

# **List of Appendices**

The following appendices are included to support the analysis in the Draft Environmental Impact Statement

## **Appendix A: References**

This appendix lists the documents cited in the Draft Environmental Impact Statement. Documents cited are organized by chapter and may be referenced under more than one chapter.

## Appendix B: Glossary/Acronyms

This appendix includes a glossary of technical terms and definitions, and a list of acronyms that appear in the document.

## Appendix C: Evaluation Criteria for Selecting a Preferred Alternative

This appendix includes the key measures that will be used to assess the alternatives studied in the Draft Environmental Impact Statement. Presented as a matrix, the criteria are intended to be used for public review and comment. This matrix will be used by the Growth Management Policy board to help with the selection of the preferred growth alternative.

### Appendix D: Overview of Key Models and Output Data

This appendix provides a detailed description of the data, modeling, geographic information system (GIS) and mapping information and tools that were used in the Draft Environmental Impact Statement. Following the overview, sections D.2 through D.5 document the methodology for extending currently adopted jurisdictional growth targets in the Growth Targets Extended alternative, the methodology for estimating impervious surfaces in chapter 5.6, technical input data for the INDEX tool, and transportation demand model output data.

## Appendix E: Compilation of Issue Papers and Informational Papers

This appendix includes an overview of the series of issue papers developed for the VISION 2020 update, including a copy of the ten issue papers approved by the Growth Management Policy Board and five additional information papers prepared to inform specific policy areas.

## **Appendix F: Existing Multicounty Planning Policies**

This appendix lists the existing Multicounty Planning Policies for the central Puget Sound region. These were adopted in May 1995 by the General Assembly of the Puget Sound Regional Council in the 1995 update of VISION 2020.



# **Appendix G: List of Preparers**

This appendix provides the complete list of stakeholders that are on the mailing for the distribution of the Draft Environmental Impact Statement.

# **Appendix H. Distribution List**

This appendix consists of the list of stakeholders that were given a copy of the Draft Environmental Impact Statement. Additional copies of the DEIS are available through the Puget Sound Regional Council's Information Center, infoctr@psrc.org, 206-464-7532.

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# References

This appendix lists the documents cited in the Draft Environmental Impact Statement. Documents cited are organized by chapter and may be referenced under more than one chapter.

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Appendix A - References A.10



# Glossary/Acronyms

This appendix includes a glossary of technical terms and definitions, as well as a list of acronyms, that appear in the document.

# **Glossary**

## **Activity Unit**

A unit of measuring activity, calculated by adding together the number of residents (population) and jobs (employment) in a given area. Activity units represent the total amount of activity present in an area, and do not distinguish by the mix or proportion of the activity that is residential versus commercial. The Regional Council has used activity units for other projects; for example, an activity unit threshold has been established as one of the criteria for designating new regional growth centers.

#### **Adverse Impact**

Any undesirable or harmful effect to a person or to any natural or human-made resource.

#### Affordable Housing

Affordable housing is generally defined by the U.S. Department of Housing and Urban Development as housing where the occupant is paying no more than 30 percent of gross income for housing costs, including utility costs.

#### **Alternative**

Under Washington's State Environmental Policy Act, an environmental impact statement must evaluate reasonable alternatives that could feasibly attain the proposal's objective and are within a jurisdictional agency's authority to control. Alternatives should cover a broad enough range of scenarios such that all feasible options for a preferred alternative lie within the scope of impacts studied.

## **Brownfield**

Abandoned, idled, or under-used industrial and commercial facilities/sites where expansion or redevelopment is complicated by real or perceived environmental contamination. They can be in urban, suburban, or rural areas.

#### **Critical Area**

An area of specific environmental value that is protected from encroachment or adverse impacts from development. Under the Growth Management Act, five types of environmental features are identified as

critical areas: wetlands, critical aquifer recharge areas, frequently flooded areas, geologically hazardous areas, fish and wildlife habitat conservation areas.

## Cumulative Effect/Impact

Cumulative impacts from past actions or the incremental effect of the proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over time.

## **Density Bonuses**

Density bonuses are increases in commercial floor to area ratio, typically provided to developers as a reward or incentive when they provide a public amenity such as parks, plazas, or affordable housing. A density bonus allows a developer to construct a building beyond the intensity allowed by zoning.

## **Design Guidelines**

Design guidelines are regulations that govern the appearance of a development. Guidelines are typically used to create distinctive attractive places, and ensure that present and future development is context sensitive. Design guidelines add value to a community's built environment by ensuring well-designed buildings, attractive and useful signage, appealing facades, and street orientation that is distinctive to the community. Guidelines can apply to a variety of community elements - residences, commercial and retail uses, lighting, signage, transit shelters, benches, sidewalks, public spaces etc.

#### **Destination 2030**

The transportation component of VISION 2020, Destination 2030 is the central Puget Sound region's adopted comprehensive metropolitan transportation plan. It defines long-term transportation strategies and investments for the metropolitan transportation system of King, Kitsap, Pierce, and Snohomish counties to address traffic congestion and make it easier for people to move between home and work, school, shopping, and recreation.

## **Ecoregion**

These regions delimit large areas within which local ecosystems reoccur more or less throughout the region in a predictable pattern. Ecoregions are intended to provide a spatial framework for ecosystem assessment, research, inventory, monitoring, and management.

#### **Ecosystem**

A functional unit consisting of all the living organisms (plants, animals, and microbes) in a given area and their physical and chemical environment.

#### **Endangered Species**

Animals, birds, fish, plants, or other living organisms threatened with extinction by anthropogenic (humancaused) or other natural changes in their environment. Requirements for declaring a species endangered are contained in the federal Endangered Species Act.

#### **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 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.

## **Extirpated Species**

A species that no longer survives in regions that were once part of its range, but that still exists elsewhere in the wild or in captivity.

## **Growth Management Act**

The Growth Management Act was adopted by the Washington State Legislature in 1990 and 1991, and represents the framework for land use planning and development in Washington State. The act is contained in chapter 36.70A of the Revised Code of Washington.

## **Impact Fee**

An impact fee is a one-time charge imposed on new development, to help pay for off-site impacts and costs of development. In Washington state, impact fees can be levied only to help pay for improvements that are reasonably related to the development. Examples of improvements include: transportation infrastructure, schools, parks, and libraries.

## **Imperiled Species**

An informal term referring to a species that might be in need of conservation action. This may range from a need for periodic monitoring of populations and threats to the species and its habitat, to the necessity for listing as threatened or endangered. Such species receive no legal protection and use of the term does not necessarily imply that a species will eventually be proposed for listing.

## **Impervious Surface**

Surfaces that prohibit the movement of water from the land surface into the underlying soil or dirt. Buildings and paved surfaces (e.g., asphalt, concrete) are considered impervious covers. A natural condition (e.g., bedrock close to the surface, very dense soil layers such as hardpan that restrict water movement) is generally not considered an impervious surface.

#### **Inclusionary Zoning**

A system that requires a minimum percentage of lower and moderate income housing to be provided in new developments. Inclusionary programs are based on mandatory requirements or development incentives, such as density bonuses.

#### **Infill Development**

Development that takes place on vacant or underutilized parcels within an area that is already characterized by urban development and has access to urban services.

#### Lahar

A specific type of debris flow associated with volcanoes. They are dense mixtures of water-saturated debris that move down-valley looking and behaving much like flowing concrete. They occur when loose masses of unconsolidated material are saturated, become unstable, and move downslope.

### **Level of Service**

A grading system developed by the transportation profession to quantify the degree of comfort (including such elements as speed, travel time, number of stops, total amount of stopped delay, and impediments caused by other vehicles) afforded to drivers or transit riders as they travel through an intersection or roadway segment. Can also be applied to other public services, such as the provision of parks, emergency response time, or pedestrian facilities.

#### Liquefaction

Liquefaction is the process by which loose, unconsolidated soils and fill respond to the shaking motion of an earthquake causing the soil to liquefy and flow like water, similar to quicksand. This process strongly amplifies ground motion and is a major source of catastrophic damage in earthquakes.

### **Littoral Zone**

The region of a body of water extending from shoreline outward to the greatest depth occupied by rooted aquatic plants.

## **Location Efficient Mortgages**

A Location Efficient Mortgage (LEM) is a means of capitalizing in mortgages the transportation savings achieved by residential and business location in pedestrian-oriented, mixed-use developments. LEMs work on the premise that vehicle ownership imposes major costs on households and that households without vehicles could be better loan risks than otherwise similar households. Since households that do not own vehicles are assumed to have relatively larger shares of income available for making mortgage payments, LEMs enable borrowers to qualify for larger loans or more preferential interest rates than they could otherwise obtain.

## Maintenance Area (Air Quality)

Any geographic region of the United States previously designated nonattainment pursuant to the Clean Air Act Amendments of 1990 and subsequently redesignated to attainments subject to the requirement to develop a maintenance plan under section 175A of the Clean Air Act, as amended.

## Manufacturing/Industrial Center

Regionally designated areas for the preservation of intensive manufacturing and industrial activity. These areas are characterized as large contiguous blocks served by the region's major transportation infrastructure, including roadways, rail, and port facilities.

#### Mitigation

Mitigation is defined as the following: (1) Avoiding the impact altogether by not taking a certain action or parts of an action; (2) minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts; (3) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (4) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; (5) compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and/or; (6) monitoring the impact and taking appropriate corrective measures.

#### No Action Alternative

The no-action alternative for a plan is generally defined as no change in existing regulations — zoning, development regulations, critical area ordinances, etc. (or the lack thereof) would be unchanged. The environmental impacts of predicted growth under this "no-action" scenario is then compared to that of the other alternatives.

#### Non-attainment Area

The geographic area designated as not meeting the National Ambient Air Quality Standard for a criteria pollutant. The boundaries are proposed by the governor, approved by the federal Environmental Protection Agency, and include that area required to implement plans and programs for attainment of the National Ambient Air Quality Standard published in the Federal Register.

### **Non-point Pollution**

Diffuse pollution sources (i.e., without a single point of origin or not introduced into a receiving stream from a specific outlet). The pollutants are generally carried off the land by storm water. Common non-point sources are agriculture, forestry, urban, mining, construction, dams, channels, land disposal, saltwater intrusion, and city streets.

### Particulate Matter

An air pollutant comprised of particles suspended in the air, including total suspended particulates (TSP) and the inhalable subgroup of TSP which is comprised of particulates 10 microns or less in diameter, particulate matter ( $PM_{10}$ ). Automobile emissions are a major source of particulate matter.

## Performance Zoning

Performance zoning is a type of zoning that permits uses based on a particular set of standards (e.g. environmental impacts) rather than on particular type of use. The requirements may target a single type of impact, or a range of impacts, such as stormwater runoff, emissions, and open space preservation.

## **Planned Unit Development**

Areas that are planned and developed as one entity, by a single group. Planned unit developments usually include a variety of uses: different housing types of varying densities, open space, and commercial uses. Project planning and density is calculated for the entire development rather than individual lots.

### **Point Pollution**

A stationary location or fixed facility from which pollutants are discharged or any single identifiable source of pollution, e.g., a pipe, ditch, ship, ore pit, factory smokestack.

### **Preferred Alternative**

Under the Washington State Environmental Policy Act, the individual or hybrid alternative that is selected from those analyzed in a Draft Environmental Impact Statement for further environmental review in a Final or Supplemental EIS.

## **Regional Growth Center**

Regionally designated small areas of compact development where housing, employment, shopping and other activities are in close proximity. The term 'regional growth center' is used to differentiate centers that are designated for regional purposes from those that have a more local focus.

## **Riparian Corridor**

Areas adjacent to rivers and streams with a differing density, diversity, and productivity of plant and animal species relative to nearby uplands.

### Scoping

The first phase of an environmental impact analysis process in which the extent of the project is established. The purpose for environmental scoping is to determine the scope and range of proposed actions, alternatives, environmental elements and impacts, and mitigation measures to be analyzed in the environmental impact statement. The scoping process is also intended to eliminate from detailed study those issues that are not significant, and those that have been covered by prior environmental review.

#### **Sole Source Aquifer**

An aquifer that supplies 50 percent or more of the drinking water to an area.

#### **Threatened Species**

An animal or plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

### **Transfer of Development Rights**

A planning tool which allows the development rights from a piece of property to be transferred to another parcel. The development rights represent the unused development potential of the property. These rights can be used on additional properties of the owner or sold for use elsewhere. This technique has been used to preserve historic buildings, save agricultural and environmentally sensitive land.

## **UrbanSim**

A software-based simulation model for integrated planning and analysis of urban development, incorporating the interactions between land use, transportation, and public policy.

## **Vernacular Architecture**

Vernacular architecture refers to structures built of local materials in a functional style devised to meet the needs of common people in their time and place. It is sometimes called folk architecture. Vernacular structures were built by people not schooled in any kind of formal architectural design. The anonymously built log cabins, barns, and farm outbuildings that can be seen in rural areas are good examples of vernacular architecture.

### Watershed

The land area that drains into a stream; the watershed for a major river may encompass a number of smaller watersheds that ultimately combine at a common point.

## **Zero Lot Line Development**

A development approach in which a building is sited on one or more lot lines with no yard. The intent is to allow more flexibility in site design and to increase the amount of usable open space on the lot.

# **Acronyms**

BRT Bus Rapid Transit

**CFR** Code of Federal Regulations

CO Carbon Monoxide
CO<sub>2</sub> Carbon Dioxide

**CPP** Countywide Planning Policy

CTED Washington State Department of Community, Trade, and Economic Development

**DAHP** Washington State Department of Archaeology and Historic Preservation

DEIS Draft Environmental Impact Statement

DRAM Dynamic Resource Allocation Model

ElS Environmental Impact Statement

**EMPAL** Employment Allocator

**EPA** Environmental Protection Agency

**ESA** Endangered Species Act

FAA Federal Aviation Administration

**FAZ** Forecast Analysis Zone

FEIS Final Environmental Impact Statement

**FEMA** Federal Emergency Management Administration

**FHWA** Federal Highway Administration

HAP Hazardous Air PollutantHCT High Capacity TransitHOV High Occupancy Vehicle

IPCC Intergovernmental Panel on Climate Change

MPP Multicounty Planning Policy

**NAAQS** National Ambient Air Quality Standards

NAC Noise Abatement Criteria

NOAA National Oceanic and Atmospheric Administration

NOx Nitrous Oxide

NPS National Park Service

NRHP National Register of Historic Places

**PM** Particulate Matter

PSCAA Puget Sound Clean Air Agency
PSRC Puget Sound Regional Council
RCW Revised Code of Washington

**SAFETEA-LU** Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

**SDEIS** Supplemental Draft Environmental Impact Statement

**SEPA** State Environmental Policy Act

SIP State Implementation Plan
SOV Single Occupant Vehicle

**STEP** Synchronized Translator of Economic Performance

**TAZ** Transportation Analysis Zone

TDM Transportation Demand Management
TSM Transportation System Management

**UGA** Urban Growth Area

**ULSD** Ultra Low-Sulfur Diesel

**USDOT** United States Department of Transportation

**USFWS** United States Fish and Wildlife Service

**USGS** United States Geological Survey

VHT Vehicle Hours Traveled
VMT Vehicle Miles Traveled

VOC Volatile Organic Compounds

**WAC** Washington Administrative Code

WADNR Washington State Department of Natural Resources
WDFW Washington State Department of Fish and Wildlife

WRIA Watershed Resource Inventory Area

**WSDOT** Washington State Department of Transportation

**WSF** Washington State Ferries



# **Evaluation Criteria**

This appendix includes the key measures that will be used to assess the alternatives studied in the Draft Environmental Impact Statement. Presented as a matrix, the criteria are intended to be used for public review and comment. This matrix will be used by the Growth Management Policy board to help with the selection of the preferred growth alternative.

## Overview

In creating the criteria, the Growth Management Policy Board identified goals that should be advanced by the preferred growth alternative. These four overarching goals are to:

- Promote an overall high quality of life.
- Create an efficient land use pattern for provision of infrastructure, facilities, and services.
- Protect the natural environment.
- Enhance human potential and social justice.

In order to compare the four goals listed above and to each other, a set of criteria has been developed and is presented below. The criteria include a subject and associated unit of measurement, and are organized under the following nine categories:

- Environmental quality
- Health
- Economic prosperity (the objectives of the Regional Economic Strategy)
- Land use
- Transportation (the objectives of Destination 2030)

- Social justice & human potential
- Maintaining rural character
- Protecting resource lands
- Efficiencies in the provision and use of infrastructure, public facilities, & services

The measures will be evaluated on a scale of 1 to 4, with 4 being the highest (or best) score and 1 being the lowest (or worst) score. Space has been provided for the reader score each alternative themselves. The result of this exercise could then be used by readers in developing their comments.

# Criteria

Environmental Measures			Alterr	natives		
	Subject	Unit of Measure	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
•	Nonpoint Pollution (INDEX)	Average annual kilograms per acre				
•	Imperviousness (INDEX	Impervious land				
•	Wastewater Generation (INDEX)	Gallons per year				
•	Solid waste generation (INDEX)	Pounds per year				
•	Air quality	Particulate matter, carbon monoxide, nitrous oxide				
•	Climate change	Tons of Carbon Dioxide per year				
•	Noise	Overall judgment from noise analysis in chapter 5.14 of the DEIS				
•	Earth	Overall judgment from earth analysis in chapter 5.13 of the DEIS				
•	Water/Stormwater	Overall judgment from water quality and hydrology analysis in chapter 5.6 of the DEIS				
•	Parks and Recreation	Overall judgment from parks and recreation analysis in chapter 5.8 of the DEIS				
•	Visual/Aesthetic quality	Overall judgment from visual/aesthetic quality analysis in chapter 5.12 of the DEIS				
•	Historic and cultural resources	Overall judgment from historic and cultural resources analysis in chapter 5.11 of the DEIS				
Er	vironmental Average Score					

Appendix C – Evaluation Criteria C.2

Health Measures			<u></u>	Alternatives		
	Subject	Unit of Measure	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
•	Potential for reducing automobile injuries	Automobile vehicle miles traveled				
•	Air and water pollutants	Overall judgment from air quality and ecosystems analysis in chapters 5.4 and 5.5 of the DEIS				
•	Potential for physical activity	Acres with more than 12 activity units per acre				
•	Environmental health	Overall judgment from ecosystems and environmental health analysis in chapters 5.5 and 5.9 of the DEIS				
Н	ealth Average Score					

Economic Measures			Altern	atives	
Subject	Unit of Measure	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
Access to jobs:					
Transit adjacency to employment	Number of jobs within ½ mile of a transit line				
Travel time between selected links	Minutes				
Access to jobs for lower income workers	Overall judgment from environmental justice analysis in chapter 60f the DEIS				
Geographic relationship between households and	d jobs:				
Land area with 20 jobs per acre and above	Acres				
• Proximity of people to land area with 20 jobs per acre and above	Residents				
Jobs/housing balance measures:					
<ul> <li>Regional share of jobs in Everett, Tacoma, and Bremerton areas</li> </ul>	Jobs				
<ul> <li>Regional share of housing in Seattle and east King County subarea</li> </ul>	Housing				
Economic Average Score					

Appendix C – Evaluation Criteria C.4

Land Use Measures		Alternatives				
Subject	Unit of Measure	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	
Urban areas:						
<ul> <li>Land at 7 units per acre or higher</li> </ul>	Acres					
Amenities adjacency (INDEX)	Percent of population within 1/4 mile of defined amenities					
Transit adjacency to housing	Percent of population within 1/4 mile of transit routes					
Amount of population in cities with regional growth centers	Population					
Rural and Resource Lands:						
Population levels in rural area	Population					
Environmental impacts in rural area	Imperviousness, wastewater generation, solid waste					
Transportation impacts in rural area	Travel time between selected links					
Overall land use impacts	Overall judgment from land use analysis in chapter 5.2 of the DEIS					
Land Use Average Score						

Transportation Measures			<u></u>	Alternatives				
	Subject	Unit of Measure	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities		
•	Travel time between selected links	Aggregate hours						
•	Daily vehicle miles traveled	Aggregate miles						
•	Daily vehicle hours traveled	Aggregate hours						
•	Average trip length	Minutes						
•	Daily hours of delay	Aggregate hours						
•	Work trip mode split	Percent of work trips in single- occupant vehicles						
Per	cent of households with access to jobs and so	elected activities						
•	10-minute walk (½ mile)	Households						
•	20 minute bike ride (4 miles)	Households						
•	30 minute transit ride	Households						
Tr	ansportation Average Score							

Inf	Infrastructure, Public Facilities, and Services Measures			Alternatives		
	Subject	Unit of Measure	Growth Targets Extended	Metropolitan Cities	Larger Gities	Smaller Cities
•	Public services and utilities	Overall judgment from public services and utilities analysis in chapter 5.7 of the DEIS				
•	Water supply	Overall judgment from public services and utilities analysis in chapter 5.7 of the DEIS				
•	Sanitary sewer	Overall judgment from public services and utilities analysis in chapter 5.7 of the DEIS				
•	Electrical power	Overall judgment from public services and utilities analysis in chapter 5.7 of the DEIS				
•	Energy Use	Overall judgment from energy analysis in chapter 5.10 of the DEIS				
•	Relative cost to provide infrastructure, public facilities, and services	Overall judgment from analysis in appendix E.14 (cost of sprawl appendix) of the DEIS				
Inf	rastructure, Public Facilities, and	Services Average Score				

Environmental Justice Measures Alternative		atives				
	Subject	Unit of Measure	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
•	Access to transportation services and facilities for EJ populations	Travel time on selected links				
•	Overall relative distribution of population and employment compared to locations of EJ population	Overall judgment from environmental justice analysis in chapter 6 of the DEIS				
•	Access to jobs for lower income workers	Jobs within 1 mile of high-poverty census block groups				
•	Overall	Overall judgment from environmental justice analysis in chapter 6 of the DEIS				
En	vironmental Justice Average Score					



# Overview of Key Models and Data

This appendix provides a detailed description of the data, modeling, geographic information system (GIS) and mapping information and tools that were used in the Draft Environmental Impact Statement. Following the overview, sections D.2 through D.5 document the methodology for extending currently adopted jurisdictional growth targets in the Growth Targets Extended alternative, the methodology for estimating impervious surfaces in chapter 5.6, technical input data for the INDEX tool, and transportation demand model output data.

# I. Geographic Information Systems

The Puget Sound Regional Council uses geographic information system technology to support a variety of agency functions, including land use and transportation planning. PSRC uses the ArcGIS suite of products from ESRI in conjunction with Microsoft's SQL-Server and Access database software. Maintained data sets include transportation networks, a composite of local land use plans, environmental features, transportation capital projects from Destination 2030 (the region's adopted Metropolitan Transportation Plan) and the Regional Transportation Improvement Program, as well as a full compliment of US Census and demographic layers.

# II. INDEX - Paint the Region Analysis Tool

With the assistance of its consultants – Criterion Planners/Engineers, Inc. – the Puget Sound Regional Council customized and implemented a new sketch-planning tool called INDEX – Paint the Region. The PSRC used INDEX to conduct sensitivity tests of how the region might accommodate growth, leading to the development and analysis of growth alternatives included in this environmental impact statement.

INDEX – Paint the Region is a geographic information system sketch-planning tool that brings to the Regional Council a much finer grain of analysis than has been available in the past. It provides flexibility to construct and analyze "what if" scenarios for how growth can be distributed in the region. With INDEX, regional growth scenarios can be quickly "painted," then analyzed and compared through the generation of 17 environmental, land use, demographic, and transportation indicators. Indicators are available at a variety of geographic levels in numeric and map forms. Between December 2004 and Summer 2005, the PSRC developed and analyzed a range of eight scenarios, with the goal of producing a broad and distinct set of four regional growth alternatives to be assessed for social, economic and environmental impacts in the State Environmental Policy Act project environmental impact statement.

The alternatives describe different ways in which the region might accommodate future growth through the distribution of population and employment in different parts of the region. Please see Chapter 4 – Definition of Alternatives for a complete description of four regional growth alternatives.

These four alternatives were then "painted" in the PSRC geographic information system using the INDEX analysis tool. The starting point in INDEX is a base land use GIS "canvas" consisting of a layer of 150 square meter (5.5 acre) grid cells covering the entire central Puget Sound region. These cells are populated with 2000 base year demographic data developed for the new PSRC Land Use and Demographic model, UrbanSim. This UrbanSim database also contained detailed demographic attributes at the grid cell level necessary to run the Regional Travel Demand Model. Among these attribute data, grid cells were encoded with one of 26 land-use classes derived from UrbanSim planned land use categories and the PSRC Future Land Use database (a compilation of locally adopted comprehensive plans). The GIS also contains additional geographic and environmental attribute data to provide context and inputs for various INDEX indicators. To create a growth scenario, the user paints grid cells with the desired land-use class ("paint chip"). The paint chips apply default population and employment values to represent the "end state" condition of the cell.

The painting of the alternatives began with all of the region's grid cells encoded with future land use designations drawn from current local comprehensive plans, and populated with base year 2000 population and employment. Staff did not allocate any growth to grid cells painted with the following land use designations: Agriculture, Critical Areas, Forest, Government, Parks and Open Space, Resource Extraction, Right of Way, or Tribal.

First, staff "built out" the local plan designations by adding the specified population and employment growth to grid cells based on the maximum carrying capacity defined by the available land use designations. This was accomplished by using Microsoft Access to select grid cells with specified land use categories within particular jurisdictions. These queries determined which cells had additional capacity according to a comparison of base population or employment data and maximum values for each land use classification. Staff then added population and employment to the selected cells through update queries in the Access database.

