access to opportunity, business displacement, jobs-housing balance, and industries that promote environmental sustainability.

Environmental Effects. Economy policy updates in VISION 2050 would help to support an integrated and sustainable approach to economic prosperity and development. The proposed updates would continue to support economic growth, while preserving key regional assets and a high quality of life for all people in the region. Policies that address displacement would help to mitigate for displacement risk, which has been identified as a potential impact for all growth strategy alternatives.

VISION 2050 policies would encourage implementation of the mitigation measures identified in Chapters 4 and 5 of this SEIS. Measures to mitigate economic impacts, such as preserving land for industrial uses and improving jobs-housing balance, are provided in Table 4.1-5. Policies on industrial lands compatibility and jobs-housing balance are examples of policies that help to implement those mitigation measures (MPP-EC-18 and 22).

6.4.8 Transportation

Purpose of Policies. The purpose of the transportation policies is to support a safe, efficient, and sustainable transportation system.

Goal and Policy Summary. VISION 2050's transportation goal is as follows: "The region has a sustainable, equitable, affordable, safe, and efficient multimodal transportation system, with specific emphasis on an integrated regional transit network that supports the Regional Growth Strategy and promotes vitality of the economy, environment, and health."

The VISION 2050 transportation section includes policies on maintaining, preserving, and improving the multimodal transportation system for increased human health, safety, economic vitality, and environmental sustainability. It has policies on transportation demand management, preparing the transportation system for disasters, transit system coordination, changes in transportation technology, planning for aviation needs, and financing.

Transportation policies support the Regional Growth Strategy, centers, and compact communities through promoting all travel modes in centers, street connectivity, pedestrian- and transit-oriented development, as well as connections between centers. Policies support the efficiency, improvement, and reliability of the freight system. Policies also promote designing transportation facilities to provide mobility choices and access to opportunity, fit the local context, and minimize impacts on the natural and built environment and people, including minority, low-income, and special needs populations. Policies discourage expanded roadway capacity in rural and resource areas.

Summary of Actions. VISION 2050 regional actions call for updating the Regional Transportation Plan, conducting research and providing guidance on emerging transportation technologies, providing information and coordination on freight mobility, implementing and

updating the Four-part Greenhouse Gas Strategy, supporting electric vehicles and infrastructure, assessing the region's aviation system, and advocating for new funding tools to address Regional Transportation Plan funding gaps. A local action calls for cities and counties to update local plans to support implementation of the Regional Transportation Plan and VISION 2050.

Differences from VISION 2040. VISION 2050 contains additional emphasis on providing access to opportunity, improving the freight system, reducing greenhouse gas emissions and stormwater pollution, increasing resilience, and preparing for changes in transportation technologies. VISION 2050 has more detail on the region's future integrated regional transit system. Funding prioritization policies have been moved to the Regional Collaboration section in VISION 2050.

Environmental Effects. Transportation policy updates in VISION 2050 would help to support a safe, efficient, and sustainable transportation system. The proposed updates would continue to support the Regional Growth Strategy and an integrated, multimodal, and intermodal approach to transportation. The transportation policies also provide guidance and direction to the Regional Transportation Plan.

The transportation policies would encourage implementation of the mitigation measures identified in Chapters 4 and 5 of this SEIS. Measures to mitigate transportation impacts, such as improving transit and nonmotorized facilities, are provided in Table 4.3-3. Policies that support transit, walking, and biking help to implement those mitigation measures (MPP-T-13, 15, 16, 17, and 20).

6.4.9 Public Services

Purpose of Policies. The purpose of VISION 2050's public services policies is to support the efficient, sustainable, and reliable provision of public services.

Goal and Policy Summary. VISION 2050's public services goal is as follows: "The region supports development with adequate public facilities and services in a coordinated, efficient, and cost-effective manner that supports local and regional growth planning objectives."

The VISION 2050 public services section includes policies on protecting public health and safety, promoting affordability and equitable access, supporting the Regional Growth Strategy, appropriately providing and obtaining urban and rural services, and equitably siting and expanding regional capital facilities. Policies protect the environment through promoting effective wastewater management, conservation of energy and water, recycling, renewable energy, and water reuse. Policies on resilience and water supply are also included. Policies on school siting call for working cooperatively on school siting to meet community needs and siting schools serving urban populations in urban areas, except as provided for in RCW 36.70A.211. One policy calls for considering climate change, economic, and health impacts when siting and building essential public services and facilities.

Summary of Actions. VISION 2050 regional actions call for coordinating with public service providers on long-range planning and on siting and facility design to enhance local communities. Actions also provide support for siting new schools.

Differences from VISION 2040. VISION 2050 provides additional emphasis on providing equitable access to public services, reducing greenhouse gas emissions, increasing resilience, providing high-quality drinking water, and working cooperatively on school siting. An amendment to the Growth Management Act required including an exception to siting some schools in urban areas in Pierce County (RCW 36.70A.211).

Environmental Effects. Public services policy updates in VISION 2050 would help to conserve natural and financial resources and support local and regional growth management objectives. As stated in the FEIS, while none of the goals and policies directly change existing service structures, planning processes, or project approvals, they would have the potential to lead to higher standards for the provision of public services and facilities. While implementing some policies, such as planning for greater resilience, could increase costs for individual public service developments, it would also help minimize other impacts (particularly for the natural environment) that can occur with growth and have long-term costs.

Most of the updates would reinforce VISION 2050's goals and policies and would encourage implementation of the mitigation measures identified in Chapters 4 and 5 of this SEIS. Measures to mitigate impacts on public services, such as promoting energy, waste, and water conservation measures and planning collaboratively for school siting and design, are provided in Tables 4.7-1 and 4.10-1. Conservation and school siting coordination policies help to implement those mitigation measures (MPP-PS-8, 9, 14, and 26). The updated school siting policies that were required following legislative changes could result in greater environmental impacts related to additional development and vehicle travel in some rural areas.

The following table summarizes the draft VISION 2050 Goals, Policies, and Actions Table.

The Growth Management Policy Board (GMPB) used the adopted goals, policies, and actions in VISION 2040 as a starting point for VISION 2050. This table compiles specific revisions and rationale for changes to the multicounty planning policies in the draft VISION 2050 plan and translates between the policy numbering in VISION 2040 and the draft VISION 2050 plan. The table is organized by policy section in the plan. Amendments made by the GMPB in response to comment review are noted in the "Type/Reason of Change" column.

Draft VISION 2050 Regional Collaboration Goal, Policies, and Actions

Goal		The region plans collaboratively for a healthy environment, thriving communities, and opportunities for all.	New goal. Prior chapter (General Policies) did not include a goal statement.
VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-RC-1	MPP-G-1	Coordinate planning efforts among jurisdictions, agencies, ~~and~~ federally recognized ~~Indian~~ tribes, ports, and adjacent regions, where there are common borders or related regional issues, to facilitate a common vision.	Coordination - change adds reference to adjacent regions; GMPB amended in response to comment review
MPP-RC-2	n/a	Prioritize services and access to opportunity for people of color, people with low incomes, and historically underserved communities to ensure all people can attain the resources and opportunities to improve quality of life and address past inequities.	Equity - new policy focuses on advancing social equity; GMPB amended in response to comment review
MPP-RC-3	n/a	Make reduction of health disparities and improvement of health outcomes across the region a priority when developing and carrying out regional, countywide, and local plans.	Health - new policy focuses on improving health outcomes; GMPB amended in response to comment review
MPP-RC-4	n/a	Coordinate with tribes in regional and local planning, recognizing the mutual benefits and potential for impacts between growth occurring within and outside tribal boundaries.	Tribes - new policy emphasizes the need for coordination between local and regional agencies and tribes
MPP-RC-5	n/a	Consult with military installations in regional and local planning, recognizing the mutual benefits and potential for impacts between growth occurring within and outside installation boundaries.	Military - new policy emphasizes the need for coordination between local and regional agencies and the military
MPP-RC-6	n/a	Recognize the beneficial impacts of military installations as well as the land use, housing, and transportation challenges for adjacent and nearby communities.	GMPB added in response to comment review
MPP-RC-7	MPP-DP-7, DP-10, T-12	Give funding priority – both for transportation infrastructure and for economic development – to support designated regional growth centers and manufacturing/industrial centers, consistent with the regional vision. Regional funds are prioritized to regional centers. ~~County-level and local funding are also appropriate to prioritize to regional growth centers.~~	Funding - change consolidates existing funding-related policies that address funding for both regional growth centers and manufacturing/industrial centers

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-RC-8	MPP-DP-13	Direct subregional funding, especially county-level and local funds, to countywide centers, high-capacity transit areas with a station area plan, and other local centers. ~~centers designated through countywide processes, as well as to town centers, and other activity nodes.~~ County-level and local funding are also appropriate to prioritize to regional centers.	Funding - change updates terminology, incorporates language from DP-7 and DP-10, and includes transit station areas with plans
MPP-RC-9	MPP-H-6	Recognize and give regional funding priority to transportation facilities, infrastructure, and services that explicitly advance the development of housing in designated regional growth centers. Give additional priority to projects and services that advance affordable housing.	Funding - relocated policy to consolidate funding-related policies in one section
MPP-RC-10	MPP-G-5	Identify and develop changes to regulatory, pricing, taxing, and expenditure practices, and other fiscal tools within the region to implement the vision.	No change
MPP-RC-11	MPP-G-4	Explore new and existing sources of funding for services and infrastructure, recognizing that such funding is vital if local governments are to achieve the regional vision.	No change
MPP-RC-12	n/a	Support local and regional efforts to develop state legislation to provide new fiscal tools to support local and regional planning and to support infrastructure improvements and services.	GMPB added in response to comment review
MPP-RC-13	MPP-G-2	Update countywide planning policies, where necessary, prior to December 31, ~~2010~~2021, to address the multicounty planning policies in VISION ~~2040~~2050.	Countywide Planning Policies - change updates date and VISION 2050 reference
MPP-RC-14	MPP-G-3	Monitor implementation of VISION ~~2040~~2050 to evaluate progress in achieving the Regional Growth Strategy, as well as the regional collaboration, environment, climate change, development patterns, housing, economy, transportation, and public services provisions.	Implementation - change updates VISION 2050 reference and reflect new titles
MPP-RC-15	n/a	Promote regional and national efforts to restore Puget Sound and its watersheds, in coordination with cities, counties, federally recognized tribes, federal and state agencies, utilities, and other partners.	GMPB added in response to comment review
RC-Action-1 (Regional)	n/a	**Plan Updates:** PSRC will support efforts to update countywide planning policies, local comprehensive plans, and infrastructure and utility plans, including providing updated plan review and certification guidance.	Outreach and coordination - supports implementation of VISION 2050
RC-Action-2 (Regional)	n/a	**Monitoring Program:** PSRC will track the implementation of VISION 2050 through monitoring and periodic evaluation.	Monitoring - supports ongoing implementation of VISION 2050

