



Appendix I-E: 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 Final Environmental Impact Statement. Following an overview, sections E.2 through E.4 document the methodology for extending currently adopted jurisdictional growth targets in the Growth Targets Extended and Preferred Growth alternatives, the methodology for estimating impervious surfaces in chapter 5.6, and the transportation demand model output data.

E.1. MODEL OVERVIEW

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 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 the regional growth alternatives.

These 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 alternatives analyzed in this Final 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 E.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 2040 Analysis			
Indicator	Definition	Units	Geographies Reported
Demographics			
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	Region UGA Rural County KC Subarea
Gross Dwelling Density	Dwelling units per gross acre.	Dwelling units per gross acre	Region UGA Rural County KC Subarea
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



INDEX - Indicators for VISION 2040 Analysis

Indicator	Definition	Units	Geographies Reported
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	Region UGA Rural County KC Subarea
Employment Density*	Number of employees per acre of land designated for employment uses.	Employees per gross acre	Region UGA Rural County KC Subarea
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 (%)	Region UGA County UGA
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	Region UGA Rural County KC Subarea

* Indicator value determined by user in painting.

INDEX - Indicators for VISION 2040 Analysis			
Indicator	Definition	Units	Geographies Reported
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	Region UGA Rural County KC Subarea
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.

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 2040 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 sub-regional forecasts from the EMPAL/DRAM models were released in January 2003, and can be found at <http://www.psrc.org/datapubs/data/forecasts.htm> on the agency website.

C. Representing VISION 2040 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 2040 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 Categories	EMPAL/DRAM & Regional Travel Demand Model Detailed Data Variables
Total Population	Population separated into: <ul style="list-style-type: none"> – Household Population – Group Quarters Population
Housing Units	Households by Income Quartile:

Index Analysis Tool Base Data Categories	EMPAL/DRAM & Regional Travel Demand Model Detailed Data Variables
	<ul style="list-style-type: none"> – Low Income Households – Lower Middle Income Households – Upper Middle Income Households – Upper Income Households
Total Employment	<p>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:</p> <ul style="list-style-type: none"> – Retail – Finance, Insurance, Real Estate, and Services (FIRES) – Government and Education – Manufacturing – Wholesale, Transportation, Communications, and Utilities (WTCU)

The following procedure was used to develop the detailed data necessary to run the Regional Travel Demand Model for each VISION 2040 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 <http://www.psrc.org/datapubs/pubs/modeltravel.pdf>.

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 2040 FEIS 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 http://www.psrc.org/datapubs/pubs/publist//publist_models.htm. Information about EMME/2 (the modeling software) can be obtained at http://www.inro.ca/products/e2_products.html.

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 (PM₁₀) and carbon monoxide (CO). The region was formerly designated as a maintenance area for ground level ozone (O₃), 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.

E.2. METHODOLOGY FOR DEVELOPING THE PREFERRED GROWTH AND GROWTH TARGETS EXTENDED ALTERNATIVES

This section explains the methodology used to develop the population and employment distribution analyzed in the Preferred Growth and Growth Targets Extended alternatives.

As noted in the Overview section, all of the alternatives were painted in an identical manner using the INDEX model. That is, each of the 5.5-acre grid cells were encoded with one of the 26 land-use classes (known as paint chips). These paint chips applied default population and employment values to represent the end state condition of the cell, that is, the number of people and jobs in that cell in the year 2040. The final painting step involved adjusting these land use classifications or default values to match the growth distribution alternative allocations, as suballocated to regional geographies, by county.

Two of the alternatives required additional technical methodology to determine how to change the default values - these were the Growth Targets Extended and the Preferred Growth alternatives. While this additional work affected the numbers painted into each cell, the ultimate painting of the cells in INDEX involved the identical land use classes and adjustments of default values.

A. Overview - Growth Targets Extended

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 the Growth Targets Extended Alternative.

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

Population - Growth Targets Extended

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 - Growth Targets Extended

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 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.

B. Overview - Preferred Growth Alternative

The following general rules were used for painting the preliminary preferred growth alternative:

Step 1: Consult Reference Tools: There are three facets of this step: (a) development capacity, (b) land use mapping, and (c) 2040 small area forecasts.

- *Development Capacity:* Consult evaluation of theoretical development capacity – determined by comparing theoretical buildout of current generalized land use classifications to existing base year 2000 population and employment. Calculations will be made for capacity within ¼-mile buffers of Regional Growth Center boundaries, for individual cities, and for regional geographies at the county level. This will provide a reference tool to help to determine what relative proportions of growth might be directed to a central node or Regional Growth Center area, to higher intensity mixed use classifications versus single purpose classifications, and the amount directed to the rest of the city or regional geography. After a determination is made, document the decision on a relevant preferred growth alternative documentation worksheet. Each county will have an overall county notes worksheet, as well as a worksheet documenting decisions and any relevant issues for each regional geography.
- *Land Use Map:* Refer to maps of various scales depicting the region and subregions painted with Index Land Use classifications. These maps will provide a visual reference for the painter. Note any overall conclusions on the relevant county or regional geography log sheet.

- *2040 Small Area Forecasts:* After painting, consider overall Population and Employment levels by Forecast Analysis Zones and Transportation Analysis Zones. Consider the Technical Advisory Committee (a group of local government staff formed to assist in the development of the preferred growth alternative) recommendations for Rural and Unincorporated Urban Growth Area Transportation Analysis Zones and Transportation Analysis Zones that are most likely to develop.
- *Locally adopted population allocations (Growth Targets):* Refer to local adopted population targets and, where they exist, adopted employment targets. These targets, which are set at the city and other area levels, provided an important reference point to ensure that the distributions to a regional geography were within scale.

Step 2: Consider Growth Management Policy Board Policy Direction for Developing the Preferred Growth Alternative by Regional Geography:

- *Population in the Preferred Growth Alternative, adopted October 12, 2006:* emphasize Metropolitan and Core Suburban cities as primary places for population concentrations – and in particular Regional Growth Center areas; increase the population role played by Larger Suburban cities in 2040, emphasizing growth in subregional centers; maintain the current role – and slightly reduce the planned share - of Smaller Suburban cities in accommodating population growth, emphasizing healthy smaller subregional and town centers; maintain the current population role of Unincorporated Urban Growth Areas, focusing first on existing highly urbanized areas, particularly within areas affiliated with incorporated cities as potential annexation areas; minimize population growth within Rural Areas, commensurate with existing and desired rural character.

When painting the Preferred Growth Alternative, employ the following general rules:

- Start with Mixed Use classifications – higher intensity to lower intensity.
- Move to single-purpose Residential classifications – higher intensity to lower intensity. Avoid overpainting lowest intensity single family residential classification (Index Land Use ID #13).
- Place remainder in grid cells coded Mixed Use Other (Index Land Use ID #30).
- Do not allocate additional population to grid cells determined to be undevelopable: Forest, Gov-Military, Parks & Open Space, Right of Way, Resource Extraction, Tribal, Critical Environmental Area, Agriculture (Index Land Use ID #s 5, 6, 12, 17, 18, 19, 20, 21).

- *Employment in the PGA, adopted October 12, 2006:* Continue current policy for employment, emphasizing a concentrated regional pattern with a focus on Regional Growth Centers in Metropolitan and Core Suburban cities, particularly outside of King County; increase the regional share of employment in Snohomish, Pierce and Kitsap counties; direct a somewhat smaller overall regional share of employment in Metropolitan Cities when compared to current employment targets and local plans, and within the Metropolitan Cities geography a greater emphasis on job growth in Kitsap, Pierce and Snohomish counties; increase the employment role played by Larger Suburban cities in 2040, emphasizing growth in locally designated subregional centers; slightly decrease the overall regional share of planned jobs in Smaller Suburban Cities in all counties, while emphasizing healthy smaller locally designated subregional and town centers, and their role supporting surrounding unincorporated urban and rural areas; maintain or slightly increase the employment role of Unincorporated Urban Growth Areas, focusing on existing highly urbanized and commercial and industrial areas, with some additional growth to support growing residential communities; maintain the employment role presently played by Rural Areas, commensurate with rural character and overall residential population levels in the working Preferred Growth Alternative.

When painting the Preferred Growth Alternative, employ the following general rules:

- Start with Commercial classifications – higher intensity to lower intensity. Avoid overpainting highest intensity commercial classification (Index Land Use ID #s 3 & 4), and in particular Industrial grid cells (Index Land Use ID #7).
- Move to Mixed Use classifications – higher intensity to lower intensity.
- Place remainder in grid cells coded Mixed Use Other (Index Land Use ID #30).



- Do not allocate additional employment to grid cells determined to be undevelopable: Forest, Gov-Military, Parks & Open Space, Right of Way, Resource Extraction, Tribal, Critical Environmental Area, Agriculture (Index Land Use ID #s 5, 6, 12, 17, 18, 19, 20, 21).

Step 3: Paint by Regional Geography, by County: In each county, growth will generally be distributed by regional geographic class, or by a subset of a regional geographic class as defined below. Local conditions and characteristics of jurisdictions in regional geographies will be considered in each county to modify approach as appropriate.

- *Metropolitan Cities*
 - Determine proportions of allocation to be assigned to ¼ mile buffered RGC areas and to the balance of the regional geography by consulting Development Capacity assessment, INDEX planned land use maps and locally adopted targets and land use designations.
 - Record allocations – along with any geography-specific observations – on log sheet.
 - Select grid cells in ¼ mile buffered RGC areas within regional geography.
 - Query buffered RGC cells in the order described above for Population and Employment distribution.
 - If necessary, repaint RGC and buffer areas with new land use classifications to accommodate share of allocation.
 - Distribute balance to rest of regional geography (consult reference tools).
- *Core Suburban Cities*
 - Determine proportions of allocation to be assigned to ¼ mile buffered RGC areas and to the balance of the regional geography by consulting Development Capacity assessment, INDEX planned land use maps and locally adopted targets and land use designations.
 - Record allocations – along with any geography-specific observations – on log sheet.
 - Select grid cells in ¼ mile buffered RGC areas within regional geography.
 - Query buffered RGC cells in the order described above for Population and Employment distribution.
 - If necessary, repaint RGC and buffer areas with new land use classifications if necessary to accommodate share of allocation.
 - Distribute balance to rest of regional geography (consult reference tools).
- *Larger Suburban Cities*
 - Determine proportions of allocation to be assigned to Town Center or City Center areas (derived from local comprehensive plans) and to the balance of the regional geography by consulting Development Capacity assessment, INDEX planned land use maps and locally adopted targets and land use designations.
 - Record allocations – along with any geography-specific observations – on log sheet.
 - Select grid cells within Center areas in the regional geography in the order described above for Population and Employment distribution.
 - If necessary, repaint City or Town Center areas with new land use classifications to accommodate share of allocation.
 - Distribute balance to rest of regional geography (consult reference tools).