Staff typically first built out existing mixed use-designations, followed by higher intensity residential and commercial land uses. Staff found that these designations were generally clustered within urban centers or activity nodes within jurisdictions, and along major transportation corridors. When growth still remained to be painted, it was then assigned to the lowest density residential classifications in a jurisdiction – generally to cells that contained no base year population.

If additional growth remained, or when initially presented with a large amount of growth to assign, staff looked first in a jurisdiction for designated regional growth centers, local urban centers, town centers, and other activity areas. Grid cells within these designated areas were then "repainted" with higher-density land use classifications, which carried with them higher default population and employment values. For example, low-intensity commercial classifications might be repainted at the next higher commercial intensity, or lower-intensity residential, or mixed use areas redesignated with higher density mixed-use categories. This enabled staff to allocate all of a jurisdiction's growth in a more focused manner than through more general queries that would populate grid cells across an entire jurisdiction or regional geography. In this manner, staff was able to assign a precise amount of assigned growth to each municipality and broad classes of regional geography.

Once the entire canvas was painted with the desired land uses, the INDEX tool was run, generating indicators to provide a better understanding of possible long-term benefits and impacts of the choices represented in the scenario. The scenarios that were created and tested through this process were evaluated and compared based on indicator values and results, and led to the development of the four alternatives analyzed in this draft environmental impact statement.

A table documenting the resulting population and employment distribution at the city level for each alternative appears in the following section of this appendix (section D.2). These distributions were used as technical inputs to the Regional Council's EMPAL/DRAM land use and Regional Transportation Demand models. Please see section III below.

The following table describes INDEX indicators that were available for environmental analysis.

INDEX - Indicators for VISION 2020 update Analysis					
Indicator	Definition	Units	Geographies Reported		
Demographics			Б.		
Population*	Total number of residents in use-defined study area.	Residents	Region UGA Rural County KC Subarea		
Employment*	Total number of employees in user-defined study area.	Employees	Region UGA Rural County KC Subarea		
Population Density	Total residents per acre of residential land.	Residents per residential acre	Region UGA Rural County KC Subarea		
Gross Population Density*	Total residents per gross study area acre.	Residents per gross acre	Region UGA Rural County KC Subarea		
Housing					
Dwelling Density*	Dwelling units per acre of land designated for residential use.	Dwelling units per residential acre			
Gross Dwelling Density	Dwelling units per gross acre.	Dwelling units per gross acre	Region UGA Rural		
Population Adjacency to Amenities	Percent of residents within user-defined linear distance of user-designated amenities (e.g. school, community center, parks, etc.). PSRC defined distance as 1,320 feet (1/4 mile).	Percent (%)	Region UGA County UGA		
Population Adjacency to Transit	Percent of residents dwelling within user-defined linear distance of transit routes. PSRC defined distance as 1,320 feet (1/4 mile).	Percent (%)	Region UGA County UGA		
Employment					
Employment to Dwelling Balance	Total number of jobs divided by number of dwelling units.	Jobs per dwelling unit	Region UGA Rural County KC Subarea		
Employment Density*	Number of employees per gross acre.	Employees per gross acre			
Employment Density*	Number of employees per acre of land designated for employment uses.	Employees per gross acre	Region UGA Rural		
Employment Adjacency to Transit	Percent of employees within user-defined linear distance of transit routes. PSRC defined distance as 1,320 feet (1/4 mile).	Percent (%)	Pegion LIGA		

INDEX - Indicators for VISION 2020 update Analysis					
Indicator	Definition	Units	Geographies Reported		
Environment					
Wastewater Generation*	Total study area wastewater in gallons, calculated by number of residents and co-efficient in gallons per capita.	Gallons per day	Region UGA Rural County KC Subarea		
Solid Waste Generation*	Total study area solid waste generation in pounds, calculated by number of residents and co-efficient in lbs/capita.	Pounds per day	Region UGA Rural County KC Subarea		
Stormwater Runoff	Average annual runoff depth in cubic feet/acre/year. Influenced by underlying soil type and impervious surfaces. (Note: uses US EPA SGWATER methodology.)	Cubic feet per acre per year	Ruiaii		
Nonpoint Pollution	Average annual combined NPS pollution in kg/acre/year for three pollutants (suspended solids, nitrogen compounds, and phosphorus compounds) based on imperviousness and stormwater runoff volume. (Note: uses US EPA SGWATER methodology.)	Kilograms per acre per year	Rurau		
Imperviousness	Amount of impervious surface as percent of total land area. Standard impervious surface values assumed by land use class, derived from national and City of Olympia research.	Percent (%)	Region UGA County UGA		

# **III. Socioeconomic Forecasts**

The Puget Sound Regional Council provided a socioeconomic forecast database for the region for the environmental analysis, using the inputs and outputs of its current econometric and land use forecasting models. Forecasts are produced in a two-step process, first at the regional level, then sub-regional (county and zone) level, using two separate modeling systems. The key demographic variables produced by both processes are forecasts of population, households, housing units and employment, to ensure consistency between the two modeling procedures.

For the regional model database, annual estimates and forecasts were available from approximately 1970 to 2040. Additional detail in the database included income earned, households by type, and population by age grouping.

At the sub-regional level, forecasts are limited to the years 2010, 2020, and 2030, along with a comparable base year of 2000. The data was summarized by county (and in King county's case by county subarea) and by forecast analysis zone. Detail included separation of population into group quarter versus household population, households by income level, and total employment by PSRC-defined major employment sectors.

The following sections document the models used to generate the socioeconomic forecasts for this study in more depth.

# A. Current Regional Economic and Demographic Model: PSEF Model

Since 1980, the Regional Council has used a regional econometric model as the first part of a two-part forecasting process. The model produces forecasts for the region as a whole, which then serve as the regional control totals for the separate sub-county model that allocates population, household, and employment forecasts to specific zones. The resulting regional and small-area forecasts support comprehensive land use and transportation planning undertaken by the Regional Council, and related planning activities conducted by local jurisdictions within the region.

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<sup>\*</sup> Indicator value determined by user in painting.

The regional forecasting application that was used from 1980 until May 2002 was the STEP (Synchronized Translator of Econometric Projections) model, with updates occurring every 3-4 years. In 2005, however, PSRC entered into a consultant contract to replace the STEP model with the Puget Sound Economic Forecaster (PSEF) Model, which is better suited to work with the more limited amount of data available since the conversion of economic data from the Standard Industrial Classification (SIC) codes to the North American Industrial Classification Systems (NAICS).

Like STEP, the PSEF model operates conceptually as an economic base model, where the performance of base industries, or those that export outside of the region, determines the performance of the non-basic sector industries. Within this structure, a series of equations are used to forecast regional economic conditions in broad categories of income, employment/labor force, and population/households. Also required are input forecasts of the U.S. economy, and the assembly of substantial trend data, in order to accurately estimate economic and demographic relationships in the regional economy, and how it relates to national trends.

Note that forecasts of population are done in a different manner than the official population forecasts produced by the Washington State Office of Financial Management for growth management planning work by the counties. The econometric modeling structure relies more on the performance of the economy to determine the amount of net population migration that occurs, along with what has been seen as consistent birth and death rates in the region, although the results are carefully reviewed for consistency.

Updated regional forecasts through 2040 were available for use in the Vision 2020+20 technical analysis. In the first quarter of 2006, PSRC will have the full results of the PSEF-based forecasts posted on the agency website, along with a final report.

## B. Land Use Models: EMPAL and DRAM

Similar to the STEP model, PSRC has historically used the EMPAL (Employment Allocation Model) and DRAM (Disaggregate Residential Allocation Model) gravity models to estimate jobs, population, and households for each of 219 Forecast Analysis Zones (FAZs) in the region. From these zone totals, county-level forecasts are derived, as well as inputs to the travel demand model.

Since the initial use of EMPAL/DRAM in the early 1980s, a number of key assumptions and inherent limitations have been recognized in their use. The sub-county forecast results are limited to the FAZ level of geography, so forecasts by cities or other basic geographies cannot be done within the model structure. The EMPAL and DRAM models are limited to roughly 200 zones, making further subdivision of zones a problem. Land use inputs are not implicit to the model, so the impact of comprehensive plans or other policy changes must be replicated indirectly, by either manually adjusting the "attractiveness" of a zone to further development, or overriding model results with pre-determined job targets. Furthermore, the use of such adjustments and targets limits the ability of the models to be used in sensitivity analyses. (Note that to be consistent with the regional model forecasts, and input needs for the travel demand model, job forecasts from EMPAL are not directly comparable to the Covered Employment estimates the Regional Council produces.)

Like the STEP model, PSRC has initiated work to upgrade its land use models. In 2003 PSRC entered into a Memorandum of Understanding with the University of Washington's Center for Urban Simulation and Policy Analysis (CUSPA) to implement UrbanSim as the Regional Council's land use model, replacing the EMPAL/DRAM models. This decision was a response to the increasing demands placed on the agency's land use models, both in terms of supporting the travel demand model, but also the desires of PSRC's boards and planning staff to better analyze policy options, including the connections between land use and travel demand.

The complexity of UrbanSim, however, has resulted in the need for additional testing and validation of the model results, before it can be used with confidence as a technical tool. Although the current schedule calls for UrbanSim to eventually become the PSRC's new land use model, the need for an updated forecast prior to that has led to the use of the EMPAL/DRAM models for the 2006 Small Area Forecasts, planned for release in Spring 2006. The current subregional forecasts from the EMPAL/DRAM models were released in January 2003, and can be found at <a href="http://www.psrc.org/datapubs/data/forecasts.htm">http://www.psrc.org/datapubs/data/forecasts.htm</a> on the agency website.

## C. Representing VISION 2020+20 Alternatives in PSRC Models

The INDEX analysis tool, while effective for sketching and visualizing future growth alternatives, was designed with limited ability to produce details on the future year population and employment data. Therefore, in order to convert the distribution of population and employment in each of the VISION 2020+20 alternatives as painted using the INDEX

tool to inputs that would be compatible with the Regional Travel Demand Model, PSRC supplemented the INDEX data with elements of the most current EMPAL/DRAM-based Small Area Forecasts. Below is a comparison of the base data provided by INDEX, and the detailed data provided by EMPAL/DRAM or needed for the Regional Travel Demand Model:

Index Analysis Tool Base Data	EMPAL/DRAM & Regional Travel Demand Model Detailed Data Variables
Categories	
Total Population	Population separated into:
	<ul><li>Household Population</li><li>Group Quarters Population</li></ul>
Housing Units	Households by Income Quartile:
	<ul> <li>Low Income Households</li> </ul>
	<ul> <li>Lower Middle Income Households</li> </ul>
	<ul> <li>Upper Middle Income Households</li> </ul>
	<ul> <li>Upper Income Households</li> </ul>
Total Employment	Employment by each of the following job variables, with the Resource/Construction category dropped due to problems accurately modeling the typical location of these jobs:
	– Retail
	<ul> <li>Finance, Insurance, Real Estate, and Services (FIRES)</li> </ul>
	<ul> <li>Government and Education</li> </ul>
	<ul> <li>Manufacturing</li> </ul>
	<ul> <li>Wholesale, Transportation, Communications, and Utilities (WTCU)</li> </ul>

The following procedure was used to develop the detailed data necessary to run the Regional Travel Demand Model for each VISION 2020+20 alternative:

- Convert the INDEX base data geography from gridcells and cities to Forecast Analysis Zones (FAZs): The EMPAL/DRAM models are zonal-based, and limited structurally to the 219 zones within the central Puget Sound Region. The first step was to calculate base year 2000 and future year 2040 population, housing and employment totals for each of the 219 FAZs for each alternative using the INDEX base grid cell and city data. Then, using PSRC's year 2000
- Expand the INDEX 2000 base year data into detailed data variables. As noted earlier, 2000 base year data used in INDEX was derived from a more detailed year 2000 database prepared for the UrbanSim model. After calculating overall population, housing and employment totals for each FAZ from the INDEX data, PSRC staff re-applied original UrbanSim data detail to produce FAZ level data compatible with the Regional Travel Demand Model.
- Apply the growth projected in PSRC's current Small Area Forecasts: The most recent EMPAL/DRAM forecasts from 2003 have both year 2000 and year 2030 forecasts by FAZ for each of the detailed data variables necessary to run the Regional Travel Demand Model. Using both the growth rate and the year 2030 forecast for each variable, 2040 totals painted using INDEX were disaggregated within each FAZ. For example, if the proportion of Low Income Quartile households in a particular FAZ decreased between 2000 and 2030, that same proportional shift was applied to the year 2040 FAZ totals derived from the original INDEX data.
- Balance the preliminary estimates with the regional forecasts for 2040: As noted earlier, PSRC's forecast process is top-down, with the regional demographic and economic forecasts determined first, and then allocated to a sub-regional geography. To control to these forecasts, a factoring process adjusted each alternative's INDEX-based 2040 FAZ-level detailed data so that the alternatives, as modeled, would also match the regional forecasts.

# IV. Regional Travel Demand Model

PSRC provided the consultant base year travel demand model data for the base year 2000, along with travel demand forecasts for the years 2010, 2020, 2030, and 2040. Performance indicators will include: vehicle miles traveled, average travel speed, hours of delay, percentage of regional roadway network congested (AM, PM, Off Peak – Freeways, Regional Arterials, Overall), and regional travel mode choice (SOV, Carpool, Transit). The data will be summarized at the subregional level by county (and in King county's case by county subarea), by transportation analysis zone (TAZ).

The travel demand model currently employs the traditional four-step modeling process (trip generation, trip distribution, mode choice, assignment). A vehicle availability model and a time-of-day model are included. Five time periods are modeled overall (two time period for transit trips) with seven vehicle types (Single Occupant Vehicle [SOV], High Occupancy Vehicle with 2 occupants [HOV2], High Occupancy Vehicle with 3 or more occupants [HOV3+], Vanpool, Light Truck, Medium Truck, Heavy Truck) as well as bus, ferry, rail and non-motorized modes. Resulting performance measures include daily and peak period traffic volumes, congested speeds/times, mode splits, origins/destinations, trips by purpose and Volume-to-Capacity ratios among others. EMME/2 is the modeling software used by PSRC to run the regional travel demand model.

The travel model uses outputs from the Land Use model (EMPAL/DRAM) as demographic & employment inputs. These are combined with travel survey data to generate trips used as demand. The trips are paired up in the trip distribution process (destination choice model for work-trips, gravity model for non-work trips). The mode choice model determines the mode of travel for each trip and the time-of-day model allocates trips to the five time periods. Finally the assignment process uses shortest path algorithms iteratively to load the networks.

Recent improvements to the travel model were recommended and implemented by Cambridge Systematics from 2001 to 2003. Some of these improvements include: updated trip generation rates, introduction of a truck model, addition of vanpool trips, increase of time-periods to 5, more special generators, new volume delay functions, a new parking cost model and updated mode choice factors using local travel surveys. Cambridge's model update report can be found at <a href="http://www.psrc.org/datapubs/pubs/modeltravel.pdf">http://www.psrc.org/datapubs/pubs/modeltravel.pdf</a>.

Future improvements include adding a non-motorized network for bike trips, expanding the four county networks to include four external counties (skeletal networks/zone systems for Island, Mason, Skagit & Thurston counties), upgrading the land use inputs with the UrbanSim model and integrating the highway and transit networks with a GIS-based geodatabase.

Tables documenting the results of modeled trip generation for each VISION 2020 + 20 DEIS alternative appear at the end of this Appendix.

Other publications regarding PSRC's travel models can be found on the agency's web site at <a href="http://www.psrc.org/datapubs/publist//publist\_models.htm">http://www.psrc.org/datapubs/publist//publist\_models.htm</a>. Information about EMME/2 (the modeling software) can be obtained at <a href="http://www.inro.ca/products/e2\_products.html">http://www.inro.ca/products/e2\_products.html</a>.

# V. Regional Air Quality Model

The central Puget Sound region is currently designated by the U.S. Environmental Protection Agency as a maintenance area for particulate matter less than 10 microns in diameter (PM<sub>10</sub>) and carbon monoxide (CO). The region was formerly designated as a maintenance area for ground level ozone (O<sub>3</sub>), but under EPA's new ozone standard is now designated an attainment area for that pollutant.

The process the Regional Council uses for estimating future regional emissions of these pollutants involves the integration of the Regional Council's land use and travel demand modeling with EPA's emissions factor model (MOBILE6.2 vehicle emissions modeling software).

Emissions are calculated on an individual transportation demand model link basis, based on forecast vehicle miles traveled and speed of each link. This calculation is performed separately for each of five time periods (a.m. peak, midday, p.m. peak, evening and nighttime). Emissions are calculated for both intrazonal and interzonal trips. The calculated emissions of individual links are then summed for each of the five time periods, which in turn are summed for the total daily emissions in each maintenance area.

Air quality emissions estimates were prepared for each of the alternatives that were developed for the environmental impact statement.



# **Appendix D-2**

# Methodology for Developing the Growth Targets Extended **Alternative**

This section of appendix D explains that the methodology used to develop the population and employment distribution analyzed in the Growth Targets Extended alternative.

## Overview

The Growth Targets Extended Alternative represents one interpretation of where the region's residents and jobs will be located in 2040, based on two key assumptions. The first is that population growth targets that have been adopted by each of the cities and counties will be achieved by either 2022 or 2025, depending on the jurisdiction. Secondly, population growth beyond the year 2025 will locate relative to the proportion of the region's 2025 population that each jurisdiction would represent after achieving the growth targets. This is a representation of the regional population and employment development patterns that would result from achieving 2022 - 2025 growth targets, reinforced and intensified through year 2040 forecasted population and employment. For example, City A adds 20,000 people by 2025 to achieve its growth target of 140,000 total people. The 140,000 people represent 3 percent of the regional 2025 total population figure. City A then receives 3 percent of the additional population growth from 2025 to 2040 under Alternative 1.

The methodology for allocating employment differed slightly from that of population. Both methods are described below:

## **Population**

Step 1: Adjust Base Year Population: Three out of the four counties used 2000 as the base year for setting their targets, except for Snohomish, which used 2002. To remain consistent among the counties, Snohomish's 2002 base year had to be adjusted to 2000. The most viable option was to use Census 2000 population figures as a substitution for Snohomish County's base.

Step 2: Standardize Population Targets: Kitsap and Snohomish counties had growth targets for 2025, while King and Pierce adopted targets for 2022. The targets had to be adjusted so each county's numbers represented the year 2025. To account for the discrepancy, King and Pierce County's targets were grown from 2022 to 2025 by applying the average annual increase in the growth target between 2000-2022 for the additional three years.

Step 3: Determine City/Unincorporated areas' Share of Regional Target Total: Once all the target years were set to 2025, the regional target total was calculated by adding up the targets from the four counties. The share that each city/unincorporated area held of the regional target was then calculated by dividing the city/unincorporated areas' target by the regional population target total.

Step 4: Distribute Regional Forecast Change from 2025 to 2040: Using the calculated population share for each city/unincorporated area, the change between the 2025 regional population target total and the 2040 regional forecasted population total (705,100) was distributed. The final 2040 estimate, then, is the sum of the assumed 2025 target plus this additional assumed growth from 2025 to 2040.



## **Employment**

- Step 1: **Standardize Base Year Employment:** Only two of the four counties, King and Snohomish, have set job growth targets. Because of this, Kitsap and Pierce did not have 2000 base year employment numbers. To create a standardized base year, staff used the annual PSRC job estimates, produced from the Washington State Department of Employment Security's Covered Employment data set. City-level job estimates for 2000 were adjusted to represent all jobs (not just employment covered under ESD's reporting requirements) and used the results as the base for all jurisdictions.
- Step 2: Create Comparable Year 2020 Proxy Employment Targets and Percentages: To create proxy employment targets for jurisdictions in Kitsap and Pierce Counties, staff reviewed both the proportion of all county jobs each jurisdiction had in 2004, and the overall job growth trends from 1995 to 2004. These inputs were used to estimate the proportion of county jobs each jurisdiction would contain by 2020. Since King and Snohomish Counties have adopted job targets, these were used to produce the county-proportion figures for those jurisdictions.
- Step 3: Allocate Forecast Year 2020 Jobs by County to the individual jurisdictions: So that all county proxy job targets would be consistent with a single regional employment number, the current PSRC job forecasts for each county were allocated to each jurisdiction, consistent with the percentages calculated in Step 2. For example, City B in Snohomish County would account for 30 percent of the county employment after achieving its targeted year 2025 job number. Using the PSRC Small Area Forecasts for Snohomish County, it is estimated that the county will contain 300,000 jobs in the year 2020. City B would have a year 2020 estimate of 90,000 jobs.
- Step 4: **Determine City/Unincorporated areas' Share of Regional Target Total:** Once the year 2020 forecast employment was allocated to each jurisdiction, the share that each city/unincorporated area held of the regional figure was then calculated, similar to the year 2025 population data.
- Step 5: **Distribute Regional Forecast Change from 2020 to 2040:** Using the calculated employment share for each city/unincorporated area, the change between the 2020 regional employment target total and the 2040 regional forecasted employment total (793,600) was distributed. The sum of the 2020 job estimate, and the additional growth from 2020-2040, were summed to arrive at the overall jurisdictional job estimate for the year 2040.



## **Appendix D-3**

# Impervious Surface Estimation Methodology Using INDEX Tool Grid-Cell Data

This section explains the methodology used to develop impervious surface estimates used in Chapter 5.6 - Water Quality and Hydrology in the Draft Environmental Impact Statement.

## Overview

Understanding the way growth was "painted" at the INDEX cell-level helps to understand impervious surface changes across the alternatives. Where possible, the alternatives were "painted" in a manner generally consistent with current land use and planning goals. This means that high levels of growth were "painted" in places with medium to high levels of existing activity and zoning, as measured by population, employment, and land use category. Conversely, lower levels of growth were assigned to places that had low levels of existing activity and zoning. For example, population and employment added to rural areas were allocated to cells near roads, with existing land use intensity higher than the average rural cell. In this way, the use of INDEX cell data does not lead to unrealistic interpretations of future land uses and partially avoids the inherent variability associated with "painting" a spatially detailed long-term growth pattern at a regional scale.

Little or no growth was "painted" in natural resource, rural, parks and open space areas. Impervious surface in these areas is currently low and remained low in all the alternatives. Due to the addition of growth in places with existing levels of population and employment, the impervious surface coverage for these places in the alternatives did not jump from a very low percentage to a very high percentage (i.e. from 0% impervious surface to above 30%). Instead, places already approaching a threshold level of impervious coverage moved from just below 10% to just above 30%.

Using this methodology, it takes relatively little growth to move a cell from a low to a high impervious surface category. One or fewer dwelling unit per acre in a residential area has an impervious surface coverage of around 10%, and two to four dwelling units per acre has an impervious coverage of around 30%. Higher density residential areas, with five to seven units per acre, have an average impervious surface coverage of about 40%, while residential areas with over seven units per acre have impervious surface coverage of about 60%. An ecologically relevant movement is from 10% to over 30%, and the ease with which acreage is moved into a higher category underscores the need to remain sensitive to minor land use changes and the effect these changes have on our water resources.

Given the generalized nature of the INDEX data, it is nearly impossible to assign cells exact percentages of impervious surface coverage as determined by amount of roof, road, parking and lawn space; although the best available data is used to make an estimate as to what impervious characteristics various land uses may have in 2040. A summary of the percentages used for INDEX and the land use categories and characteristics are found below (see Figures D-4-1 and D-4-2). Suggested impervious surface coverage for each land use was taken from various sources, and where conflicts in the literature exist, preference was given to data gained from cities and neighborhoods within or spatially similar to those in the central Puget Sound region's counties.

Though the INDEX data provides population and employment by 5.5-acre grid cell, there is little literature available that provides a clearly stated and quantified link between density and impervious surface coverage. A

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common technique used to estimate imperviousness is the use of satellite data to estimate the amount of land given over to rooftops, parking, roads, green space, etc. Given that the VISION 2020 update is a visioning project that looks 35 years into the future, it is not possible use this method.

Another method found in the literature on impervious surface is to estimate coverage based on land use types as found in local permit data. While local permit data analysis is beyond the scope of the VISION update, it was possible to locate published impervious surface coefficients for land use types based on dwelling density from areas with similar land use patterns. In order to use INDEX data, dwelling unit density was translated into land use type by population per grid cell. For uses such as commercial and industrial, the literature found little variation between differing densities of use and therefore these land uses were assigned a single impervious surface coverage percentage. A standard value was also assigned for tribal, military and government lands. These values and the resulting estimates are shown in the figures below.