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
RC-Action-3 (Regional)	n/a	**Regional Equity Strategy:** PSRC, in coordination with member governments and community stakeholders, will develop and implement a regional equity strategy intended to make equity central to PSRC's work and to support the 2023/24 local comprehensive plan updates. The strategy could include components such as: • Creating and maintaining tools and resources, including data and outreach, to better understand how regional and local policies and actions affect our region's residents, specifically as they relate to people of color and people with low incomes. • Developing strategies and best practices for centering equity in regional and local planning work, including inclusive community engagement, monitoring, and actions to achieve equitable development outcomes and mitigate displacement of vulnerable communities. • Identifying implementation steps, including how to measure outcomes. • Identifying mechanisms to prioritize access to funding to address inequities. • Developing a plan and committing resources for an equity advisory group that can help provide feedback on and help implement the Regional Equity Strategy. • Developing and adopting an equity impact tool for evaluating PSRC decisions and community engagement.	Equity - supports development of a regional equity strategy; GMPB amended in response to comment review
RC-Action 4 (Regional)	n/a	**Outreach:** PSRC will develop an outreach program for VISION 2050 that is designed to communicate the goals and policies of VISION 2050 to member jurisdictions, regional stakeholders, the business community, and the public. This work program will have the following objectives: •Build awareness of VISION 2050 among local jurisdictions in advance of the development of local comprehensive plans. •Raise awareness of PSRC and the desired outcomes of VISION 2050 to residents across the region. •Collaborate with residents who are historically underrepresented in the planning process to ensure all voices are heard in regional planning.	Outreach - supports continued public outreach for VISION 2050; GMPB amended in response to comment review

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
RC-Action-5 (Regional)	n/a	**Project Selection Criteria:** Incorporate criteria into regional infrastructure evaluation processes that would allow for the inclusion and funding of transportation projects, identified in a completed local or regional transportation study, that relate to and potentially benefit access to military installations and surrounding jurisdictions. Funding for such projects will be consistent with the goals and policies of VISION 2050, including support for regional centers and progress toward greenhouse gas emissions reductions targets.	GMPB added in response to comment review
RC-Action-6 (Regional)	n/a	**Project Support for Puget Sound Recovery:** PSRC will develop a methodology within the regional transportation funding process that would support projects that contribute to the recovery of the health of Puget Sound and its watersheds.	GMPB added in response to comment review
RC-Action-7 (Regional and Local)	n/a	**Funding Sources:** PSRC, together with its member jurisdictions, will investigate existing and new funding sources for infrastructure, services, economic development, military-community compatibility, natural resource planning, and open space, to assist local governments with the implementation of VISION 2050. Explore options to develop incentives and innovative funding mechanisms, particularly in centers and transit station areas. Provide technical assistance to help local jurisdictions use existing and new funding sources.	Funding - supports implementation of VISION 2050; GMPB amended in response to comment review
RC-Action-8 (Regional and Local)	n/a	**Communicate VISION 2050 to State Agencies and the Legislature:** PSRC, together with its member jurisdictions, will relay the goals and objectives of VISION 2050 to state agencies and the Legislature, in order to promote changes in state law and funding to best advance VISION 2050.	State coordination - supports implementation of VISION 2050
RC-Action-9 (Regional and Local)	n/a	**Fiscal Sustainability:** PSRC, together with its member jurisdictions, will advocate to the state Legislature about the needs for counties (including unincorporated areas), cities, and other public agencies and service providers to remain fiscally sustainable and the fiscal challenges facing local governments, public agencies and service providers related to accommodating growth, maintaining aging infrastructure, and the annexation of urban areas.	GMPB added in response to comment review

Goal		The region accommodates growth in urban areas, focused in designated centers and near transit stations, to create healthy, equitable, vibrant communities well-served by infrastructure and services. Rural and resource lands continue to be vital parts of the region that retain important cultural, economic, and rural lifestyle opportunities over the long term.	New goal. Prior chapter (Regional Growth Strategy) did not include a goal statement.
VISION 2050 #	**VISION 2040 #**	**Policy/Action**	**Type/Reason of Change**
MPP-RGS-1	n/a	Implement the Regional Growth Strategy through regional policies and programs, countywide planning policies and growth targets, local plans, and development regulations.	Regional Growth Strategy - new policy addresses implementation; GMPB amended in response to comment review
MPP-RGS-2	MPP-DP-3	Use consistent countywide targeting processes for allocating population and employment growth consistent with the regional vision, including establishing: (a) local employment targets, (b) local housing targets based on population projections, and (c) local ~~housing and employment~~ growth targets for each designated regional growth center and manufacturing/industrial center.	Regional Centers Framework - change clarifies expectations for manufacturing/industrial center employment targets
MPP-RGS-3	n/a	Provide flexibility in establishing and modifying growth targets within countywide planning policies, provided growth targets support the Regional Growth Strategy.	Growth Targets - new policy recognizes local flexibility in implementing the Regional Growth Strategy; GMPB amended in response to comment review
MPP-RGS-4	MPP-DP-4	Accommodate the region's growth first and foremost in the urban growth area. Ensure that development in rural areas is consistent with the regional vision and the goals of the Regional Open Space Conservation Plan.	No initial change; GMPB amended in response to comment review
MPP-RGS-5	MPP-DP-1	~~Provide a regional framework for the designation and adjustment of the urban growth area to e~~Ensure long-term stability and sustainability of the urban growth area consistent with the regional vision.	Urban Growth Area - change removes provision for a regional framework
MPP-RGS-6	MPP-DP-2	Encourage efficient use of urban land by ~~maximizing~~ optimizing the development potential of existing urban lands and increasing density in the urban growth area in locations consistent with the Regional Growth Strategy ~~such as advancing development that achieves zoned density~~.	Regional Growth Strategy - change encourages infill and increasing densities within the urban growth area
MPP-RGS-7	n/a	Provide additional housing capacity in Metropolitan Cities in response to rapid employment growth, particularly through increased zoning for middle density housing. Metropolitan Cities must review housing needs and existing density in response to evidence of high displacement risk and/or rapid increase in employment.	GMPB added in response to comment review

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-RGS-8	n/a	Attract 65% of the region's residential growth and 75% of the region's employment growth to the regional growth centers and high-capacity transit station areas to realize the multiple public benefits of compact growth around high-capacity transit investments. As jurisdictions plan for growth targets, focus development near high-capacity transit to achieve the regional goal.	Regional Growth Strategy - new policy addresses growth goals for transit-oriented development; GMPB amended in response to comment review
MPP-RGS-9	MPP-DP-5	Focus a significant share of population and employment growth in designated regional growth centers.	No change
MPP-RGS-10	MPP-DP-8	Focus a significant share of employment growth in designated regional manufacturing/industrial centers.	No change
MPP-RGS-11	n/a	Encourage growth in designated countywide centers.	Regional Centers Framework - new policy encourages growth in designated countywide centers
MPP-RGS-12	n/a	Avoid increasing development capacity inconsistent with the Regional Growth Strategy in regional geographies not served by high-capacity transit.	Regional Growth Strategy - new policy focuses development capacity in areas with high-capacity transit
MPP-RGS-13	MPP-DP-16	~~Direct~~ Plan for commercial, retail, and community services that serve rural residents to locate in neighboring cities and existing activity areas to ~~prevent~~ avoid the conversion of rural land into commercial uses.	Rural growth - change clarifies rural planning objectives
MPP-RGS-14	n/a	Manage and reduce rural growth rates over time, consistent with the Regional Growth Strategy, to maintain rural landscapes and lifestyles and protect resource lands and the environment.	Rural growth - new policy addresses managing growth pressures in rural areas
MPP-RGS-15	n/a	Support the establishment of regional funding sources to acquire conservation easements in rural areas.	GMPB added in response to comment review
MPP-RGS-16	n/a	Identify strategies, incentives, and approaches to facilitate the annexation or incorporation of unincorporated areas within urban growth areas into cities.	GMPB added in response to comment review
RGS-Action-1 (Regional)	n/a	**Urban Growth Area:** PSRC will report on urban growth area changes, annexation activity, and countywide coordination practices in each county.	Urban Growth Area - supports regional coordination regarding urban growth area
RGS-Action-2 (Regional)	n/a	**Track and Evaluate Growth**: PSRC will study, track, and evaluate growth and development occurring in the central Puget Sound region and in high-capacity transit station areas in terms of meeting the goals and objectives of the Regional Growth Strategy.	Regional Growth Strategy - supports monitoring growth patterns

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
RGS-Action-3 (Regional)	n/a	Growth Targets: PSRC, together with its member jurisdictions, will provide guidance and participate with countywide processes that set or modify local housing and employment targets. This effort will include consideration of the timing of Regional Growth Strategy implementation in relation to anticipated completion of regional transit investments and corresponding market responses. PSRC will also provide guidance on growth targets for designated regional centers and improving jobs-housing balance, and coordinate with member jurisdictions regarding buildable lands reporting.	Regional Growth Strategy - directs PSRC to provide guidance to assist local jurisdictions with setting growth targets; GMPB amended in response to comment review
RGS-Action-4 (Regional)	n/a	Rural Growth: PSRC, together with its members and stakeholders, will explore and implement, as feasible, opportunities for local, regional and state-wide conservation programs to reduce development pressure in rural and resource areas, to facilitate regional Transfer of Development Rights, and to explore additional techniques to conserve valuable open space areas, including Purchase of Development Rights and open space markets.	Rural Growth - supports conservation programs; GMPB amended in response to comment review
RGS-Action-5 (Regional)	n/a	Regional Conservation Fund: PSRC, in collaboration with its members and other partners, will explore and support the establishment of regional funding sources to acquire conservation easements in rural areas.	GMPB added in response to comment review
RGS-Action-6 (Regional)	n/a	Outreach: PSRC will work with members to address ways the region can help communities understand and support increased growth within the urban growth area. VISION 2050's success is dependent on cities and counties welcoming new growth.	GMPB added in response to comment review
RGS-Action-7 (Local)	n/a	Regional Growth Strategy: As counties and cities update their comprehensive plans in 2023/24 to accommodate growth targets and implement the Regional Growth Strategy, support a full range of strategies, including zoning and development standards, incentives, infrastructure investments, housing tools, and economic development, to achieve a development pattern that aligns with VISION 2050 and to reduce rural growth rates over time and focus growth in cities.	Regional Growth Strategy - supports local implementation; GMPB amended in response to comment review

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
RGS-Action-8 (Local)	n/a	Plan for Jobs-Housing Balance: Countywide planning organizations will consider data on jobs-housing balance, especially recent and projected employment growth within Metropolitan and Core cities, to set housing growth targets that substantially improve jobs-housing balance consistent with the Regional Growth Strategy. Metropolitan and Core cities experiencing high job growth will take measures to provide additional housing capacity for a range of housing types and affordability levels to meet the needs of those workers as well as the needs of existing residents who may be at risk of displacement.	GMPB added in response to comment review
RGS-Action-9 (Local)	n/a	Growth Targets: Countywide planning organizations will work to develop processes to reconcile any discrepancies between city and county adopted targets contained in local comprehensive plans.	GMPB added in response to comment review