- *Smaller Suburban Cities*
 - Determine proportions of allocation to be assigned to subclasses A (cities within contiguous UGA) B (very small residential towns) and C (freestanding cities) by applying the current planned share of 2000 – 2025 change for the sub-class compared to the overall change of the Smaller Suburban City regional geography in the county. Determine whether planned share to subclass A is adequate, or should be increased somewhat to reflect county-specific conditions and GMPB policy direction.
 - Consult Development Capacity assessment, INDEX planned land use maps and locally adopted targets and land use designations, additional guidance to determine proportion of allocation to be assigned to Mixed Use areas within each sub-class.
 - Record allocations – along with any geography-specific observations – on log sheet.
 - Select grid cells within the regional geography sub-class in the order described above for Population and Employment distribution.
 - If necessary, identify City or Town Center areas and repaint with new land use classifications to accommodate share of allocation.
 - Distribute balance to rest of regional geography subclass (consult reference tools).

- *Unincorporated Urban Growth Areas*
 - Determine proportions of allocation to be assigned to Affiliated and Unaffiliated Urban Growth Areas by applying the current planned share of 2000 – 2025 change for the sub-class compared to the overall change of the regional geography. Determine whether planned share to Affiliated areas is adequate, or should be increased somewhat to reflect GMPB policy direction.
 - Determine proportions of allocation to be assigned to Mixed Use areas by consulting INDEX planned land use maps, and locally adopted targets and land use designations.
 - Record allocations – along with any geography-specific observations – on log sheet.
 - Select grid cells within the Affiliated UGA sub-class in the order described above for Population and Employment distribution.
 - If necessary, identify Activity Center areas within Affiliated UGA and repaint with new land use classifications to accommodate allocation.
 - Determine distribution of Unaffiliated UGA allocation by selecting grid cells within a ½ mile buffer of principal arterial routes, and/or within Transportation Analysis Zones (TAZs) recommended by Technical Advisory Committee.
 - Distribute balance to selected areas within Unaffiliated UGA (consult reference tools).
 - If necessary, identify Activity Center areas within Unaffiliated UGA and repaint with new land use classifications to accommodate share of allocation.

- *Rural Areas*
 - Identify and select a subset of Rural TAZs by the presence of Activity Centers and/or Technical Advisory Committee recommendations.
 - Determine proportion of allocation to be assigned to Mixed Use areas within these TAZs by consulting INDEX planned land use maps.
 - Record allocation – along with any geography-specific observations – on log sheet.
 - Select and distribute growth to rural grid cells within selected TAZs in the order described above for Population and Employment distribution.
 - Repaint grid cells within Activity Areas with new land use classifications if necessary to accommodate share of allocation.
 - Distribute balance to rest of regional geography (consult reference tools).



E.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 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.

A 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. However, given the generalized nature of the INDEX data, it was not feasible 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. And, given that the VISION 2020 update is a visioning project that looks 35 years into the future, it was not necessary to use a methodology involving this level of specificity.

The method used was a combination of using the INDEX land use type impervious coverage percentages, and then refining the percentage based on the amount of population assigned to each INDEX 5.5 acre grid cell. This was done because of the wide range in population densities that might exist in any given grid cell, even within any given land use type category. The methodology involved translating population per grid in residential and mixed -use zones into an estimate of land use intensity, and therefore average impervious surface coverage. 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.

A summary of the impervious coverage percentages assigned for INDEX land use categories are found in the following table.



IMPERVIOUS COVER (%) ASSIGNED FOR LAND USE TYPES/DENSITY

Land Use	Population per Grid Cell	Default (%)
Vacant (Residential and Mixed)	0	0
Low Density (Residential and Mixed Use)	> 0 and < 11.2	10
Medium Density (Residential and Mixed Use)	> 11.2 and <28	30
High Density (Residential and Mixed Use)	>= 28 and <39.1	40
Multifamily	> 39.1	60
Industrial	N/A	75
Commercial	N/A	85
Right of Way	N/A	80
Government/Military	N/A	20
Tribal	N/A	0
Resource and other Undevelopable	N/A	0

ESTIMATES OF FULL IMPERVIOUS SURFACE RESULTS BY ALTERNATIVE

Preferred Growth Alternative		
Average Impervious Percent	Total Square Miles	Impervious Square Miles
0	4,870	0
10	560	60
20	170	30
30	200	60
40	90	30
60	290	170
75	80	60
80	20	20
85	50	40
<i>Total</i>	<i>6,330</i>	<i>480</i>



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
<i>Total</i>	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
<i>Total</i>	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
<i>Total</i>	6,330	480



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
<i>Total</i>	6,330	530



E.4. 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

Geography of Trip Attractions	SOV Trips						SOV Shares					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
Regional Centers	387,251	582,614	611,348	634,441	569,952	458,908	64.1%	57.9%	59.8%	57.7%	61.9%	62.1%
Metropolitan Cities	470,868	654,862	725,369	711,108	604,740	561,711	66.1%	60.6%	62.7%	60.0%	63.9%	65.3%
Core & Larger Suburban Cities	449,521	717,724	732,569	752,378	882,115	598,478	87.4%	80.5%	81.9%	80.1%	80.4%	82.7%
Smaller Suburban Cities & Unincorporated UGA	50,487	79,115	84,295	73,480	82,124	174,322	88.3%	86.5%	86.7%	86.7%	86.4%	85.8%
Rural Areas	22,398	34,581	30,464	32,190	38,026	60,004	90.8%	90.0%	90.2%	89.9%	89.8%	89.5%
King County Total	993,274	1,486,282	1,572,697	1,569,156	1,607,005	1,394,516	75.9%	70.7%	72.1%	69.9%	73.7%	75.2%
Regional Centers	36,837	56,380	48,306	48,005	44,900	31,081	81.8%	76.7%	80.3%	70.9%	74.2%	62.5%
Metropolitan Cities	38,610	55,586	58,119	54,662	49,255	39,777	81.8%	76.7%	82.5%	72.7%	75.9%	65.5%
Core & Larger Suburban Cities	5,809	10,370	12,084	12,442	22,432	7,923	82.2%	73.7%	80.5%	75.1%	63.7%	63.9%
Smaller Suburban Cities & Unincorporated UGA	27,242	63,409	43,557	38,986	41,240	69,926	88.0%	85.2%	84.2%	84.2%	83.2%	81.3%
Rural Areas	21,389	36,503	53,788	45,184	46,056	81,043	89.9%	89.2%	89.3%	89.0%	88.7%	87.5%
Kitsap County Total	93,050	165,867	167,548	151,274	158,983	198,669	85.4%	82.2%	84.9%	80.1%	78.8%	78.9%
Regional Centers	80,933	172,397	131,219	145,505	128,069	98,741	84.0%	77.5%	79.2%	75.8%	78.2%	81.3%
Metropolitan Cities	102,304	186,563	163,672	163,284	132,219	136,291	84.4%	79.0%	80.8%	78.3%	79.9%	83.6%
Core & Larger Suburban Cities	49,821	93,068	84,473	83,109	95,542	68,278	87.5%	82.2%	84.2%	81.0%	81.6%	84.0%
Smaller Suburban Cities & Unincorporated UGA	65,767	116,000	138,620	109,445	124,623	295,425	89.7%	88.3%	88.3%	87.9%	88.1%	87.4%
Rural Areas	38,256	48,934	51,228	47,538	49,374	85,761	90.1%	89.9%	90.0%	89.8%	89.8%	89.2%
Pierce County Total	256,147	444,566	437,993	403,376	401,759	585,755	87.2%	83.0%	84.7%	82.6%	83.9%	86.3%
Regional Centers	42,040	81,592	63,614	87,237	72,133	47,970	83.7%	72.6%	78.1%	72.3%	74.9%	79.4%
Metropolitan Cities	76,555	145,821	138,823	118,152	95,000	91,680	85.3%	75.3%	79.0%	74.3%	76.3%	80.0%
Core & Larger Suburban Cities	66,788	117,635	98,879	113,212	165,875	114,825	86.5%	80.7%	82.6%	81.7%	80.4%	84.0%
Smaller Suburban Cities & Unincorporated UGA	57,502	110,090	111,877	91,795	103,643	212,036	88.4%	84.7%	85.3%	85.3%	84.8%	84.8%
Rural Areas	17,063	40,707	28,974	22,593	24,558	65,899	90.6%	89.3%	90.7%	90.0%	89.9%	89.3%
Snohomish County Total	217,908	414,253	378,552	345,752	389,075	484,440	86.9%	80.5%	82.6%	80.3%	81.0%	84.2%
Regional Centers	547,062	892,983	854,487	915,187	815,054	636,700	68.7%	63.2%	64.3%	61.8%	65.6%	65.6%
Metropolitan Cities	688,336	1,042,832	1,085,982	1,047,206	881,214	829,460	70.9%	65.9%	67.6%	64.3%	67.7%	69.2%
Core & Larger Suburban Cities	571,939	938,797	928,005	961,141	1,165,964	789,503	87.2%	80.6%	82.2%	80.3%	80.1%	82.8%
Smaller Suburban Cities & Unincorporated UGA	200,998	368,614	378,348	313,706	351,629	751,709	88.7%	86.2%	86.6%	86.4%	86.2%	85.7%
Rural Areas	99,106	160,725	164,455	147,505	158,015	292,707	90.3%	89.6%	89.9%	89.6%	89.5%	88.8%
Region Total	1,560,379	2,510,967	2,556,790	2,469,557	2,556,822	2,663,379	79.5%	74.9%	76.2%	73.6%	76.5%	79.3%