Figure D-3-1: Average Imperviousness for Each INDEX Land Use

INDEX Land Use Type	Assumed 2020 Household Size	Population (Default)*	Employment (Default)*	Average Impervious Coverage
Residential		(Delault)	(Berault)	Ooverage
- Low Density Single Family				
(< 4 dwelling units (du)/acre)	2.6	15	N/A	30%
Medium Density Single Family				
(4 – 7 du/acre)	2.6	100	N/A	60%
High Density Single Family				
(8 - 19 du/acre)	1.8	150	N/A	60%
Multiple Family (20 + du/acre)	1.8	400	N/A	60%
Rural Residential	1 112			
RR 2 – Single Family (1 du/10 acre)	2.6	2	N/A	3%
RR 3 – Single Family (1 du/5 acre)	2.6	3	N/A	10%
Mixed Use				
- Very Low (Non-Urban: < 4 du/acre)	2.6	30	15	44%
- Low (4 - 29 du/acre)	1.8	150	40	58%
- Medium (30 -75 du/acre)	1.8	500	250	55%
- High (75 + du/acre)	1.8	1000	250	55%
- Other	Varies	Varies	Varies	54%
Commercial	,			
- Light	N/A	N/A	25	85%
- General	N/A	N/A	125	85%
- Employment Center	N/A	N/A	500	85%
- Downtown Office	N/A	N/A	1250	85%
- Industrial	N/A	N/A	100	75%
Undevelopable	·			
- Government-Military	N/A	N/A	N/A	20%
- Tribal	N/A	N/A	N/A	0%
- Forest	N/A	N/A	N/A	0%
- Resource Extraction	N/A	N/A	N/A	0%
- Agriculture	N/A	N/A	N/A	0%
- Critical Environmental Area	N/A	N/A	N/A	0%

<ul> <li>Parks and Open Space</li> </ul>	N/A	N/A	N/A	0%
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Figure D-3-2: Impervious Cover (%) Assigned for Land Use Types/Density

Land Use	Population per Grid Cell	Default (%)
Low Density Residential	> 0 and < 11.2	10
Medium Density Residential	> 11.3 and <28	30
High Density Residential	> 28.1 and <39.1	40
Multifamily	> 39.2	60
Industrial	N/A	75
Commercial	N/A	85
Government/Military	N/A	20
Resource and other Undevelopable	N/A	0

Figure D-3-3: Estimates of Full Impervious Surface Results by Alternative

**Growth Targets Extended Alternative** 

Average Impervious Percent	Total Square Miles	Impervious Square Miles
0	4,510	0
10	630	60
20	170	30
30	480	140
40	90	30
60	300	180
75	80	60
80	10	10
85	60	50
Total	6,330	570

**Metropolitan Cities Alternative** 

Average Impervious Percent	Total Square Miles	Impervious Square Miles
0	4,870	0
10	520	50
20	170	30
30	260	80
40	100	40
60	260	160
75	80	60
80	10	10
85	50	50
Total	6,330	480

Larger Cities Alternative

Average Impervious Percent	Total Square Miles	Impervious Square Miles
0	4,880	0
10	500	50
20	170	30
30	260	80
40	110	40
60	270	160
75	80	60
80	10	10
85	50	50
Total	6,330	480

#### **Smaller Cities Alternative**

Smaller Cities Alternative								
Average Impervious Percent	Total Square Miles	Impervious Square Miles						
0	4,860	0						
10	360	40						
20	170	30						
30	350	100						
40	90	40						
60	350	210						
75	80	60						
80	10	10						
85	50	50						
Total	6,330	530						



**Appendix D-4** 

## **Technical Input Data for INDEX Tool: Population and Employment Figures**

This section documents the population and employment distributions at the city and area level for the four alternatives. These distributions were used as technical inputs to the EMPAL/DRAM and Regional Transportation Demand Models.

## I. Population Data

			Additional Grov	wth (2000-2040	)		Future Con	dition (2040)	1 (2040)		
Jurisdiction	Base Year (2000)	Growth Targets Extended Alternative	Metropolitan Centers Alternative	Larger Cities	Smaller Cities Alternative	Growth Targets Extended Alternative	Metropolitan Centers Alternative	Larger Cities Alternative	Smaller Cities Alternative		
	(2000)										
PUGET SOUND REGION	3,275,725	1,712,275	1,712,275	1,712,275	1,712,275	4,988,000	4,988,000	4,988,000			
Incorporated	2,178,809	1,069,452	1,541,048	1,455,435	941,753	3,248,261	3,719,857	3,634,244			
Unincorporated	1,096,916	642,823	171,227	256,840	770,522	1,739,739	1,268,143	1,353,756			
Uninc. Urban Growth Area	604,343	413,432	85,614	171,228	599,296	1,017,776	689,957	775,571	1,203,639		
Rural	492,573	229,391	85,613	85,612	171,226	721,964	578,186	578,185	663,799		
KING COUNTY	1,736,921	703,499	995,975	967,814	669,057	2,440,420	2,732,896	2,704,735	2,405,978		
Incorporated	1,389,714	595,068	951,685	899,749	461,602	1,984,782	2,341,399	2,289,463	1,851,316		
Unincorporated	347,207	108,432	44,290	68,065	207,455	455,639	391,497	415,272	554,662		
Uninc. Urban Growth Area	212,207	70,431	23,775	47,550	166,425	282,638	235,982	259,757	378,632		
Rural	135,000	38,001	20,515	20,515	41,030	173,001	155,515	155,515	176,030		
Algona	2,460	1,371	1,414	707	4,241	3,831	3,874	3,167	6,701		
Auburn (King)	40,314	23,789	31,357	37,628	12,543	64,103	71,671	77,942			
Beaux Arts	307	51	153	76	458	358	460	383	765		
Bellevue	109.827	43.848	72.704	36.352	18,176	153.675	182.531	146,179	128.003		
Black Diamond	3,970	4,253	3.035	1,517	9.104	8,223	7,005	5,487	13,074		
Bothell (King)	16,185	7,601	11,635	13,962	4,654	23,786	27,820	30,147			
Burien	31,881	8,491	19.748	23.698		40,372	51.629	55.579			
Carnation	2,003	1,177	1,358	679	4.073	3,180	3,361	2.682			
Clyde Hill	2,890	476	1,437	719	4,311	3,366	4,327	3,609			
Covington	13,783	7,020	7,677	3,839	23,032	20,803	21,460	17,622			
Des Moines	29,267	9,053	20,400	40.801	6.800	38,320	49,667	70,068			
Duvall	4,756	4,356	3,891	1,945	11,672	9.112	8,647	6.701	16,428		
Enumclaw	12,006	7,495	8,327	4,163	24,980	19,501	20,333	16,169			
Federal Way	83,259	30,409	55,602	66,722		113,668	138,861	149,981	105,500		
Hunts Point	443	73	220	110	661	516	663	553			
Issaguah	11,212	13,055	12,919	25,838	4,306	24,267	24,131	37,050			
Kenmore	18,678	9,758	15,139	30.277	5.046		33.817				
						28,436		48,955			
Kent	79,524	23,508	50,399	60,479	20,160	103,032	129,923	140,003			
Kirkland	45,054	20,572	32,102	38,522	12,841	65,626	77,156	83,576			
Lake Forest Park	13,142	3,500	6,142	3,071	18,425	16,642	19,284	16,213			
Maple Valley	14,209	2,763	6,263	3,132	18,790	16,972	20,472	17,341	32,999		
Medina	3,011	496	1,294	647	3,882	3,507	4,305	3,658			
Mercer Island	22,036	7,545	15,748	31,496	5,249	29,581	37,784	53,532			
Milton (King)	814	240	389	194	1,167	1,054	1,203	1,008			
Newcastle	7,737	3,735	4,234	2,117	12,701	11,472	11,971	9,854			
Normandy Park	6,392	1,052	2,747	1,374	8,242	7,444	9,139	7,766			
North Bend	7,906	2,294	4,355	2,178	13,066	10,200	12,261	10,084			
Pacific (King)	5,373	3,333	3,213	1,606	9,638	8,706	8,586	6,979			
Redmond	45,256	32,728	38,147	45,776	15,259	77,984	83,403	91,032			
Renton	50,052	24,029	36,237	43,485	14,495	74,081	86,289	93,537	64,547		
Sammamish	34,104	18,942	28,240	56,480	9,413	53,046	62,344	90,584			
SeaTac	25,496	17,988	21,271	25,525	8,508	43,484	46,767	51,021	34,004		
Seattle	563,374	219,694	370,471	185,236		783,068	933,845				
Shoreline	53,025	15,320	36,385	72,770	12,128	68,345	89,410	125,795			
Skykomish	214	75	123	62		289	337	276			
Snoqualmie	2,371	5,671	3,434	1,717	10,301	8,042	5,805	4,088	12,672		
Tukwila	17,181	11,762	14,158	16,989	5,663	28,943	31,339	34,170	22,844		
Woodinville	9,194	7,337	8,800	17,601	2,933	16,531	17,994	26,795	12,127		
Yarrow Point	1,008	206	518	259	1,555	1,214	1,526	1,267	2,563		

	2000-2040 204						040			
Jurisdiction	Base Year (2000)	Growth Targets Extended Alternative	Metropolitan Centers Alternative	Larger Cities Alternative	Smaller Cities Alternative	Growth Targets Extended Alternative	Metropolitan Centers Alternative		Smaller Cities Alternative	
Gurisaletion	(2000)									
KITSAP COUNTY	231,969	154,212	94,179	103,752	137,554	386,181	326,148	335,721	369,523	
Incorporated	87,348	59,229	69,113	70,516		146,577	156,461	157,864	133,920	
Unincorporated	144,621	94,983	25,066	33,236		239,604	169,687	177,857	235,603	
Uninc. Urban Growth Area Rural	46,189 98,432	50,938 44,046	8,170 16,895	16,340 16,895		97,127 142,478	54,359 115,327	62,529 115,327	103,380 132,223	
Bainbridge Island	20,308	13,070	17,770	35,539	5,923	33,378	38,078	55,847	26,231	
Bremerton	37,258	23,323	28,661	14,330		60,581	65,919	51,588	44,423	
Port Orchard	7,693	5,459	4,854	2,427	14,561	13,152	12,547	10,120	22,254	
Poulsbo	6,813	5,476	4,535	2,268	13,606	12,289	11,348	9,081	20,419	
Silverdale	15,276	11,901	13,294	15,953	5,318	27,177	28,570	31,229	20,594	
PIERCE COUNTY	700,811	395,824	334,823	294,520	437,973	1,096,635	1,035,634	995,331	1,138,784	
Incorporated	386,865	243,776	289,142	225,461	229,722	630,641	676,007	612,326	616,587	
Unincorporated	313,946	152,048	45,681	69,059	208,252	465,994	359,627	383,005	522,198	
Uninc. Urban Growth Area	169,864	108,055	23,378	46,756		277,919	193,242	216,620	333,511	
Rural	144,082	43,993	22,303	22,302	44,605	188,075	166,385	166,384	188,687	
Auburn (Pierce)	151	10,346	5,135	6,162		10,497	5,286	6,313		
Bonney Lake Buckley	10,874 4,145	12,320 2,079	8,559 2,657	4,280 1,329		23,194 6,224	19,433 6,802	15,154 5,474	36,552 12,117	
Carbonado	4,145 621	2,079	2,657 427	1,329		1.000	1.048	5,474 834	12,117	
Du Pont	2,452	9,202	4,301	2,150		11,654	6,753	4,602	15,354	
Eatonville	2,432	1,348	1,434	717	4,303	3,360	3,446	2,729	6,315	
Edgewood	9,089	7,599	6,158	3,079		16,688	15,247	12,168	27,564	
Fife	4,784	6,235	4,066	2,033	12,199	11,019	8,850	6,817	16,983	
Fircrest	5,868	2,200	2,977	1,489		8,068	8,845	7,357	14,800	
Gig Harbor	6,477	6,788	4,895	2,448		13,265	11,372	8,925	21,162	
Lakewood	58,211	27,832	42,089	50,507	16,836	86,043	100,300	108,718	75,047	
Milton (Pierce)	4,981	3,492	3,127	1,563		8,473	8,108	6,544	14,362	
Orting	3,760	6,098	3,638	1,819	10,914	9,858	7,398 154	5,579	14,674	
Pacific (Pierce) Puyallup	154 33,014	-154 12,828	22,424	0 26,909	•	45,842	55,438	154 59,923	154 41,984	
Roy	707	504	517	259		1,211	1,224	966	2,258	
Ruston	738	1,474	816	408		2,212	1,554	1,146	3,187	
South Prairie	382	656	443	222		1,038	825	604	1,711	
Steilacoom	6,049	2,122	3,015	1,508		8,171	9,064	7,557	15,095	
Sumner	8,504	6,358	5,485	2,742		14,862	13,989	11,246	24,957	
Tacoma	193,564	113,492	145,269	72,634		307,056	338,833	266,198	229,881	
University Place	29,933	10,310	21,424	42,849		40,243	51,357	72,782	37,074	
Wilkeson	395	270	284	142	852	665	679	537	1,247	
SNOHOMISH COUNTY	606,024	458,739	287,298	346,190	467,690	1,064,763	893,322	952.214	1,073,714	
Incorporated	314,882	171,379	231,108	259,709		486,261	545,990	574,591	518,739	
Unincorporated	291,142	287,361	56,190	86,481	263,833	578,503	347,332	377,623	554,975	
Uninc. Urban Growth Area	176,083	184,009	30,291	60,581	212,033	360,093	206,374	236,664	388,116	
Rural	115,059	103,352	25,900	25,900	51,800	218,410	140,958	140,958	166,858	
Arlington Bothell (Snohomish)	11,927 13,965	8,291 11,657	7,461 12,533	3,731 15.040	22,384 5.013	20,218 25,622	19,388 26,498	15,658 29,005	34,311 18,978	
Brier	6.383	2.689	3.348	15,040		9.072	9,731	29,005 8.057	16,427	
Darrington	1,136	1,088	950	475		2,224	2,086	1,611	3,985	
Edmonds	39,544	12,725	27,826	55,652		52,269	67,370	95,196	48,819	
Everett	91,488	51,832	67,805	33,902		143,320	159,293	125,390	108,439	
Gold Bar	2,014	1,360	1,441	720		3,374	3,455	2,734	6,336	
Granite Falls	2,347	3,208	2,372	1,186		5,555	4,719	3,533	9,463	
Index	157	64	94	47	283	221	251	204	440	
Lake Stevens	6,361	3,375	3,593	1,797	10,779	9,736	9,954	8,158	17,140	
Lynnwood	33,847	11,003	21,939	26,327	8,776	44,850	55,786	60,174	42,623	
Marysville Mill Creek	25,315 11,525	20,944 7,213	24,627 6,915	49,254 3,457	8,209 20,745	46,259 18,738	49,942 18,440	74,569 14,982	33,524 32,270	
Monroe	13,795	7,213 10,127	10,214	3,457 5,107	20,745 30,641	18,738	24,009	14,982		
Mountlake Terrace	20,362	5,791	13,923	27,846		26,153	34,285	48,208	25,003	
Mukilteo	18,019	7,603	13,640	27,281	4,547	25,622	31,659	45,300	22,566	
Snohomish	8,494	3,130	4,963	2,482	14,890	11,624	13,457	10,976		
Stanwood	3,923	2,657	2,810	1,405		6,580	6,733	5,328	12,352	
Sultan	3,344	6,194	4,073	2,036		9,538	7,417	5,380	15,562	
Woodway	936	427	582	291	1,745	1,363	1,518	1,227	2,681	
MULTICOUNTY JURISDICTION										
Auburn (all)	40,465	34,135	36,491	43,790	14,597	74,600	76,956	84,255	55,062	
Bothell (all)	30,150	19,258	24,168	29,002		49,408	54,318	59,152	39,817	
Milton (all)	5,795	3,732	3,516	1,758		9,527	9,311	7,553	16,342	
Pacific (all)	5,527	3,179	3,213	1,606		8,706	8,740	7,133	15,165	

# II. Employment Data

	Additional Growth (2000-2040)				)	Future Condition (2040)					
Jurisdiction	Base Year (2000)	Growth Targets Extended Alternative	Metropolitan Centers Alternative	Larger Cities Alternative	Smaller Cities Alternative	Growth Targets Extended Alternative	Metropolitan Centers Alternative	Larger Cities Alternative	Smaller Cities Alternative		
PUGET SOUND REGION	1,852,881	1,219,319	1,219,319	1,219,319	1,219,319	3,072,200	3,072,200	3,072,200	3,072,200		
Unincorporated	181,589	138,804	121,932	182,897	548,693	320,393	303,521	364,486	730,282		
Rural	64,301	40,758	60,966	60,965	121,931	105,059	125,266	125,265	186,231		
Uninc UGA	117,289	98,046	60,966	121,932	426,762	215,334	178,255	239,221	544,051		
Incorporated	1,671,292	1,080,515	1,097,387	1,036,422	670,626	2,751,807	2,768,679	2,707,714	2,341,918		
KING COUNTY	1,279,463	765,744	824,312	766,775	438,814	2,045,207	2,103,775	2,046,238	1,718,277		
Incorporated	1,229,188	742,540	796,563	724,839	312,382	1,971,728	2,025,752	1,954,028	1,541,571		
Unincorporated	50,275	23,204	27,749	41,935	126,432	73,479	78,023	92,210	176,706		
Uninc. Urban Growth Area Rural	31,642	18,467	14,187	28,374	99,309	50,109	45,829	60,016	130,951		
	18,633 1,968	4,737	13,562	13,561 750	27,123	23,370	32,194 2,719	32,194	45,756		
Algona	42,715	848 20,807	750 26,764	26,764	4,502 8,921	2,816 63,522	69,480	2,719 69,480	6,471 51,637		
Auburn (King) Beaux Arts	42,715	20,607	20,764	20,764	48	25	28	28	68		
Bellevue	133,250	93.149	84,595	37,598	18,799	226,399	217,845		152,049		
Black Diamond	495	3,443	1,049	1,049	6,295	3,938	1,544	170,848 1,544	6,790		
Bothell (King)	11,485	5,443 6,071	7,397	7,397	2,466	3,936 17,556	18,882	18,882	13,951		
	13,478		8,352	8,352							
Burien		6,345			2,784	19,822	21,830	21,830	16,262		
Carnation	630	506	372	372		1,136	1,003	1,003	2,865		
Clyde Hill	477	137	201	201	1,207	613	678	678	1,683		
Covington	2,858	1,894	1,266	1,266	7,596	4,751	4,124	4,124	10,454		
Des Moines Duvall	6,549	4,135	6,491	19,473	3,246	10,684	13,040	26,022	9,795		
	1,027	1,774	919	919	5,513	2,801	1,946	1,946	6,539		
Enumclaw	4,636	3,236	2,582	2,582	15,492	7,872	7,218	7,218	20,128		
Federal Way	32,906	19,247	21,974	21,974	7,325	52,153	54,880	54,880	40,231		
Hunts Point	40	10	17	17	100	51	57	57	140		
Issaquah	16,875	22,664	24,022	72,066	12,011	39,539	40,897	88,941	28,886		
Kenmore	5,122	4,918	6,100	18,299	3,050	10,040	11,221	23,420	8,171		
Kent	66,209	35,576	42,886	42,886	14,295	101,785	109,095	109,095	80,504		
Kirkland	38,309	29,419	28,536	28,536	9,512	67,727	66,845	66,845	47,821		
Lake Forest Park	1,529	1,019 2,051	679	679	4,073 8,028	2,548	2,207 4,309	2,207 4,309	5,602 10,999		
Maple Valley	2,971		1,338	1,338		5,022					
Medina	406	110	138	138	825	516	544	544	1,232		
Mercer Island	7,554 4	3,157	6,508 370	19,524 370	3,254 2,223	10,712	14,063	27,079	10,808		
Milton (King) Newcastle	1 7	1,387 1.002	568	568	3,407	1,390 2.131	374 1.697	374 1.697	2,226 4.536		
	1,129 651	258	242	242		2,131		1,697			
Normandy Park North Bend	2,110	258 2,667	1,567	242 1,567	1,454 9,401	4,777	894 3,676	3,676	2,106 11,510		
Pacific (King)	1,011	2,007	379	379	2,273	1,422	1,390	1,390	3,284		
Redmond	82,008	44,529	53,316	53,316	17,772	126,538	135,324	135,324	99,780		
Renton	58,550	57,420	48.863	48,863	16,288	115,970	107,413	107,413	74,838		
Sammamish	5,519	2,979	5,163	15,488	2,581	8,497	107,413	21,007	8,100		
SeaTac	35,156	22,124	24,134	24,134	8,045	57,280	59,290	59,290	43,201		
Seattle		291,602		142,657		859,022	888,396	710,076	638,748		
Shoreline	567,420 16,475	8,363	320,977 15,090	45,271	71,328 7,545	24,838	31,565	61,746	24,020		
Skykomish	10,473	37	15,090	45,271	302	153	167	167	418		
Snoqualmie	1,232	3,171	1,444	1,444	8,665	4,403	2,677	2,677	9,898		
Tukwila	51,142	39,065	38,008	38,008	12,669	90,207	89,150	89,150	63,811		
Woodinville	15.105	6,988	13,423	40,268	6.711	22.093	28,528	55,373	21.816		
Yarrow Point	54	17	23	23	139	71	77	77	193		
KITSAP COUNTY	78,826	68,271	62,185	71,794	114,663	147,096	141,011	150,620	193,489		
Incorporated	51,900	41,992	36,749	41,177	37,886	93,892	88,649	93,077	89,786		
Unincorporated	26,925	26,279	25,436	30,617	76,777	53,204	52,362	57,543	103,703		
Uninc. Urban Growth Area	13,826	4,473	5,181	10,362	36,267	18,299	19,007	24,188	50,093		
Rural	13,099	21,806	20,255	20,255	40,511	34,905	33,355	33,354	53,610		
Bainbridge Island	5,891	6,114	7,294	21,882	3,647	12,005	13,185	27,773	9,538		
Bremerton	29,835	19,106	18,287	8,128	4,064	48,941	48,122	37,962	33,899		
Port Orchard	5,242	2,932	2,178	2,178	13,068	8,174	7,420	7,420	18,311		
Poulsbo	5,692	3,653	2,490	2,490	14,940	9,345	8,182	8,182	20,632		
Silverdale	5,240	10,186	6,500	6,500	2,167	15,426	11,740	11,740	7,407		

			2000-	2000-2040 2040					
Jurisdiction	Base Year (2000)	Growth Targets Extended Alternative	Metropolitan Centers Alternative	Larger Cities Alternative	Smaller Cities Alternative	Growth Targets Extended Alternative	Metropolitan Centers Alternative	Larger Cities Alternative	Smaller Cities Alternative
PIERCE COUNTY	262,973	200,664	168,199	165,978	364,860	463,637	431,171	428,950	627,833
Incorporated	206,211	151,791	130,606	105,800	176,747	358,002	336,817	312,011	382,959
Unincorporated	56,761	48,873	37,593	60,178	188,113	105,634	94,354	116,939	244,875
Uninc. Urban Growth Area	36,792	42,981	22,586	45,171	158,099	79,773	59,378	81,964	194,891
Rural	19,969	5,892	15,007	15,007	30,014	25,861	34,976	34,976	49,983
Auburn (Pierce)	0	627	264	264	88	627	264	264	88
Bonney Lake	2,080	4,436	1,736	1,736	10,418	6,516	3,816	3,816	12,498
Buckley	1,833	2,669	1,477	1,477	8,860	4,502	3,309	3,309	10,692
Carbonado Du Pont	45 2,749	74 4.475	39 1,925	39 1,925	234 11,548	119 7.223	84 4,674	84 4.674	280 14.297
Eatonville	827	719	507	507	3,043	1,546	1,334	1,334	3,870
Edgewood	1,462	1,494	788	788	4,727	2,957	2,250	2,250	6,189
Fife	11,994	8,958	5,583	5,583	33,496	20,952	17,576	17,576	45,490
Fircrest	1,160	1.010	578	578	3,469	2.170	1.738	1,738	4,628
Gig Harbor	6,077	8,224	3,810	3,810	22,863	14,301	9,887	9,887	28,940
Lakewood	26,498	15,538	17,712	17,712	5,904	42,036	44,209	44,209	32,402
Milton (Pierce)	2,032	1,592	966	966	5,794	3,624	2,997	2,997	7,826
Orting	484	1,835	618	618	3,708	2,319	1,102	1,102	4,192
Pacific (Pierce)	1,714	2,569	1,141	1,141	6,847	4,283	2,855	2,855	8,561
Puyallup	20,700	18,190	16,386	16,386	5,462	38,890	37,086	37,086	26,162
Roy	176	217	129	129	772	392	304	304	948
Ruston	165	281	119	119	713	446	284	284	878
South Prairie	79	195	90	90	540	274	169	169	619
Steilacoom	887	1,961	759	759	4,552	2,848	1,646	1,646	5,439
Sumner	6,063	10,191	4,331	4,331	25,986	16,254	10,394	10,394	32,049
Tacoma	113,243	62,740	65,757	29,225	14,613	175,983	178,999	142,468	127,855
University Place	5,863	3,786	5,863	17,588	2,931	9,649	11,726	23,451	8,795
Wilkeson	81	10	30	30	180	91	111	111	261
SNOHOMISH COUNTY	231,620	184,641	164,623	214,772	300,981	416,261	396,243	446,392	532,601
Incorporated	183,992	144,193	133,469	164,606	143,611	328,185	317,461	348,598	327,603
Unincorporated	47,628	40,449	31,154	50,167	157,371	88,076	78,782	97,794	204,998
Uninc. Urban Growth Area	35,028	32,125	19,012	38,025	133,087	67,153	54,040	73,053	168,115
Rural Arlington	12,600 9,472	8,324 8,008	12,142 4.658	12,142 4.658	24,283 27,946	20,923 17,480	24,741 14.130	24,741 14.130	36,883 37,418
Bothell (Snohomish)	11,272	8,019	8,128	8,128	2,709	19,291	19,401	19,401	13,982
Brier	430	107	143	143	858	537	573	573	1,289
Darrington	620	-60	184	184	1,103	560	804	804	1,723
Edmonds	11,440	4,065	9,420	28,261	4,710	15,505	20,860	39,700	16,150
Everett	79,552	78,557	59,078	26,257	13,128	158,109	138,630	105,809	92,680
Gold Bar	159	100	85	85	511	260	244	244	670
Granite Falls	854	1,562	793	793	4,755	2,416	1,647	1,647	5,609
Index	48	38	28	28	170	86	77	77	218
Lake Stevens	1,130	1,027	575	575	3,448	2,157	1,705	1,705	4,579
Lynnwood	25,670	13,666	16,574	16,574	5,525	39,337	42,245	42,245	31,195
Marysville	9,578	5,545	9,188	27,563	4,594	15,122	18,765	37,140	14,171
Mill Creek	3,257	2,250	1,467	1,467	8,804	5,507	4,725	4,725	12,061
Monroe	7,595	6,688	4,685	4,685	28,108	14,283	12,279	12,279	35,703
Mountlake Terrace	7,320	2,989	6,263	18,790	3,132	10,309	13,583	26,110	10,451
Mukilteo	7,602	4,097	7,108	21,323	3,554	11,699	14,710	28,925	11,156
Snohomish	4,476	1,752	2,043	2,043	12,257	6,228	6,519	6,519	16,733
Stanwood	2,599	3,103	1,870	1,870	11,221	5,702	4,469	4,469	13,820
Sultan	845	2,638	1,143	1,143	6,856	3,484	1,988	1,988	7,701
Woodway	72	41	37	37	222	113	109	109	293
MULTICOUNTY JURISDICTION									
Auburn (all)	42,715	0	27,029	27,029	9,010	42,715	69,744	69,744	51,725
Bothell (all)	22,757	0	15,525	15,525	5,175	22,757	38,283	38,283	27,932
Milton (all)	2,035	0	1,336	1,336	8,017	2,035	3,372	3,372	10,052
Pacific (all)	2,725	0	1,520	1,520	9,120	2,725	4,245	4,245	11,845



## **Appendix D-5**

## **Transportation Demand Model Output Data**

This section documents the transportation results of each alternative produced by the Puget Sound Regional Council's transportation demand model.