Goal		The region ~~will~~ cares for the natural environment by protecting and restoring natural systems, conserving habitat, improving water quality, and reducing ~~greenhouse gas emissions and~~ air pollutants~~, and addressing potentialclimate change impacts~~. The ~~region acknowledges that the~~ health of all residents and the economy is connected to the health of the environment. Planning at all levels ~~should~~ considers the impacts of land use, development, and transportation on the ecosystem.	Change to existing goal to remove climate change references (covered in Climate Change chapter) and recognize the link between the environment and a healthy economy
VISION 2050 #	**VISION 2040 #**	**Policy/Action**	**Type/Reason of Change**
MPP-En-1	MPP-En-1	Develop and implement regionwide environmental strategies, coordinating among local jurisdictions, tribes, and countywide planning groups.	No initial change; GMPB amended in response to comment review
MPP-En-2	MPP-En-2	Use integrated and interdisciplinary approaches for environmental planning and assessment at regional, countywide, and local levels.	No change
MPP-En-3	MPP-En-3	Maintain and, where possible, improve air and water quality, soils, and natural systems to ensure the health and well-being of people, animals, and plants. Reduce the impacts of transportation on air and water quality, and climate change.	No change
MPP-En-4	MPP-En-4	Ensure that all residents of the region, regardless of race, social, or economic status, have clean air, clean water, and other elements of~~live in~~ a healthy environment~~, with minimal exposure to pollution~~.	Equity - change updates terminology and does not condone exposure to pollution
MPP-En-5	MPP-En-5	Locate development in a manner that minimizes impacts to natural features. Promote the use of innovative environmentally sensitive development practices, including design, materials, construction, and on-going maintenance.	No change
MPP-En-6	MPP-En-6	Use the best information available at all levels of planning, especially scientific information, when establishing and implementing environmental standards established by any level of government.	No change
MPP-En-7	MPP-En-7	Reduce and ~~M~~mitigate noise and light pollution caused by ~~traffic~~transportation, industries, public facilities, and other sources.	Environmental Stewardship - change addresses light pollution and recognize public facilities as a source
MPP-En-8	n/a	Reduce impacts to vulnerable populations and areas that have been disproportionately affected by noise, air pollution, or other environmental impacts.	Equity - new policy addresses disproportionate environmental impacts
MPP-En-9	n/a	Enhance urban tree canopy to support community resilience, mitigate urban heat, manage stormwater, conserve energy, improve mental and physical health, and strengthen economic prosperity.	Resilience/Health/Open Space - new policy recognizes value of urban tree canopy

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-En-10	n/a	Support and incentivize environmental stewardship on private and public lands to protect and enhance habitat, water quality, and other ecosystem services, including protection of watersheds and wellhead areas that are sources of the region's drinking water supplies.	Environmental Stewardship/Open Space - new policy implements Regional Open Space Conservation Plan recommendation regarding land stewardship; GMPB amended in response to comment review
MPP-En-11	MPP-En-9	Designate, protect, and enhance significant open spaces, natural resources, and critical areas through mechanisms, such as the review and comment of countywide planning policies and local plans and provisions.	No change
MPP-En-12	MPP-En-8	Identify, preserve, and enhance significant regional open space networks and linkages across jurisdictional boundaries through implementation and update of the Regional Open Space Conservation Plan.	Open Space - change recognizes and implements the Regional Open Space Conservation Plan
MPP-En-13	MPP-En-12	Preserve and restore native vegetation and tree canopy ~~to protect habitat~~, especially where it protects habitat and contributes to ~~the~~ overall ecological function~~and where invasive species are a significant threat to native ecosystems~~.	Open Space - change implements Regional Open Space Conservation Plan's recommendations to preserve tree canopy
MPP-En-14	MPP-En-11	Identify and protect wildlife corridors both inside and outside the urban growth area.	No change
MPP-En-15	n/a	Provide parks, trails, and open space within walking distance of urban residents. Prioritize historically underserved communities for open space improvements and investments.	Equity/Open Space - new policy focuses on access to open space, especially in underserved communities
MPP-En-16	MPP-En-10	Preserve and enhance habitat to support healthy wildlife and accelerate the recovery of salmon, orca, and other threatened and endangered species and species of local importance ~~prevent species from inclusion on the Endangered Species List and to accelerate their removal from the list~~.	Puget Sound Recovery - change specifically names salmon and orca; GMPB amended in response to comment review
MPP-En-17	MPP-En-13	Maintain and restore natural hydrological functions and water quality within the region's ecosystems and watersheds to recover the health of Puget Sound~~and, where feasible, restore them to a more natural state~~.	Puget Sound Recovery - change addresses water quality
MPP-En-18	n/a	Reduce stormwater impacts from transportation and development through watershed planning, redevelopment and retrofit projects, and low-impact development.	Puget Sound Recovery - new policy addresses stormwater pollution
MPP-En-19	MPP-En-15	Reduce the use of toxic pesticides, ~~and chemical~~ fertilizers, and other products to the extent feasible and identify alternatives that minimize risks to human health and the environment.	Puget Sound Recovery - change to be consistent with Puget Sound Partnership Action Agenda
MPP-En-20	MPP-En-14	Restore – where appropriate and possible – the region's freshwater and marine shorelines, watersheds, and estuaries to a natural condition for ecological function and value.	No change

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-En-21	MPP-En-19	Continue efforts to reduce pollutants from transportation activities, including through the use of cleaner fuels and vehicles and increasing alternatives to driving alone, as well as design and land use.	No change
MPP-En-22	MPP-En-17	Meet all federal and state air quality standards and reduce emissions of air toxics and greenhouse gases. ~~Maintain or do better than existing standards for carbon monoxide, ozone, and particulates.~~	Air Quality - change to meet regulatory requirements and reduce emissions
	~~MPP-En-16~~	~~Identify and address the impacts of climate change on the region's hydrological systems.~~	Moved to Climate Change chapter (MPP-CC-9)
	~~MPP-En-18~~	~~Reduce levels for air toxics, fine particulates, and greenhouse gases.~~	Air Quality - Combined with MPP-En-22
	~~MPP-En-20~~	~~Address the central Puget Sound region's contribution to climate change by, at a minimum, committing to comply with state initiatives and directives regarding climate change and the reduction of greenhouse gases. Jurisdictions and agencies should work to include an analysis of climate change impacts when conducting an environmental review process under the State Environmental Policy Act.~~	Moved to Climate Change chapter (MPP-CC-1)
	~~MPP-En-21~~	~~Reduce the rate of building energy use per capita, both in building use and in transportation activities.~~	Moved to Climate Change chapter (MPP-CC-2)
	~~MPP-En-22~~	~~Pursue the development of energy management technology as part of meeting the region's energy needs.~~	Moved to Climate Change chapter (MPP-CC-5)
	~~MPP-En-23~~	~~Reduce greenhouse gases by expanding the use of conservation and alternative energy sources and by reducing vehicle miles traveled by increasing alternatives to driving alone.~~	Moved to Climate Change chapter (MPP-CC-3)
	~~MPP-En-24~~	~~Take positive actions to reduce carbons, such as increasing the number of trees in urban portions of the region.~~	Moved to Climate Change chapter (MPP-CC-4)
	~~MPP-En-25~~	~~Anticipate and address the impacts of climate change on regional water sources.~~	Moved to Climate Change chapter (MPP-CC-8)
En-Action-1 (Regional)	n/a	Open Space Planning: PSRC will work with member jurisdictions, resource agencies, tribes, military installations and service branches, and interest groups to implement conservation, restoration, stewardship, and other recommendations in the Regional Open Space Conservation Plan. PSRC will review and comment on alignment with the Regional Open Space Conservation Plan during the comprehensive plan certification process. On a periodic basis, evaluate and update the plan.	Regional Open Space Conservation Plan - supports implementation; GMPB amended in response to comment review

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
En-Action-2 (Regional)	n/a	Watershed Planning Support: PSRC and the Puget Sound Partnership will coordinate to support watershed planning to inform land use, transportation, and stormwater planning and projects that improve the health of Puget Sound.	Puget Sound Recovery - supports coordination with Puget Sound Partnership
En-Action-3 (Countywide/watershed)	n/a	Watershed Planning: Counties and cities, together with other jurisdictions in the watershed, will continue to participate in watershed planning to integrate land use, transportation, stormwater, and related disciplines across the watershed to improve the health of Puget Sound. Include planning for culvert removal and work with tribal, federal, state, and local governments in planning, funding, and implementation to ensure the effective and efficient use of funds to restore salmon habitat.	Puget Sound Recovery - supports implementation of Puget Sound Partnership Action Agenda, stormwater federal and state requirements, and Water Resource Inventory Area (WRIA) work; GMPB amended in response to comment review
En-Action-4 (Local)	n/a	Local Open Space Planning: In the next periodic update to the comprehensive plan, counties and cities will create goals and policies that address local open space conservation and access needs as identified in the Regional Open Space Conservation Plan, prioritizing areas with higher racial and social inequities and rural and resource land facing development pressure. Counties and cities should work together to develop a long-term funding strategy and action plan to accelerate open space protection and enhancement.	Regional Open Space Conservation Plan - supports local implementation; GMPB amended in response to comment review

Goal		The region substantially reduces emissions of greenhouse gases that contribute to climate change in accordance with the goals of the Puget Sound Clean Air Agency (50% below 1990 levels by 2030 and 80% below 1990 levels by 2050) and prepares for climate change impacts.	New goal for new chapter; GMPB amended in response to comment review
VISION 2050 #	**VISION 2040 #**	**Policy/Action**	**Type/Reason of Change**
MPP-CC-1	MPP-En-20	Advance the adoption and implementation of actions that substantially reduce greenhouse gas emissions in support of state, regional, and local emissions reduction goals, including targets adopted by the Puget Sound Clean Air Agency. ~~Address the central Puget Sound region's contribution to climate change by, at a minimum, committing to comply with state initiatives and directives regarding climate change and the reduction of greenhouse gases. Jurisdictions and agencies should work to include an analysis of climate change impacts when conducting an environmental review process under the State Environmental Policy Act.~~	Greenhouse Gas Emissions Reductions - change reflects current state context and support for state, regional, and local programs; GMPB amended in response to comment review
MPP-CC-2	MPP-En-21	Reduce ~~the rate of~~ building energy use ~~per capita, both in building use and in transportation activities~~ through green building and retrofit of existing buildings.	Climate Change - change focuses on building energy use
MPP-CC-3	MPP-En-23	Reduce greenhouse gases by expanding the use of conservation and alternative energy sources, electrifying the transportation system, and ~~by~~ reducing vehicle miles traveled by increasing alternatives to driving alone.	Climate Change - change emphasizes electrification of vehicle fleet; GMPB amended in response to comment review
MPP-CC-4	MPP-En-24	Protect and restore natural resources that sequester and store carbon such as forests, farmland, wetlands, estuaries, and urban tree canopy.~~Take positive actions to reduce carbons, such as increasing the number of trees in urban portions of the region.~~	Climate Change - change clarifies role of natural resources in carbon storage and sequestration
MPP-CC-5	MPP-En-22	Pursue the development of energy management technology as part of meeting the region's energy needs.	No change
MPP-CC-6	n/a	Address impacts to vulnerable populations and areas that have been disproportionately affected by climate change.	Equity - new policy recognizes disproportionate impacts of climate change
MPP-CC-7	n/a	Advance state, regional, and local actions that support resilience and adaptation to climate change impacts.	Regional coordination - new policy supports state, regional, and local actions
MPP-CC-8	MPP-En-25	Increase resilience by identifying~~Anticipate~~ and addressing the impacts of climate change and natural hazards on ~~regional~~ water ~~sources.~~, land, infrastructure, health, and the economy. Prioritize actions to protect the most vulnerable populations.	Equity/Resilience - change adds the concept of resilience and recognizes impacts to vulnerable populations
MPP-CC-9	MPP-En-16	Identify and address the impacts of climate change on the region's hydrological systems.	No change