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

Geography of Trip Attractions	HOV Trips						HOV Shares					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
Regional Centers	43,622	71,527	77,294	76,942	70,046	57,570	7.2%	7.1%	7.6%	7.0%	7.6%	7.8%
Metropolitan Cities	52,876	75,461	84,886	81,434	69,823	65,262	7.4%	7.0%	7.3%	6.9%	7.4%	7.6%
Core & Larger Suburban Cities	40,023	72,528	73,916	75,956	88,582	59,497	7.8%	8.1%	8.3%	8.1%	8.1%	8.2%
Smaller Suburban Cities & Unincorporated UGA	4,383	7,045	7,415	6,459	7,308	15,131	7.7%	7.7%	7.6%	7.6%	7.7%	7.4%
Rural Areas	1,909	2,967	2,527	2,809	3,362	5,097	7.7%	7.7%	7.5%	7.8%	7.9%	7.6%
King County Total	99,191	158,001	168,745	166,658	169,075	144,988	7.6%	7.5%	7.7%	7.4%	7.8%	7.8%
Regional Centers	3,620	5,785	4,932	5,146	4,718	3,667	8.0%	7.9%	8.2%	7.6%	7.8%	7.4%
Metropolitan Cities	3,802	5,888	6,088	5,950	5,284	4,793	8.1%	8.1%	8.6%	7.9%	8.1%	7.9%
Core & Larger Suburban Cities	617	1,061	1,291	1,277	2,651	904	8.7%	7.5%	8.6%	7.7%	7.5%	7.3%
Smaller Suburban Cities & Unincorporated UGA	2,286	5,630	3,813	3,507	3,692	6,535	7.4%	7.6%	7.4%	7.6%	7.4%	7.6%
Rural Areas	1,858	3,463	5,028	4,358	4,424	8,107	7.8%	8.5%	8.3%	8.6%	8.5%	8.8%
Kitsap County Total	8,563	16,042	16,220	15,091	16,051	20,340	7.9%	7.9%	8.2%	8.0%	8.0%	8.1%
Regional Centers	7,111	16,928	12,881	14,268	12,402	10,017	7.4%	7.6%	7.8%	7.4%	7.6%	8.3%
Metropolitan Cities	8,880	17,600	15,195	15,241	12,188	12,939	7.3%	7.4%	7.5%	7.3%	7.4%	7.9%
Core & Larger Suburban Cities	4,112	8,563	7,708	7,625	8,744	6,354	7.2%	7.6%	7.7%	7.4%	7.5%	7.8%
Smaller Suburban Cities & Unincorporated UGA	5,460	9,845	11,773	9,478	10,889	25,938	7.4%	7.5%	7.5%	7.6%	7.7%	7.7%
Rural Areas	3,586	4,621	4,738	4,500	4,682	8,238	8.4%	8.5%	8.3%	8.5%	8.5%	8.6%
Pierce County Total	22,038	40,630	39,414	36,843	36,503	53,469	7.5%	7.6%	7.6%	7.5%	7.6%	7.9%
Regional Centers	3,665	7,911	6,110	8,496	6,940	4,409	7.3%	7.0%	7.5%	7.0%	7.2%	7.3%
Metropolitan Cities	6,549	14,592	14,729	11,818	9,518	9,016	7.3%	7.5%	8.4%	7.4%	7.6%	7.9%
Core & Larger Suburban Cities	5,525	10,293	8,498	9,952	14,464	9,934	7.2%	7.1%	7.1%	7.2%	7.0%	7.3%
Smaller Suburban Cities & Unincorporated UGA	4,754	9,318	9,359	7,915	9,073	17,883	7.3%	7.2%	7.1%	7.4%	7.4%	7.2%
Rural Areas	1,494	3,604	2,375	2,008	2,199	5,823	7.9%	7.9%	7.4%	8.0%	8.0%	7.9%
Snohomish County Total	18,322	37,807	34,961	31,693	35,254	42,655	7.3%	7.3%	7.6%	7.4%	7.3%	7.4%
Regional Centers	58,018	102,151	101,217	104,851	94,106	75,664	7.3%	7.2%	7.6%	7.1%	7.6%	7.7%
Metropolitan Cities	72,108	113,542	120,898	114,442	96,813	92,010	7.4%	7.2%	7.5%	7.0%	7.4%	7.8%
Core & Larger Suburban Cities	50,276	92,445	91,414	94,809	114,441	76,689	7.7%	7.9%	8.1%	7.9%	7.9%	8.0%
Smaller Suburban Cities & Unincorporated UGA	16,884	31,839	32,361	27,358	30,962	65,487	7.5%	7.4%	7.4%	7.5%	7.6%	7.5%
Rural Areas	8,847	14,654	14,668	13,675	14,667	27,266	8.1%	8.2%	8.0%	8.3%	8.3%	8.3%
Region Total	148,114	252,479	259,340	250,284	256,883	261,451	7.5%	7.5%	7.7%	7.5%	7.7%	7.8%



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

Geography of Trip Attractions	Transit Trips						Transit Shares					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
Regional Centers	120,616	236,157	258,564	237,961	202,135	170,814	20.0%	23.5%	25.3%	21.6%	21.9%	23.1%
Metropolitan Cities	130,935	240,129	268,149	246,707	201,570	179,012	18.4%	22.2%	23.2%	20.8%	21.3%	20.8%
Core & Larger Suburban Cities	14,986	64,234	62,662	75,344	80,223	45,212	2.9%	7.2%	7.0%	8.0%	7.3%	6.3%
Smaller Suburban Cities & Unincorporated UGA	855	3,138	3,014	2,701	3,164	5,787	1.5%	3.4%	3.1%	3.2%	3.3%	2.8%
Rural Areas	70	339	321	384	473	616	0.3%	0.9%	0.9%	1.1%	1.1%	0.9%
King County Total	146,846	307,840	334,146	325,135	285,429	230,626	11.2%	14.6%	15.3%	14.5%	13.1%	12.4%
Regional Centers	2,877	8,058	3,839	10,216	7,625	12,530	6.4%	11.0%	6.4%	15.1%	12.6%	25.2%
Metropolitan Cities	2,990	8,017	3,974	10,714	8,048	13,738	6.3%	11.1%	5.6%	14.3%	12.4%	22.6%
Core & Larger Suburban Cities	379	1,297	1,033	1,257	3,325	2,838	5.4%	9.2%	6.9%	7.6%	9.4%	22.9%
Smaller Suburban Cities & Unincorporated UGA	220	2,107	1,614	1,421	1,827	4,087	0.7%	2.8%	3.1%	3.1%	3.7%	4.8%
Rural Areas	94	349	529	552	727	1,874	0.4%	0.9%	0.9%	1.1%	1.4%	2.0%
Kitsap County Total	3,683	11,770	7,150	13,943	13,927	22,536	3.4%	5.8%	3.6%	7.4%	6.9%	9.0%
Regional Centers	4,790	15,428	10,640	15,031	10,865	7,853	5.0%	6.9%	6.4%	7.8%	6.6%	6.5%
Metropolitan Cities	5,599	15,245	11,687	14,669	10,193	8,525	4.6%	6.5%	5.8%	7.0%	6.2%	5.2%
Core & Larger Suburban Cities	1,338	6,103	4,575	6,385	6,143	3,758	2.3%	5.4%	4.6%	6.2%	5.2%	4.6%
Smaller Suburban Cities & Unincorporated UGA	648	2,298	2,589	3,019	2,833	5,702	0.9%	1.7%	1.6%	2.4%	2.0%	1.7%
Rural Areas	283	388	400	452	431	730	0.7%	0.7%	0.7%	0.9%	0.8%	0.8%
Pierce County Total	7,868	24,034	19,251	24,526	19,599	18,715	2.7%	4.5%	3.7%	5.0%	4.1%	2.8%
Regional Centers	2,440	12,947	8,053	12,225	10,127	5,442	4.9%	11.5%	9.9%	10.1%	10.5%	9.0%
Metropolitan Cities	3,226	19,016	14,288	14,696	11,787	8,976	3.6%	9.8%	8.1%	9.2%	9.5%	7.8%
Core & Larger Suburban Cities	2,434	12,077	8,008	9,655	13,628	7,507	3.2%	8.3%	6.7%	7.0%	6.6%	5.5%
Smaller Suburban Cities & Unincorporated UGA	1,053	5,290	4,585	4,193	5,290	8,040	1.6%	4.1%	3.5%	3.9%	4.3%	3.2%
Rural Areas	85	492	202	240	294	909	0.5%	1.1%	0.6%	1.0%	1.1%	1.2%
Snohomish County Total	6,799	36,875	27,083	28,783	30,998	25,432	2.7%	7.2%	5.9%	6.7%	6.5%	4.4%
Regional Centers	130,723	272,590	281,096	275,433	230,753	196,639	16.4%	19.3%	21.2%	18.6%	18.6%	20.3%
Metropolitan Cities	142,750	282,407	298,098	286,785	231,598	210,250	14.7%	17.8%	18.6%	17.6%	17.8%	17.5%
Core & Larger Suburban Cities	19,137	83,711	76,278	92,641	103,318	59,316	2.9%	7.2%	6.8%	7.7%	7.1%	6.2%
Smaller Suburban Cities & Unincorporated UGA	2,776	12,832	11,802	11,333	13,113	23,615	1.2%	3.0%	2.7%	3.1%	3.2%	2.7%
Rural Areas	532	1,568	1,452	1,628	1,924	4,129	0.5%	0.9%	0.8%	1.0%	1.1%	1.3%
Region Total	165,196	380,518	387,630	392,388	349,953	297,310	8.4%	11.3%	11.6%	11.7%	10.5%	8.9%