## 1a. Daily WORK Person Trips - SOV Trips and Shares

	SOV Trips						:	SOV Shares		
Geography of Trip Attractions	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative
Regional Centers	387,251	611,348	634,441	569,952	458,908	64.1%	59.8%	57.7%	61.9%	62.1%
Metropolitan Cities	470,868	725,369	711,108	604,740	561,711	66.1%	62.7%	60.0%	63.9%	65.3%
Core & Larger Suburban Cities	449,521	732,569	752,378	882,115	598,478	87.4%	81.9%	80.1%	80.4%	82.7%
Smaller Suburban Cities & Unicorporated UGA	50,487	84,295	73,480	82,124	174,322	88.3%	86.7%	86.7%	86.4%	85.8%
Rural Areas	22,398	30,464	32,190	38,026	60,004	90.8%	90.2%	89.9%	89.8%	89.5%
King County Total	993,274	1,572,697	1,569,156	1,607,005	1,394,516	75.9%	72.1%	69.9%	73.7%	75.2%
Regional Centers	36,837	48,306	48,005	44,900	31,081	81.8%	80.3%	70.9%	74.2%	62.5%
Metropolitan Cities	38,610	58,119	54,662	49,255	39,777	81.8%	82.5%	72.7%	75.9%	65.5%
Core & Larger Suburban Cities	5,809	12,084	12,442	22,432	7,923	82.2%	80.5%	75.1%	63.7%	63.9%
Smaller Suburban Cities & Unicorporated UGA	27,242	43,557	38,986	41,240	69,926	88.0%	84.2%	84.2%	83.2%	81.3%
Rural Areas	21,389	53,788	45,184	46,056	81,043	89.9%	89.3%	89.0%	88.7%	87.5%
Kitsap County Total	93,050	167,548	151,274	158,983	198,669	85.4%	84.9%	80.1%	78.8%	78.9%
Regional Centers	80,933	131,219	145,505	128,069	98,741	84.0%	79.2%	75.8%	78.2%	81.3%
Metropolitan Cities	102,304	163,672	163,284	132,219	136,291	84.4%	80.8%	78.3%	79.9%	83.6%
Core & Larger Suburban Cities	49,821	84,473	83,109	95,542	68,278	87.5%	84.2%	81.0%	81.6%	84.0%
Smaller Suburban Cities & Unicorporated UGA	65,767	138,620	109,445	124,623	295,425	89.7%	88.3%	87.9%	88.1%	87.4%
Rural Areas	38,256	51,228	47,538	49,374	85,761	90.1%	90.0%	89.8%	89.8%	89.2%
Pierce County Total	256,147	437,993	403,376	401,759	585,755	87.2%	84.7%	82.6%	83.9%	86.3%
Regional Centers	42,040	63,614	87,237	72,133	47,970	83.7%	78.1%	72.3%	74.9%	79.4%
Metropolitan Cities	76,555	138,823	118,152	95,000	91,680	85.3%	79.0%	74.3%	76.3%	80.0%
Core & Larger Suburban Cities	66,788	98,879	113,212	165,875	114,825	86.5%	82.6%	81.7%	80.4%	84.0%
Smaller Suburban Cities & Unicorporated UGA	57,502	111,877	91,795	103,643	212,036	88.4%	85.3%	85.3%	84.8%	84.8%
Rural Areas	17,063	28,974	22,593	24,558	65,899	90.6%	90.7%	90.0%	89.9%	89.3%
Snohomish County Total	217,908	378,552	345,752	389,075	484,440	86.9%	82.6%	80.3%	81.0%	84.2%
Regional Centers	547,062	854,487	915,187	815,054	636,700	68.7%	64.3%	61.8%	65.6%	65.6%
Metropolitan Cities	688,336	1,085,982	1,047,206	881,214	829,460	70.9%	67.6%	64.3%	67.7%	69.2%
Core & Larger Suburban Cities	571,939	928,005	961,141	1,165,964	789,503	87.2%	82.2%	80.3%	80.1%	82.8%
Smaller Suburban Cities & Unicorporated UGA	200,998	378,348	313,706	351,629	751,709	88.7%	86.6%	86.4%	86.2%	85.7%
Rural Areas	99,106	164,455	147,505	158,015	292,707	90.3%	89.9%	89.6%	89.5%	88.8%
Region Total	1,560,379	2,556,790	2,469,557	2,556,822	2,663,379	79.5%	76.2%	73.6%	76.5%	79.3%

# 1b. Daily WORK Person Trips - HOV Trips and Shares

	I		HOV Trips			HOV Shares				
Geography of Trip Attractions	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative
Regional Centers	43,622	77,294	76,942	70,046	57,570	7.2%	7.6%	7.0%	7.6%	7.8%
Metropolitan Cities	52,876	84,886	81,434	69,823	65,262	7.4%	7.3%	6.9%	7.4%	7.6%
Core & Larger Suburban Cities	40,023	73,916	75,956	88,582	59,497	7.8%	8.3%	8.1%	8.1%	8.2%
Smaller Suburban Cities & Unicorporated UGA	4,383	7,415	6,459	7,308	15,131	7.7%	7.6%	7.6%	7.7%	7.4%
Rural Areas	1,909	2,527	2,809	3,362	5,097	7.7%	7.5%	7.8%	7.9%	7.6%
King County Total	99,191	168,745	166,658	169,075	144,988	7.6%	7.7%	7.4%	7.8%	7.8%
Regional Centers	3,620	4,932	5,146	4,718	3,667	8.0%	8.2%	7.6%	7.8%	7.4%
Metropolitan Cities	3,802	6,088	5,950	5,284	4,793	8.1%	8.6%	7.9%	8.1%	7.9%
Core & Larger Suburban Cities	617	1,291	1,277	2,651	904	8.7%	8.6%	7.7%	7.5%	7.3%
Smaller Suburban Cities & Unicorporated UGA	2,286	3,813	3,507	3,692	6,535	7.4%	7.4%	7.6%	7.4%	7.6%
Rural Areas	1,858	5,028	4,358	4,424	8,107	7.8%	8.3%	8.6%	8.5%	8.8%
Kitsap County Total	8,563	16,220	15,091	16,051	20,340	7.9%	8.2%	8.0%	8.0%	8.1%
Regional Centers	7,111	12,881	14,268	12,402	10,017	7.4%	7.8%	7.4%	7.6%	8.3%
Metropolitan Cities	8,880	15,195	15,241	12,188	12,939	7.3%	7.5%	7.3%	7.4%	7.9%
Core & Larger Suburban Cities	4,112	7,708	7,625	8,744	6,354	7.2%	7.7%	7.4%	7.5%	7.8%
Smaller Suburban Cities & Unicorporated UGA	5,460	11,773	9,478	10,889	25,938	7.4%	7.5%	7.6%	7.7%	7.7%
Rural Areas	3,586	4,738	4,500	4,682	8,238	8.4%	8.3%	8.5%	8.5%	8.6%
Pierce County Total	22,038	39,414	36,843	36,503	53,469	7.5%	7.6%	7.5%	7.6%	7.9%
Regional Centers	3,665	6,110	8,496	6,940	4,409	7.3%	7.5%	7.0%	7.2%	7.3%
Metropolitan Cities	6,549	14,729	11,818	9,518	9,016	7.3%	8.4%	7.4%	7.6%	7.9%
Core & Larger Suburban Cities	5,525	8,498	9,952	14,464	9,934	7.2%	7.1%	7.2%	7.0%	7.3%
Smaller Suburban Cities & Unicorporated UGA	4,754	9,359	7,915	9,073	17,883	7.3%	7.1%	7.4%	7.4%	7.2%
Rural Areas	1,494	2,375	2,008	2,199	5,823	7.9%	7.4%	8.0%	8.0%	7.9%
Snohomish County Total	18,322	34,961	31,693	35,254	42,655	7.3%	7.6%	7.4%	7.3%	7.4%
Regional Centers	58,018	101,217	104,851	94,106	75,664	7.3%	7.6%	7.1%	7.6%	7.8%
Metropolitan Cities	72,108	120,898	114,442	96,813	92,010	7.4%	7.5%	7.0%	7.4%	7.7%
Core & Larger Suburban Cities	50,276	91,414	94,809	114,441	76,689	7.7%	8.1%	7.9%	7.9%	8.0%
Smaller Suburban Cities & Unicorporated UGA	16,884	32,361	27,358	30,962	65,487	7.5%	7.4%	7.5%	7.6%	7.5%
Rural Areas	8,847	14,668	13,675	14,667	27,266	8.1%	8.0%	8.3%	8.3%	8.3%
Region Total	148,114	259,340	250,284	256,883	261,451	7.5%	7.7%	7.5%	7.7%	7.8%

# 1c. Daily WORK Person Trips - TRANSIT Trips and Shares

			Transit Trips	3		Transit Shares					
Geography of Trip Attractions	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	
Regional Centers	120,616	258,564	237,961	202,135	170,814	20.0%	25.3%	21.6%	21.9%	23.1%	
Metropolitan Cities	130,935	268,149	246,707	201,570	179,012	18.4%	23.2%	20.8%	21.3%	20.8%	
Core & Larger Suburban Cities	14,986	62,662	75,344	80,223	45,212	2.9%	7.0%	8.0%	7.3%	6.3%	
Smaller Suburban Cities & Unicorporated UGA	855	3,014	2,701	3,164	5,787	1.5%	3.1%	3.2%	3.3%	2.8%	
Rural Areas	70	321	384	473	616	0.3%	0.9%	1.1%	1.1%	0.9%	
King County Total	146,846	334,146	325,135	285,429	230,626	11.2%	15.3%	14.5%	13.1%	12.4%	
Regional Centers	2,877	3,839	10,216	7,625	12,530	6.4%	6.4%	15.1%	12.6%	25.2%	
Metropolitan Cities	2,990	3,974	10,714	8,048	13,738	6.3%	5.6%	14.3%	12.4%	22.6%	
Core & Larger Suburban Cities	379	1,033	1,257	3,325	2,838	5.4%	6.9%	7.6%	9.4%	22.9%	
Smaller Suburban Cities & Unicorporated UGA	220	1,614	1,421	1,827	4,087	0.7%	3.1%	3.1%	3.7%	4.8%	
Rural Areas	94	529	552	727	1,874	0.4%	0.9%	1.1%	1.4%	2.0%	
Kitsap County Total	3,683	7,150	13,943	13,927	22,536	3.4%	3.6%	7.4%	6.9%	9.0%	
Regional Centers	4,790	10,640	15,031	10,865	7,853	5.0%	6.4%	7.8%	6.6%	6.5%	
Metropolitan Cities	5,599	11,687	14,669	10,193	8,525	4.6%	5.8%	7.0%	6.2%	5.2%	
Core & Larger Suburban Cities	1,338	4,575	6,385	6,143	3,758	2.3%	4.6%	6.2%	5.2%	4.6%	
Smaller Suburban Cities & Unicorporated UGA	648	2,589	3,019	2,833	5,702	0.9%	1.6%	2.4%	2.0%	1.7%	
Rural Areas	283	400	452	431	730	0.7%	0.7%	0.9%	0.8%	0.8%	
Pierce County Total	7,868	19,251	24,526	19,599	18,715	2.7%	3.7%	5.0%	4.1%	2.8%	
Regional Centers	2,440	8,053	12,225	10,127	5,442	4.9%	9.9%	10.1%	10.5%	9.0%	
Metropolitan Cities	3,226	14,288	14,696	11,787	8,976	3.6%	8.1%	9.2%	9.5%	7.8%	
Core & Larger Suburban Cities	2,434	8,008	9,655	13,628	7,507	3.2%	6.7%	7.0%	6.6%	5.5%	
Smaller Suburban Cities & Unicorporated UGA	1,053	4,585	4,193	5,290	8,040	1.6%	3.5%	3.9%	4.3%	3.2%	
Rural Areas	85	202	240	294	909	0.5%	0.6%	1.0%	1.1%	1.2%	
Snohomish County Total	6,799	27,083	28,783	30,998	25,432	2.7%	5.9%	6.7%	6.5%	4.4%	
Regional Centers	130,723	281,096	275,433	230,753	196,639	16.4%	21.2%	18.6%	18.6%	20.3%	
Metropolitan Cities	142,750	298,098	286,785	231,598	210,250	14.7%	18.6%	17.6%	17.8%	17.5%	
Core & Larger Suburban Cities	19,137	76,278	92,641	103,318	59,316	2.9%	6.8%	7.7%	7.1%	6.2%	
Smaller Suburban Cities & Unicorporated UGA	2,776	11,802	11,333	13,113	23,615	1.2%	2.7%	3.1%	3.2%	2.7%	
Rural Areas	532	1,452	1,628	1,924	4,129	0.5%	0.8%	1.0%	1.1%	1.3%	
Region Total	165,196	387,630	392,388	349,953	297,310	8.4%	11.6%	11.7%	10.5%	8.9%	

# 1d. Daily WORK Person Trips - BIKE & WALK Trips and Shares

	I		Bike & Walk Shares							
Geography of Trip Attractions	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative
Regional Centers	52,941	74,510	150,053	79,206	51,821	8.8%	7.3%	13.6%	8.6%	7.0%
Metropolitan Cities	58,085	78,135	146,616	70,986	53,646	8.1%	6.8%	12.4%	7.5%	6.2%
Core & Larger Suburban Cities	9,959	25,372	35,546	45,974	20,083	1.9%	2.8%	3.8%	4.2%	2.8%
Smaller Suburban Cities & Unicorporated UGA	1,478	2,550	2,078	2,435	8,044	2.6%	2.6%	2.5%	2.6%	4.0%
Rural Areas	282	456	411	476	1,320	1.1%	1.3%	1.1%	1.1%	2.0%
King County Total	69,803	106,512	184,651	119,872	83,092	5.3%	4.9%	8.2%	5.5%	4.5%
Regional Centers	1,672	3,063	4,386	3,268	2,432	3.7%	5.1%	6.5%	5.4%	4.9%
Metropolitan Cities	1,803	2,258	3,833	2,325	2,376	3.8%	3.2%	5.1%	3.6%	3.9%
Core & Larger Suburban Cities	262	611	1,582	6,795	742	3.7%	4.1%	9.6%	19.3%	6.0%
Smaller Suburban Cities & Unicorporated UGA	1,206	2,744	2,412	2,819	5,415	3.9%	5.3%	5.2%	5.7%	6.3%
Rural Areas	446	892	646	742	1,595	1.9%	1.5%	1.3%	1.4%	1.7%
Kitsap County Total	3,717	6,505	8,472	12,682	10,128	3.4%	3.3%	4.5%	6.3%	4.0%
Regional Centers	3,565	11,022	17,050	12,454	4,781	3.7%	6.6%	8.9%	7.6%	3.9%
Metropolitan Cities	4,385	12,130	15,282	10,957	5,319	3.6%	6.0%	7.3%	6.6%	3.3%
Core & Larger Suburban Cities	1,699	3,590	5,517	6,651	2,865	3.0%	3.6%	5.4%	5.7%	3.5%
Smaller Suburban Cities & Unicorporated UGA	1,426	4,044	2,625	3,054	10,961	1.9%	2.6%	2.1%	2.2%	3.2%
Rural Areas	323	584	449	490	1,379	0.8%	1.0%	0.8%	0.9%	1.4%
Pierce County Total	7,833	20,348	23,872	21,151	20,524	2.7%	3.9%	4.9%	4.4%	3.0%
Regional Centers	2,061	3,663	12,777	7,074	2,592	4.1%	4.5%	10.6%	7.3%	4.3%
Metropolitan Cities	3,464	7,913	14,432	8,154	4,966	3.9%	4.5%	9.1%	6.6%	4.3%
Core & Larger Suburban Cities	2,431	4,279	5,749	12,377	4,467	3.2%	3.6%	4.1%	6.0%	3.3%
Smaller Suburban Cities & Unicorporated UGA	1,730	5,284	3,745	4,145	11,995	2.7%	4.0%	3.5%	3.4%	4.8%
Rural Areas	185	402	274	273	1,145	1.0%	1.3%	1.1%	1.0%	1.6%
Snohomish County Total	7,811	17,878	24,199	24,949	22,573	3.1%	3.9%	5.6%	5.2%	3.9%
Regional Centers	60,240	92,258	184,266	102,003	61,626	7.6%	6.9%	12.5%	8.2%	6.3%
Metropolitan Cities	67,737	100,436	180,162	92,421	66,307	7.0%	6.3%	11.1%	7.1%	5.5%
Core & Larger Suburban Cities	14,352	33,851	48,394	71,797	28,156	2.2%	3.0%	4.0%	4.9%	3.0%
Smaller Suburban Cities & Unicorporated UGA	5,840	14,621	10,860	12,454	36,415	2.6%	3.3%	3.0%	3.1%	4.2%
Rural Areas	1,235	2,334	1,779	1,981	5,439	1.1%	1.3%	1.1%	1.1%	1.7%
Region Total	89,164	151,242	241,195	178,653	136,317	4.5%	4.5%	7.2%	5.3%	4.1%

# 1e. Daily WORK Person Trips - TOTAL Trips and Shares

			Total Trips			Total Shares				
Geography of Trip Attractions	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative
Regional Centers	604,431	1,021,716	1,099,397	921,339	739,113	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	712,764	1,156,540	1,185,864	947,119	859,630	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	514,489	894,519	939,224	1,096,894	723,270	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unicorporated UGA	57,203	97,274	84,718	95,031	203,285	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	24,659	33,768	35,795	42,337	67,037	100.0%	100.0%	100.0%	100.0%	100.0%
King County Total	1,309,114	2,182,100	2,245,600	2,181,381	1,853,222	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	45,006	60,140	67,753	60,511	49,710	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	47,204	70,439	75,158	64,911	60,684	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	7,067	15,019	16,558	35,204	12,407	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unicorporated UGA	30,955	51,728	46,325	49,578	85,963	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	23,788	60,237	50,740	51,949	92,619	100.0%	100.0%	100.0%	100.0%	100.0%
Kitsap County Total	109,013	197,423	188,780	201,642	251,672	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	96,400	165,761	191,854	163,791	121,393	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	121,169	202,684	208,475	165,557	163,074	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	56,968	100,347	102,636	117,080	81,255	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unicorporated UGA	73,302	157,025	124,566	141,398	338,026	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	42,447	56,950	52,939	54,977	96,109	100.0%	100.0%	100.0%	100.0%	100.0%
Pierce County Total	293,886	517,006	488,616	479,011	678,463	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	50,207	81,439	120,734	96,275	60,414	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	89,794	175,752	159,097	124,459	114,639	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	77,179	119,663	138,568	206,343	136,732	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unicorporated UGA	65,040	131,105	107,648	122,150	249,953	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	18,826	31,953	25,114	27,324	73,776	100.0%	100.0%	100.0%	100.0%	100.0%
Snohomish County Total	250,839	458,474	430,428	480,276	575,100	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	796,043	1,329,057	1,479,737	1,241,916	970,628	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	970,931	1,605,415	1,628,594	1,302,046	1,198,026	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	655,703	1,129,548	1,196,985	1,455,521	953,664	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unicorporated UGA	226,499	437,131	363,257	408,158	877,226	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	109,720	182,909	164,588	176,586	329,541	100.0%	100.0%	100.0%	100.0%	100.0%
Region Total	1,962,853	3,355,002	3,353,424	3,342,311	3,358,457	100.0%	100.0%	100.0%	100.0%	100.0%

# 2a. Daily NON-WORK Person Trips - SOV Trips and Shares

	Ī		SOV Trips		ĺ	SOV Shares				
Geography of Trip Attractions	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative
Regional Centers	966,175	1,511,299	1,932,503	1,523,362	1,088,757	43.8%	43.0%	42.5%	43.5%	43.7%
Metropolitan Cities	1,338,180	2,025,663	2,168,616	1,682,180	1,532,540	46.0%	45.8%	44.3%	46.1%	46.7%
Core & Larger Suburban Cities	1,102,687	1,833,264	1,970,319	2,423,107	1,551,956	47.0%	46.5%	45.9%	46.4%	47.2%
Smaller Suburban Cities & Unicorporated UGA	247,331	382,780	322,918	349,197	643,862	46.8%	46.8%	46.8%	47.2%	46.3%
Rural Areas	113,761	191,625	165,097	174,338	276,737	46.2%	46.1%	45.9%	46.6%	46.3%
King County Total	2,801,958	4,433,333	4,626,950	4,628,821	4,005,094	46.5%	46.2%	45.2%	46.4%	46.8%
Regional Centers	68,644	130,799	136,193	123,296	99,815	43.6%	41.5%	40.2%	40.9%	42.2%
Metropolitan Cities	66,419	131,554	134,760	112,846	106,075	43.1%	42.5%	40.9%	42.0%	43.2%
Core & Larger Suburban Cities	20,245	42,201	45,531	87,772	34,481	40.9%	41.5%	40.1%	38.0%	40.9%
Smaller Suburban Cities & Unicorporated UGA	101,817	176,177	138,083	149,986	237,123	43.7%	42.3%	42.0%	42.1%	42.5%
Rural Areas	85,158	194,547	145,708	149,958	246,466	45.6%	45.6%	45.6%	46.0%	46.1%
Kitsap County Total	273,639	544,478	464,082	500,561	624,146	43.9%	43.4%	42.5%	42.3%	43.8%
Regional Centers	190,338	356,420	446,668	376,154	233,833	44.9%	43.0%	42.0%	42.8%	44.9%
Metropolitan Cities	268,344	474,075	468,351	385,261	331,680	45.0%	43.7%	42.7%	43.4%	45.2%
Core & Larger Suburban Cities	181,286	282,959	302,850	353,876	246,247	45.9%	45.3%	44.5%	44.4%	45.9%
Smaller Suburban Cities & Unicorporated UGA	222,392	478,668	358,148	374,553	789,520	44.5%	44.0%	44.1%	44.1%	44.3%
Rural Areas	123,696	184,757	150,100	154,694	242,354	46.4%	44.3%	44.9%	45.0%	44.8%
Pierce County Total	795,717	1,420,459	1,279,449	1,268,385	1,609,801	45.3%	44.2%	43.8%	44.1%	44.8%
Regional Centers	104,006	176,970	254,532	214,602	142,496	46.6%	45.7%	43.0%	45.0%	47.4%
Metropolitan Cities	142,417	258,524	264,783	201,049	173,677	45.7%	44.1%	42.2%	43.7%	45.3%
Core & Larger Suburban Cities	226,001	353,689	392,458	584,231	376,184	47.5%	47.0%	46.7%	46.4%	47.5%
Smaller Suburban Cities & Unicorporated UGA	226,211	502,720	366,138	393,345	790,072	46.9%	46.2%	46.3%	46.8%	46.2%
Rural Areas	94,832	222,218	144,583	147,816	312,064	47.3%	45.6%	46.1%	46.6%	46.7%
Snohomish County Total	689,460	1,337,152	1,167,962	1,326,440	1,651,998	46.9%	45.9%	45.4%	46.1%	46.5%
Regional Centers	1,329,164	2,175,488	2,769,896	2,237,415	1,564,901	44.2%	43.1%	42.4%	43.3%	44.1%
Metropolitan Cities	1,815,359	2,889,817	3,036,510	2,381,337	2,143,972	45.7%	45.1%	43.7%	45.3%	46.2%
Core & Larger Suburban Cities	1,530,218	2,512,112	2,711,157	3,448,985	2,208,868	46.9%	46.3%	45.8%	46.0%	47.0%
Smaller Suburban Cities & Unicorporated UGA	797,751	1,540,345	1,185,287	1,267,081	2,460,577	45.8%	45.2%	45.2%	45.5%	45.2%
Rural Areas	417,447	793,147	605,488	626,805	1,077,621	46.4%	45.4%	45.6%	46.0%	46.0%
Region Total	4,560,775	7,735,422	7,538,442	7,724,207	7,891,039	46.2%	45.5%	44.8%	45.7%	46.1%