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-CC-10	n/a	Address rising sea water by siting and planning for relocation of hazardous industries and essential public services away from the 500-year floodplain.	GMPB added in response to comment review
MPP-CC-11	n/a	Support achievement of regional greenhouse gas emissions reduction goals through countywide planning policies and local comprehensive plans.	GMPB added in response to comment review
MPP-CC-12	n/a	Prioritize transportation investments that support achievement of regional greenhouse gas emissions reduction goals, such as by reducing vehicle miles traveled.	GMPB added in response to comment review
CC-Action-1 (Regional)	n/a	Greenhouse Gas Strategy: PSRC will work with local governments and other key agencies and stakeholders to advance the development and implementation of the region's Greenhouse Gas Strategy, to equitably achieve meaningful reductions of emissions toward achievement of the region's greenhouse gas reduction goals. The strategy will: o Build on the Four-Part Strategy in the Regional Transportation Plan o Address emissions from transportation, land use and development, and other sources of greenhouse gases o Promote effective actions to reduce greenhouse gases, such as vehicle miles traveled (VMT) reduction, conversion to renewable energy systems in transportation and the built environment (e.g. electrification), and reduction in embedded carbon in new infrastructure and development o Explore options for PSRC to further emission reductions in the aviation sector o Be guided by principles of racial equity o Include a measurement framework to inform the evaluation of transportation investments and local comprehensive plans o Develop guidance and provide technical assistance to local jurisdictions to implement climate change strategies, including a guidebook of best practice policies and actions Regular evaluation and monitoring will occur, at least every four years, as part of the development of the Regional Transportation Plan, with reports to PSRC policy boards.	Climate Change - supports implementation of the adopted Four-Part Greenhouse Gas Strategy; GMPB amended in response to comment review

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
CC-Action-2 (Regional)	n/a	**Resilience and Climate Preparedness:** PSRC will engage in regional resilience planning and climate preparedness, including development of a regional inventory of climate hazards, assistance to member organizations, and continued research and coordination with partners such as the Puget Sound Climate Preparedness Collaborative and tribes. Climate resilience actions will focus on equitable outcomes, particularly for historically marginalized communities, at greater risk and with fewer resources.	Resilience - supports regional coordination in resilience planning and climate preparedness; GMPB amended in response to comment review
CC-Action-3 (Local)	n/a	**Policies and Actions to Address Climate Change:** Cities and counties will incorporate emissions reduction policies and actions that contribute meaningfully toward regional greenhouse gas emission goals, along with equitable climate resiliency measures, in their comprehensive planning. Strategies include land uses that reduce vehicle miles traveled and promote transit, biking, and walking consistent with the Regional Growth Strategy, developing and implementing climate friendly building codes, investments in multimodal transportation choices, and steps to encourage a transition to cleaner transportation and energy systems.	Climate Change - supports local policies and actions for reducing emissions; GMPB amended in response to comment review
CC-Action-4 (Local)	n/a	**Resilience:** Cities and counties will update land use plans for climate adaptation and resilience. Critical areas will be updated based on climate impacts from sea level rise, flooding, wildfire hazards, urban heat, and other hazards. The comprehensive plans will identify mitigation measures addressing these hazards including multimodal emergency and evacuation routes and prioritizing mitigation of climate impacts on highly impacted communities and vulnerable populations.	Resilience - GMPB added in response to comment review

Goal		The region ~~will focus growth within already urbanized areas to~~ create<u>s healthy,</u> walkable, compact, and <u>equitable</u> transit-oriented communities that maintain unique ~~local~~ character <u>and local culture, while conserving rural areas and creating and preserving open space and natural areas</u>. ~~Centers will continue to be a focus of development. Rural and natural resource lands will continue to be permanent and vital parts of the region.~~	Change to distinguish chapter goal from the Regional Growth Strategy chapter; GMPB amended in response to comment review
VISION 2050 #	**VISION 2040 #**	**Policy/Action**	**Type/Reason of Change**
MPP-DP-1	MPP-DP-35	Develop high quality, compact urban communities throughout the region's urban growth area that impart a sense of place, preserve local character, provide for mixed uses and choices in housing types, and encourage walking, bicycling, and transit use.	No change
MPP-DP-2	n/a	<u>Reduce disparities in access to opportunity for the region's residents through inclusive community planning and targeted public and private investments that meet the needs of current and future residents and businesses.</u>	Equity - change addresses equitable access to opportunity for all of the region's residents; GMPB amended in response to comment review
MPP-DP-3	MPP-DP-14	~~Preserve and~~ <u>E</u>nhance existing neighborhoods ~~and create vibrant, sustainable compact urban communities that provide diverse choices in housing types, a~~<u>to provide a</u> high degree of connectivity in the street network to accommodate walking, bicycling, and transit use, and sufficient public spaces.	Urban Design/Connectivity - change to differentiate policy from old MPP-DP-35 (new MPP-DP-1) and focus on health and walkability outside of centers
MPP-DP-4	MPP-DP-15	Support the transformation of key underutilized lands, such <u>as surplus public lands or environmentally contaminated lands</u> ~~as brownfields and greyfields~~, to higher-density, mixed-use areas to complement the development of centers and the enhancement of existing neighborhoods.	Redevelopment - change incorporates surplus public lands and simplifies language
MPP-DP-5	MPP-DP-33	Identify, protect and enhance those elements and characteristics that give the central Puget Sound region its identity, especially the natural visual resources and positive urban form elements.	No change
MPP-DP-6	MPP-DP-34	Preserve significant regional historic, visual, and cultural resources, including public views, landmarks, archaeological sites, historic and cultural landscapes, and areas of special character.	No change
MPP-DP-7	n/a	<u>Consider the potential impacts of development to culturally significant sites and tribal treaty fishing, hunting, and gathering grounds.</u>	GMPB added in response to comment review
MPP-DP-8	MPP-DP-36	~~Provide a wide range of building and community types to serve the needs of a diverse population.~~<u>Conduct inclusive engagement to identify and address the diverse needs of the region's residents.</u>	Equity - change addresses equitable community planning and outcomes

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-DP-9	MPP-DP-37	Support urban design, historic preservation, and arts to enhance quality of life, support local culture, improve the natural and human-made environments, promote health and well-being, contribute to a prosperous economy, and increase the region's resiliency in adapting to changes or adverse events.	No initial change; GMPB amended in response to comment review
MPP-DP-10	MPP-DP-38	Design public buildings and spaces that contribute to a sense of community and a sense of place.	No change
MPP-DP-11	MPP-DP-39	Identify and create opportunities to develop parks, civic places (including schools) and public spaces, especially in or adjacent to centers.	No change; GMPB added in response to comment review
MPP-DP-12	MPP-DP-40	Design transportation projects and other infrastructure to achieve community development objectives and improve communities.	No change
MPP-DP-13	MPP-DP-41	Allow natural boundaries to help determine the routes and placement of infrastructure connections and improvements.	No change
MPP-DP-14	MPP-DP-42	Recognize and work with linear systems that cross jurisdictional boundaries – including natural systems, continuous land use patterns, and transportation and infrastructure systems – in community planning, development, and design.	No change
MPP-DP-15	MPP-DP-43	Design communities to provide ~~an improved~~ safe and welcoming environments for walking and bicycling.	Health - change emphasizes nonmotorized comfort and safety
MPP-DP-16	MPP-DP-44	~~Incorporate provisions addressing~~ Address and integrate health and well-being into appropriate regional, countywide, and local planning practices and decision-making processes.	No initial change; GMPB amended in response to comment review
MPP-DP-17	MPP-DP-45	Promote cooperation and coordination among transportation providers, local government, and developers to ensure that joint- and mixed-use developments are designed to promote and improve physical, mental, and social health and reduce the impacts of climate change on the natural and built environments.	No change
MPP-DP-18	n/a	Address existing health disparities and improve health outcomes in all communities.	Health - new policy addresses health disparities
MPP-DP-19	MPP-DP-46	Develop and implement design guidelines to encourage construction of healthy buildings and facilities to promote healthy people.	No change
MPP-DP-20	MPP-DP-47	Support agricultural, farmland, and aquatic uses that enhance the food system in the central Puget Sound region and its capacity to produce fresh and minimally processed foods.	No change
MPP-DP-21	MPP-DP-6	Provide a regional framework for designating and evaluating regional growth centers.	No change

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-DP-22	n/a	Plan for densities that maximize benefits of transit investments in high-capacity transit station areas that are expected to attract significant new population or employment growth.	Regional Growth Strategy - new policy encourages densities to maximize major transit investments
MPP-DP-23	n/a	Evaluate planning in regional growth centers and high-capacity transit station areas for their potential physical, economic, and cultural displacement of marginalized residents and businesses. Use a range of strategies to mitigate displacement impacts.	Equity/Displacement - new policy addresses displacement in high-growth areas
MPP-DP-24	MPP-DP-9	Provide a regional framework for designating and evaluating regional manufacturing/industrial centers.	No change
MPP-DP-25	MPP-DP-11	Support the development of centers within all jurisdictions, including high-capacity transit station areas and countywide and local centers. ~~town centers and activity nodes.~~	Growing Transit Communities/Regional Centers Framework - change updates terminology
MPP-DP-26	MPP-DP-12	~~Establish~~ Implement the adopted ~~a common~~ framework to designate countywide centers ~~among the countywide processes for designating subregional centers~~ to ensure compatibility within the region.	Regional Centers Framework - change to implement adopted framework
MPP-DP-27	MPP-DP-18	Affiliate all urban unincorporated lands appropriate for annexation with an adjacent city or identify those that may be feasible for incorporation. To fulfill the Regional Growth Strategy, while promoting economical administration and services, annexation is preferred over incorporation.	Annexation - change acknowledges financial considerations of annexation
MPP-DP-28	MPP-DP-19	Support joint planning between cities, ~~and~~ counties, and service providers to work cooperatively in planning for urban unincorporated areas to ensure an orderly transition to city governance, including efforts such as: (a) establishing urban development standards, (b) addressing service and infrastructure financing, and (c) transferring permitting authority.	No initial change, GMPB added in response to comment review
MPP-DP-29	n/a	Support annexation and incorporation in urban unincorporated areas by planning for phased growth of communities to be economically viable, supported by the urban infrastructure, and served by public transit.	Annexation/Incorporation - new policy supports planning in unincorporated urban areas
MPP-DP-30	MPP-DP-20	Support the provision and coordination of urban services to unincorporated urban areas by the adjacent city or, where appropriate, by the county or an existing utility district as an interim approach.	No initial change; GMPB amended in response to comment review
MPP-DP-31	MPP-DP-17	Promote transit service to and from existing cities in rural areas.	No change
MPP-DP-32	MPP-DP-21	Contribute to improved ecological functions and more appropriate use of rural lands by minimizing impacts through innovative and environmentally sensitive land use management and development practices.	No change