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

Geography of Trip Attractions	Bike & Walk Trips						Bike & Walk Shares					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
Regional Centers	52,941	115,355	74,510	150,053	79,206	51,821	8.8%	11.5%	7.3%	13.6%	8.6%	7.0%
Metropolitan Cities	58,085	109,977	78,135	146,616	70,986	53,646	8.1%	10.2%	6.8%	12.4%	7.5%	6.2%
Core & Larger Suburban Cities	9,959	36,815	25,372	35,546	45,974	20,083	1.9%	4.1%	2.8%	3.8%	4.2%	2.8%
Smaller Suburban Cities & Unincorporated UGA	1,478	2,218	2,550	2,078	2,435	8,044	2.6%	2.4%	2.6%	2.5%	2.6%	4.0%
Rural Areas	282	535	456	411	476	1,320	1.1%	1.4%	1.3%	1.1%	1.1%	2.0%
King County Total	69,803	149,545	106,512	184,651	119,872	83,092	5.3%	7.1%	4.9%	8.2%	5.5%	4.5%
Regional Centers	1,672	3,304	3,063	4,386	3,268	2,432	3.7%	4.5%	5.1%	6.5%	5.4%	4.9%
Metropolitan Cities	1,803	2,977	2,258	3,833	2,325	2,376	3.8%	4.1%	3.2%	5.1%	3.6%	3.9%
Core & Larger Suburban Cities	262	1,351	611	1,582	6,795	742	3.7%	9.6%	4.1%	9.6%	19.3%	6.0%
Smaller Suburban Cities & Unincorporated UGA	1,206	3,266	2,744	2,412	2,819	5,415	3.9%	4.4%	5.3%	5.2%	5.7%	6.3%
Rural Areas	446	608	892	646	742	1,595	1.9%	1.5%	1.5%	1.3%	1.4%	1.7%
Kitsap County Total	3,717	8,202	6,505	8,472	12,682	10,128	3.4%	4.1%	3.3%	4.5%	6.3%	4.0%
Regional Centers	3,565	17,631	11,022	17,050	12,454	4,781	3.7%	7.9%	6.6%	8.9%	7.6%	3.9%
Metropolitan Cities	4,385	16,841	12,130	15,282	10,957	5,319	3.6%	7.1%	6.0%	7.3%	6.6%	3.3%
Core & Larger Suburban Cities	1,699	5,481	3,590	5,517	6,651	2,865	3.0%	4.8%	3.6%	5.4%	5.7%	3.5%
Smaller Suburban Cities & Unincorporated UGA	1,426	3,296	4,044	2,625	3,054	10,961	1.9%	2.5%	2.6%	2.1%	2.2%	3.2%
Rural Areas	323	483	584	449	490	1,379	0.8%	0.9%	1.0%	0.8%	0.9%	1.4%
Pierce County Total	7,833	26,101	20,348	23,872	21,151	20,524	2.7%	4.9%	3.9%	4.9%	4.4%	3.0%
Regional Centers	2,061	9,934	3,663	12,777	7,074	2,592	4.1%	8.6%	4.5%	10.6%	7.3%	4.3%
Metropolitan Cities	3,464	14,106	7,913	14,432	8,154	4,966	3.9%	7.3%	4.5%	9.1%	6.6%	4.3%
Core & Larger Suburban Cities	2,431	5,760	4,279	5,749	12,377	4,467	3.2%	4.0%	3.6%	4.1%	6.0%	3.3%
Smaller Suburban Cities & Unincorporated UGA	1,730	5,342	5,284	3,745	4,145	11,995	2.7%	4.1%	4.0%	3.5%	3.4%	4.8%
Rural Areas	185	770	402	274	273	1,145	1.0%	1.7%	1.3%	1.1%	1.0%	1.6%
Snohomish County Total	7,811	25,977	17,878	24,199	24,949	22,573	3.1%	5.0%	3.9%	5.6%	5.2%	3.9%
Regional Centers	60,240	146,224	92,258	184,266	102,003	61,626	7.6%	10.3%	6.9%	12.5%	8.2%	6.3%
Metropolitan Cities	67,737	143,901	100,436	180,162	92,421	66,307	7.0%	9.1%	6.3%	11.1%	7.1%	5.5%
Core & Larger Suburban Cities	14,352	49,407	33,851	48,394	71,797	28,156	2.2%	4.2%	3.0%	4.0%	4.9%	3.0%
Smaller Suburban Cities & Unincorporated UGA	5,840	14,122	14,621	10,860	12,454	36,415	2.6%	3.3%	3.3%	3.0%	3.1%	4.2%
Rural Areas	1,235	2,395	2,334	1,779	1,981	5,439	1.1%	1.3%	1.3%	1.1%	1.1%	1.7%
Region Total	89,164	209,825	151,242	241,195	178,653	136,317	4.5%	6.3%	4.5%	7.2%	5.3%	4.1%



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

Geography of Trip Attractions	Total Trips						Total Shares					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
Regional Centers	604,431	1,005,653	1,021,716	1,099,397	921,339	739,113	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	712,764	1,080,430	1,156,540	1,185,864	947,119	859,630	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	514,489	891,301	894,519	939,224	1,096,894	723,270	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unincorporated UGA	57,203	91,515	97,274	84,718	95,031	203,285	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	24,659	38,421	33,768	35,795	42,337	67,037	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
King County Total	1,309,114	2,101,667	2,182,100	2,245,600	2,181,381	1,853,222	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	45,006	73,528	60,140	67,753	60,511	49,710	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	47,204	72,467	70,439	75,158	64,911	60,684	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	7,067	14,079	15,019	16,558	35,204	12,407	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unincorporated UGA	30,955	74,412	51,728	46,325	49,578	85,963	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	23,788	40,922	60,237	50,740	51,949	92,619	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
 Kitsap County Total	109,013	201,880	197,423	188,780	201,642	251,672	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	96,400	222,384	165,761	191,854	163,791	121,393	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	121,169	236,250	202,684	208,475	165,557	163,074	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	56,968	113,215	100,347	102,636	117,080	81,255	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unincorporated UGA	73,302	131,439	157,025	124,566	141,398	338,026	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	42,447	54,426	56,950	52,939	54,977	96,109	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
 Pierce County Total	293,886	535,330	517,006	488,616	479,011	678,463	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	50,207	112,385	81,439	120,734	96,275	60,414	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	89,794	193,535	175,752	159,097	124,459	114,639	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	77,179	145,765	119,663	138,568	206,343	136,732	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unincorporated UGA	65,040	130,040	131,105	107,648	122,150	249,953	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	18,826	45,572	31,953	25,114	27,324	73,776	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
 Snohomish County Total	250,839	514,912	458,474	430,428	480,276	575,100	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	796,043	1,413,949	1,329,057	1,479,737	1,241,916	970,628	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	970,931	1,582,682	1,605,415	1,628,594	1,302,046	1,198,026	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	655,703	1,164,360	1,129,548	1,196,985	1,455,521	953,664	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unincorporated UGA	226,499	427,406	437,131	363,257	408,158	877,226	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	109,720	179,342	182,909	164,588	176,586	329,541	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
 Region Total	1,962,853	3,353,789	3,355,002	3,353,424	3,342,311	3,358,457	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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

Geography of Trip Attractions	SOV Trips						SOV Shares					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
Regional Centers	966,175	1,617,793	1,511,299	1,932,503	1,523,382	1,088,757	43.8%	42.5%	43.0%	42.5%	43.5%	43.7%
Metropolitan Cities	1,338,180	1,857,854	2,025,663	2,168,616	1,682,180	1,532,540	46.0%	45.1%	45.8%	44.3%	46.1%	46.7%
Core & Larger Suburban Cities	1,102,687	1,838,639	1,833,264	1,970,319	2,423,107	1,551,956	47.0%	46.0%	46.5%	45.9%	46.4%	47.2%
Smaller Suburban Cities & Unincorporated UGA	247,331	344,906	382,780	322,918	349,197	643,862	46.8%	46.9%	46.8%	46.8%	47.2%	46.3%
Rural Areas	113,761	190,848	191,625	165,097	174,338	276,737	46.2%	46.3%	46.1%	45.9%	46.6%	46.3%
 King County Total	2,801,958	4,232,247	4,433,333	4,626,950	4,628,821	4,005,094	46.5%	45.7%	46.2%	45.2%	46.4%	46.8%
Regional Centers	68,644	134,680	130,799	136,193	123,296	99,815	43.6%	40.9%	41.5%	40.2%	40.9%	42.2%
Metropolitan Cities	66,419	129,232	131,554	134,760	112,846	106,075	43.1%	41.3%	42.5%	40.9%	42.0%	43.2%
Core & Larger Suburban Cities	20,245	42,013	42,201	45,531	87,772	34,481	40.9%	40.0%	41.5%	40.1%	38.0%	40.9%
Smaller Suburban Cities & Unincorporated UGA	101,817	198,182	176,177	138,083	149,986	237,123	43.7%	42.0%	42.3%	42.0%	42.1%	42.5%
Rural Areas	85,158	170,132	194,547	145,708	149,958	246,466	45.6%	45.3%	45.6%	45.6%	46.0%	46.1%
 Kitsap County Total	273,639	539,559	544,478	464,082	500,561	624,146	43.9%	42.7%	43.4%	42.5%	42.3%	43.8%
Regional Centers	190,338	434,128	356,420	446,668	376,154	233,833	44.9%	42.1%	43.0%	42.0%	42.8%	44.9%
Metropolitan Cities	268,344	494,865	474,075	468,351	385,261	331,680	45.0%	42.8%	43.7%	42.7%	43.4%	45.2%
Core & Larger Suburban Cities	181,286	321,889	282,959	302,850	353,876	246,247	45.9%	44.7%	45.3%	44.5%	44.4%	45.9%
Smaller Suburban Cities & Unincorporated UGA	222,392	416,203	478,668	388,148	374,553	789,520	44.5%	44.0%	44.0%	44.1%	44.1%	44.3%
Rural Areas	123,696	161,522	184,757	150,100	154,694	242,354	46.4%	44.7%	44.3%	44.9%	45.0%	44.8%
 Pierce County Total	795,717	1,394,479	1,420,459	1,279,449	1,268,385	1,609,801	45.3%	43.8%	44.2%	43.8%	44.1%	44.8%
Regional Centers	104,006	254,120	176,970	254,532	214,602	142,496	46.6%	44.2%	45.7%	43.0%	45.0%	47.4%
Metropolitan Cities	142,417	319,174	258,524	264,783	201,049	173,877	45.7%	43.1%	44.1%	42.2%	43.7%	45.3%
Core & Larger Suburban Cities	226,001	414,294	353,689	392,458	584,231	376,184	47.5%	47.1%	47.0%	46.7%	46.4%	47.5%
Smaller Suburban Cities & Unincorporated UGA	226,211	512,515	502,720	366,138	393,345	790,072	46.9%	46.3%	46.2%	46.3%	46.8%	46.2%
Rural Areas	94,832	219,825	222,218	144,583	147,816	312,064	47.3%	45.6%	45.6%	46.1%	46.6%	46.7%
 Snohomish County Total	689,460	1,465,807	1,337,152	1,167,962	1,326,440	1,651,998	46.9%	45.7%	45.9%	45.4%	46.1%	46.5%
Regional Centers	1,329,164	2,440,721	2,175,488	2,769,896	2,237,415	1,564,901	44.2%	42.5%	43.1%	42.4%	43.3%	44.1%
Metropolitan Cities	1,815,359	2,801,126	2,889,817	3,036,510	2,381,337	2,143,972	45.7%	44.2%	45.1%	43.7%	45.3%	46.2%
Core & Larger Suburban Cities	1,530,218	2,616,835	2,512,112	2,711,157	3,448,985	2,208,868	46.9%	45.9%	46.3%	45.8%	46.0%	47.0%
Smaller Suburban Cities & Unincorporated UGA	797,751	1,471,804	1,540,345	1,185,287	1,267,081	2,460,577	45.8%	45.2%	45.2%	45.2%	45.5%	45.2%
Rural Areas	417,447	742,326	793,147	605,488	626,805	1,077,621	46.4%	45.5%	45.4%	45.6%	46.0%	46.0%
 Region Total	4,560,775	7,632,091	7,735,422	7,538,442	7,724,207	7,891,039	46.2%	45.1%	45.5%	44.8%	45.7%	46.1%