# 2b. Daily NON-WORK Person Trips - HOV Trips and Shares

	Ī		HOV Trips					HOV Shares		
Geography of Trip Attractions	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative
Regional Centers	923,253	1,485,419	1,840,269	1,456,628	1,038,820	41.9%	42.3%	40.5%	41.6%	41.7%
Metropolitan Cities	1,177,067	1,772,606	1,900,336	1,433,593	1,290,059	40.5%	40.1%	38.8%	39.3%	39.3%
Core & Larger Suburban Cities	1,083,941	1,808,258	1,934,497	2,292,281	1,494,342	46.2%	45.9%	45.1%	43.9%	45.4%
Smaller Suburban Cities & Unicorporated UGA	250,039	387,726	326,379	345,286	642,209	47.4%	47.4%	47.3%	46.6%	46.2%
Rural Areas	125,950	213,578	185,284	189,554	301,579	51.1%	51.3%	51.5%	50.7%	50.5%
King County Total	2,636,996	4,182,168	4,346,496	4,260,713	3,728,190	43.8%	43.6%	42.5%	42.7%	43.6%
Regional Centers	71,329	141,552	147,917	132,635	106,769	45.3%	44.9%	43.6%	44.0%	45.2%
Metropolitan Cities	68,169	140,150	143,762	118,856	111,424	44.2%	45.3%	43.7%	44.2%	45.4%
Core & Larger Suburban Cities	25,332	52,209	56,903	106,826	42,536	51.2%	51.4%	50.1%	46.2%	50.4%
Smaller Suburban Cities & Unicorporated UGA	110,932	194,870	154,613	166,328	260,099	47.6%	46.8%	47.1%	46.7%	46.6%
Rural Areas	94,087	217,717	162,955	164,823	269,740	50.4%	51.0%	51.0%	50.5%	50.4%
Kitsap County Total	298,519	604,945	518,232	556,833	683,799	47.9%	48.2%	47.5%	47.1%	48.0%
Regional Centers	194,434	371,726	463,226	387,268	237,525	45.8%	44.9%	43.6%	44.0%	45.6%
Metropolitan Cities	271,948	483,650	479,664	390,092	334,387	45.6%	44.6%	43.8%	44.0%	45.6%
Core & Larger Suburban Cities	185,099	291,446	309,854	361,183	248,509	46.9%	46.7%	45.5%	45.4%	46.4%
Smaller Suburban Cities & Unicorporated UGA	249,267	545,469	407,715	425,896	870,477	49.9%	50.1%	50.2%	50.1%	48.9%
Rural Areas	134,812	219,085	173,655	177,818	279,482	50.5%	52.5%	51.9%	51.7%	51.7%
Pierce County Total	841,126	1,539,649	1,370,887	1,354,989	1,732,855	47.9%	47.9%	46.9%	47.1%	48.2%
Regional Centers	99,541	170,789	248,661	201,164	129,877	44.6%	44.2%	42.0%	42.2%	43.2%
Metropolitan Cities	139,266	263,226	267,748	199,077	169,039	44.6%	44.9%	42.7%	43.3%	44.1%
Core & Larger Suburban Cities	212,444	337,822	370,625	532,673	352,067	44.7%	44.9%	44.1%	42.3%	44.4%
Smaller Suburban Cities & Unicorporated UGA	228,344	513,361	373,266	391,248	785,224	47.3%	47.2%	47.2%	46.6%	45.9%
Rural Areas	100,450	252,609	161,372	161,551	335,265	50.1%	51.9%	51.4%	50.9%	50.1%
Snohomish County Total	680,504	1,367,018	1,173,011	1,284,549	1,641,595	46.3%	46.9%	45.6%	44.6%	46.2%
Regional Centers	1,288,557	2,169,487	2,700,073	2,177,695	1,512,991	42.8%	43.0%	41.3%	42.2%	42.6%
Metropolitan Cities	1,656,449	2,659,631	2,791,510	2,141,617	1,904,909	41.7%	41.5%	40.2%	40.7%	41.0%
Core & Larger Suburban Cities	1,506,816	2,489,736	2,671,878	3,292,963	2,137,454	46.2%	45.9%	45.1%	43.9%	45.5%
Smaller Suburban Cities & Unicorporated UGA	838,583	1,641,425	1,261,973	1,328,757	2,558,009	48.1%	48.1%	48.2%	47.7%	47.0%
Rural Areas	455,298	902,989	683,265	693,746	1,186,066	50.6%	51.7%	51.5%	51.0%	50.6%
Region Total	4,457,145	7,693,781	7,408,626	7,457,083	7,786,438	45.1%	45.3%	44.0%	44.1%	45.5%

## 2c. Daily NON-WORK Person Trips - TRANSIT Trips and Shares

	Transit Trips						Transit Shares					
Geography of Trip Attractions	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative		
Regional Centers	112,119	213,047	253,429	191,712	154,503	5.1%	6.1%	5.6%	5.5%	6.2%		
Metropolitan Cities	132,898	239,837	287,589	199,713	180,436	4.6%	5.4%	5.9%	5.5%	5.5%		
Core & Larger Suburban Cities	28,437	83,315	104,672	119,983	67,109	1.2%	2.1%	2.4%	2.3%	2.0%		
Smaller Suburban Cities & Unicorporated UGA	2,293	6,452	6,414	7,141	10,898	0.4%	0.8%	0.9%	1.0%	0.8%		
Rural Areas	111	722	732	782	1,335	0.0%	0.2%	0.2%	0.2%	0.2%		
King County Total	163,739	330,326	399,408	327,618	259,778	2.7%	3.4%	3.9%	3.3%	3.0%		
Regional Centers	3,694	10,416	11,581	10,557	7,749	2.3%	3.3%	3.4%	3.5%	3.3%		
Metropolitan Cities	3,698	9,221	11,453	9,163	7,616	2.4%	3.0%	3.5%	3.4%	3.1%		
Core & Larger Suburban Cities	43	320	250	398	242	0.1%	0.3%	0.2%	0.2%	0.3%		
Smaller Suburban Cities & Unicorporated UGA	3,789	11,003	8,443	9,527	14,050	1.6%	2.6%	2.6%	2.7%	2.5%		
Rural Areas	722	1,772	1,361	1,361	2,897	0.4%	0.4%	0.4%	0.4%	0.5%		
Kitsap County Total	8,252	22,316	21,506	20,449	24,805	1.3%	1.8%	2.0%	1.7%	1.7%		
Regional Centers	8,957	21,473	32,025	24,545	12,287	2.1%	2.6%	3.0%	2.8%	2.4%		
Metropolitan Cities	11,907	27,777	33,267	25,060	15,491	2.0%	2.6%	3.0%	2.8%	2.1%		
Core & Larger Suburban Cities	3,915	9,859	13,840	13,685	7,789	1.0%	1.6%	2.0%	1.7%	1.5%		
Smaller Suburban Cities & Unicorporated UGA	1,617	4,871	4,882	4,492	7,302	0.3%	0.4%	0.6%	0.5%	0.4%		
Rural Areas	374	433	500	502	903	0.1%	0.1%	0.1%	0.1%	0.2%		
Pierce County Total	17,813	42,940	52,489	43,738	31,485	1.0%	1.3%	1.8%	1.5%	0.9%		
Regional Centers	3,855	11,257	19,610	14,907	7,590	1.7%	2.9%	3.3%	3.1%	2.5%		
Metropolitan Cities	5,617	15,384	19,765	13,490	9,804	1.8%	2.6%	3.2%	2.9%	2.6%		
Core & Larger Suburban Cities	6,272	13,741	18,242	24,566	13,692	1.3%	1.8%	2.2%	1.9%	1.7%		
Smaller Suburban Cities & Unicorporated UGA	2,034	7,891	6,495	7,295	11,732	0.4%	0.7%	0.8%	0.9%	0.7%		
Rural Areas	70	388	275	293	1,236	0.0%	0.1%	0.1%	0.1%	0.2%		
Snohomish County Total	13,992	37,404	44,778	45,643	36,463	1.0%	1.3%	1.7%	1.6%	1.0%		
Regional Centers	128,625	256,193	316,644	241,720	182,128	4.3%	5.1%	4.8%	4.7%	5.1%		
Metropolitan Cities	154,119	292,219	352,074	247,425	213,346	3.9%	4.6%	5.1%	4.7%	4.6%		
Core & Larger Suburban Cities	38,668	107,236	137,003	158,631	88,832	1.2%	2.0%	2.3%	2.1%	1.9%		
Smaller Suburban Cities & Unicorporated UGA	9,733	30,217	26,234	28,455	43,982	0.6%	0.9%	1.0%	1.0%	0.8%		
Rural Areas	1,277	3,315	2,868	2,938	6,371	0.1%	0.2%	0.2%	0.2%	0.3%		
Region Total	203,797	432,986	518,180	437,448	352,531	2.1%	2.5%	3.1%	2.6%	2.1%		

## 2d. Daily NON-WORK Person Trips - BIKE & WALK Trips and **Shares**

		Bi	ke & Walk Tr	ips		Bike & Walk Shares				
Geography of Trip Attractions	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative
Regional Centers	202,303	305,989	518,218	333,092	208,319	9.2%	8.7%	11.4%	9.5%	8.4%
Metropolitan Cities	258,687	385,990	540,322	330,604	276,456	8.9%	8.7%	11.0%	9.1%	8.4%
Core & Larger Suburban Cities	128,911	216,246	281,579	382,432	175,606	5.5%	5.5%	6.6%	7.3%	5.3%
Smaller Suburban Cities & Unicorporated UGA	28,346	40,937	33,803	38,734	92,301	5.4%	5.0%	4.9%	5.2%	6.6%
Rural Areas	6,664	10,025	8,702	9,338	17,867	2.7%	2.4%	2.4%	2.5%	3.0%
King County Total	422,608	653,198	864,405	761,108	562,229	7.0%	6.8%	8.4%	7.6%	6.6%
Regional Centers	13,868	32,410	43,196	34,703	21,977	8.8%	10.3%	12.7%	11.5%	9.3%
Metropolitan Cities	15,825	28,567	39,159	28,079	20,566	10.3%	9.2%	11.9%	10.4%	8.4%
Core & Larger Suburban Cities	3,841	6,923	10,925	36,053	7,126	7.8%	6.8%	9.6%	15.6%	8.4%
Smaller Suburban Cities & Unicorporated UGA	16,401	34,648	27,299	30,448	47,167	7.0%	8.3%	8.3%	8.5%	8.4%
Rural Areas	6,582	12,743	9,722	10,123	16,055	3.5%	3.0%	3.0%	3.1%	3.0%
Kitsap County Total	42,648	82,881	87,106	104,703	90,913	6.8%	6.6%	8.0%	8.9%	6.4%
Regional Centers	30,623	79,105	120,796	91,310	37,526	7.2%	9.5%	11.4%	10.4%	7.2%
Metropolitan Cities	43,920	99,393	114,356	86,428	52,497	7.4%	9.2%	10.4%	9.7%	7.2%
Core & Larger Suburban Cities	24,607	40,480	53,935	67,392	33,609	6.2%	6.5%	7.9%	8.5%	6.3%
Smaller Suburban Cities & Unicorporated UGA	26,660	59,395	41,535	44,818	114,037	5.3%	5.5%	5.1%	5.3%	6.4%
Rural Areas	7,941	13,060	10,394	11,004	18,290	3.0%	3.1%	3.1%	3.2%	3.4%
Pierce County Total	103,128	212,328	220,220	209,642	218,434	5.9%	6.6%	7.5%	7.3%	6.1%
Regional Centers	15,716	27,817	69,187	46,110	20,837	7.0%	7.2%	11.7%	9.7%	6.9%
Metropolitan Cities	24,614	49,052	74,510	46,622	30,497	7.9%	8.4%	11.9%	10.1%	8.0%
Core & Larger Suburban Cities	30,939	47,713	58,813	118,677	50,449	6.5%	6.3%	7.0%	9.4%	6.4%
Smaller Suburban Cities & Unicorporated UGA	25,939	64,600	44,103	48,395	124,454	5.4%	5.9%	5.6%	5.8%	7.3%
Rural Areas	4,959	11,796	7,429	7,654	20,203	2.5%	2.4%	2.4%	2.4%	3.0%
Snohomish County Total	86,451	173,161	184,855	221,348	225,602	5.9%	5.9%	7.2%	7.7%	6.3%
Regional Centers	262,510	445,320	751,396	505,215	288,659	8.7%	8.8%	11.5%	9.8%	8.1%
Metropolitan Cities	343,045	563,003	768,347	491,733	380,016	8.6%	8.8%	11.1%	9.3%	8.2%
Core & Larger Suburban Cities	188,299	311,362	405,252	604,555	266,790	5.8%	5.7%	6.8%	8.1%	5.7%
Smaller Suburban Cities & Unicorporated UGA	97,346	199,580	146,740	162,395	377,960	5.6%	5.9%	5.6%	5.8%	6.9%
Rural Areas	26,145	47,624	36,247	38,120	72,414	2.9%	2.7%	2.7%	2.8%	3.1%
Region Total	654,835	1,121,568	1,356,586	1,296,802	1,097,179	6.6%	6.6%	8.1%	7.7%	6.4%

# 2e. Daily NON-WORK Person Trips - TOTAL Trips and Shares

	Ī		Total Trips			Total Shares				
Geography of Trip Attractions	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative
Regional Centers	2,203,850	3,515,755	4,544,419	3,504,793	2,490,399	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	2,906,831	4,424,096	4,896,863	3,646,091	3,279,490	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	2,343,976	3,941,083	4,291,068	5,217,802	3,289,013	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unicorporated UGA	528,010	817,894	689,514	740,357	1,389,270	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	246,485	415,951	359,814	374,011	597,518	100.0%	100.0%	100.0%	100.0%	100.0%
King County Total	6,025,301	9,599,024	10,237,258	9,978,261	8,555,291	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	157,534	315,176	338,886	301,192	236,310	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	154,111	309,491	329,133	268,944	245,681	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	49,460	101,652	113,608	231,049	84,386	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unicorporated UGA	232,939	416,698	328,438	356,288	558,438	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	186,549	426,779	319,746	326,265	535,158	100.0%	100.0%	100.0%	100.0%	100.0%
Kitsap County Total	623,058	1,254,621	1,090,926	1,182,546	1,423,663	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	424,353	828,724	1,062,714	879,277	521,171	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	596,119	1,084,895	1,095,638	886,841	734,055	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	394,907	624,744	680,478	796,135	536,154	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unicorporated UGA	499,936	1,088,402	812,281	849,760	1,781,336	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	266,823	417,334	334,649	344,019	541,030	100.0%	100.0%	100.0%	100.0%	100.0%
Pierce County Total	1,757,784	3,215,376	2,923,045	2,876,754	3,592,574	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	223,118	386,834	591,990	476,783	300,799	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	311,913	586,186	626,806	460,237	383,017	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	475,657	752,966	840,138	1,260,147	792,391	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unicorporated UGA	482,528	1,088,572	790,001	840,283	1,711,483	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	200,311	487,011	313,659	317,313	668,767	100.0%	100.0%	100.0%	100.0%	100.0%
Snohomish County Total	1,470,408	2,914,735	2,570,605	2,877,980	3,555,658	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	3,008,856	5,046,489	6,538,009	5,162,044	3,548,679	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	3,968,973	6,404,669	6,948,441	5,262,113	4,642,243	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	3,264,000	5,420,446	5,925,291	7,505,133	4,701,944	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unicorporated UGA	1,743,412	3,411,567	2,620,234	2,786,687	5,440,527	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	900,167	1,747,075	1,327,868	1,361,608	2,342,473	100.0%	100.0%	100.0%	100.0%	100.0%
Region Total	9,876,552	16,983,756	16,821,834	16,915,540	17,127,186	100.0%	100.0%	100.0%	100.0%	100.0%

# 3. Daily Vehicle Miles Traveled

		VMT Freev	ways and Ex	pressways		VMT Arterials and Local Streets				
Geography	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative
Metropolitan Cities	8,194,849	10,857,072	10,941,855	10,660,303	9,544,083	7,235,881	10,926,573	10,577,841	9,430,121	8,622,506
Other UGA	13,503,949	21,865,759	21,440,344	20,965,849	19,816,951	11,986,926	21,448,572	18,890,864	20,406,490	19,029,494
Rural Areas	632,313	1,064,606	1,018,181	1,045,748	1,189,113	3,372,505	5,987,168	5,306,183	5,395,687	6,930,525
King County Total	22,331,111	33,787,437	33,400,380	32,671,900	30,550,147	22,595,312	38,362,313	34,774,888	35,232,298	34,582,525
Metropolitan Cities	153,741	240,736	219,625	230,615	330,207	316,090	523,260	504,906	452,167	518,293
Other UGA	473,884	744,209	680,972	689,625	1,009,010	1,057,701	2,120,029	1,691,648	1,706,080	2,197,713
Rural Areas	279,038	458,592	402,251	409,795	565,269	2,031,291	3,652,345	3,063,288	3,076,658	4,466,677
Kitsap County Total	906,663	1,443,537	1,302,848	1,330,035	1,904,486	3,405,082	6,295,634	5,259,842	5,234,905	7,182,683
Metropolitan Cities	1,749,631	2,299,982	2,245,814	2,106,661	2,178,999	2,152,740	3,408,680	3,295,483	2,815,866	2,862,454
Other UGA	4,005,537	6,136,980	5,827,592	5,580,376	6,025,782	5,119,971	9,968,728	7,837,686	7,951,512	10,848,509
Rural Areas	532,922	656,488	613,363	616,583	852,632	3,377,397	5,630,100	4,643,616	4,594,386	6,442,838
Pierce County Total	6,288,090	9,093,450	8,686,769	8,303,620	9,057,413	10,650,108	19,007,508	15,776,785	15,361,764	20,153,801
Metropolitan Cities	1,734,669	2,795,310	2,336,014	2,346,374	2,478,756	913,961	1,869,053	1,502,477	1,277,953	1,304,067
Other UGA	3,571,045	5,776,115	5,133,876	5,137,816	5,448,115	4,616,784	9,594,992	7,224,138	7,925,224	9,167,126
Rural Areas	757,631	1,405,986	1,230,077	1,184,459	1,399,630	3,612,341	7,673,115	5,602,143	5,391,264	7,829,668
Snohomish County Total	6,063,345	9,977,411	8,699,967	8,668,649	9,326,501	9,143,086	19,137,160	14,328,758	14,594,441	18,300,861
Metropolitan Cities	11,832,889	16,193,100	15,743,307	15,343,952	14,532,048	10,618,679	16,727,566	15,880,699	13,976,102	13,307,320
Other UGA	21,554,411	34,523,063	33,082,780	32,373,662	32,299,863	22,781,351	43,132,321	35,644,319	37,989,326	41,242,860
Rural Areas	2,201,904	3,585,672	3,263,872	3,256,584	4,006,644	12,393,533	22,942,728	18,615,222	18,457,989	25,669,705
Region Total	35,589,204	54,301,835	52,089,959	50,974,198	50,838,555	45,793,563	82,802,615	70,140,240	70,423,417	80,219,885

# 4. Daily Vehicle Hours Traveled

		VHT Freev	vays and Ex	pressways			VHT Arteri	als and Loc	al Streets	
Geography	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative
Metropolitan Cities	182,277	284,112	282,033	261,607	209,279	289,823	473,147	460,182	388,305	351,758
Other UGA	305,392	655,266	573,356	528,466	451,919	463,636	967,624	800,593	893,727	787,066
Rural Areas	9,517	16,935	15,953	16,418	18,827	108,839	222,498	180,599	183,052	288,842
King County Total	497,186	956,313	871,342	806,491	680,025	862,298	1,663,269	1,441,374	1,465,084	1,427,666
Metropolitan Cities	2,745	4,491	3,953	4,197	6,677	13,440	23,009	21,680	19,305	22,041
Other UGA	9,814	16,796	15,177	15,452	33,064	35,034	74,535	57,292	58,142	82,348
Rural Areas	5,202	8,892	7,725	7,925	12,574	66,268	127,907	103,926	104,384	157,095
Kitsap County Total	17,761	30,179	26,855	27,574	52,315	114,742	225,451	182,898	181,831	261,484
Metropolitan Cities	35,073	49,677	47,277	42,736	48,611	77,707	131,787	126,701	104,268	106,543
Other UGA	81,780	142,934	128,286	115,044	128,262	182,961	438,855	333,984	320,266	492,893
Rural Areas	13,076	12,984	11,322	11,412	29,361	102,507	178,622	140,215	137,715	217,867
Pierce County Total	129,929	205,595	186,885	169,192	206,234	363,175	749,264	600,900	562,249	817,303
Metropolitan Cities	34,919	109,092	52,458	49,863	50,151	37,543	85,286	63,068	52,071	53,207
Other UGA	74,231	187,485	115,939	116,353	118,369	173,223	481,008	292,890	336,697	406,848
Rural Areas	12,432	34,099	21,199	19,748	25,162	108,484	298,823	171,124	163,579	279,434
Snohomish County Total	121,582	330,676	189,596	185,964	193,682	319,250	865,117	527,082	552,347	739,489
Metropolitan Cities	255,014	447,372	385,721	358,404	314,717	418,514	713,229	671,630	563,949	533,548
Other UGA	471,216	1,002,481	832,758	775,315	731,613	854,854	1,962,022	1,484,758	1,608,833	1,769,154
Rural Areas	40,227	72,910	56,198	55,503	85,924	386,098	827,850	595,864	588,730	943,238
Region Total	766,457	1,522,763	1,274,677	1,189,222	1,132,254	1,659,466	3,503,101	2,752,252	2,761,512	3,245,940

## 5. Delay on Highway Network and Arterial System

	Delay (hours) Freeways and Expressways					Delay (hours) Arterials and Local Streets					
Geography	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	
Metropolitan Cities	36,692	90,732	87,469	72,092	40,253	13,632	55,299	54,801	30,518	23,574	
Other UGA	70,643	275,711	200,979	163,733	108,406	39,764	203,088	122,137	143,744	106,889	
Rural Areas	184	1,117	836	797	1,258	5,509	42,318	21,655	20,397	70,584	
King County Total	107,519	367,560	289,284	236,622	149,917	58,905	300,705	198,593	194,659	201,047	
Metropolitan Cities	93	257	173	224	972	134	822	442	384	986	
Other UGA	817	2,679	2,219	2,325	13,972	444	4,612	2,525	2,895	9,331	
Rural Areas	210	726	525	588	2,439	515	4,632	2,514	2,408	10,632	
Kitsap County Total	1,120	3,662	2,917	3,137	17,383	1,093	10,066	5,481	5,687	20,949	
Metropolitan Cities	5,732	10,869	9,402	7,257	11,638	2,013	10,275	8,835	5,149	5,813	
Other UGA	14,677	40,209	30,737	21,627	27,346	10,481	92,167	65,830	44,371	109,440	
Rural Areas	4,194	2,007	1,080	1,113	15,031	1,834	11,873	4,975	3,492	25,699	
Pierce County Total	24,603	53,085	41,219	29,997	54,015	14,328	114,315	79,640	53,012	140,952	
Metropolitan Cities	5,198	60,696	12,290	9,520	7,334	786	12,374	3,174	1,827	2,717	
Other UGA	14,905	91,661	30,709	30,865	28,332	10,947	139,092	35,963	51,766	67,588	
Rural Areas	804	12,049	2,058	1,348	3,232	5,152	70,074	12,589	10,004	46,170	
Snohomish County Total	20,907	164,406	45,057	41,733	38,898	16,885	221,540	51,726	63,597	116,475	
Metropolitan Cities	47,714	162,554	109,334	89,093	60,197	16,565	78,770	67,252	37,878	33,090	
Other UGA	101,042	410,260	264,644	218,550	178,055	61,636	438,959	226,455	242,776	293,248	
Rural Areas	5,392	15,899	4,499	3,846	21,959	13,010	128,897	41,733	36,302	153,085	
Region Total	154,148	588,713	378,477	311,489	260,211	91,211	646,626	335,440	316,956	479,423	