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-DP-33	MPP-DP-22	Do not allow urban net densities in rural and resource areas.	No change
MPP-DP-34	MPP-DP-23	Avoid new fully contained communities outside of the designated urban growth area because of their potential to create sprawl and undermine state and regional growth management goals.	No change
MPP-DP-35	MPP-DP-24	In the event that a proposal is made for creating a new fully contained community, the county shall make the proposal available to other counties and to the Regional Council for advance review and comment on regional impacts.	No change
MPP-DP-36	MPP-DP-25	Use existing and new tools and strategies to address vested development to ensure that future growth meets existing permitting and development standards and prevents further fragmentation of rural lands.	No change
MPP-DP-37	MPP-DP-26	Ensure that development occurring in rural areas is rural in character and is focused into communities and activity areas.	No change
MPP-DP-38	MPP-DP-27	Maintain the long-term viability of permanent rural land by avoiding the construction of new highways and major roads in rural areas.	No change
MPP-DP-39	MPP-DP-28	Support long-term solutions for the environmental and economic sustainability of agriculture and forestry within rural areas.	No change
MPP-DP-40	MPP-DP-29	Protect and enhance significant open spaces, natural resources, and critical areas.	No change
MPP-DP-41	MPP-DP-30	Establish best management practices that protect the long-term integrity of the natural environment, adjacent land uses, and the long-term productivity of resource lands.	No change
MPP-DP-42	MPP-DP-31	Support the sustainability of designated resource lands. Do not convert these lands to other uses.	No change
MPP-DP-43	MPP-DP-32	Ensure that resource lands and their related economic activities are not adversely impacted by development on adjacent non-resource lands.	No change
MPP-DP-44	MPP-DP-48	Work to conserve valuable rural and resource lands through techniques, such as conservation programs, ~~Encourage the use of innovative techniques, including the~~ transfer of development rights, and the purchase of development rights~~, and conservation incentives. Use these techniques to~~ Focus growth within the urban growth area, ~~(~~especially cities~~),~~ to lessen pressures to convert rural and resource areas to residential uses ~~more intense urban-type development, while protecting the future economic viability of sending areas and sustaining rural and resource-based uses~~.	Rural Lands - change promotes rural conservation techniques

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-DP-45	n/a	Avoid growth in rural areas that cannot be sufficiently served by roads, utilities, and services at rural levels of service.	Rural Lands - new policy regarding rural levels of service
MPP-DP-46	MPP-DP-49	Support and provide incentives to increase the percentage of new development and redevelopment – both public and private – to be built at higher performing energy and environmental standards.	No change
MPP-DP-47	MPP-DP-50	Streamline development standards and regulations for residential and commercial development and public projects, especially in centers and high-capacity transit station areas, to provide flexibility and to accommodate a broader range of project types consistent with the regional vision.	Growing Transit Communities - change includes high-capacity transit station areas; GMPB amended in response to comment review
MPP-DP-48	MPP-DP-51	Protect the continued operation of general aviation airports from encroachment by incompatible uses and development on adjacent land.	No change
MPP-DP-49	MPP-DP-52	Protect military lands from encroachment by incompatible uses and development on adjacent land.	No change
MPP-DP-50	MPP-DP-53	Protect industrial ~~lands~~ zoning and manufacturing/industrial centers from encroachment by incompatible uses and development on adjacent land.	No initial change; GMPB amended in response to comment review
MPP-DP-51	n/a	Protect tribal reservation lands from encroachment by incompatible land uses and development both within reservation boundaries and on adjacent land.	GMPB added in response to comment review
MPP-DP-52	MPP-DP-54	Develop, implement, and evaluate concurrency programs and methods that fully consider growth targets, service needs, and level-of-service standards. Focus level-of-service standards for transportation on the movement of people and goods instead of only on the movement of vehicles.	No initial change; GMPB amended in response to comment review
MPP-DP-53	MPP-DP-55	Address nonmotorized, pedestrian, and other multimodal types of transportation options in concurrency programs – both in assessment and mitigation.	No change
MPP-DP-54	MPP-DP-56	Tailor concurrency programs for centers and other subareas to encourage development that can be supported by transit.	No change
	~~MPP-DP-1~~	~~Provide a regional framework for the designation and adjustment of the urban growth area to ensure long-term stability and sustainability of the urban growth area consistent with the regional vision.~~	Moved to Regional Growth Strategy chapter (MPP-RGS-5)
	~~MPP-DP-2~~	~~Encourage efficient use of urban land by maximizing the development potential of existing urban lands such as advancing development that achieves zoned density.~~	Moved to Regional Growth Strategy chapter (MPP-RGS-6)

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
	~~MPP-DP-3~~	~~Use consistent countywide targeting processes for allocating population and employment growth consistent with the regional vision, including establishing: (a) local employment targets, (b) local housing targets based on population projections, and (c) local housing and employment targets for each designated regional growth center.~~	Moved to Regional Growth Strategy chapter (MPP-RGS-7)
	~~MPP-DP-4~~	~~Accommodate the region's growth first and foremost in the urban growth area. Ensure that development in rural areas is consistent with the regional vision.~~	Moved to Regional Growth Strategy chapter (MPP-RGS-4)
	~~MPP-DP-5~~	~~Focus a significant share of population and employment growth in designated regional growth centers.~~	Moved to Regional Growth Strategy chapter (MPP-RGS-8)
	~~MPP-DP-7~~	~~Give funding priority – both for transportation infrastructure and for economic development – to support designated regional growth centers consistent with the regional vision. Regional funds are prioritized to regional growth centers. County-level and local funding are also appropriate to prioritize to regional growth centers.~~	Moved to Regional Collaboration chapter (MPP-RC-6)
	~~MPP-DP-8~~	~~Focus a significant share of employment growth in designated regional manufacturing/industrial centers.~~	Moved to Regional Growth Strategy chapter (MPP-RGS-9)
	~~MPP-DP-10~~	~~Give funding priority – both for transportation infrastructure and for economic development – to support designated regional manufacturing/industrial centers consistent with the regional vision. Regional funds are prioritized to regional manufacturing/industrial centers. County-level and local funding are also appropriate to prioritize to these regional centers.~~	Moved to Regional Collaboration chapter (MPP-RC-6)
	~~MPP-DP-13~~	~~Direct subregional funding, especially county-level and local funds, to centers designated through countywide processes, as well as to town centers, and other activity nodes.~~	Moved to Regional Collaboration chapter (MPP-RC-7)
	~~MPP-DP-16~~	~~Direct commercial, retail, and community services that serve rural residents into neighboring cities and existing activity areas to prevent the conversion of rural land into commercial uses.~~	Move to Regional Growth Strategy chapter (MPP-RGS-12)
DP-Action-1 (Regional)	n/a	Implement the Regional Centers Framework: PSRC will study and evaluate existing regional growth centers and manufacturing/industrial centers to assess their designation, distribution, interrelationships, characteristics, transportation efficiency, performance, and social equity. PSRC, together with its member jurisdictions and countywide planning bodies, will work to establish a common network of countywide centers.	Regional Centers Framework - implements adopted framework

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
DP-Action-2 (Regional)	n/a	Industrial Lands: PSRC will update its inventory of industrial lands, evaluate supply and demand for industrial land across all industry sectors, research trends for industrial uses as technology and markets evolve, and identify strategies to preserve, protect, and enhance industrial lands, jobs, and businesses in the region in coordination with jurisdictions' efforts to support their industrial land base. In 2020, PSRC will convene a working group to review policy related to preserving industrial lands and employment.	Industrial Lands - supports monitoring and preservation of industrial lands; GMPB amended in response to comment review
DP-Action-3 (Regional)	n/a	Transit-Oriented Development: PSRC, together with its member jurisdictions, will support member jurisdiction in the implementation of the Growing Transit Communities Strategy and compact, equitable development around high-capacity transit station areas. This action will include highlighting and promoting tools used to support equitable development in high-capacity transit station areas.	Growing Transit Communities Strategy - supports implementation
DP-Action-4 (Regional)	n/a	Densities in Transit Station Areas: PSRC will work in collaboration with transit agencies and local government to develop guidance for transit-supportive densities in different types of high-capacity transit station areas.	Regional Growth Strategy - supports developing guidance on transit-supportive densities
DP-Action-5 (Regional)	n/a	Concurrency Best Practices: PSRC will continue to develop guidance on innovative approaches to multimodal level-of-service standards and regional and local implementation strategies for local multimodal concurrency. PSRC, in coordination with member jurisdictions and WSDOT, will identify approaches in which local concurrency programs fully address growth targets, service needs, and level-of-service standards for state highways. PSRC will communicate to the Legislature the need for state highways to be addressed in local concurrency programs.	Taking Stock 2016 - responds to feedback on providing additional guidance on concurrency best practices; GMPB amended in response to comment review
DP-Action-6 (Regional)	n/a	Coordinated Planning in Unincorporated Urban Areas: PSRC will support communication with the state Legislature regarding necessary changes to state laws that hinder progress towards annexation and incorporation and opportunities for state and local incentives, organize forums to highlight annexation, incorporation, and joint planning best practices, and provide other resources that address the barriers to joint planning, annexation, and incorporation.	Annexation - identifies actions to support annexation

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
DP-Action-7 (Local)	n/a	Identification and Clean-up of Underused Lands: Local governments, in cooperation with state and/or federal regulatory agencies, will develop strategies for cleaning up brownfield and contaminated sites. Local jurisdictions should identify underused lands (such as environmentally contaminated land and surplus public lands) for future redevelopment or reuse.	Redevelopment - supports coordination for clean-up and redevelopment of surplus and contaminated land; GMPB amended in response to comment review
DP-Action-8 (Local)	n/a	Center Plans and Station Area Plans: Each city or county with a designated regional center and/or light rail transit station area will develop a subarea plan for the designated regional growth center, station area(s), and/or manufacturing/industrial center. Cities and counties will plan for other forms of high-capacity transit stations, such as bus rapid transit and commuter rail, and countywide and local centers, through local comprehensive plans, subarea plans, neighborhood plans, or other planning tools. Jurisdictions may consider grouping station areas that are located in close proximity.	Centers Framework/Growing Transit Communities - supports local planning for regional centers and high-capacity transit station areas
DP-Action-9 (Local)	n/a	Mode Split Goals for Centers: Each city with a designated regional growth center and/or manufacturing/industrial center will establish mode split goals for these centers and identify strategies to encourage transportation demand management and alternatives to driving alone.	Regional Centers Framework - supports adopting mode split goals in local plans

Goal		The region ~~will~~ preserves, improves, and expands its housing stock to provide a range of affordable, healthy, and safe housing choices to every resident. The region ~~will~~ continues to promote fair and equal access to housing for all people.	Minor change
VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-H-1	n/a	Plan for housing supply, forms and densities to meet the region's current and projected needs consistent with the Regional Growth Strategy and to make significant progress towards jobs/housing balance.	Housing Supply - new policy recognizes housing as a regional issue and acknowledges need for supply consistent with the Regional Growth Strategy; GMPB amended in response to comment review
MPP-H-2	MPP-H-1	Provide a range of housing types and choices to meet the housing needs of all income levels and demographic groups within the region.	No change
MPP-H-3	MPP-H-2	Achieve and sustain – through preservation, rehabilitation, and new development – a sufficient supply of housing to meet the needs of low-income, moderate-income, middle-income, and special needs individuals and households that is equitably and rationally distributed throughout the region.	No change
MPP-H-4	n/a	Address the need for housing affordable to low- and very low-income households, recognizing that these critical needs will require significant public intervention through funding, collaboration and jurisdictional action.	Housing Need - new policy acknowledges the need for greater public intervention to provide housing affordable to very low-income residents
MPP-H-5	MPP-H-3	Promote homeownership opportunities for low-income, moderate-income, and middle-income families and individuals while recognizing historic inequities in access to homeownership opportunities for communities of color.	Equity - change acknowledges historic inequities in access to homeownership
MPP-H-6	MPP-H-4	Develop and provide a range of housing choices for workers at all income levels throughout the region ~~in a manner that promotes accessibility to jobs and provides opportunities to live in proximity to work~~ that is accessible to job centers and attainable to workers at anticipated wages.	No initial change; GMPB amended in response to comment review
MPP-H-7	MPP-H-5	Expand the supply and range of housing at densities to maximize the benefits of transit investments, including affordable units, in growth centers and station areas throughout the region.	Regional Growth Strategy/Growing Transit Communities - change supports housing and transit planning
MPP-H-8	n/a	Promote the development and preservation of long-term affordable housing options in walking distance to transit by implementing zoning, regulations, and incentives.	Regional Growth Strategy/Growing Transit Communities - new policy promotes affordable housing near transit