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

Geography of Trip Attractions	2000	HOV Trips					HOV Shares					
		Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	
Regional Centers	923,253	1,566,894	1,485,419	1,840,269	1,456,628	1,038,820	41.9%	41.2%	42.3%	40.5%	41.6%	41.7%
Metropolitan Cities	1,177,067	1,614,991	1,772,606	1,900,336	1,433,593	1,290,059	40.5%	39.2%	40.1%	38.8%	39.3%	39.3%
Core & Larger Suburban Cities	1,083,941	1,803,692	1,808,258	1,934,497	2,292,281	1,494,342	46.2%	45.2%	45.9%	45.1%	43.9%	45.4%
Smaller Suburban Cities & Unincorporated UGA	250,039	346,617	387,726	326,379	345,286	642,209	47.4%	47.2%	47.4%	47.3%	46.6%	46.2%
Rural Areas	125,950	209,733	213,578	185,284	189,554	301,579	51.1%	50.9%	51.3%	51.5%	50.7%	50.5%
King County Total	2,636,996	3,975,033	4,182,168	4,346,496	4,260,713	3,728,190	43.8%	42.9%	43.6%	42.5%	42.7%	43.6%
Regional Centers	71,329	147,739	141,552	147,917	132,635	106,769	45.3%	44.9%	44.9%	43.6%	44.0%	45.2%
Metropolitan Cities	68,169	138,174	140,150	143,762	118,856	111,424	44.2%	44.2%	45.3%	43.7%	44.2%	45.4%
Core & Larger Suburban Cities	25,332	52,854	52,209	56,903	106,826	42,536	51.2%	50.3%	51.4%	50.1%	46.2%	50.4%
Smaller Suburban Cities & Unincorporated UGA	110,932	223,606	194,870	154,613	166,328	260,099	47.6%	47.4%	46.8%	47.1%	46.7%	46.6%
Rural Areas	94,087	193,641	217,717	162,955	164,823	269,740	50.4%	51.6%	51.0%	51.0%	50.5%	50.4%
 Kitsap County Total	298,519	608,275	604,945	518,232	556,833	683,799	47.9%	48.1%	48.2%	47.5%	47.1%	48.0%
Regional Centers	194,434	453,440	371,726	463,226	387,268	237,525	45.8%	44.0%	44.9%	43.6%	44.0%	45.6%
Metropolitan Cities	271,948	510,001	483,650	479,664	390,092	334,387	45.6%	44.1%	44.6%	43.8%	44.0%	45.6%
Core & Larger Suburban Cities	185,099	329,942	291,446	309,854	361,183	248,509	46.9%	46.7%	46.7%	45.5%	45.4%	46.4%
Smaller Suburban Cities & Unincorporated UGA	249,267	472,119	545,469	407,715	425,896	870,477	49.9%	50.0%	50.1%	50.2%	50.1%	48.9%
Rural Areas	134,812	188,456	219,085	173,655	177,818	279,482	50.5%	52.1%	52.5%	51.9%	51.7%	51.7%
 Pierce County Total	841,126	1,500,518	1,539,649	1,370,887	1,354,989	1,732,855	47.9%	47.1%	47.9%	46.9%	47.1%	48.2%
Regional Centers	99,541	240,625	170,789	248,661	201,164	129,877	44.6%	41.8%	44.2%	42.0%	42.2%	43.2%
Metropolitan Cities	139,266	317,486	263,226	267,748	199,077	169,039	44.6%	42.8%	44.9%	42.7%	43.3%	44.1%
Core & Larger Suburban Cities	212,444	381,076	337,822	370,625	532,673	352,067	44.7%	43.4%	44.9%	44.1%	42.3%	44.4%
Smaller Suburban Cities & Unincorporated UGA	228,344	512,032	513,361	373,266	391,248	785,224	47.3%	46.3%	47.2%	47.2%	46.6%	45.9%
Rural Areas	100,450	246,082	252,609	161,372	161,551	335,265	50.1%	51.0%	51.9%	51.4%	50.9%	50.1%
 Snohomish County Total	680,504	1,456,676	1,367,018	1,173,011	1,284,549	1,641,595	46.3%	45.4%	46.9%	45.6%	44.6%	46.2%
Regional Centers	1,288,557	2,408,698	2,169,487	2,700,073	2,177,695	1,512,991	42.8%	42.0%	43.0%	41.3%	42.2%	42.6%
Metropolitan Cities	1,656,449	2,580,652	2,659,631	2,791,510	2,141,617	1,904,909	41.7%	40.8%	41.5%	40.2%	40.7%	41.0%
Core & Larger Suburban Cities	1,506,816	2,567,563	2,489,736	2,671,878	3,292,963	2,137,454	46.2%	45.1%	45.9%	45.1%	43.9%	45.5%
Smaller Suburban Cities & Unincorporated UGA	838,583	1,554,374	1,641,425	1,261,973	1,328,757	2,558,009	48.1%	47.7%	48.1%	48.2%	47.7%	47.0%
Rural Areas	455,298	837,912	902,989	683,265	693,746	1,186,066	50.6%	51.4%	51.7%	51.5%	51.0%	50.6%
 Region Total	4,457,145	7,540,501	7,693,781	7,408,626	7,457,083	7,786,438	45.1%	44.6%	45.3%	44.0%	44.1%	45.5%