## 6. Delay on Highway Network and Arterial System - Seconds per **Vehicle Mile Traveled**

	Delay (se	econds per	VMT) Freewa	ys and Exp	ressways	Delay (seconds per VMT) Arterials and Local Streets						
Geography	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative		
Metropolitan Cities	16.1	30.1	28.8	24.3	15.2	6.8	18.2	18.7	11.7	9.8		
Other UGA	18.8	45.4	33.7	28.1	19.7	11.9	34.1	23.3	25.4	20.2		
Rural Areas	1.0	3.8	3.0	2.7	3.8	5.9	25.4	14.7	13.6	36.7		
King County Total	17.3	39.2	31.2	26.1	17.7	9.4	28.2	20.6	19.9	20.9		
Metropolitan Cities	2.2	3.8	2.8	3.5	10.6	1.5	5.7	3.2	3.1	6.8		
Other UGA	6.2	13.0	11.7	12.1	49.9	1.5	7.8	5.4	6.1	15.3		
Rural Areas	2.7	5.7	4.7	5.2	15.5	0.9	4.6	3.0	2.8	8.6		
Kitsap County Total	4.4	9.1	8.1	8.5	32.9	1.2	5.8	3.8	3.9	10.5		
Metropolitan Cities	11.8	17.0	15.1	12.4	19.2	3.4	10.9	9.7	6.6	7.3		
Other UGA	13.2	23.6	19.0	14.0	16.3	7.4	33.3	30.2	20.1	36.3		
Rural Areas	28.3	11.0	6.3	6.5	63.5	2.0	7.6	3.9	2.7	14.4		
Pierce County Total	14.1	21.0	17.1	13.0	21.5	4.8	21.7	18.2	12.4	25.2		
Metropolitan Cities	10.8	78.2	18.9	14.6	10.7	3.1	23.8	7.6	5.1	7.5		
Other UGA	15.0	57.1	21.5	21.6	18.7	8.5	52.2	17.9	23.5	26.5		
Rural Areas	3.8	30.9	6.0	4.1	8.3	5.1	32.9	8.1	6.7	21.2		
Snohomish County Total	12.4	59.3	18.6	17.3	15.0	6.6	41.7	13.0	15.7	22.9		
Metropolitan Cities	14.5	36.1	25.0	20.9	14.9	5.6	17.0	15.2	9.8	9.0		
Other UGA	16.9	42.8	28.8	24.3	19.8	9.7	36.6	22.9	23.0	25.6		
Rural Areas	8.8	16.0	5.0	4.3	19.7	3.8	20.2	8.1	7.1	21.5		
Region Total	15.6	39.0	26.2	22.0	18.4	7.2	28.1	17.2	16.2	21.5		

## 7a. Average Number of Jobs within 30 Minutes of Housing by **Transit**

	Regional er	np. within 3	0 minutes b	y transit per	Household	% of re	gional emp	. within 30 ı	2.20% 1.92% 0.60% 0.26% 0.12% 0.18% 0.06% 1.02% 0.77% 0.32% 0.69% 0.10% 0.22% 0.22% 0.07% 0.15% 0.31% 0.20% 0.33% 0.09% 0.24% 0.02% 0.07% 0.24% 0.02% 0.07% 0.24% 0.03% 0.09% 0.24% 0.03% 0.09% 0.24% 0.02% 0.086% 0.46% 0.43% 0.20% 0.12% 0.22% 0.02% 0.08% 0.22% 0.08% 0.23% 0.33% 0.23%			
Geography	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative		Cities		
Metropolitan Cities	41,377	71,668	139,971	61,383	53,470	2.39%	2.57%	5.02%	2.20%	1.92%		
Core & Larger Suburban Cities	4,066	8,713	14,859	16,703	7,169	0.24%	0.31%	0.53%	0.60%	0.26%		
Smaller Suburban Cities & Unicorporated UGA	1,703	2,986	2,603	3,394	4,930	0.10%	0.11%	0.09%	0.12%	0.18%		
Rural Areas	494	635	718	967	1,648	0.03%	0.02%	0.03%	0.03%	0.06%		
King County Total	19,556	32,611	67,190	28,444	21,474	1.13%	1.17%	2.41%	1.02%	0.77%		
Metropolitan Cities	8,424	11,117	18,832	13,130	8,970	0.49%	0.40%	0.68%	0.47%	0.32%		
Core & Larger Suburban Cities	1,479	2,248	4,113	19,381	2,820	0.09%	0.08%	0.15%	0.69%	0.10%		
Smaller Suburban Cities & Unicorporated UGA	1,901	5,962	5,711	6,118	6,123	0.11%	0.21%	0.20%	0.22%	0.22%		
Rural Areas	751	2,378	1,755	1,872	4,110	0.04%	0.09%	0.06%	0.07%	0.15%		
Kitsap County Total	2,826	5,300	7,410	8,697	5,581	0.16%	0.19%	0.27%	0.31%	0.20%		
Metropolitan Cities	5,626	16,505	21,817	17,412	5,808	0.33%	0.59%	0.78%	0.62%	0.21%		
Core & Larger Suburban Cities	2,586	4,670	7,398	6,543	3,687	0.15%	0.17%	0.27%	0.23%	0.13%		
Smaller Suburban Cities & Unicorporated UGA	1,119	2,454	1,690	2,524	6,591	0.06%	0.09%	0.06%	0.09%	0.24%		
Rural Areas	470	731	617	743	1,839	0.03%	0.03%	0.02%	0.03%	0.07%		
Pierce County Total	2,621	6,778	9,983	7,598	5,181	0.15%	0.24%	0.36%	0.27%	0.19%		
Metropolitan Cities	8,542	21,246	41,115	24,078	12,919	0.49%	0.76%	1.47%	0.86%	0.46%		
Core & Larger Suburban Cities	3,639	5,020	6,746	12,047	5,706	0.21%	0.18%	0.24%	0.43%	0.20%		
Smaller Suburban Cities & Unicorporated UGA	1,652	3,185	3,087	3,371	6,767	0.10%	0.11%	0.11%				
Rural Areas	476	632	595	605	2,096	0.03%	0.02%	0.02%				
Snohomish County Total	3,093	5,553	11,347	9,237	6,289	0.18%	0.20%	0.41%				
Metropolitan Cities	31,027	52,499	102,786	46,958	39,095	1.79%	1.88%	3.68%	1.68%	1.40%		
Core & Larger Suburban Cities	3,735	7,415	12,361	14,763	6,362	0.22%	0.27%	0.44%	0.53%	0.23%		
Smaller Suburban Cities & Unicorporated UGA	1,539	3,194	2,785	3,429	6,098	0.09%	0.11%	0.10%	0.12%	0.22%		
Rural Areas	533 <b>12.147</b>	978 <b>19,317</b>	852 <b>42,466</b>	986 <b>19,642</b>	2,217 <b>13,488</b>	0.03%	0.04%	0.03%	0.04%	0.08%		
Region Total	12,147	19,317	42,466	19,642	13,488	0.70%	0.69%	1.52%	0.70%	0.48%		

## 7b. Average Number of Jobs within 30 Minutes of Housing by Bike

	Regional e	emp. within	20 minutes I	by bike per l	% of regional emp. within 20 minutes by bike					
Geography	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative
Metropolitan Cities	112,359	160,399	249,724	135,460	120,283	6.50%	5.75%	8.95%	4.86%	4.31%
Core & Larger Suburban Cities	21,092	35,750	43,329	46,610	29,134	1.22%	1.28%	1.55%	1.67%	1.04%
Smaller Suburban Cities & Unicorporated UGA	11,445	17,983	17,674	20,474	17,603	0.66%	0.64%	0.63%	0.73%	0.63%
Rural Areas	1,318	1,954	2,200	2,718	2,944	0.08%	0.07%	0.08%	0.10%	0.11%
King County Total	57,621	80,668	127,958	69,204	54,074	3.33%	2.89%	4.59%	2.48%	1.94%
Metropolitan Cities	38,056	62,413	104,165	60,806	49,914	2.20%	2.24%	3.73%	2.18%	1.79%
Core & Larger Suburban Cities	1,479	2,248	4,113	19,381	2,820	0.09%	0.08%	0.15%	0.69%	0.10%
Smaller Suburban Cities & Unicorporated UGA	5,563	13,790	13,609	12,572	20,840	0.32%	0.49%	0.49%	0.45%	0.75%
Rural Areas	1,251	1,760	2,297	2,136	3,436	0.07%	0.06%	0.08%	0.08%	0.12%
Kitsap County Total	10,556	17,608	30,733	19,178	17,620	0.61%	0.63%	1.10%	0.69%	0.63%
Metropolitan Cities	34,031	70,185	79,398	65,124	41,298	1.97%	2.52%	2.85%	2.33%	1.48%
Core & Larger Suburban Cities	14,500	23,003	26,222	26,703	19,380	0.84%	0.82%	0.94%	0.96%	0.69%
Smaller Suburban Cities & Unicorporated UGA	5,259	8,509	6,917	8,627	16,915	0.30%	0.31%	0.25%	0.31%	0.61%
Rural Areas	986	1,478	1,402	1,614	4,189	0.06%	0.05%	0.05%	0.06%	0.15%
Pierce County Total	14,795	28,368	36,289	28,587	19,969	0.86%	1.02%	1.30%	1.02%	0.72%
Metropolitan Cities	29,223	62,691	78,844	58,039	49,190	1.69%	2.25%	2.83%	2.08%	1.76%
Core & Larger Suburban Cities	20,119	27,246	31,304	41,236	28,037	1.16%	0.98%	1.12%	1.48%	1.01%
Smaller Suburban Cities & Unicorporated UGA	8,576	14,963	15,215	18,686	21,804	0.50%	0.54%	0.55%	0.67%	0.78%
Rural Areas	1,212	2,319	1,695	1,774	4,388	0.07%	0.08%	0.06%	0.06%	0.16%
Snohomish County Total	13,655	21,056	30,368	30,440	22,464	0.79%	0.77%	1.09%	1.09%	0.81%
Metropolitan Cities	88,655	127,652	194,692	110,815	96,263	5.13%	4.58%	6.98%	3.97%	3.45%
Core & Larger Suburban Cities	19,597	31,886	38,281	42,421	27,079	1.13%	1.14%	1.37%	1.52%	0.97%
Smaller Suburban Cities & Unicorporated UGA	8,384	13,701	13,394	15,766	18,981	0.48%	0.49%	0.48%	0.57%	0.68%
Rural Areas	1,190	1,923	1,893	2,099	3,696	0.07%	0.07%	0.07%	0.08%	0.13%
Region Total	38,162	52,251	86,863	51,031	37,167	2.21%	1.87%	3.11%	1.83%	1.33%

## 7c. Average Number of Jobs within 30 Minutes of Housing by Walking

	Regional e	mp. within	10 minutes l	y walk per	Household	% of re	egional em	p. within 10	6 0.13% 0.10% 6 0.16% 0.06% 6 0.02% 0.05% 6 0.00% 0.00% 6 0.13% 0.07% 6 0.18% 0.02% 6 0.18% 0.02% 6 0.10% 0.01% 6 0.10% 0.04% 6 0.10% 0.04% 6 0.12% 0.05% 6 0.12% 0.05% 6 0.12% 0.05% 6 0.02% 0.04%			
Geography	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative		Cities		
Metropolitan Cities	3,527	3,807	8,023	3,598	2,769	0.20%	0.14%	0.29%	0.13%	0.10%		
Core & Larger Suburban Cities	1,348	2,263	3,952	4,599	1,791	0.08%	0.08%	0.14%	0.16%	0.06%		
Smaller Suburban Cities & Unicorporated UGA	390	561	467	583	1,305	0.02%	0.02%	0.02%	0.02%	0.05%		
Rural Areas	55	64	66	84	135	0.00%	0.00%	0.00%	0.00%	0.00%		
King County Total	2,056	2,460	5,103	3,526	1,830	0.12%	0.09%	0.18%	0.13%	0.07%		
Metropolitan Cities	1,038	1,614	2,987	1,996	1,439	0.06%	0.06%	0.11%	0.07%	0.05%		
Core & Larger Suburban Cities	331	443	968	5,091	682	0.02%	0.02%	0.03%	0.18%	0.02%		
Smaller Suburban Cities & Unicorporated UGA	545	1,194	860	1,130	1,728	0.03%	0.04%	0.03%	0.04%	0.06%		
Rural Areas	64	130	113	118	251	0.00%	0.00%	0.00%	0.00%	0.01%		
Kitsap County Total	439	815	1,145	1,764	1,066	0.03%	0.03%	0.04%	0.06%	0.04%		
Metropolitan Cities	951	2,434	3,274	2,912	1,057	0.06%	0.09%	0.12%	0.10%	0.04%		
Core & Larger Suburban Cities	985	1,707	3,103	3,228	1,368	0.06%	0.06%	0.11%	0.12%	0.05%		
Smaller Suburban Cities & Unicorporated UGA	396	596	494	565	1,475	0.02%	0.02%	0.02%	0.02%	0.05%		
Rural Areas	61	90	87	101	250	0.00%	0.00%	0.00%	0.00%	0.01%		
Pierce County Total	616	1,252	1,990	1,872	1,165	0.04%	0.04%	0.07%	0.07%	0.04%		
Metropolitan Cities	1,925	3,339	8,215	4,821	2,258	0.11%	0.12%	0.29%	0.17%	0.08%		
Core & Larger Suburban Cities	1,200	1,499	2,265	5,500	1,710	0.07%	0.05%	0.08%	0.20%	0.06%		
Smaller Suburban Cities & Unicorporated UGA	432	716	671	804	1,536	0.03%	0.03%	0.02%				
Rural Areas	45	58	64	64	217	0.00%	0.00%	0.00%				
Snohomish County Total	810	1,108	2,545	3,100	1,391	0.05%	0.04%	0.09%	0.11%	0.05%		
Metropolitan Cities	2,840	3,372	6,909	3,507	2,351	0.16%	0.12%	0.25%	0.13%	0.08%		
Core & Larger Suburban Cities	1,252	2,020	3,507	4,610	1,697	0.07%	0.07%	0.13%	0.17%	0.06%		
Smaller Suburban Cities & Unicorporated UGA	417	687	573	699	1,463	0.02%	0.02%	0.02%	0.03%	0.05%		
Rural Areas	56 <b>1.440</b>	80 <b>1.793</b>	79 <b>3.795</b>	90 <b>3.018</b>	203 <b>1.535</b>	0.00%	0.00%	0.00%	0.00%	0.01%		
Region Total	1,440	1,793	3,795	3,018	1,535	0.08%	0.06%	0.14%	0.11%	0.06%		

## 8a. Average Number of Finance, Insurance, Real Estate, Services & Retail Jobs within 30 Minutes of Housing by Transit

	Regional er	np. within 3	0 minutes b	y transit per	% of regional emp. within 30 minutes by transit						
Geography	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	
Metropolitan Cities	29,639	55,005	106,093	46,350	40,794	2.95%	2.94%	5.67%	2.48%	2.18%	
Core & Larger Suburban Cities	2,551	6,125	10,106	12,065	5,126	0.25%	0.33%	0.54%	0.64%	0.27%	
Smaller Suburban Cities & Unicorporated UGA	921	2,014	1,772	2,291	3,658	0.09%	0.11%	0.09%	0.12%	0.20%	
Rural Areas	261	434	458	695	1,143	0.03%	0.02%	0.02%	0.04%	0.06%	
King County Total	13,831	24,776	50,447	21,170	16,231	1.38%	1.32%	2.69%	1.13%	0.87%	
Metropolitan Cities	2,262	4,300	9,606	5,668	3,732	0.23%	0.23%	0.51%	0.30%	0.20%	
Core & Larger Suburban Cities	990	1,673	3,139	15,714	2,287	0.10%	0.09%	0.17%	0.84%	0.12%	
Smaller Suburban Cities & Unicorporated UGA	1,467	5,163	4,855	5,268	5,099	0.15%	0.28%	0.26%	0.28%	0.27%	
Rural Areas	298	1,267	956	1,032	2,489	0.03%	0.07%	0.05%	0.06%	0.13%	
Kitsap County Total	1,126	3,256	4,530	6,130	3,726	0.11%	0.17%	0.24%	0.33%	0.20%	
Metropolitan Cities	4,171	12,715	16,221	13,015	4,578	0.42%	0.68%	0.87%	0.70%	0.24%	
Core & Larger Suburban Cities	1,725	3,457	5,702	5,044	2,850	0.17%	0.18%	0.30%	0.27%	0.15%	
Smaller Suburban Cities & Unicorporated UGA	563	1,556	1,024	1,689	4,407	0.06%	0.08%	0.05%	0.09%	0.24%	
Rural Areas	234	412	326	386	1,082	0.02%	0.02%	0.02%	0.02%	0.06%	
Pierce County Total	1,798	5,050	7,379	5,634	3,636	0.18%	0.27%	0.39%	0.30%	0.19%	
Metropolitan Cities	3,929	12,873	26,457	14,536	7,273	0.39%	0.69%	1.41%	0.78%	0.39%	
Core & Larger Suburban Cities	2,499	3,783	5,060	8,479	4,101	0.25%	0.20%	0.27%	0.45%	0.22%	
Smaller Suburban Cities & Unicorporated UGA	894	2,210	2,100	2,317	4,544	0.09%	0.12%	0.11%	0.12%	0.24%	
Rural Areas	246	410	381	385	1,429	0.02%	0.02%	0.02%	0.02%	0.08%	
Snohomish County Total	1,700	3,649	7,550	6,144	4,138	0.17%	0.19%	0.40%	0.33%	0.22%	
Metropolitan Cities	21,906	39,780	77,214	34,902	29,478	2.18%	2.12%	4.12%	1.86%	1.57%	
Core & Larger Suburban Cities	2,394	5,280	8,577	10,718	4,587	0.24%	0.28%	0.46%	0.57%	0.25%	
Smaller Suburban Cities & Unicorporated UGA	857	2,261	1,955	2,443	4,277	0.09%	0.12%	0.10%	0.13%	0.23%	
Rural Areas	257 <b>8,437</b>	575 <b>14,478</b>	497 <b>31,630</b>	602 <b>14,457</b>	1,425 <b>9,965</b>	0.03%	0.03%	0.03%	0.03%	0.08%	
Region Total	0,437	14,470	31,030	14,437	9,900	0.84%	0.77%	1.69%	0.77%	0.53%	

## 8b. Average Number of Finance, Insurance, Real Estate, Services & Retail Jobs within 30 Minutes of Housing by Bike

	Regional e	emp. within	20 minutes I	oy bike per l	Household	% of r	egional em	p. within 20	9.79%         5.23%         4.76%           1.56%         1.75%         1.10%           0.64%         0.72%         0.64%           0.08%         0.10%         0.12%           4.96%         2.64%         2.11%           3.73%         1.97%         1.60%           0.17%         0.84%         0.12%           0.56%         0.52%         0.83%           0.09%         0.08%         0.13%           1.13%         0.70%         0.64%           3.08%         2.57%         1.63%           1.03%         1.06%         0.77%           0.25%         0.32%         0.62%           0.05%         0.14%         0.76%           2.65%         1.82%         1.49%				
Geography	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative		Cities			
Metropolitan Cities	77,081	118,363	183,238	97,933	89,064	7.68%	6.32%	9.79%	5.23%	4.76%			
Core & Larger Suburban Cities	12,366	24,737	29,264	32,809	20,608	1.23%	1.32%	1.56%	1.75%	1.10%			
Smaller Suburban Cities & Unicorporated UGA	6,179	11,799	12,036	13,485	12,066	0.62%	0.63%	0.64%	0.72%	0.64%			
Rural Areas	834	1,391	1,517	1,910	2,170	0.08%	0.07%	0.08%	0.10%	0.12%			
King County Total	38,543	58,704	92,791	49,430	39,498	3.84%	3.14%	4.96%	2.64%	2.11%			
Metropolitan Cities	18,248	37,395	69,783	36,971	30,041	1.82%	2.00%	3.73%	1.97%	1.60%			
Core & Larger Suburban Cities	990	1,673	3,139	15,714	2,287	0.10%	0.09%	0.17%	0.84%	0.12%			
Smaller Suburban Cities & Unicorporated UGA	4,035	10,597	10,465	9,793	15,555	0.40%	0.57%	0.56%	0.52%	0.83%			
Rural Areas	677	1,110	1,620	1,470	2,489	0.07%	0.06%	0.09%	0.08%	0.13%			
Kitsap County Total	5,509	11,424	21,081	13,184	12,027	0.55%	0.61%	1.13%	0.70%	0.64%			
Metropolitan Cities	22,644	52,546	57,655	48,209	30,464	2.26%	2.81%	3.08%	2.57%	1.63%			
Core & Larger Suburban Cities	9,781	16,908	19,299	19,840	14,468	0.97%	0.90%	1.03%	1.06%	0.77%			
Smaller Suburban Cities & Unicorporated UGA	3,149	5,808	4,722	6,079	11,563	0.31%	0.31%	0.25%	0.32%	0.62%			
Rural Areas	544	953	890	1,014	2,567	0.05%	0.05%	0.05%	0.05%	0.14%			
Pierce County Total	9,738	20,954	26,301	21,061	14,230	0.97%	1.12%	1.40%	1.12%	0.76%			
Metropolitan Cities	14,234	37,354	49,576	34,154	27,905	1.42%	2.00%	2.65%	1.82%	1.49%			
Core & Larger Suburban Cities	12,193	17,737	21,090	27,889	18,828	1.21%	0.95%	1.13%	1.49%	1.01%			
Smaller Suburban Cities & Unicorporated UGA	4,962	10,154	10,532	12,972	14,972	0.49%	0.54%	0.56%	0.69%	0.80%			
Rural Areas	631	1,659	1,159	1,219	3,017	0.06%	0.09%	0.06%	0.07%	0.16%			
Snohomish County Total	7,596	13,715	19,848	19,989	14,750	0.76%	0.73%	1.06%	1.07%	0.79%			
Metropolitan Cities	59,877	93,108	141,694	79,298	70,171	5.97%	4.97%	7.57%	4.23%	3.75%			
Core & Larger Suburban Cities	11,735	22,008	26,064	29,852	19,092	1.17%	1.18%	1.39%	1.59%	1.02%			
Smaller Suburban Cities & Unicorporated UGA	4,795 676	9,325	9,294	10,848	13,114	0.48%	0.50%	0.50%	0.58%	0.70%			
Rural Areas	25,123	1,322 <b>37,582</b>	1,291 <b>62,539</b>	1,433 <b>36,212</b>	2,537 <b>26,652</b>	0.07%	0.07%	0.07%	0.08%	0.14%			
Region Total	23,123	31,302	02,339	30,212	20,032	2.50%	2.01%	3.34%	1.93%	1.42%			

## 8c. Average Number of Finance, Insurance, Real Estate, Services & Retail Jobs within 30 Minutes of Housing by Walking

	Regional e	mp. within	10 minutes I	y walk per l	% of re	egional em	p. within 10	minutes by	Smaller	
Geography	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Cities
Metropolitan Cities	2,588	2,974	5,911	2,864	2,164	0.26%	0.16%	0.32%	0.15%	0.12%
Core & Larger Suburban Cities	873	1,670	2,909	3,477	1,320	0.09%	0.09%	0.16%	0.19%	0.07%
Smaller Suburban Cities & Unicorporated UGA	243	404	330	420	955	0.02%	0.02%	0.02%	0.02%	0.05%
Rural Areas	31	43	40	57	89	0.00%	0.00%	0.00%	0.00%	0.00%
King County Total	1,461	1,880	3,756	2,709	1,387	0.15%	0.10%	0.20%	0.14%	0.07%
Metropolitan Cities	715	1,112	2,471	1,547	1,059	0.07%	0.06%	0.13%	0.08%	0.06%
Core & Larger Suburban Cities	236	344	756	4,131	562	0.02%	0.02%	0.04%	0.22%	0.03%
Smaller Suburban Cities & Unicorporated UGA	399	1,025	716	958	1,425	0.04%	0.05%	0.04%	0.05%	0.08%
Rural Areas	26	69	63	66	159	0.00%	0.00%	0.00%	0.00%	0.01%
Kitsap County Total	303	628	933	1,423	842	0.03%	0.03%	0.05%	0.08%	0.04%
Metropolitan Cities	705	1,985	2,462	2,320	851	0.07%	0.11%	0.13%	0.12%	0.05%
Core & Larger Suburban Cities	677	1,242	2,384	2,486	1,054	0.07%	0.07%	0.13%	0.13%	0.06%
Smaller Suburban Cities & Unicorporated UGA	217	396	326	386	1,007	0.02%	0.02%	0.02%	0.02%	0.05%
Rural Areas	35	58	53	62	155	0.00%	0.00%	0.00%	0.00%	0.01%
Pierce County Total	419	961	1,492	1,447	837	0.04%	0.05%	0.08%	0.08%	0.04%
Metropolitan Cities	1,034	2,065	5,439	3,074	1,324	0.10%	0.11%	0.29%	0.16%	0.07%
Core & Larger Suburban Cities	789	1,078	1,662	3,835	1,214	0.08%	0.06%	0.09%	0.20%	
Smaller Suburban Cities & Unicorporated UGA	249	507	466	559	1,073	0.02%	0.03%	0.02%	0.03%	
Rural Areas	21	39	41	41	149	0.00%	0.00%	0.00%	0.00%	
Snohomish County Total	479	746	1,740	2,121	950	0.05%	0.04%	0.09%	0.11%	
Metropolitan Cities	2,052	2,594	5,054	2,718	1,799	0.20%	0.14%	0.27%	0.15%	
Core & Larger Suburban Cities	819	1,484	2,594	3,443	1,250	0.08%	0.08%	0.14%	0.18%	
Smaller Suburban Cities & Unicorporated UGA	250	499	407	507	1,046	0.02%	0.03%	0.02%	0.03%	0.06%
Rural Areas	29 <b>1.002</b>	50 <b>1,350</b>	48 <b>2,782</b>	56 <b>2,276</b>	132 <b>1,133</b>	0.00%	0.00%	0.00%	0.00%	0.01%
Region Total	1,002	1,350	2,782	2,276	1,133	0.10%	0.07%	0.15%	0.12%	0.06%