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-H-9	MPP-H-8	Expand housing capacity for moderate density housing to bridge the gap between single-family and more intensive multifamily development and provide opportunities for more affordable ownership and rental housing that allows more people to live in neighborhoods across the region. ~~Encourage the use of innovative techniques to provide a broader range of housing types for all income levels and housing needs.~~	Moderate Density Housing - change promotes middle density housing and removes ambiguous terminology ("innovative techniques")
MPP-H-10	MPP-H-7	Encourage jurisdictions to review and streamline development standards and regulations to advance their public benefit, provide flexibility, and minimize additional costs to housing.	No change
MPP-H-11	MPP-H-9	Encourage interjurisdictional cooperative efforts and public-private partnerships to advance the provision of affordable and special needs housing.	No change
MPP-H-12	n/a	Identify potential physical, economic, and cultural displacement of low-income households and marginalized populations that may result from planning, public investments, private redevelopment and market pressure. Use a range of strategies to mitigate displacement impacts to the extent feasible.	Equity/Displacement - new policy addresses displacement risk; GMPB amended in response to comment review
	~~MPP-H-6~~	~~Recognize and give regional funding priority to transportation facilities, infrastructure, and services that explicitly advance the development of housing in designated regional growth centers. Give additional priority to projects and services that advance affordable housing.~~	Moved to Regional Collaboration Chapter (MPP-RC-8)

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
H-Action-1 (Regional)	n/a	**Regional Housing Strategy:** PSRC, together with its member jurisdictions, state agencies, housing interest groups, housing professionals, advocacy and community groups, and other stakeholders will develop a comprehensive regional housing strategy to support the 2023-24 local comprehensive plan update. The housing strategy will provide the framework for regional housing assistance (see H-Action-2, below) and shall include the following components: o A regional housing needs assessment to identify current and future housing needs to support the regional vision and to make significant progress towards jobs/housing balance and quantify the need for affordable housing that will eliminate cost burden and racial disproportionality in cost burden for all economic segments of the population, including those earning at or below 80 percent of Area Median Income throughout the region. This will provide necessary structure and focus to regional affordable housing discussions o Strategies and best practices to promote and/or address: housing supply, the preservation and expansion of market rate and subsidized affordable housing, housing in centers and in proximity to transit, jobs-housing balance, and the development of moderate density housing options o Coordination with other regional and local housing efforts	Regional Housing Strategy - calls for regional data collection and strategy development to support local plan updates and other local housing efforts; GMPB amended in response to comment review
H-Action-2 (Regional)	n/a	**Regional Housing Assistance:** PSRC, in coordination with subregional, county, and local housing efforts, will assist implementation of regional housing policy and local jurisdiction and agency work. Assistance shall include the following components: o Guidance for developing local housing targets (including affordable housing targets), model housing policies, and best housing practices o Technical assistance, including new and strengthened tools, to support local jurisdictions in developing effective housing strategies and programs o Collection and analysis of regional housing data, including types and uses of housing and effectiveness of zoning, regulations, and incentives to achieve desired outcomes o Technical assistance in support of effective local actions to address displacement, including data on displacement risk and a toolbox of local policies and actions	Technical Assistance - supports local housing efforts; GMPB amended in response to comment review

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
H-Action-3 (Regional)	n/a	**State Support and Coordination:** PSRC will monitor and support as appropriate members' efforts to seek new funding and legislative support for housing; and will coordinate with state agencies to implement regional housing policy.	Outreach/State Coordination - supports members' efforts in seeking state resources
H-Action-4 (Local)	n/a	**Local Housing Needs:** Counties and cities will conduct a housing needs analysis and evaluate the effectiveness of local housing policies and strategies to achieve housing targets and affordability goals to support updates to local comprehensive plans. Analysis of housing opportunities with access to jobs and transportation options will aid review of total household costs.	Local Data and Monitoring - encourages local data collection to support housing efforts
H-Action-5 (Local)	n/a	**Affordable Housing Incentives:** As counties and cities plan for and create additional housing capacity consistent with the Regional Growth Strategy, evaluate techniques such as inclusionary and incentive zoning to provide affordability.	Local Tools - encourages local governments to promote affordable housing in areas planning for growth using a variety of techniques
H-Action-6 (Local)	n/a	**Displacement:** Metropolitan Cities, Core Cities, and High Capacity Transit Communities will develop anti-displacement strategies in conjunction with the populations identified of being at risk of displacement including residents and neighborhood-based small business owners.	GMPB added in response to comment review

Goal		The region ~~will have~~ has a prospering and sustainable regional economy by supporting businesses and job creation, investing in all people and their health, sustaining environmental quality, and creating great central places, diverse communities, and high quality of life.	Minor change; GMPB amended in response to comment review
VISION 2050 #	**VISION 2040 #**	**Policy/Action**	**Type/Reason of Change**
MPP-Ec-1	MPP-Ec-1	Support economic development activities that help to recruit, retain, expand, or diversify the region's businesses, targeted ~~. Target recruitment activities~~ towards businesses that provide ~~family~~ living-wage jobs.	Business - change to update terminology
MPP-Ec-2	MPP-Ec-2	Foster a positive business climate by encouraging regionwide and statewide collaboration among business, government, utilities, education, labor, military, workforce development, and other nonprofit organizations.	Business - change to include utilities
MPP-Ec-3	MPP-Ec-3	Support ~~established and emerging~~ efforts to retain and expand industry clusters that ~~export~~ manufacture goods and provide services for export, increasing capital in the region~~, and import capital, and have growth potential~~.	Business - minor change; GMPB amended in response to comment review
MPP-Ec-4	MPP-Ec-4	Leverage the region's position as an international gateway by supporting businesses, airports, seaports, and agencies involved in trade-related activities.	Trade - change distinguishes between airports and seaports
MPP-Ec-5	n/a	Recognize the region's airports as critical economic assets that support the region's businesses, commercial aviation activities, aerospace manufacturing, general aviation, and military missions.	Aviation - new policy supports focus areas in the Regional Economy Strategy
MPP-Ec-6	MPP-Ec-6	Ensure the efficient flow of people, goods, services, and information in and through the region with infrastructure investments, particularly in and connecting designated centers, to meet the ~~distinctive~~ needs of the regional economy.	Business - minor change
MPP-Ec-7	MPP-Ec-5	Foster a supportive environment for business startups, small businesses, ~~and~~ locally owned, and women- and minority-owned businesses to help them continue to prosper.	Business - change updates terminology
MPP-Ec-8	MPP-Ec-7	Encourage the private, public, and nonprofit sectors to incorporate environmental and social responsibility into their practices.	No change
MPP-Ec-9	MPP-Ec-8	Promote economic activity and employment growth that creates widely shared prosperity and sustains a diversity of ~~family~~ living-wage jobs for the region's residents.	Employment - change updates terminology
MPP-Ec-10	MPP-Ec-9	Ensure that the region has a high quality education system that is accessible to all of the region's residents.	No change

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-Ec-11	MPP-Ec-10	Ensure that the region has high quality and accessible training programs that give people opportunities to learn, maintain, and upgrade skills necessary to meet the current and forecast needs of the regional and global economy.	No change
MPP-Ec-12	n/a	Identify potential physical, economic, and cultural displacement of existing businesses that may result from redevelopment and market pressure. Use a range of strategies to mitigate displacement impacts to the extent feasible.	Equity/Displacement - new policy addresses the risk of business displacement
MPP-Ec-13	MPP-Ec-11	~~Address unique obstacles and special needs – as well as recognize the special assets – of disadvantaged populations in improving the region's shared economic future.~~ Promote equity and access to opportunity in economic development policies and programs. Expand employment opportunity to improve the region's shared economic future.	Equity - change seeks to expand access to economic opportunity
MPP-Ec-14	MPP-Ec-12	Foster appropriate and targeted economic growth in ~~distressed~~ areas with low and very low access to opportunity to improve access to ~~create economic~~ opportunity for current and future residents of these areas.	Equity - change updates terminology to connect to opportunity mapping
MPP-Ec-15	MPP-Ec-13	Support and recognize the contributions of the region's culturally and ethnically diverse communities and Native Tribes, including ~~in~~ helping the region continue to expand its international economy.	Equity - change to specifically include tribes
MPP-Ec-16	MPP-Ec-15	Ensure that economic development sustains and respects the region's ~~environmental quality~~environment and encourages development of established and emerging industries, technologies, and services, that promote environmental sustainability, especially those addressing climate change and resilience.	Green Economy - change promotes industries focused on environmental sustainability
MPP-Ec-17	MPP-Ec-16	~~Utilize urban design strategies and approaches to ensure that changes to the built environment preserve and enhance the region's unique attributes and each community's distinctive identity in recognition of the economic value of sense of place.~~ Preserve and enhance the region's unique attributes and each community's distinctive identity and design as economic assets as the region grows.	Urban Design - change recognizes unique community character as economic assets
MPP-Ec-18	MPP-Ec-17	~~Use incentives and investments to create a closer balance between jobs and housing, consistent with the regional growth strategy.~~ Develop and provide a range of job opportunities throughout the region to create a much closer balance and match between jobs and housing.	Regional Economic Strategy - change focuses on jobs-housing balance; GMPB amended in response to comment review

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-Ec-19	MPP-Ec-21	~~Recognize the need for employment~~ Support economic activity and job creation in cities in the rural areas at a size, scale, and type compatible with these communities. ~~and promote compatible occupations (such as, but not limited to, tourism, cottage and home-based businesses, and local services) that do not conflict with rural character and resource-based land uses.~~	Rural Economic Development - change supports appropriately-scaled employment growth in cities surrounded by rural areas
MPP-Ec-20	MPP-Ec-14	Sustain and enhance arts and cultural institutions to foster an active and vibrant community life in every part of the region.	No change
MPP-Ec-21	MPP-Ec-18	Concentrate a significant amount of economic growth in designated centers and connect them to each other in order to strengthen the region's economy and communities and to promote economic opportunity.	No change
MPP-Ec-22	MPP-Ec-19	Maximize the use of existing designated manufacturing and industrial centers by focusing appropriate types and amounts of employment growth in these areas and by protecting them from incompatible adjacent uses.	No change
MPP-Ec-23	MPP-Ec-22	Support economic activity in rural and natural resource areas at a size and scale that is compatible with the long-term integrity and productivity of these lands.	No change
	~~MPP-Ec-20~~	~~Provide an adequate supply of housing with good access to employment centers to support job creation and economic growth.~~	Addressed in Housing chapter policies
Ec-Action-1 (Regional)	n/a	**Regional Economic Strategy:** PSRC and the Economic Development District will coordinate economic development efforts to strengthen the region's industries, economic foundations and implement the Regional Economic Strategy. Update the Regional Economic Strategy periodically.	Regional Economic Strategy - supports implementation
Ec-Action-2 (Regional)	n/a	**Regional Support for Local Government Economic Development Planning:** PSRC will support county and local jurisdictions through technical assistance and economic data with special emphasis on smaller jurisdictions, in their efforts to develop economic development elements as part of their expected 2023/24 comprehensive plan updates to support the Regional Growth Strategy. PSRC will also provide guidance on local planning to address commercial displacement.	Regional Economic Strategy - supports local economic development planning; GMPB amended in response to comment review
Ec-Action-3 (Regional)	n/a	**Regional Economic Data:** PSRC and the Economic Development District, in collaboration with county economic development councils and other partners, will maintain regional economic data and develop regionwide and subarea forecasts.	Regional Economic Strategy - supports data collection and forecasting