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

Geography of Trip Attractions	2000	Transit Trips					Transit Shares					
		Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	
Regional Centers	112,119	232,091	213,047	253,429	191,712	154,503	5.1%	6.1%	5.6%	5.5%	5.5%	6.2%
Metropolitan Cities	132,898	246,607	239,837	287,589	199,713	180,436	4.6%	6.0%	5.4%	5.9%	5.5%	5.5%
Core & Larger Suburban Cities	28,437	95,198	83,315	104,672	119,983	67,109	1.2%	2.4%	2.1%	2.4%	2.3%	2.0%
Smaller Suburban Cities & Unincorporated UGA	2,293	7,209	6,452	6,414	7,141	10,898	0.4%	1.0%	0.8%	0.9%	1.0%	0.8%
Rural Areas	111	751	722	732	782	1,335	0.0%	0.2%	0.2%	0.2%	0.2%	0.2%
 King County Total	163,739	349,765	330,326	399,408	327,618	259,778	2.7%	3.8%	3.4%	3.9%	3.3%	3.0%
Regional Centers	3,694	12,209	10,416	11,581	10,557	7,749	2.3%	3.7%	3.3%	3.4%	3.5%	3.3%
Metropolitan Cities	3,698	11,994	9,221	11,453	9,163	7,616	2.4%	3.8%	3.0%	3.5%	3.4%	3.1%
Core & Larger Suburban Cities	43	269	320	250	398	242	0.1%	0.3%	0.3%	0.2%	0.2%	0.3%
Smaller Suburban Cities & Unincorporated UGA	3,789	12,790	11,003	8,443	9,527	14,050	1.6%	2.7%	2.6%	2.6%	2.7%	2.5%
Rural Areas	722	1,365	1,772	1,361	1,361	2,897	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%
 Kitsap County Total	8,252	26,417	22,316	21,506	20,449	24,805	1.3%	2.1%	1.8%	2.0%	1.7%	1.7%
Regional Centers	8,957	32,238	21,473	32,025	24,545	12,287	2.1%	3.1%	2.6%	3.0%	2.8%	2.4%
Metropolitan Cities	11,907	35,458	27,777	33,267	25,060	15,491	2.0%	3.1%	2.6%	3.0%	2.8%	2.1%
Core & Larger Suburban Cities	3,915	13,694	9,859	13,840	13,685	7,789	1.0%	1.9%	1.6%	2.0%	1.7%	1.5%
Smaller Suburban Cities & Unincorporated UGA	1,617	4,597	4,871	4,882	4,492	7,302	0.3%	0.5%	0.4%	0.6%	0.5%	0.4%
Rural Areas	374	451	433	500	502	903	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%
 Pierce County Total	17,813	54,199	42,940	52,489	43,738	31,485	1.0%	1.7%	1.3%	1.8%	1.5%	0.9%
Regional Centers	3,855	20,184	11,257	19,610	14,907	7,590	1.7%	3.5%	2.9%	3.3%	3.1%	2.5%
Metropolitan Cities	5,617	24,059	15,384	19,765	13,490	9,804	1.8%	3.2%	2.6%	3.2%	2.9%	2.6%
Core & Larger Suburban Cities	6,272	21,886	13,741	18,242	24,566	13,692	1.3%	2.5%	1.8%	2.2%	1.9%	1.7%
Smaller Suburban Cities & Unincorporated UGA	2,034	10,159	7,891	6,495	7,295	11,732	0.4%	0.9%	0.7%	0.8%	0.9%	0.7%
Rural Areas	70	586	388	275	293	1,236	0.0%	0.1%	0.1%	0.1%	0.1%	0.2%
 Snohomish County Total	13,992	56,689	37,404	44,778	45,643	36,463	1.0%	1.8%	1.3%	1.7%	1.6%	1.0%
Regional Centers	128,625	296,721	256,193	316,644	241,720	182,128	4.3%	5.2%	5.1%	4.8%	4.7%	5.1%
Metropolitan Cities	154,119	318,117	292,219	352,074	247,425	213,346	3.9%	5.0%	4.6%	5.1%	4.7%	4.6%
Core & Larger Suburban Cities	38,668	131,047	107,236	137,003	158,631	88,832	1.2%	2.3%	2.0%	2.3%	2.1%	1.9%
Smaller Suburban Cities & Unincorporated UGA	9,733	34,754	30,217	26,234	28,455	43,982	0.6%	1.1%	0.9%	1.0%	1.0%	0.8%
Rural Areas	1,277	3,152	3,315	2,868	2,938	6,371	0.1%	0.2%	0.2%	0.2%	0.2%	0.3%
 Region Total	203,797	487,071	432,986	518,180	437,448	352,531	2.1%	2.9%	2.5%	3.1%	2.6%	2.1%



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

Geography of Trip Attractions	Bike & Walk Trips						Bike & Walk Shares					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
Regional Centers	202,303	386,906	305,989	518,218	333,092	208,319	9.2%	10.2%	8.7%	11.4%	9.5%	8.4%
Metropolitan Cities	258,687	401,660	385,990	540,322	330,604	276,456	8.9%	9.7%	8.7%	11.0%	9.1%	8.4%
Core & Larger Suburban Cities	128,911	256,415	216,246	281,579	382,432	175,606	5.5%	6.4%	5.5%	6.6%	7.3%	5.3%
Smaller Suburban Cities & Unincorporated UGA	28,346	36,230	40,937	33,803	38,734	92,301	5.4%	4.9%	5.0%	4.9%	5.2%	6.6%
Rural Areas	6,664	10,801	10,025	8,702	9,338	17,867	2.7%	2.6%	2.4%	2.4%	2.5%	3.0%
King County Total	422,608	705,106	653,198	864,405	761,108	562,229	7.0%	7.6%	6.8%	8.4%	7.6%	6.6%
Regional Centers	13,868	34,707	32,410	43,196	34,703	21,977	8.8%	10.5%	10.3%	12.7%	11.5%	9.3%
Metropolitan Cities	15,825	33,530	28,567	39,159	28,079	20,566	10.3%	10.7%	9.2%	11.9%	10.4%	8.4%
Core & Larger Suburban Cities	3,841	9,845	6,923	10,925	36,053	7,126	7.8%	9.4%	6.8%	9.6%	15.6%	8.4%
Smaller Suburban Cities & Unincorporated UGA	16,401	36,896	34,648	27,299	30,448	47,167	7.0%	7.8%	8.3%	8.3%	8.5%	8.4%
Rural Areas	6,582	10,408	12,743	9,722	10,123	16,055	3.5%	2.8%	3.0%	3.0%	3.1%	3.0%
 Kitsap County Total	42,648	90,679	82,881	87,106	104,703	90,913	6.8%	7.2%	6.6%	8.0%	8.9%	6.4%
Regional Centers	30,623	110,900	79,105	120,796	91,310	37,526	7.2%	10.8%	9.5%	11.4%	10.4%	7.2%
Metropolitan Cities	43,920	116,599	99,393	114,356	86,428	52,497	7.4%	10.1%	9.2%	10.4%	9.7%	7.2%
Core & Larger Suburban Cities	24,607	54,376	40,480	53,935	67,392	33,609	6.2%	7.6%	6.5%	7.9%	8.5%	6.3%
Smaller Suburban Cities & Unincorporated UGA	26,660	52,106	59,595	41,535	44,818	114,037	5.3%	5.5%	5.5%	5.1%	5.3%	6.4%
Rural Areas	7,941	11,172	13,060	10,394	11,004	18,290	3.0%	3.1%	3.1%	3.1%	3.2%	3.4%
 Pierce County Total	103,128	234,251	212,328	220,220	209,642	218,434	5.9%	7.4%	6.6%	7.5%	7.3%	6.1%
Regional Centers	15,716	60,108	27,817	69,187	46,110	20,837	7.0%	10.5%	7.2%	11.7%	9.7%	6.9%
Metropolitan Cities	24,614	80,434	49,052	74,510	46,622	30,497	7.9%	10.9%	8.4%	11.9%	10.1%	8.0%
Core & Larger Suburban Cities	30,939	61,499	47,713	58,813	118,677	50,449	6.5%	7.0%	6.3%	7.0%	9.4%	6.4%
Smaller Suburban Cities & Unincorporated UGA	25,939	71,468	64,600	44,103	48,395	124,454	5.4%	6.5%	5.9%	5.6%	5.8%	7.3%
Rural Areas	4,959	15,688	11,796	7,429	7,654	20,203	2.5%	3.3%	2.4%	2.4%	2.4%	3.0%
 Snohomish County Total	86,451	229,089	173,161	184,855	221,348	225,602	5.9%	7.1%	5.9%	7.2%	7.7%	6.3%
Regional Centers	262,510	592,621	445,320	751,396	505,215	288,659	8.7%	10.3%	8.8%	11.5%	9.8%	8.1%
Metropolitan Cities	343,045	632,222	563,003	768,347	491,733	380,016	8.6%	10.0%	8.8%	11.1%	9.3%	8.2%
Core & Larger Suburban Cities	188,299	382,134	311,362	405,252	604,555	266,790	5.8%	6.7%	5.7%	6.8%	8.1%	5.7%
Smaller Suburban Cities & Unincorporated UGA	97,346	196,699	199,580	146,740	162,395	377,960	5.6%	6.0%	5.9%	5.6%	5.8%	6.9%
Rural Areas	26,145	48,069	47,624	36,247	38,120	72,414	2.9%	2.9%	2.7%	2.7%	2.8%	3.1%
 Region Total	654,835	1,259,124	1,121,568	1,356,586	1,296,802	1,097,179	6.6%	7.4%	6.6%	8.1%	7.7%	6.4%

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

Geography of Trip Attractions	Total Trips						Total Shares					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
Regional Centers	2,203,850	3,803,683	3,515,755	4,544,419	3,504,793	2,490,399	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	2,906,831	4,121,112	4,424,096	4,896,863	3,646,091	3,279,490	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	2,343,976	3,993,944	3,941,083	4,291,068	5,217,802	3,289,013	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unincorporated UGA	528,010	734,961	817,894	689,514	740,357	1,389,270	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	246,485	412,133	415,951	359,814	374,011	597,518	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
 King County Total	6,025,301	9,262,150	9,599,024	10,237,258	9,978,261	8,555,291	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	157,534	329,335	315,176	338,886	301,192	236,310	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	154,111	312,930	309,491	329,133	268,944	245,681	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	49,460	104,981	101,652	113,608	231,049	84,386	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unincorporated UGA	232,939	471,473	416,698	328,438	356,288	558,438	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	186,549	375,546	426,779	319,746	326,265	535,158	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
 Kitsap County Total	623,058	1,264,929	1,254,621	1,090,926	1,182,546	1,423,663	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	424,353	1,030,706	828,724	1,062,714	879,277	521,171	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	596,119	1,156,923	1,084,895	1,095,638	886,841	734,055	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	394,907	719,900	624,744	680,478	796,135	536,154	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unincorporated UGA	499,936	945,024	1,088,402	812,281	849,760	1,781,336	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	266,823	361,600	417,334	334,649	344,019	541,030	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
 Pierce County Total	1,757,784	3,183,447	3,215,376	2,923,045	2,876,754	3,592,574	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	223,118	575,036	396,834	591,990	476,783	300,799	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	311,913	741,152	586,186	626,806	460,237	383,017	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	475,657	878,755	752,966	840,138	1,260,147	792,391	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unincorporated UGA	482,528	1,106,174	1,088,572	790,001	840,283	1,711,483	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	200,311	482,180	487,011	313,659	317,313	668,767	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
 Snohomish County Total	1,470,408	3,208,260	2,914,735	2,570,605	2,877,980	3,555,658	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Regional Centers	3,008,856	5,738,761	5,046,489	6,538,009	5,162,044	3,548,679	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Metropolitan Cities	3,968,973	6,332,116	6,404,669	6,948,441	5,262,113	4,642,243	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Core & Larger Suburban Cities	3,264,000	5,697,580	5,420,446	5,925,291	7,505,133	4,701,944	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Smaller Suburban Cities & Unincorporated UGA	1,743,412	3,257,631	3,411,567	2,620,234	2,786,687	5,440,527	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Rural Areas	900,167	1,631,459	1,747,075	1,327,868	1,361,608	2,342,473	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
 Region Total	9,876,552	16,918,787	16,983,756	16,821,834	16,915,540	17,127,186	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%