## 9a. Average Time, Distance, and Speed for Daily WORK Person **Trips**

	Minutes							Miles				Avera	ge Speed	(MPH)	
Geography of Trip Attractions	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative		Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative
Regional Centers	24.7	32.2	25.5	26.5	26.2	12.3	14.2	11.3	11.8	12.3	29.9	26.5	26.6	26.7	28.2
Metropolitan Cities	24.9	32.3	26.1	27.5	27.0	12.4	14.3	11.6	12.4	12.8	29.9	26.6	26.7	27.1	28.4
Core & Larger Suburban Cities	26.8	30.4	26.5	25.8	27.0	13.8	13.6	12.6	12.1	12.8	30.9	26.8	28.5	28.1	28.4
Smaller Suburban Cities & Unicorporated UGA	26.8	29.2	27.0	26.5	25.5	14.2	13.9	13.4	13.0	11.9	31.8	28.6	29.8	29.4	28.0
Rural Areas	32.2	32.2	32.2	31.9	29.2	16.3	15.1	15.8	15.5	12.9	30.4	28.1	29.4	29.2	26.5
King County Total	25.9	31.2	26.4	26.7	26.9	13.1	14.0	12.2	12.3	12.7	30.3	26.9	27.7	27.6	28.3
Regional Centers	27.7	25.4	30.6	28.7	38.2	15.4	12.8	18.1	16.1	20.1	33.4	30.2	35.5	33.7	31.6
Metropolitan Cities	28.6	28.3	32.2	31.1	39.1	15.8	14.1	18.8	17.3	20.0	33.1	29.9	35.0	33.4	30.7
Core & Larger Suburban Cities	29.2	27.8	22.5	21.6	34.3	14.3	13.1	10.3	9.1	13.0	29.4	28.3	27.5	25.3	22.7
Smaller Suburban Cities & Unicorporated UGA	22.9	21.3	22.6	21.8	22.4	12.1	10.3	11.4	10.9	10.2	31.7	29.0	30.3	30.0	27.3
Rural Areas	28.0	29.6	30.8	30.0	30.7	13.5	13.3	14.5	14.1	13.0	28.9	27.0	28.2	28.2	25.4
Kitsap County Total	26.9	26.7	28.6	26.9	30.1	14.1	12.8	15.1	13.4	13.7	31.4	28.8	31.7	29.9	27.3
Regional Centers	21.1	20.6	18.3	19.2	22.3	11.7	9.9	9.0	9.6	11.0	33.3	28.8	29.5	30.0	29.6
Metropolitan Cities	21.5	20.9	19.0	19.4	23.2	11.4	10.1	9.4	9.8	11.5	31.8	29.0	29.7	30.3	29.7
Core & Larger Suburban Cities	22.1	22.5	20.1	20.0	22.7	11.5	10.5	9.8	9.8	10.8	31.2	28.0	29.3	29.4	28.5
Smaller Suburban Cities & Unicorporated UGA	24.7	24.5	24.3	23.9	24.6	13.0	11.1	11.7	11.6	10.6	31.6	27.2	28.9	29.1	25.9
Rural Areas	29.9	29.2	28.9	28.7	29.3	16.2	14.4	15.0	14.9	13.8	32.5	29.6	31.1	31.1	28.3
Pierce County Total	23.6	23.2	21.7	21.9	24.7	12.5	11.0	10.7	10.9	11.3	31.8	28.4	29.6	29.9	27.4
Regional Centers	21.6	25.2	19.7	20.2	21.9	11.2	10.4	9.4	9.6	10.1	31.1	24.8	28.6	28.5	27.7
Metropolitan Cities	22.4	28.1	20.9	21.4	23.3	12.2	11.9	10.3	10.7	11.1	32.7	25.4	29.6	30.0	28.6
Core & Larger Suburban Cities	21.9	24.4	21.6	20.3	23.4	11.3	10.5	10.5	9.5	10.6	31.0	25.8	29.2	28.1	27.2
Smaller Suburban Cities & Unicorporated UGA	23.3	24.5	22.8	22.6	22.2	12.3	10.6	11.3	11.2	10.0	31.7	26.0	29.7	29.7	27.0
Rural Areas	29.4	29.3	28.9	29.1	31.1	15.2	13.0	14.5	14.7	13.5	31.0	26.6	30.1	30.3	26.0
Snohomish County Total	23.0	26.2	22.1	21.7	23.8	12.1	11.3	10.9	10.5	10.8	31.6	25.9	29.6	29.0	27.2
Regional Centers	24.3	30.0	24.3	25.2	26.1	12.3	13.4	11.1	11.6	12.4	30.4	26.8	27.4	27.6	28.5
Metropolitan Cities	24.5	30.2	24.9	26.1	26.7	12.5	13.5	11.5	12.1	12.8	30.6	26.8	27.7	27.8	28.8
Core & Larger Suburban Cities	25.9	28.8	25.4	24.4	26.2	13.3	13.0	12.1	11.5	12.3	30.8	27.1	28.6	28.3	28.2
Smaller Suburban Cities & Unicorporated UGA	24.5	25.2	24.3	23.9	23.9	13.0	11.5	11.9	11.7	10.7	31.8	27.4	29.4	29.4	26.9
Rural Areas	29.9	29.9	30.2	29.9	30.1	15.4	13.9	14.9	14.8	13.3	30.9	27.9	29.6	29.7	26.5
Region Total	25.4	29.1	25.4	25.4	26.2	13.1	13.1	12.1	12.0	12.3	30.9	27.0	28.6	28.3	28.2

## 9b. Average Time, Distance, and Speed for Daily NON-WORK **Person Trips**

	Minutes					Ī		Miles			Ī	Avera	ge Speed (	cs         Cities ative         Cities ative         Cities ative         Cities ative           ative Alternative         Alternative         Alternative           8         27.3         28.9           6         26.2         26.4           9         25.3         23.5           6         25.2         22.7           1         25.7         25.9           9         22.6         24.2           4         23.8         24.6           6         16.1         20.0           6         22.3         24.7           3         21.8         24.1           4         24.3         25.6           7         24.8         25.6           8         23.4         24.1           3         23.9         21.7           3         23.9         23.5           1         24.4         23.5           2         26.0         24.7				
Geography of Trip Attractions	Base Year (2000)	Growth Targets Extended Alternative	Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)		Metro. Cities Alternative	Larger Cities Alternative	Smaller Cities Alternative	Base Year (2000)		Metro. Cities Alternative	Cities	Cities			
Regional Centers	14.7	17.0	13.9	14.7	15.8	7.3	8.1	6.2	6.7	7.6	29.8	28.6	26.8	27.3	28.9			
Metropolitan Cities	13.3	14.8	13.1	13.3	13.4	6.2	6.6	5.6	5.8	5.9	28.0	26.8	25.6	26.2	26.4			
Core & Larger Suburban Cities	15.5	17.2	15.6	14.7	16.2	7.2	7.8	7.0	6.2	7.4	27.9	27.2	26.9	25.3	27.4			
Smaller Suburban Cities & Unicorporated UGA	14.8	16.1	15.7	15.2	14.8	6.4	6.9	6.8	6.4	5.8	25.9	25.7	26.0	25.3	23.5			
Rural Areas	20.4	21.3	21.6	21.4	20.9	8.7	9.0	9.2	9.0	7.9	25.6	25.4	25.6					
King County Total	14.6	16.2	14.7	14.5	15.3	6.8	7.2	6.4	6.2	6.6	27.9	26.7	26.1	25.7	25.9			
Regional Centers	12.4	10.6	9.7	10.1	12.9	5.3	4.0	3.7	3.8	5.2	25.6	22.6	22.9	22.6	24.2			
Metropolitan Cities	10.8	11.5	10.5	11.1	15.6	4.3	4.5	4.1	4.4	6.4	23.9	23.5	23.4	23.8	24.6			
Core & Larger Suburban Cities	12.4	13.6	11.6	9.3	12.6	4.1	4.6	3.6	2.5	4.2	19.8	20.3	18.6	16.1	20.0			
Smaller Suburban Cities & Unicorporated UGA	13.0	11.7	11.8	11.5	14.1	5.4	4.4	4.6	4.4	5.6	24.9	22.6	23.4	23.0	23.8			
Rural Areas	18.3	19.6	19.6	19.6	24.8	6.7	7.0	7.2	7.3	10.2	22.0	21.4	22.0	22.3	24.7			
Kitsap County Total	14.0	14.5	13.7	13.2	18.4	5.4	5.3	5.1	4.8	7.4	23.1	21.9	22.3	21.8	24.1			
Regional Centers	12.6	11.5	10.5	11.1	12.7	5.4	4.6	4.1	4.5	5.3	25.7	24.0	23.4	24.3	25.0			
Metropolitan Cities	12.2	11.0	10.4	10.9	12.4	5.3	4.4	4.1	4.5	5.3	26.1	24.0	23.7	24.8	25.6			
Core & Larger Suburban Cities	13.0	13.1	12.1	11.8	13.2	5.5	5.3	4.8	4.6	5.3	25.4	24.3	23.8	23.4	24.1			
Smaller Suburban Cities & Unicorporated UGA	14.9	15.2	15.3	15.3	15.2	6.3	5.9	6.2	6.1	5.5	25.4	23.3	24.3	23.9	21.7			
Rural Areas	19.6	19.4	19.2	19.2	20.9	8.7	7.9	8.1	8.1	8.2	26.6	24.4	25.3	25.3	23.5			
Pierce County Total	14.3	13.9	13.2	13.5	15.3	6.1	5.6	5.3	5.5	5.8	25.6	24.2	24.1	24.4	22.7			
Regional Centers	13.3	14.3	11.5	12.3	13.4	5.9	5.8	4.6	4.9	5.3	26.6	24.3	24.0	23.9	23.7			
Metropolitan Cities	12.5	13.5	11.2	12.0	12.9	5.7	5.7	4.7	5.2	5.3	27.4	25.3	25.2	26.0	24.7			
Core & Larger Suburban Cities	12.9	13.9	13.0	12.2	14.2	5.5	5.5	5.3	4.6	5.6	25.6	23.7	24.5	22.6	23.7			
Smaller Suburban Cities & Unicorporated UGA	14.7	15.2	15.0	14.9	14.4	6.3	6.1	6.4	6.2	5.4	25.7	24.1	25.6	25.0	22.5			
Rural Areas	22.1	22.5	22.4	22.2	24.5	9.6	9.1	9.7	9.6	9.9	26.1	24.3	26.0	25.9	24.2			
Snohomish County Total	14.7	15.7	14.4	14.1	16.1	6.4	6.4	6.0	5.7	6.3	26.1	24.5	25.0	24.3	23.5			
Regional Centers	14.2	15.4	12.9	13.6	14.9	6.8	7.1	5.6	6.0	6.9	28.7	27.7	26.0	26.5	27.8			
Metropolitan Cities	13.0	13.9	12.4	12.7	13.3	6.0	6.0	5.2	5.4	5.8	27.7	25.9	25.2	25.5	26.2			
Core & Larger Suburban Cities	14.8	16.1	14.8	13.8	15.4	6.7	7.1	6.4	5.6	6.8	27.2	26.5	25.9	24.3	26.5			
Smaller Suburban Cities & Unicorporated UGA	14.6	15.0	14.9	14.7	14.7	6.2	6.0	6.2	6.0	5.6	25.5	24.0	25.0	24.5	22.9			
Rural Areas	20.1	20.8	20.7	20.6	22.8	8.5	8.3	8.6	8.5	9.0	25.4	23.9	24.9	24.8	23.7			
Region Total	14.5	15.5	14.3	14.2	15.7	6.5	6.6	6.1	5.9	6.4	26.9	25.5	25.6	24.9	24.5			



# **Issue Paper Series**

This appendix includes an overview of the series of issue papers developed for the VISION 2020 update, including a copy of the ten issue papers approved by the Growth Management Policy Board and five additional information papers prepared to inform specific policy areas.

## Overview

A major task in the initial phase of the VISION 2020 update has been the development the issue papers series. These ten papers address topics raised during the scoping process that took place in 2003 and 2004. Each paper considers the treatment of specific issues in the current VISION 2020 document, an examination of opportunities for adding specificity or clarity, and consideration of recommendations addressing possible policies, strategies and monitoring actions. PSRC's Growth Management Policy Board took an "action to proceed" on each of these papers – the dates of these actions are noted in parentheses below.

In addition, four other papers were developed to provide further information on certain topics that arose throughout the initial phase of research and analysis.

In the development of the Draft Environmental Impact Statement – in which alternatives are developed and impacts are assessed – information and recommendations contained in the issue papers has been utilized. Below is a summary of each of the issue papers.

## **Issue Papers**

- **1. Health.** This paper provides an overview of how health provisions including active living, safety, and environmental quality can be better integrated into regional policy and planning. (January 2005)
- **2. Growth Targets.** A report on the various processes and outcomes of assigning growth targets to counties and their municipalities in the four-county region, and how these processes might be improved. (July 2005)
- **3. Subregional Centers.** An examination of locations smaller than the designated regional growth centers and the potential roles these places could play in accommodating significant portions of the population and employment growth anticipated by the year 2040. (March 2005)
- **4. Rural Areas.** A study of major issues of importance in the rural districts of the region, looking especially at their long-term viability and protection. (August 2005)

- **5. Housing.** An overview of housing issues and trends, with special attention given to projected demographics and potential housing needs in the year 2040. Innovations in providing housing, including strategies related to affordable housing, are addressed. (August 2005)
- **6. Environment.** Assesses the current state of information and resources for environmental planning at the regional level. Considers the human impacts, trends, indicators, and implications for a variety of environmental factors, including water, air, land, and wildlife. Two supplemental papers are related to this topic: one on Energy and one on Sewers. (August 2005)
- 7. Social and Environmental Justice. Building on work the Regional Council is already performing on environmental justice, this paper examines issues and needs of various population groups in the region, particularly minority and low-income groups. (August 2005) - Note: this issue paper links to the PSRC's environmental justice website, which contains documents from this and past projects with environmental justice components.
- **8. Demographics.** This work looks at trends and population issues that are likely to be in play in the year 2040. This information is also being used to describe baseline conditions for the update. (August 2005)
- **9. Economics.** An examination of key employment issues, with attention given to work of the region's *Prosperity* Partnership and efforts to maintain existing jobs and create new ones in strategic economic clusters. (November 2005)
- 10. Transportation. This paper develops a baseline to provide information about the strengths and weaknesses of the current transportation system in the region. It also addresses a number of transportation issues to help define where transportation improvements are needed to support and implement the VISION 2020 growth strategy and economic development efforts. (January 2006)

## **Informational Papers**

- 11. Compact Growth. A study of health-related impacts related to density. (prepared by Gail Sandlin, graduate student, University of Washington)
- **12.** Appropriate Urban Densities. An examination of current hearings board cases and case law on the issue of urban densities. Advances recommendations for allowing jurisdictions to develop average densities. (prepared by Joe Tovar, Planning Director, City of Shoreline and former member, Central Puget Sound Growth Hearings Board)
- 13. Vesting. A study of vested development in rural areas of the four-county region that pre-dates the adoption of the Growth Management Act. (prepared by Margo Tufts and Christina O'Claire, University of Washington graduate students)
- 14. Cost of Sprawl. A review of recent literature on issues relating to the provision of services and infrastructure in areas of low density development.
- 15. Regional Growth Centers. Information paper describing current and future land uses in the Central Puget Sound region's Regional Growth Centers. (Prepared by Parametrix, Inc.)



# **Existing Multicounty Planning Policies**

This appendix lists the existing Multicounty Planning Policies for the central Puget Sound region. These were adopted in May 1995 by the General Assembly of the Puget Sound Regional Council in the 1995 update of VISION 2020.

Washington's Growth Management Act requires "multicounty planning policies" (MPPs) in adjacent counties having populations of 450,000 or more (Chapter 36.70A.210(7), Revised Code of Washington). This provision applies to the central Puget Sound region. Such policies are to provide a common regional "framework" from which county and city comprehensive plans are developed and adopted.

The Act identifies eight policy areas – at a minimum – to be addressed. The following is a list of the topic areas for the multicounty planning policies included in the 1995 VISION 2020 document:

- Urban Growth Areas (RG)
- Contiguous and Orderly Development (RC)
- Regional Capital Facilities (RF)
- Housing (RH)
- Rural Areas (RR)
- Open Space, Resource Protection, and Critical Areas (RO)
- Economics (RE)
- Transportation (RT)

It should be noted that these eight areas address topics that are closely related and interconnected. For example, a given policy area, such as *implementing urban growth areas*, may appropriately include policies that also refer to other issue areas, including *transportation facilities and strategies*, *affordable housing*, and/or *economic development and employment*. In VISION 2020, each of the eight topic areas contains one overall "framework policy," followed by more specific policies.

## **Multicounty Planning Policies – 1995 VISION 2020**

#### **Urban Growth Areas**

RG-1 Locate development in urban growth areas to conserve natural resources and enable efficient provision of services and facilities. Within urban growth areas, focus growth in compact communities and centers in a manner that uses land efficiently, provides parks and recreation areas, is pedestrian-oriented, and helps strengthen communities. Connect and serve urban communities with an efficient, transit-oriented, multimodal transportation system.

## **Identify and Maintain Urban Growth Areas**

- RG-1.1 Identify urban growth areas sufficient in size and densities to accommodate the urban growth projected to occur, according to requirements of state law, for the succeeding 20-year period.
- RG-1.2 Ensure that urban growth area and land use designations near jurisdictional borders are compatible.

## **Support Compact Urban Communities**

- RG-1.3 Preserve and enhance existing, vital neighborhoods and communities in urban areas that are compact, provide choices in housing types, and encourage travel by foot, bicycle or transit.
- RG-1.4 Promote design that preserves community character and livability, creates lively and people-oriented areas, and supports transit, pedestrian and bicycle access.
- RG-1.5 Promote compact and functional land use patterns and investments in existing urban communities:
  - a. Provide for conveniently located, pedestrian-oriented businesses and services, such as small stores and transit stops, appropriate in scale and character to serve existing neighborhoods,
  - b. Encourage redevelopment or revitalization of underused commercial areas before establishing new areas,
  - c. Provide for more choices in housing type and moderate density increases through such actions as addition of accessory units and other forms of infill housing, and
  - d. Encourage development of convenient and safe bicycle routes and footpaths with connection to stores, schools and other activity areas. Improve transportation connections, particularly transit and bike, between nearby communities.
- RG-1.6 Support the transformation of low-density auto-oriented transportation corridors to higher-density mixed-use urban transportation corridors when redevelopment would not detract from centers or compact communities. Corridors that offer potential include those that are located near significant concentrations of residences or employment, and have the potential to support frequent transit service and increased pedestrian activity. Encourage the redevelopment of these arterials through:
  - a. Addition of transit facilities, pedestrian-oriented retail, offices, housing, and public amenities,
  - b. Building design and placement, street improvements, parking standards, and other measures that encourage pedestrian and transit travel, and
  - c. Provision of pedestrian and bicycle connections between transportation corridors and nearby neighborhoods.
- RG-1.7 When new development occurs, encourage conversion of large, undeveloped urban areas in a manner that is pedestrian- and transit-supportive, resource-efficient, and that promotes a sense of community.

Encourage a diversity of lot sizes and housing types for rental and ownership by people with different needs. Provide a network of connected streets serving transit, pedestrians, bicycles and automobiles which supports efficient travel and connects developing and established areas. Include stores, transit stops and other neighborhood-oriented uses within walking distance of most residential areas.

RG-1.8 As large undeveloped areas within the urban growth area are converted to urban uses, encourage the use of master planning to address land use, design, and development standards (including streets) to ensure coordination over time and among developers, service providers and other affected interests.

### **Focus Growth in Centers**

- RG-1.9 Encourage growth in compact, well-defined urban centers which: (1) enable residents to live near jobs and urban activities; (2) help strengthen existing communities; and (3) promote bicycling, walking and transit use through sufficient density and mix of land uses. Connect and serve urban centers by a fast and convenient regional transit system. Provide service between centers and nearby areas by an efficient, transit-oriented, multi-modal transportation system.
- RG-1.10 Provide opportunities for creation of town centers in urban areas that: (1) serve as focal points for neighborhoods and major activity areas; (2) include a mix of land uses, such as pedestrian-oriented commercial, transit stops, recreation and housing; and (3) encourage transit use, biking and walking through design and land use density.

- RG-1.11 Recognize, preserve and provide for existing major manufacturing/industrial centers within urban growth areas that include an intensive concentration of manufacturing, industrial or advanced technology uses.
- RG-1.12 Encourage development of enhanced comprehensive subarea plans and comprehensive environmental review for centers to expedite subsequent project-level review and approval.

## Contiguous and Orderly Development

RC-2 Coordinate provision of necessary public facilities and services to support development and to implement local and regional growth planning objectives. Provide public facilities and services in a manner that is efficient, cost-effective, and conserves resources. Emphasize interjurisdictional planning to coordinate plans and implementation activities and to achieve consistency.

### **Encourage Strategic Location of Growth**

- RC-2.1 Encourage the location and phasing of growth within urban growth areas in a manner that supports development of urban centers and manufacturing/industrial centers, makes use of existing public facility and service capacity, and is consistent with capital facility planning, while reinforcing cities as primary locations for growth.
- RC-2.2 Encourage annexation proposals that conform to an orderly expansion of city boundaries within the urban growth area and provide for a contiguous development pattern. When proposed annexations are near county borders, the process should include collaboration and proposal review by the neighboring county to ensure proper expansions and interjurisdictional cooperation.
- RC-2.3 Identify and develop changes to regulatory, pricing (such as parking fees, mileage based fees and tolls), taxing and expenditure practices within the region to encourage concentrated rather than dispersed development.

#### **Provide Services in a Coordinated and Effective Manner**

- RC-2.4 Ensure that the public facilities and services necessary to support development are adequate, and are provided in a coordinated, efficient and cost-effective manner which supports local and regional growth planning objectives.
- RC-2.5 Promote efficient service delivery in urban growth areas by encouraging efforts to reduce the number of special districts providing urban governmental services and discouraging the creation of new special districts.
- RC-2.6 Give high priority to protecting and enhancing the natural environment and public health and safety when providing services and facilities.
- RC-2.7 In coordinating growth management for urban development with natural resource planning, promote urban development solutions that conserve water, energy, and land resources and protect air quality.
- RC-2.8 Integrate land use and transportation planning to encourage health and human services facilities to locate near transit and other services (such as day care, retail and legal) and to promote service delivery at affordable costs.

## Coordinate Planning and Implementation Activities to Achieve Consistency

- RC-2.9 Coordinate planning efforts among jurisdictions, agencies and federally recognized Indian tribes where there are common borders or related regional issues to facilitate a common vision, consistency and effective implementation of planning goals. Encourage meaningful and ongoing public participation in planning efforts.
- RC-2.10 Establish and maintain equitable allocations of public costs and revenue among the region's jurisdictions.
- RC-2.11 Certification of transportation elements in local comprehensive plans will be based on conformity with the Growth Management Act and consistency with the adopted Metropolitan Transportation Plan, including the established regional guidelines and principles in the Plan.

All transportation elements must reflect the established regional guidelines and principles by December 31, 1996. Jurisdictions are required to identify transportation facility and service needs in their transportation elements for certification. If this identification of needs includes implementation measures, such as the listing of specific transportation projects, these measures are only examined to establish whether the overall transportation element addresses Growth Management Act requirements and consistency with the Metropolitan Transportation Plan.

Individual transportation projects themselves are not certified in the review of the transportation element. Rather, transportation projects shall be evaluated in the Regional Council's Transportation Improvement Program. Once certified, local jurisdictions' transportation elements remain certified until amended or updated.

- RC-2.12 Monitor implementation of VISION 2020 to evaluate the region's success in achieving regional growth management, economic and transportation objectives, including:
  - a. Efficient urban growth areas with growth focused in compact communities and centers,
  - b. Efficient provision of public services and facilities,
  - c. An affordable and diverse supply of housing,
  - d. Preservation of rural areas, protection of the natural environment, and conservation of resources,
  - e. A strong, stable and diverse economy, and
  - f. An efficient, multimodal transportation system.

Coordinate regional and county performance monitoring activities to minimize data gathering and duplication of effort.

## Regional Capital Facilities

- RF-3 Strategically locate public facilities and amenities in a manner that adequately considers alternatives to new facilities (including demand management), implements regional growth planning objectives, maximizes public benefit, and minimizes and mitigates adverse impacts.
- RF-3.1 Invest in major public facilities and urban amenities in a manner that supports the development of urban centers and manufacturing/industrial centers.
- RF-3.2 Develop a process for planning for and siting regional public facilities significant to two or more counties and needed to support regional growth and planning objectives. Consider alternatives to new regional capital facilities, including demand management.
- RF-3.3 Site specifically defined regional capital facilities in a manner that (1) reduces adverse societal, environmental and economic impacts on the host community; (2) equitably balances the location of new facilities; and (3) addresses regional growth planning objectives. Regionally share the burden and provide mitigation to communities impacted by regional capital facilities.
- RF-3.4 Regional capital facilities proposed to be located in rural areas must either demonstrate that a non-urban site is the only appropriate location for the facility (for example, a dam) or (in the case of urban facilities) demonstrate that no urban sites are feasible as determined by siting processes. If rural siting is necessary, measures should be taken to mitigate adverse impacts and prohibit development incompatible with rural character.