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
Ec-Action-4 (Regional)	n/a	Job Growth Distribution: Identify regional roles in achieving the desired allocation of new jobs as reflected in the Regional Growth Strategy.	GMPB added in response to comment review
Ec-Action-5 (Local)	n/a	Economic Development Elements: Cities and counties will update (or adopt) their economic development element – tailored to meet the jurisdiction's unique needs and leveraging public investments – as specified in the Growth Management Act, when conducting the expected 2023/24 comprehensive plan update.	Local Plans - consistent with VISION 2040, continues to support including economic development elements in local plans

Goal		The region ~~will have~~ has a ~~safe, cleaner, integrated,~~ sustainable, equitable, affordable, safe and ~~highly~~ efficient multimodal transportation system, with specific emphasis on an integrated regional transit network that supports the regional growth strategy and promotes vitality of the economy, environment and health ~~economic and environmental vitality, and better public health~~.	Minor change to recognize regional transit network and streamline wording
VISION 2050 #	**VISION 2040 #**	**Policy/Action**	**Type/Reason of Change**
MPP-T-1	MPP-T-1	Maintain and operate transportation systems to provide safe, efficient, and reliable movement of people, goods, and services.	No change
MPP-T-2	MPP-T-2	Protect the investment in the existing system and lower overall life-cycle costs through effective maintenance and preservation programs.	No change
MPP-T-3	MPP-T-3	Reduce the need for new capital improvements through investments in operations, pricing programs, demand management strategies, and system management activities that improve the efficiency of the current system.	No change
MPP-T-4	MPP-T-4	Improve the safety of the transportation system and, in the long term, achieve the state's goal of zero deaths and serious ~~disabling~~ injuries.	Safety - change modernizes terminology
MPP-T-5	MPP-T-7	Develop a transportation system that minimizes negative impacts to, and promotes, human health.	Health - change promotes health
MPP-T-6	MPP-T-33	~~Promote~~ Pursue alternative transportation financing methods, such as user fees, tolls, and other pricing mechanisms to manage and fund the, ~~that sustain~~ maintenance, improvement, preservation, and operation of the transportation system ~~facilities and reflect the costs imposed by users.~~	Financial Strategy - change updates terminology
MPP-T-7	MPP-T-9	Fund, complete, and operate the highly efficient, multimodal system in the Regional Transportation Plan to support the Regional Growth Strategy. Coordinate WSDOT, regional, and local transportation agencies, in collaboration with the state legislature, to build the multimodal system. ~~Coordinate state, regional, and local planning efforts for transportation through the Puget Sound Regional Council to develop and operate a highly efficient, multimodal system that supports the Regional Growth Strategy.~~	No initial change; GMPB amended in response to comment review

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-T-8	MPP-T-26	Strategically expand capacity and increase efficiency of the transportation system to move goods, services, and people consistent with the Regional Growth Strategy ~~to and within the urban growth area~~. Focus on investments that produce the greatest net benefits to people and minimize the environmental impacts of transportation.	Regional Growth Strategy - change clarifies support for Regional Growth Strategy
MPP-T-9	MPP-T-22	Implement transportation programs and projects that provide access to opportunities while preventing or mitigating ~~in ways that prevent or minimize~~ negative impacts to people of color, people with low-income, ~~minority~~, and people with special transportation needs ~~populations~~.	Equity - change addresses access to opportunities, rather than only preventing or minimizing negative impacts
MPP-T-10	MPP-T-25	Ensure mobility choices for people with special transportation needs, including persons with disabilities, seniors ~~the elderly~~, youth ~~the young~~, and people with low-incomes ~~populations~~.	Equity - change modernizes terminology
MPP-T-11	MPP-T-14	Design, construct, and operate a safe and convenient transportation system for all users ~~transportation facilities to serve all users safely and conveniently, including motorists, pedestrians, bicyclists, and transit users,~~ while accommodating the movement of freight and goods, using best practices and context sensitive design strategies ~~as suitable to each facility's function and context as determined by the appropriate jurisdictions~~.	Safety - change modernizes terminology
MPP-T-12	MPP-T-23	Emphasize transportation investments that provide and encourage alternatives to single-occupancy vehicle travel and increase travel options, especially to and within centers and along corridors connecting centers.	No change
MPP-T-13	MPP-T-24	Increase the proportion of trips made by transportation modes that are alternatives to driving alone, especially to and within centers and along corridors connecting centers, by ensuring availability of reliable and competitive transit options.	Multimodal - change emphasizes connecting centers and transit quality
MPP-T-14	MPP-T-32	Integrate transportation systems to make it easy for people and freight to move from one mode or technology to another.	No change
MPP-T-15	MPP-T-11	Prioritize investments in transportation facilities and services in the urban growth area that support compact, pedestrian- and transit-oriented densities and development.	No change
MPP-T-16	MPP-T-15	Improve local street patterns – including their design and how they are used – for walking, bicycling, and transit use to enhance communities, connectivity, and physical activity.	No change

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-T-17	MPP-T-16	Promote and incorporate bicycle and pedestrian travel as important modes of transportation by providing facilities and navigable ~~reliable~~ connections.	No initial change; GMPB amended in response to comment review
MPP-T-18	MPP-T-10	Promote coordination among transportation providers and local governments to ensure that joint- and mixed-use developments are designed in a way that improves overall mobility and accessibility to and within such development.	No change
MPP-T-19	MPP-T-21	~~Apply urban design principles~~ Design ~~in~~ transportation programs and projects ~~for~~ to support local and regional growth centers and high-capacity transit station areas.	Urban Design - change promotes urban design in centers and transit station areas; GMPB amended in response to comment review
MPP-T-20	MPP-T-29	Promote the preservation of existing rights-of-way for future high-capacity transit.	No change
MPP-T-21	MPP-T-20	Design transportation facilities to fit within the context of the built or natural environments in which they are located.	No change
MPP-T-22	MPP-T-28	Avoid construction of major roads and capacity expansion on existing roads in rural and resource areas. Where increased roadway capacity is warranted to support safe and efficient travel through rural areas, appropriate rural development regulations and strong commitments to access management should be in place prior to authorizing such capacity expansion in order to prevent unplanned growth in rural areas.	No change
MPP-T-23	MPP-T-13	Make transportation investments that improve economic and living conditions so that industries and skilled workers continue to be retained and attracted to the region.	No change
MPP-T-24	MPP-T-27	Improve key facilities connecting the region to national and world markets to support the economic vitality of the region.	No change
MPP-T-25	MPP-T-17	Ensure the freight system supports the growing needs of global trade and state, regional and local distribution of goods and services. ~~meets the needs of: (1) global gateways, (2) producer needs within the state and region, and (3) regional and local distribution.~~	Freight - change modernizes language
MPP-T-26	MPP-T-18	Maintain and improve the existing multimodal freight transportation system in the region to increase reliability, ~~and~~ efficiency, and mobility, and prepare for continuing growth in freight and goods movement. ~~and to prevent degradation of freight mobility.~~	Freight - change recognizes growth in freight movement
MPP-T-27	MPP-T-19	Coordinate regional planning with rail~~road~~ line capacity expansion plans and support capacity expansion that is compatible with state, regional, and local plans.	Freight - change modernizes language

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-T-28	MPP-T-31	Promote coordinated planning and effective management to optimize the region's aviation system in a manner that minimizes health, air quality, and noise impacts to communities, including historically marginalized communities. Consider demand management alternatives as future growth needs are analyzed, recognizing capacity constraints at existing facilities and the time and resources necessary to build new ones. Support the ongoing process of development of a new commercial aviation facility in Washington State. ~~Support effective management of existing air transportation capacity and ensure that future capacity needs are addressed in cooperation with responsible agencies, affected communities, and users.~~	Aviation - change clarifies policy intent and ensures consistency with adopted 2018 Regional Transportation Plan; GMPB amended in response to comment review
MPP-T-29	MPP-T-5	Support the transition to a cleaner transportation system through investments in zero emission vehicles, low carbon fuels and other clean energy options. ~~Foster a less polluting system that reduces the negative effects of transportation infrastructure and operation on the climate and natural environment.~~	Climate Change - change reflects current work on reducing emissions
MPP-T-30	n/a	Provide infrastructure sufficient to support widespread electrification of the transportation system.	Climate Change - new policy supports infrastructure needed for electrification
MPP-T-31	MPP-T-8	Advance the resilience of the transportation system by incorporating redundancies, preparing for disasters and other impacts, and coordinated planning for system recovery. ~~Protect the transportation system against disaster, develop prevention and recovery strategies, and plan for coordinated responses.~~	Resilience - change supports a resilient transportation system
MPP-T-32	n/a	Reduce stormwater pollution from transportation facilities and improve fish passage, through retrofits and updated design standards. Where feasible, integrate with other improvements to achieve multiple benefits and cost efficiencies.	Environment - new policy addresses stormwater pollution from transportation facilities
MPP-T-33	MPP-T-6	Prepare for changes in transportation technologies and mobility patterns, to support communities with a sustainable and efficient transportation system. ~~Seek the development and implementation of transportation modes and technologies that are energy-efficient and improve system performance.~~	Technology - change addresses changes in transportation technology
MPP-T-34	MPP-T-30	Be responsive to changes in mobility patterns and needs for both people and goods, and encourage partnerships with the private sector, where applicable. ~~Encourage public and private sector partnerships to identify and implement improvements to personal mobility and freight movement.~~	Technology - change updates role of public-private partnerships as a means to respond to change