3. Daily Vehicle Miles Traveled

Geography	VMT Freeways and Expressways						VMT Arterials and Local Streets					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
Metropolitan Cities	8,194,849	10,527,333	10,857,072	10,941,855	10,660,303	9,544,083	7,235,881	9,747,421	10,926,573	10,577,841	9,430,121	8,622,506
Other UGA	13,503,949	20,875,434	21,865,759	21,440,344	20,965,849	19,816,951	11,986,926	18,036,566	21,448,572	18,890,864	20,406,490	19,029,494
Rural Areas	632,313	931,032	1,064,806	1,018,181	1,045,748	1,189,113	3,372,505	5,251,547	5,987,168	5,306,183	5,395,687	6,930,525
King County Total	22,331,111	32,333,799	33,787,437	33,400,380	32,671,900	30,550,147	22,595,312	33,035,534	38,362,313	34,774,888	35,232,298	34,582,525
Metropolitan Cities	153,741	232,965	240,736	219,625	230,615	330,207	316,090	561,151	523,260	504,906	452,167	518,293
Other UGA	473,884	767,837	744,209	680,972	689,625	1,009,010	1,057,701	2,027,134	2,120,029	1,691,648	1,706,080	2,197,713
Rural Areas	279,038	434,564	458,592	402,251	409,795	565,269	2,031,291	3,238,169	3,652,345	3,063,288	3,076,658	4,466,677
 Kitsap County Total	906,663	1,435,366	1,443,537	1,302,848	1,330,035	1,904,486	3,405,082	5,826,454	6,295,634	5,259,842	5,234,905	7,182,683
Metropolitan Cities	1,749,631	2,286,738	2,299,982	2,245,814	2,108,661	2,178,999	2,152,740	3,475,730	3,408,680	3,295,483	2,815,866	2,882,454
Other UGA	4,005,537	5,946,579	6,136,980	5,827,592	5,580,376	6,025,782	5,119,971	8,658,631	9,968,728	7,837,686	7,951,512	10,848,509
Rural Areas	532,922	637,205	656,488	613,363	616,583	852,632	3,377,397	4,165,479	5,630,100	4,643,616	4,594,386	6,442,838
 Pierce County Total	6,288,090	8,870,522	9,093,450	8,686,769	8,303,620	9,057,413	10,650,108	16,299,840	19,007,508	15,776,785	15,361,764	20,153,801
Metropolitan Cities	1,734,669	2,582,920	2,795,310	2,336,014	2,346,374	2,478,756	913,961	1,898,545	1,869,053	1,502,477	1,277,953	1,304,067
Other UGA	3,571,045	5,703,124	5,776,115	5,133,876	5,137,816	5,448,115	4,616,784	8,413,562	9,594,992	7,224,138	7,925,224	9,167,126
Rural Areas	757,631	1,311,385	1,405,986	1,230,077	1,184,459	1,399,630	3,612,341	5,832,484	7,673,115	5,602,143	5,391,264	7,829,668
 Snohomish County Total	6,063,345	9,597,429	9,977,411	8,699,967	8,668,649	9,326,501	9,143,086	16,144,591	19,137,160	14,328,758	14,594,441	18,300,861
Metropolitan Cities	11,832,889	15,629,950	16,193,100	15,743,307	15,343,952	14,532,048	10,618,679	15,682,836	16,727,566	15,880,699	13,976,102	13,307,320
Other UGA	21,554,411	33,292,978	34,523,063	33,082,780	32,373,662	32,299,863	22,781,351	37,135,889	43,132,321	35,644,319	37,989,326	41,242,860
Rural Areas	2,201,904	3,314,187	3,585,672	3,263,872	3,256,584	4,006,644	12,393,533	18,487,672	22,942,728	18,615,222	18,457,989	25,669,705
 Region Total	35,589,204	52,237,115	54,301,835	52,089,959	50,974,198	50,836,555	45,793,563	71,306,397	82,802,615	70,140,240	70,423,417	80,219,885

4. Daily Vehicle Hours Traveled

Geography	VHT Freeways and Expressways						VHT Arterials and Local Streets					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
Metropolitan Cities	182,277	259,433	284,112	282,033	261,607	209,279	289,823	409,235	473,147	460,182	388,305	351,758
Other UGA	305,392	534,480	655,266	573,356	528,466	451,919	463,636	747,120	967,624	800,593	893,727	787,066
Rural Areas	9,517	14,338	16,935	15,953	16,418	18,827	108,839	199,450	222,498	180,599	183,052	288,842
 King County Total	497,186	808,251	956,313	871,342	806,491	680,025	862,298	1,355,805	1,663,269	1,441,374	1,465,084	1,427,666
Metropolitan Cities	2,745	4,255	4,491	3,953	4,197	6,677	13,440	23,857	23,009	21,680	19,305	22,041
Other UGA	9,814	18,446	16,796	15,177	15,452	33,064	35,034	70,576	74,535	57,292	58,142	82,348
Rural Areas	5,202	8,841	8,892	7,725	7,925	12,574	66,268	110,037	127,907	103,926	104,384	157,095
 Kitsap County Total	17,761	31,542	30,179	26,855	27,574	52,315	114,742	204,470	225,451	182,898	181,831	261,484
Metropolitan Cities	35,073	48,587	49,677	47,277	42,736	48,611	77,707	132,971	131,787	126,701	104,268	106,543
Other UGA	81,780	130,070	142,934	128,286	115,044	128,262	182,961	347,128	438,855	333,984	320,266	492,893
Rural Areas	13,076	12,449	12,984	11,322	11,412	29,361	102,507	137,670	178,622	140,215	137,715	217,867
 Pierce County Total	129,929	191,106	205,595	186,885	169,192	206,234	363,175	617,769	749,264	600,900	562,249	817,303
Metropolitan Cities	34,919	65,512	109,092	52,458	49,863	50,151	37,543	83,406	85,286	63,068	52,071	53,207
Other UGA	74,231	152,437	187,485	115,939	116,353	118,369	173,223	371,888	481,008	292,890	336,697	406,848
Rural Areas	12,432	23,074	34,099	21,199	19,748	25,162	108,484	203,721	298,823	171,124	163,579	279,434
 Snohomish County Total	121,582	241,023	330,676	189,596	185,964	193,682	319,250	659,015	865,117	527,082	552,347	739,489
Metropolitan Cities	255,014	377,786	447,372	385,721	358,404	314,717	418,514	649,469	713,229	671,630	563,949	533,548
Other UGA	471,216	835,433	1,002,481	832,758	775,315	731,613	854,854	1,536,711	1,962,022	1,484,758	1,608,833	1,769,154
Rural Areas	40,227	58,702	72,910	56,198	55,503	85,924	386,098	650,877	827,850	595,864	588,730	943,238
 Region Total	766,457	1,271,921	1,522,763	1,274,677	1,189,222	1,132,254	1,659,466	2,837,057	3,503,101	2,752,252	2,761,512	3,245,940

5. Delay on Highway Network and Arterial System

Geography	Delay (hours) Freeways and Expressways						Delay (hours) Arterials and Local Streets					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
Metropolitan Cities	36,692	72,412	90,732	87,469	72,092	40,253	13,632	37,387	55,299	54,801	30,518	23,574
Other UGA	70,643	172,314	275,711	200,979	163,733	108,406	39,764	102,378	203,088	122,137	143,744	106,889
Rural Areas	184	490	1,117	836	797	1,258	5,509	34,435	42,318	21,655	20,397	70,584
 King County Total	107,519	245,216	367,560	289,284	236,622	149,917	58,905	174,200	300,705	198,593	194,659	201,047
Metropolitan Cities	93	236	257	173	224	972	134	723	822	442	384	986
Other UGA	817	3,822	2,679	2,219	2,325	13,972	444	4,068	4,612	2,525	2,895	9,331
Rural Areas	210	986	726	525	588	2,439	515	5,205	4,632	2,514	2,408	10,632
 Kitsap County Total	1,120	5,044	3,662	2,917	3,137	17,383	1,093	9,996	10,066	5,481	5,687	20,949
Metropolitan Cities	5,732	10,016	10,869	9,402	7,257	11,638	2,013	9,252	10,275	8,835	5,149	5,813
Other UGA	14,677	30,535	40,209	30,737	21,627	27,346	10,481	48,197	92,167	65,830	44,371	109,440
Rural Areas	4,194	1,799	2,007	1,080	1,113	15,031	1,834	6,771	11,873	4,975	3,492	25,699
 Pierce County Total	24,603	42,350	53,085	41,219	29,997	54,015	14,328	64,220	114,315	79,640	53,012	140,952
Metropolitan Cities	5,198	20,894	60,696	12,290	9,520	7,334	786	7,396	12,374	3,174	1,827	2,717
Other UGA	14,905	57,813	91,661	30,709	30,865	28,332	10,947	68,146	139,092	35,963	51,766	67,588
Rural Areas	804	2,605	12,049	2,058	1,348	3,232	5,152	24,070	70,074	12,589	10,004	46,170
 Snohomish County Total	20,907	81,312	164,406	45,057	41,733	38,898	16,885	99,612	221,540	51,726	63,597	116,475
Metropolitan Cities	47,714	103,559	162,554	109,334	89,093	60,197	16,565	54,758	78,770	67,252	37,878	33,090
Other UGA	101,042	264,483	410,260	264,644	218,550	178,055	61,636	222,788	438,959	226,455	242,776	293,248
Rural Areas	5,392	5,879	15,899	4,499	3,846	21,959	13,010	70,481	128,897	41,733	36,302	153,085
 Region Total	154,148	373,921	588,713	378,477	311,489	260,211	91,211	348,027	646,626	335,440	316,956	479,423