## Housing

- RH-4 Provide a variety of choices in housing types to meet the needs of all segments of the population. Achieve and sustain an adequate supply of low-income, moderate-income and special needs housing located throughout the region.
- RH-4.1 Promote fair and equal access to housing for all persons regardless of race, color, religion, gender, sexual orientation, age, national origin, family status, source of income or disability.
- RH-4.2 Achieve and sustain a fair, equitable and rational distribution of low-income, moderate-income and special needs housing throughout the region consistent with land use policies and the location and type of jobs. Transportation facilities and other services should be provided to support a balance of jobs and housing. Provide a diversity of housing types to meet the housing needs of all segments of the population.
- RH-4.3 Promote interjurisdictional cooperative efforts, including land use incentives and funding commitments, to ensure that an adequate supply of housing is available to all segments of the population.
- RH-4.4 Preserve existing low-income, moderate-income and special needs housing and where appropriate serve it with transit. Promote development of institutional and financial mechanisms to provide for affordable housing, particularly housing located in and near urban centers and transportation corridors.

RH-4.5 Consider the economic implications of private and public regulations and practices so that the broader public benefit they serve is achieved with the least additional cost to housing.

## Rural Areas

RR-5 Preserve the character of identified rural areas by protecting and enhancing the natural environment, open space and recreational opportunities, and scenic and historic areas; supporting small-scale farming and forestry uses; and permitting low-density residential living and cluster development maintained by rural levels of service. Support cities and towns in rural areas as locations for a mix of housing types, urban services, cultural activities, and employment that serves the needs of rural areas.

## **Preserve Rural Land Uses and Development Patterns**

- RR-5.1 Rural lands should be identified on a long-term basis and should support rural uses such as farming, forestry, mining, recreation, and other rural activities, and permit a variety of low-density residential uses which preserve rural character, and can be sustained by rural service levels.
- RR-5.2 Promote clustering residential development and other techniques which protect and enhance significant open spaces, natural resources, and critical areas, and contribute to more efficient use of land. Clustering should not increase residential housing units in the overall area designated as rural, and should be consistent with desired rural densities. Development clusters should contain rural levels of service that meet health, safety and environmental standards, and should be designed, scaled and sited in a manner consistent with rural character.
- RR-5.3 Support cities and towns in rural areas as locations of employment, urban services, a mix of housing types, and cultural activities for rural areas. Unincorporated rural activity areas should primarily function as locations for service needs such as grocery stores, shopping, and community services, and small-scale cottage industries for the surrounding rural area.

#### **Establish and Maintain Rural Levels of Service**

- RR-5.4 Rural level-of-service standards should address sewage disposal, water, transportation and other appropriate services, be consistent with rural development patterns and densities, and support long-term preservation of rural areas. When services need to be extended to solve isolated health and sanitation problems, they should be designed for limited access so as not to increase the development potential of the surrounding rural area.
- RR-5.5 When major infrastructure facilities that pass through rural areas are constructed or improved to increase their carrying capacity, they should be designed to neither negatively impact rural character, nor provide new opportunities for increased development in rural areas.

#### **Conserve Small-Scale Natural Resource Uses in Rural Areas**

- RR-5.6 Promote the conservation of non-designated natural resource lands in rural areas and accommodate small-scale farming, forestry and resource-based cottage industries.
- RR-5.7 Rural areas should contain low density buffers adjacent to designated natural resource lands.

## Open Space, Resource Protection and Critical Areas

RO-6 Use rural and urban open space to separate and delineate urban areas and to create a permanent regional greenspace network. Protect critical areas, conserve natural resources, and preserve lands and resources of regional significance.

### **Conserve and Protect Natural Resources and Critical Areas**

- RO-6.1 Conserve and enhance the region's natural resources and environmental amenities while planning for and accommodating sustainable growth.
- RO-6.2 Promote regional air and water quality protection in conjunction with comprehensive plan development and implementation.
- RO-6.3 Protect critical areas and other aspects of the natural environment, including wetlands, water recharge areas, fish and wildlife habitat conservation areas, flood plains, steep slopes and geologically hazardous areas.

- RO-6.4 Conserve natural resources by maintaining and enhancing designated farm, forest, and mineral lands; and establish best management practices which protect the long-term integrity of the natural environment, adjacent land uses, and the long-term productivity of resource lands.
- RO-6.5 Preserve significant regional historic, visual and cultural resources including views, landmarks, archaeological sites and areas of special locational character.
- RO-6.6 Encourage the use of environmentally sensitive development practices to minimize the effects of growth on the region's natural resource systems.

### **Develop a Regional Greenspace Network**

- RO-6.7 Identify, preserve, and enhance, through interjurisdictional planning, significant regional networks and linkages of open space, regional parks and recreation areas, wildlife habitats, critical areas, resource lands, water bodies and regional trails. RO-6.8 Frame and separate urban areas by creating and preserving a permanent network of urban and rural open space, including parks, recreation areas, critical areas, and resource lands. Also, within urban areas, promote development of parks and recreation areas.
- RO-6.9 Develop a regional greenspace strategy that incorporates planning efforts of cities, counties, state agencies, non-profit interest groups and land trusts in the region. The strategy should identify opportunities for linkages and recommend ways to preserve a system of regional greenspaces.

#### **Economics**

RE-7 Foster economic opportunity and stability, promote economic well-being, and encourage economic vitality and family wage jobs while managing growth. Support effective and efficient mobility for people, freight, and goods that is consistent with the region's growth and transportation strategy. Maintain region-wide information about past and present economic performance. Assess future economic conditions that could affect the central Puget Sound region.

## Support Retention and Expansion of the Region's Employment Base and Encourage Diversification of the Region's Economy

- RE-7.1 Support and encourage region-wide coordination between public institutions and private businesses to identify the full range of public infrastructure investment and space needs necessary to promote a sustainable regional economy.
- RE-7.2 Support balanced regional and local economic growth by: working with economic development agencies and major institutions to provide information about sites and services; supporting the initiatives undertaken by these agencies to develop and nurture businesses that contribute to the needs of the regional economy; encouraging the location of new or expanded economic activity in areas with public services that support proposed activities; and promoting new economic activity and employment growth that creates family wage jobs in centers such as Tacoma, Everett, and Bremerton.
- RE-7.3 Strive to retain existing and nurture emerging employment and employers in the region by: minimizing obstacles to their continued operation; facilitating their expansion through coordinated capital investment in public infrastructure; and balancing the needs and requirements of commercial and industrial enterprises with the region's growth management and transportation policies.

## Promote Viability and Sustainability of Centers and Compact Communities

- RE-7.4 Support the economic viability of centers by encouraging collaborative review by all stakeholders of the access, design, and development needs of centers.
- RE-7.5 Recognize that the long-term economic health of centers requires a range of housing alternatives for households of all income levels; employment opportunities that match the skills and background of the labor force; and a transportation system that is economical and efficient.
- RE-7.6 Promote economic opportunity by encouraging employment growth in all centers, and foster strength and sustainability by supporting centers-based economic strategies identified in local comprehensive plans and countywide planning policies.

- RE-7.7 Support investments in community services, infrastructure, and amenities that promote sustainable economic activity within centers and foster the development of compact communities.
- RE-7.8 Develop and support a region-wide industrial strategy that promotes the use and reuse of existing manufacturing/industrial centers and, when necessary, the development of new centers by: discouraging unrelated and nonsupportive uses within and near established industrial areas; providing adequate access to the infrastructure necessary to sustain and develop these areas; and supporting reuse, redevelopment or revitalization of underused industrial areas before establishing new ones.
- RE-7.9 Support industrial clusters consisting of related industries and businesses that export outside the region, have strong multipliers, have the potential for future growth and are on the leading edge of international competition.
- RE-7.10 Support viable economic growth and development opportunities in cities and towns in rural areas that recognize their distinct character and economic potential, and maintain the infrastructure necessary to support natural resource industries such as fisheries, agriculture, forestry and mineral extraction.
- RE-7.11 Foster renewable resources in unincorporated rural areas and designated natural resource lands by establishing and promoting management practices that protect the long-term integrity of the natural environment and assure that the long-term productivity of designated resource lands are preserved.

# Sustain and Enhance Accessibility of Centers and Promote the Flow of Goods and Services In and Through the Region

- RE-7.12 Through broad participation of the private sector and major institutions, identify transportation requirements and improvements necessary to sustain and enhance existing economic activity in the region and promote accessibility to and within all centers for people, information, and goods.
- RE-7.13 Identify the transportation requirements of leading and emerging sectors of the regional economy, and develop a multi-modal transportation system that recognizes the distinctive needs of all business sectors of the regional economy to move goods, people and information within and through the region.
- RE-7.14 Coordinate investments in transportation infrastructure with the needs of the private sector to maximize the development of current and future industrial sites, including existing ports, and to enhance the movement of goods, information and services within and between manufacturing/industrial centers.
- RE-7.15 Maintain and enhance the economic viability of centers and compact communities by improving accessibility to commercial and retail sector activities and promoting circulation of goods and people.

#### **Provide for Regional Data and Information Management Systems**

- RE-7.16 Work collaboratively with member jurisdictions, local governments, other public agencies and the private sector to prepare and adopt region-wide and subarea economic and demographic forecasts to comply with federal transportation and environmental planning requirements; and reconcile these forecasts with the state Office of Financial Management's countywide projections and locally derived subarea allocations prepared under provisions of the state's Growth Management Act.
- RE-7.17 Develop and maintain a regional database that provides policymakers in the public and private sector with information about land use, transportation and economic conditions throughout the region. Coordinate information provided in the regional database with the need for monitoring the implementation and performance of plans and policies developed under federal and state legislation, and provide the necessary data for continuous review and evaluation of the region's ability to achieve sustainable economic activity consistent with long-term growth management goals.

## Transportation

RT-8 Develop a transportation system that emphasizes accessibility, includes a variety of mobility options, and enables the efficient movement of people, goods and freight, and information.

### Optimize and Manage the Use of Transportation Facilities and Services

- RT-8.1 Develop and maintain efficient, balanced, multi-modal transportation systems which provide connections between urban centers and link centers with surrounding communities by:
  - a. Offering a variety of options to single-occupant vehicle travel; b. Facilitating convenient connections and transfers between travel modes;
  - c. Promoting transportation and land use improvements that support localized tripmaking between and within communities;
  - d. Supporting the efficient movement of freight and goods.
- RT-8.2 Promote convenient intermodal connections between all elements of the regional transit system (bus, rail, ferry, air) to achieve a seamless travel network which incorporates easy bike and pedestrian access.
- RT-8.3 Maintain and preserve the existing urban and rural transportation systems in a safe and usable state. Give high priority to preservation and rehabilitation projects which increase effective multimodal and intermodal accessibility, and serve to enhance historic, scenic, recreational, and/or cultural resources.
- RT-8.4 Maximize multimodal access to marine ferry routes through:
  - a. Coordinated connections to land-based transit service;
  - b. Safe and convenient bicycle and pedestrian linkages;
  - c. Preferential access for high-occupancy vehicles, and freight and goods movement on designated routes.
- RT-8.5 Encourage public and private sector partnerships to identify freight mobility improvements which provide access to centers and regional facilities, and facilitate convenient intermodal transfers between marine, rail, highway and air freight activities, to and through the region.
- RT-8.6 Promote efficient multimodal access to interregional transportation facilities such as airports, seaports, and inter-city rail stations.
- RT-8.7 Where increased roadway capacity is warranted to support safe and efficient travel through rural areas, appropriate rural zoning 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.
- RT-8.8 Support transportation system management activities, such as ramp metering, signalization improvements, and transit priority treatments, to achieve maximum efficiency of the current system without adding major new infrastructure.
- RT-8.9 Develop and periodically update regional transportation system performance standards to assist in the development of level-of-service standards for state owned and/or operated transportation facilities which seek to assure effective coordination and mutual benefit between local and state transportation systems.
- RT-8.10 Support the retrofit of existing roadways and other transportation facilities to control and reduce noise, polluting runoff and barriers to fish passage.

## Manage Travel Demand Addressing Traffic Congestion and Environmental Objectives

- RT-8.11 Promote demand management and education programs that shift travel demand to non-single occupant vehicle travel modes and to off-peak travel periods, and reduce the need for new capital investments in surface, marine and air transportation.
- RT-8.12 Support transportation system management programs, services, and facility enhancements which improve transit's ability to compete with single-occupant vehicle travel times.

- RT-8.13 Regional, major corridor, and urban center goals should be established reflecting regional policy intent to achieve increased proportional travel by transit, high-occupancy vehicle, and nonmotorized travel modes to achieve reduced dependence on single-occupant vehicle travel, with the greatest proportional increases in urban centers. Such goals should be set for 5- to 10-year periods and periodically updated in consultation with local jurisdictions, transit agencies and WSDOT.
- RT-8.14 Emphasize transportation investments that provide alternatives to single-occupant vehicle travel to and within urban centers and along corridors connecting centers. RT-8.15 Develop a public dialogue and seek broad public support for implementation of transportation pricing strategies which can reduce subsidies for less efficient travel and manage travel demand. Pricing strategies are intended to assist in achieving growth management and economic development goals and policies, and should also support objectives for energy conservation, air quality improvement and congestion management.
- RT-8.16 Support opportunities to use advanced transportation and information technologies which demonstrate support for regional growth and transportation strategies.

## Focus Transportation Investments Supporting Transit and Pedestrian-Oriented Land Use Patterns

- RT-8.17 Integrate land use and transportation solutions that offer the best opportunity to reduce air pollution, conserve energy, and protect the natural environment.
- RT-8.18 Investments in transportation facilities and services should support compact, pedestrian-oriented land use development throughout urban communities, and encourage growth in urban areas, especially in centers.
- RT-8.19 Promote transportation improvements that support the redevelopment of lower-density, auto-dominated arterials to become more pedestrian and transit compatible urban transportation corridors.
- RT-8.20 Encourage a mix of land uses and densities at major transit access points to meet passenger needs and offer an opportunity to reduce vehicle trips.
- RT-8.21 Promote the development of local street patterns and pedestrian routes that provide access to transit services within convenient walking distance of homes, jobs, schools, stores, and other activity areas.
- RT-8.22 Support the establishment of high capacity transit stations that advance regional growth objectives by:
  - a. Maximizing opportunities to walk, bike or take short transit trips to access regional transit stations;
  - b. Locating stations within urban centers and at sites supporting development of concentrated urban corridors;
  - c. Providing direct, frequent and convenient regional transit service between urban centers; and
  - d. Providing system access to urban areas in a manner that does not induce development in rural areas.
- RT-8.23 Regional high capacity transit station area guidelines should be developed by the Puget Sound Regional Council in cooperation with the Regional Transit Authority, WSDOT, local transit agencies, and local jurisdictions to establish regionally consistent expectations of appropriate development in the vicinity of high capacity transit stations (including rail, major bus, and ferry) that best support and assure effective utilization of the regional transit system.
- RT-8.24 The regional high capacity transit station area guidelines should be addressed by the Regional Transit Authority, transit agencies and WSDOT in conducting planning activity through interlocal agreements to be developed with local jurisdictions for station area planning. Such planning shall set forth conditions for development and access around high capacity transit stations. Consistency with transit station area guidelines, in conjunction with other regional policies, should be addressed in developing the regional transit system within corridors.
- RT-8.25 Local jurisdictions that are or will be directly served by the high capacity transit system identified in the Metropolitan Transportation Plan should develop specific station area plans as part of their comprehensive planning efforts that provide for development, services and facilities sufficient to support efficient transit service commensurate with the regional investment in transit. Local station area plans should be consistent with regional high capacity transit station area guidelines, and at a minimum address land use and density, transit-supportive development regulations, urban design, parking, and nonmotorized and motorized access.

## **Expand Transportation Capacity Offering Greater Mobility Options**

- RT-8.26 Upon potential achievement of broad public support, regional transportation pricing strategies should be considered as a method to assist in financing the costs for development, maintenance and operation of the regional multimodal transportation system in order to reflect a more direct relationship between transportation system costs and benefits.
- RT-8.27 Promote an interconnected system of high-occupancy vehicle lanes on limited access freeways that provides options for ridesharing and facilitates local and express transit services connecting centers and communities. Assure safe and effective operation of the HOV system at intended design speed for transit vehicles while also enabling the region to assure attainment and maintenance of federal and state air quality standards.
- RT-8.28 Support the design and development of components of the regional high-occupancy vehicle (HOV) system which improve transit access and travel time relative to single-occupant vehicle travel.
- RT-8.29 Promote and support the development of arterial HOV lanes and other transit priority treatments in urban areas to facilitate reliable transit and HOV operations.
- RT-8.30 Promote and assist in coordinated development and operation of higher speed intercity rail corridor services and facilities connecting the Puget Sound region with effective interregional and interstate transportation mobility which may reduce highway and air travel demands in such corridors.
- RT-8.31 Support effective management and preservation of existing regional air transportation capacity and ensure that future air transportation capacity and phasing of existing airport facilities needs are addressed in cooperation with responsible agencies. Coordinate this effort with long-range comprehensive planning of land use, surface transportation facilities for effective access, and development of financing strategies.
- RT-8.32 Ensure adequate capacity to serve cross-Sound travel demands that focuses on foot-passenger travel and freight and goods movement. Promote convenient connections for foot-passengers to the regional transit network.
- RT-8.33 Develop a regionally coordinated network of facilities for pedestrians and bicycles which provides effective local mobility, accessibility to transit and ferry services and connections to and between centers.
- RT-8.34 Support the development of roadways when they are needed to provide more efficient connections for a comprehensive road network to move people and goods when such roads will not cause the region to exceed air quality standards.
- RT-8.35 Support appropriate development of freight access improvements for greater reliability and efficiency in the movement of freight and goods. Such improvements may include but are not limited to consideration of exclusive freight access facilities and/or preferential freight access where appropriate.
- RT-8.36 Transportation investments in major facilities and services should maximize transportation system continuity and be phased to support regional economic development and growth management objectives.
- RT-8.37 Improve intermodal connections between high capacity transit stations, (including ferry terminals, rail stations, and bus centers), major transfer points, and the communities they serve, primarily through more frequent and convenient transit service.
- RT-8.38 Support opportunities to redevelop the road system as multi-modal public facilities which accommodate the needs of pedestrians, cyclists, transit, high-occupancy vehicles, automobiles, and trucks.
- RT-8.39 Develop a high-capacity transit system along congested corridors that connects urban centers with frequent service sufficient to serve both community and regional needs.
- RT-8.40 Encourage, when possible, the use of local labor when building regional transportation systems and components which could generate new economic and employment opportunities.



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This appendix consists of the list of stakeholders that were given a copy of the Draft Environmental Impact Statement. Additional copies are available through the Puget Sound Regional Council's Information Center, infoctr@psrc.org, 206-464-7532.

#### **PSRC BOARD and COMMITTEE MEMBERS:**

**Executive Board** 

Growth Management Policy Board Transportation Policy Board

Economic Development District Board

Regional Staff Committee
Prosperity Partnership Roundtable

VISION 2020+20 Environmental Justice Group

VISION 2020+20 Environmental Justice Group VISION 2020+20 Environmental Planning Group

#### **COUNTIES:**

Island County King County Kitsap County Pierce County Snohomish County

Thurston County

### **CITIES & TOWNS:**

Algona Duvall Arlington Eatonville Auburn Edgewood Bainbridge Island Edmonds Beaux Arts Village Enumclaw Bellevue Everett **Black Diamond** Federal Way Bonney Lake Fife Bothell Fircrest **Bremerton** Gig Harbor Brier Gold Bar Buckley Granite Falls Burien **Hunts Point** Carbonado Index Carnation Issaquah Clyde Hill Kenmore Covington Kent Darrington Kirkland

Lakewood Lynnwood Ruston Maple Valley Sammamish Marysville SeaTac Medina Seattle Mercer Island Shoreline Mill Creek Skykomish Milton Snohomish Monroe Snoqualmie Mountlake Terrace South Prairie Mukilteo Stanwood Steilacoom Newcastle Sultan Normandy Park North Bend Sumner Tacoma Orting

Pacific Tukwila
Port Orchard University Place
Poulsbo Wilkeson
Puyallup Woodinville
Redmond Woodway
Renton Yarrow Point

Des Moines

**DuPont** 

Lake Forest Park

Lake Stevens

#### **REGIONAL AGENCIES:**

Benton Franklin Regional Council

Cowlitz-Wahkiakum Council of Governments

Grays Harbor Council of Governments

Kitsap Regional Planning Council

Puget Sound Clean Air Agency

Skagit Council of Governments

Southwest Washington Regional Transportation

Council

Spokane Regional Transportation Council

Thurston Regional Planning Council

Whatcom County Council of Government

Yakima Valley Conference of Government

#### **STATE AGENCIES:**

Department of Community, Trade, Economic

Development

Department of Ecology, SEPA Unit

Department of Environmental Services

Department of Fisheries and Wildlife

Department of Health

Department of Natural Resources

Department of Social and Health Services

Department of Transportation

Office of Archaeology and Historic Preservation

Office of the Attorney General

Office of the Governor

Parks and Recreating Commission

**Utilities and Transportation Commission** 

Washington State Ferries

Washington State Transportation Commission

#### **FEDERAL AGENCIES:**

Bureau of Reclamation

**Federal Aviation Administration** 

Federal Emergency Management Agency

Federal Highways Administration

Federal Transit Administration

National Marine Fisheries Service

National Oceanic and Atmospheric Administration

National Parts Service

U.S. Army Corps of Engineers

U.S. Bureau of Indian Affairs

U.S. Coast Guard

U.S. Department of Interior

U.S. Department of Transportation

U.S. Environmental Protection Agency

U.S. Fish and Wildlife Service

#### TRIBES:

**Duwamish Tribal Office** 

Muckleshoot Tribe of Indians

Nisqually Indian Community Council

Port Gamble S'Klallam Tribe

Puyallup Tribe of Indians

Sauk Suiattle Tribal Council

**Snohomish Tribal Organization** 

Snoqualmie Indian Tribe

Steilacoom Tribe

Stillaguamish Board of Directors

Suquamish Indian Tribe

Tulalip Tribe of Indians

### PORTS:

Port of Bremerton

Port of Everett

Port of Seattle

Port of Tacoma

#### **TRANSIT AGENCIES:**

Community Transit

**Everett Transportation Services** 

Kitsap Transit

Metropolitan King County

Pierce Transit

Sound Transit

#### UTILITIES:

Bonneville Power Administration

Cascade Natural Gas

Cascade Water Alliance

**Grid West** 

Kitsap County Public Works

Northwest Power and Conservation Council

Peninsula Light Company

Pierce County Department of Utilities

**Puget Sound Energy** 

Seattle City Light

Seattle Water Department

Snohomish County Public Utility District

Tacoma Power

Tacoma Public Utilities

Washington Utilities and Transportation Commission

#### LIBRARIES:

Eastside Journal Library Everett Public Library King County Library Kitsap Regional Library

MRSC Library

News Tribune Library

Pacific Lutheran University Library

Pierce County Library Puyallup Library Renton Library

Seattle Pacific University Library

Seattle Public Library
Seattle Times Library
Seattle University Library
Sno-Isle Regional Library
Sound Transit Library
Tacoma Public Library

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Cascade Bicycle Club

Cascade Land Conservancy

CommenSpace

Community Services Advisory Committee Daniel J. Evans School of Public Affairs

Ethnic Unity Coalition Executive Alliance

**Everett Community College** 

Futurewise Hopelink

Housing Development Consortium

Housing Partnership
Housing Resources Group
Intercommunity Mercy Housing

Interfaith Association of Snohomish County

Kitsap County Health District Korean Women's Association Las Americas Business Center League of Women Voters Low Income Housing Institute Mountains To Sound Greenway

Municipal League

National Association for the Advancement of Colored

People

National Wildlife Federation

Nature Conservancy

North Seattle Community College Northwest Environment Watch NW Indian Fisheries Commission Paratransit Services of Pierce County

People for Puget Sound

Public Health Seattle & King County

**Puget Sound Action Team** 

Puget Sound Water Quality Action Team

Refugee Forum

Salmon Recovery Funding Board

Seattle Housing Authority Seattle Pacific University

Seattle University

Shared Strategies Group

Sierra Club

Snohomish Health District Snoqualmie Learning Center St. Andrews Housing Group

Tacoma Area Coalition of Individuals with Disabilities

Tacoma-Pierce County Health Department

Tacoma/Pierce County EDB Tahoma Audubon Society

Thurston Regional Planning Council

Trust for Public Land

United Way of Pierce County United Way of Snohomish County

University of Puget Sound

University of Washington Climate Impacts Group University of Washington Department of Urban

Design & Planning

Vashon-Maury Island Community Council

Washington Audubon

Washington Chapter American Planning Association

Washington Environmental Council Washington State Department of Health

Washington Toxics Coalition

## **BUSINESS:**

AMTRAK

Bellevue Chamber of Commerce Burlington Northern Santa Fe Railroad Commercial Development Solutions

Economic Development Council of Seattle & King County

Economic Development Council of Snohomish County

Everett Area Chamber Task Force Greater Seattle Chamber of Commerce Kemper Development Company Kitsap Economic Development Council Snohomish Association of Realtors

Master Builders Association of King & Snohomish

Snohomish County Workforce Development Council Tacoma-Pierce County Chamber of Commerce

Union Pacific Railroad

Washington Association of Realtors

#### OTHER:

VISION 2020 Mailing List (includes all stakeholders that attended V2020 public meetings)