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
	~~MPP-T-12~~	~~Give regional funding priority to transportation improvements that serve regional growth centers and regional manufacturing and industrial centers.~~	Moved to Regional Collaboration chapter (MPP-RC-6)
T-Action-1 (Regional)	n/a	Regional Transportation Plan: PSRC will update the Regional Transportation Plan (RTP) to be consistent with federal and state requirements and the goals and policies of VISION 2050. The RTP will incorporate the Regional Growth Strategy and plan for a sustainable multimodal transportation system for 2050. The plan will identify how the system will be maintained and efficiently operated, with strategic capacity investments, to provide safe and equitable access to housing, jobs, and other opportunities, as well as improved mobility for freight and goods delivery. Specific elements of the RTP include the Coordinated Transit-Human Services Transportation Plan and continued updates to the regional integrated transit network (including high capacity transit, local transit, auto and passenger ferries), the active transportation plan, regional freight network, aviation planning and other important system components.	Regional Transportation Plan - supports implementation
T-Action-2 (Regional)	n/a	Funding: PSRC, together with its member jurisdictions, will advocate for new funding tools to address the gap in local funding identified in the Regional Transportation Plan.	GMPB added in response to comment review
T-Action-3 (Regional)	n/a	Transportation Technology and Changing Mobility: PSRC will continue to conduct research and analysis on the potential impacts from emerging technologies and changes in mobility patterns, including ongoing improvements to PSRC modeling and analytical tools. PSRC will build relationships among a diverse set of stakeholders and facilitate discussions to assist member organizations to become prepared for these changes in transportation mobility and to address consequences to and from local decision making. Outcomes could include guidance, best practices and future policies.	Technology - continues research, analysis, and guidance work on transportation technology and changing mobility
T-Action-4 (Regional)	n/a	Electric Vehicles: PSRC will work with partner agencies on regional collaboration to support electric vehicles and associated infrastructure issues. PSRC will engage with partners on distribution of best practices for local governments.	GMPB added in response to comment review
T-Action-5 (Regional)	n/a	Changing Technology: PSRC will conduct research and analysis on the potential impacts from emerging technologies which impact housing, land use, job distribution, or other applicable topics. PSRC will serve as a resource to assist local jurisdictions in preparing for these changes.	GMPB added in response to comment review

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
T-Action-6 (Regional)	n/a	**Freight Mobility:** PSRC will continue to conduct research, data collection and analysis of the growth and impacts of freight and goods movement and delivery, including updating baseline inventories and identification of mobility and other issues. PSRC will continue collaboration with stakeholders to address key freight issues as part of the next RTP update.	Freight - continues research, analysis, and collaboration needs for freight
T-Action-7 (Regional)	n/a	**Climate:** PSRC will continue to monitor and advance the implementation of the adopted Four-Part Greenhouse Gas Strategy - or future versions thereof - to achieve meaningful reductions of emissions throughout the region from transportation and land use. This will include ongoing collaboration with a variety of partners on each element, for example regional coordination on electric vehicle infrastructure, roadway pricing, transit oriented development and others. This will also include continued development of regional analyses and research of additional options for reducing emissions.	Climate Change - implements Four-Part Greenhouse Gas Strategy (part of Regional Transportation Plan)
T-Action-8 (Regional)	n/a	**Aviation Capacity:** PSRC will continue to conduct research and analysis of the region's aviation system to assess future capacity needs, issues, challenges, and community impacts to help ensure that the system can accommodate future growth while minimizing community impacts, including historically marginalized communities, and set the stage for future planning efforts. PSRC will work in cooperation with the state, which will play a lead role in addressing future aviation capacity needs.	Aviation - reflects PSRC work to analyze the regional aviation system; GMPB amended in response to comment review
T-Action-9 (Local)	n/a	**VISION 2050 Implementation:** Counties and cities, with guidance and assistance from PSRC, will update local plans to support implementation of the Regional Transportation Plan and address the Regional Growth Strategy, including addressing changes related to technology, freight and delivery, and the needs of all users.	Local Plans - supports local implementation of the Regional Transportation Plan and VISION 2050

Goal		The region ~~will~~ supports development with adequate public facilities and services in a timely, coordinated, efficient, and cost-effective manner that supports local and regional growth planning objectives.	Minor change; GMPB amended in response to comment review
VISION 2050 #	**VISION 2040 #**	**Policy/Action**	**Type/Reason of Change**
MPP-PS-1	MPP-PS-1	Protect and enhance the environment and public health and safety when providing services and facilities.	No change
MPP-PS-2	n/a	Promote affordability and equitable access of public services to all communities, especially the historically underserved. Prioritize investments to address disparities.	Equity - new policy promotes affordability and equity in public services; GMPB amended in response to comment review
MPP-PS-3	MPP-PS-2	Time and phase services and facilities to guide growth and development in a manner that supports the Regional Growth Strategy ~~vision~~.	Regional Growth Strategy - change to clarify relationship to Regional Growth Strategy
MPP-PS-4	MPP-PS-3	Promote demand management and the conservation of services and facilities prior to developing new facilities.	No change
MPP-PS-5	MPP-PS-4	Do not provide urban services in rural areas. Design services for limited access when they are needed to solve isolated health and sanitation problems, so as not to increase the development potential of the surrounding rural area.	No change
MPP-PS-6	MPP-PS-5	Encourage the design of public facilities and utilities in rural areas to be at a size and scale appropriate to rural locations, so as not to increase development pressure.	No change
MPP-PS-7	MPP-PS-6	Obtain urban services from cities or appropriate regional service providers~~, and encourage special service districts, including sewer, water, and fire districts, to consolidate or dissolve as a result~~.Encourage cities, counties, and special service districts, including sewer, water, and fire districts, to coordinate planning efforts, agree on optimal ways to provide efficient service, and support consolidations that would improve service to the public.	Urban Services/Coordination - change clarifies necessary between cities, counties, and special service districts; GPMB amended in response to comment review
MPP-PS-8	MPP-PS-7	Develop conservation measures to reduce solid waste and increase recycling.	No change
MPP-PS-9	MPP-PS-8	Promote improved conservation and more efficient use of water, as well as the increased use of reclaimed water, to reduce wastewater generation and ensure water availability.	No change
MPP-PS-10	MPP-PS-9	Serve new development within the urban growth area with sanitary sewer systems or fit it with dry sewers in anticipation of connection to the sewer system. Alternative technology to sewers should be considered only when it can be shown to produce treatment at standards that are equal to or better than the sewer system and where a long-term maintenance plan is in place.	No change

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-PS-11	MPP-PS-10	Replace failing septic systems within the urban growth area with sanitary sewers or alternative technology that is comparable or better.	No change
MPP-PS-12	MPP-PS-11	Use innovative and state-of-the-art design and techniques when replacing septic tanks to restore and improve environmental quality.	No change
MPP-PS-13	MPP-PS-12	Promote the use of renewable energy resources to meet the region's energy needs.	No change
MPP-PS-14	MPP-PS-13	Reduce the rate of energy consumption through conservation and alternative energy forms to extend the life of existing facilities and infrastructure.	No change
MPP-PS-15	n/a	Support the necessary investments in utility infrastructure to facilitate moving to low-carbon energy sources.	Climate Change - new policy supports electrification aspect of the Four-Part Greenhouse Gas Strategy (part of the Regional Transportation Plan)
MPP-PS-16	MPP-PS-14	Plan for the provision of telecommunication infrastructure to provide access to residents and businesses in all communities, especially underserved areas., ~~serve growth and development in a manner that is consistent with the regional vision and friendly to the environment.~~	Equity - change focuses on serving all communities
MPP-PS-17	MPP-PS-15	Coordinate, design, and plan for public safety services and programs, including emergency management. These efforts may be interjurisdictional.	No initial change; GMPB amended in response to comment review
MPP-PS-18	MPP-PS-16	Locate community facilities and health and human services in centers and near transit facilities for all to access services conveniently. ~~Encourage health and human services facilities to locate near centers and transit for efficient accessibility to service delivery.~~	No initial change; GMPB amended in response to comment review
MPP-PS-19	n/a	Support efforts to increase the resilience of public services, utilities, and infrastructure by preparing for disasters and other impacts and coordinated planning for system recovery.	Resilience - new policy addresses resilience of public services and facilities
MPP-PS-20	n/a	Consider climate change, economic, and health impacts when siting and building essential public services and facilities.	GMPB added in response to comment review
MPP-PS-21	MPP-PS-17	~~Identify and develop additional water supply sources to meet the region's long-term water needs, recognizing~~ Consider the potential impacts ~~on water supply from~~ of climate change and fisheries protection on the region's water supply.	Climate Change - change focuses on managing climate impacts, recognizing that few new water supply sources are available
MPP-PS-22	n/a	Provide residents of the region with access to high quality drinking water that meets or is better than federal and state requirements.	Water Quality - new policy addresses access to quality drinking water

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
MPP-PS-23	MPP-PS-18	Promote coordination among local and tribal governments and water providers and suppliers to meet long-term water needs in the region in a manner that supports the region's growth strategy.	No change
MPP-PS-24	MPP-PS-19	Reduce the per capita rate of water consumption through conservation, efficiency, reclamation, and reuse.	No change
MPP-PS-25	MPP-PS-20	Protect the source of the water supply to meet the needs for both human consumption and for environmental balance.	No change
MPP-PS-26	n/a	Work cooperatively with school districts to plan for school facilities to meet the existing and future community needs consistent with adopted comprehensive plans and growth forecasts, including siting and designing schools to support safe, walkable access and best serve their communities.	School Siting - new policy supports collaborative efforts between school districts and local governments
MPP-PS-27	MPP-PS-21	Site schools, institutions, and other community facilities that primarily serve urban populations within the urban growth area in locations where they will promote the local desired growth plans, except as provided for by RCW 36.70A.211.	School Siting - change addresses Growth Management Act amendment related to school siting that allows for schools serving both urban and rural populations in Pierce County to be sited outside the urban growth area
MPP-PS-28	MPP-PS-22	Locate schools, institutions, and other community facilities serving rural residents in neighboring cities and towns and design these facilities in keeping with the size and scale of the local community, except as provided for by RCW 36.70A.211.	School Siting - change addresses recent changes to the Growth Management Act related to school siting that allows for schools serving both urban and rural populations in Pierce County to be sited outside GMA boundaries
MPP-PS-29	MPP-PS-23	Site or expand regional capital facilities in a manner that (1) reduces adverse social, environmental, and economic impacts on the host community, especially on historically marginalized communities, (2) equitably balances the location of new facilities away from disproportionately burdened communities, and (3) addresses regional planning objectives.	No initial change; GMPB amended in response to comment review
MPP-PS-30	MPP-PS-24	Do not locate regional capital facilities outside the urban growth area unless it is demonstrated that a non-urban site is the most appropriate location for such a facility.	No change
PS-Action-1 (Regional)	n/a	**Utility and Service District Planning:** PSRC will work with electrical utilities, water providers, special service districts, and other utilities to facilitate coordinated efforts to develop long-range plans that comply with the Growth Management Act and implement VISION 2050.	Coordination - encourages special service district long-range plans to be consistent with the Growth Management Act and VISION 2050

VISION 2050 #	VISION 2040 #	Policy/Action	Type/Reason of Change
PS-Action-2 (Regional)	n/a	Facilities Siting and Design: PSRC will facilitate cooperative efforts with special service districts and local jurisdictions to site and design facilities that enhance local communities in accordance with growth management goals and VISION 2050.	Siting and Design/Coordination - encourages special service districts and local jurisdictions to coordinate when siting and designing facilities and maintain consistency with the Growth Management Act
PS-Action-3 (Regional)	n/a	School Siting: PSRC will initiate and support discussions with the Office of the Superintendent of Public Instruction to facilitate updates that modernize school siting standards, especially those related to site area requirements. Updates should work to align school siting standards with the goals of the Growth Management Act and facilitate school districts' ability to better meet urban capacity needs.	GMPB added in response to comment review
PS-Action-4 (Regional)	n/a	Regional Support for School Siting Best Practices: PSRC will research and develop guidance on innovative methods to update regulations and local plans to develop a regional approach to school siting and to assist local jurisdictions and school districts in siting new schools in urbanized areas.	GMPB added in response to comment review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