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

Geography	Delay (seconds per VMT) Freeways and Expressways						Delay (seconds per VMT) Arterials and Local Streets					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
Metropolitan Cities	16.1	24.8	30.1	28.8	24.3	15.2	6.8	13.8	18.2	18.7	11.7	9.8
Other UGA	18.8	29.7	45.4	33.7	28.1	19.7	11.9	20.4	34.1	23.3	25.4	20.2
Rural Areas	1.0	1.9	3.8	3.0	2.7	3.8	5.9	23.6	25.4	14.7	13.6	36.7
King County Total	17.3	27.3	39.2	31.2	26.1	17.7	9.4	19.0	28.2	20.6	19.9	20.9
Metropolitan Cities	2.2	3.6	3.8	2.8	3.5	10.6	1.5	4.6	5.7	3.2	3.1	6.8
Other UGA	6.2	17.9	13.0	11.7	12.1	49.9	1.5	7.2	7.8	5.4	6.1	15.3
Rural Areas	2.7	8.2	5.7	4.7	5.2	15.5	0.9	5.8	4.6	3.0	2.8	8.6
Kitsap County Total	4.4	12.7	9.1	8.1	8.5	32.9	1.2	6.2	5.8	3.8	3.9	10.5
Metropolitan Cities	11.8	15.8	17.0	15.1	12.4	19.2	3.4	9.6	10.9	9.7	6.6	7.3
Other UGA	13.2	18.5	23.6	19.0	14.0	16.3	7.4	20.0	33.3	30.2	20.1	36.3
Rural Areas	28.3	10.2	11.0	6.3	6.5	63.5	2.0	5.9	7.6	3.9	2.7	14.4
Pierce County Total	14.1	17.2	21.0	17.1	13.0	21.5	4.8	14.2	21.7	18.2	12.4	25.2
Metropolitan Cities	10.8	29.1	78.2	18.9	14.6	10.7	3.1	14.0	23.8	7.6	5.1	7.5
Other UGA	15.0	36.5	57.1	21.5	21.6	18.7	8.5	29.2	52.2	17.9	23.5	26.5
Rural Areas	3.8	7.2	30.9	6.0	4.1	8.3	5.1	14.9	32.9	8.1	6.7	21.2
Snohomish County Total	12.4	30.5	59.3	18.6	17.3	15.0	6.6	22.2	41.7	13.0	15.7	22.9
Metropolitan Cities	14.5	23.9	36.1	25.0	20.9	14.9	5.6	12.6	17.0	15.2	9.8	9.0
Other UGA	16.9	28.6	42.8	28.8	24.3	19.8	9.7	21.6	36.6	22.9	23.0	25.6
Rural Areas	8.8	6.4	16.0	5.0	4.3	19.7	3.8	13.7	20.2	8.1	7.1	21.5
Region Total	15.6	25.8	39.0	26.2	22.0	18.4	7.2	17.6	28.1	17.2	16.2	21.5

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

Geography	Regional emp. within 30 minutes by transit per HH						% of regional emp. within 30 minutes by transit					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
Metropolitan Cities	41,377	111,408	71,668	139,971	61,383	53,470	2.39%	3.99%	2.57%	5.02%	2.20%	1.92%
Core & Larger Suburban Cities	4,066	17,648	8,713	14,859	16,703	7,169	0.24%	0.63%	0.31%	0.53%	0.60%	0.26%
Smaller Suburban Cities & Unincorporated UGA	1,703	3,018	2,986	2,603	3,394	4,930	0.10%	0.11%	0.11%	0.09%	0.12%	0.18%
Rural Areas	494	1,024	635	718	967	1,648	0.03%	0.04%	0.02%	0.03%	0.03%	0.06%
King County Total	19,556	50,820	32,611	67,190	28,444	21,474	1.13%	1.82%	1.17%	2.41%	1.02%	0.77%
Metropolitan Cities	8,424	15,578	11,117	18,832	13,130	8,970	0.49%	0.56%	0.40%	0.68%	0.47%	0.32%
Core & Larger Suburban Cities	1,479	3,572	2,248	4,113	19,381	2,820	0.09%	0.13%	0.08%	0.15%	0.69%	0.10%
Smaller Suburban Cities & Unincorporated UGA	1,901	6,347	5,962	5,711	6,118	6,123	0.11%	0.23%	0.21%	0.20%	0.22%	0.22%
Rural Areas	751	1,611	2,378	1,755	1,872	4,110	0.04%	0.06%	0.09%	0.06%	0.07%	0.15%
Kitsap County Total	2,826	6,212	5,300	7,410	8,697	5,581	0.16%	0.22%	0.19%	0.27%	0.31%	0.20%
Metropolitan Cities	5,626	26,637	16,505	21,817	17,412	5,808	0.33%	0.96%	0.59%	0.78%	0.62%	0.21%
Core & Larger Suburban Cities	2,586	6,965	4,670	7,398	6,543	3,687	0.15%	0.25%	0.17%	0.27%	0.23%	0.13%
Smaller Suburban Cities & Unincorporated UGA	1,119	2,148	2,454	1,690	2,524	6,591	0.06%	0.08%	0.09%	0.06%	0.09%	0.24%
Rural Areas	470	696	731	617	743	1,839	0.03%	0.02%	0.03%	0.02%	0.03%	0.07%
Pierce County Total	2,621	10,426	6,778	9,983	7,598	5,181	0.15%	0.37%	0.24%	0.36%	0.27%	0.19%
Metropolitan Cities	8,542	33,704	21,246	41,115	24,078	12,919	0.49%	1.21%	0.76%	1.47%	0.86%	0.46%
Core & Larger Suburban Cities	3,639	6,790	5,020	6,746	12,047	5,706	0.21%	0.24%	0.18%	0.24%	0.43%	0.20%
Smaller Suburban Cities & Unincorporated UGA	1,652	3,593	3,185	3,087	3,371	6,767	0.10%	0.13%	0.11%	0.11%	0.12%	0.24%
Rural Areas	476	1,536	632	595	605	2,096	0.03%	0.06%	0.02%	0.02%	0.02%	0.08%
Snohomish County Total	3,093	9,856	5,553	11,347	9,237	6,289	0.18%	0.35%	0.20%	0.41%	0.33%	0.23%
Metropolitan Cities	31,027	78,624	52,499	102,786	46,958	39,095	1.79%	2.82%	1.88%	3.68%	1.68%	1.40%
Core & Larger Suburban Cities	3,735	13,898	7,415	12,361	14,763	6,362	0.22%	0.50%	0.27%	0.44%	0.53%	0.23%
Smaller Suburban Cities & Unincorporated UGA	1,539	3,275	3,194	2,785	3,429	6,098	0.09%	0.12%	0.11%	0.10%	0.12%	0.22%
Rural Areas	533	1,217	978	852	986	2,217	0.03%	0.04%	0.04%	0.03%	0.04%	0.08%
Region Total	12,147	29,918	19,317	42,466	19,642	13,488	0.70%	1.07%	0.69%	1.52%	0.70%	0.48%



7b. Average Number of Jobs within 20 Minutes of Housing by Bike

Geography	Regional emp. within 20 minutes by bike per HH						% of regional emp. within 20 minutes by bike					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
King County Total	57,621	95,986	80,668	127,958	69,204	54,074	3.33%	3.44%	2.89%	4.59%	2.48%	1.94%
Pierce County Total	14,795	35,652	28,368	36,289	28,587	19,969	0.86%	1.28%	1.02%	1.30%	1.02%	0.72%
Snohomish County Total	13,655	33,624	21,056	30,368	30,440	22,464	0.79%	1.21%	0.77%	1.09%	1.09%	0.81%
Region Total	38,162	64,407	52,251	86,863	51,031	37,167	2.21%	2.31%	1.87%	3.11%	1.83%	1.33%

7c. Average Number of Jobs within 10 Minutes of Housing by Walking

Geography	Regional emp. within 10 minutes by walk per HH						% of regional emp. within 10 minutes by walk					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
King County Total	2,056	4,608	2,460	5,103	3,526	1,830	0.12%	0.17%	0.09%	0.18%	0.13%	0.07%
Pierce County Total	616	1,924	1,252	1,990	1,872	1,165	0.04%	0.07%	0.04%	0.07%	0.07%	0.04%
Snohomish County Total	810	2,154	1,108	2,545	3,100	1,391	0.05%	0.08%	0.04%	0.09%	0.11%	0.05%
Region Total	1,440	3,235	1,793	3,795	3,018	1,535	0.08%	0.12%	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

Geography	Regional emp. within 30 minutes by transit per HH						% of regional emp. within 30 minutes by transit					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
King County Total	13,831	38,169	24,776	50,447	21,170	16,231	1.38%	2.04%	1.32%	2.69%	1.13%	0.87%
Pierce County Total	1,798	7,752	5,050	7,379	5,634	3,636	0.18%	0.41%	0.27%	0.39%	0.30%	0.19%
Snohomish County Total	1,700	6,368	3,649	7,550	6,144	4,138	0.17%	0.34%	0.19%	0.40%	0.33%	0.22%
Region Total	8,437	22,142	14,478	31,630	14,457	9,965	0.84%	1.18%	0.77%	1.69%	0.77%	0.53%

8b. Average Number of Finance, Insurance, Real Estate, Services & Retail Jobs within 20 Minutes of Housing by Bike

Geography	Regional emp. within 20 minutes by bike per HH						% of regional emp. within 20 minutes by bike					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
King County Total	38,543	70,157	58,704	92,791	49,430	39,498	3.84%	3.75%	3.14%	4.96%	2.64%	2.11%
Pierce County Total	9,738	26,166	20,954	26,301	21,061	14,230	0.97%	1.40%	1.12%	1.40%	1.12%	0.76%
Snohomish County Total	7,596	22,031	13,715	19,848	19,989	14,750	0.76%	1.18%	0.73%	1.06%	1.07%	0.79%
Region Total	25,123	46,411	37,582	62,539	36,212	26,652	2.50%	2.48%	2.01%	3.34%	1.93%	1.42%



8c. Average Number of Finance, Insurance, Real Estate, Services & Retail Jobs within 10 Minutes of Housing by Walking

Geography	Regional emp. within 10 minutes by walk per HH						% of regional emp. within 10 minutes by walk					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
King County Total	1,461	3,544	1,880	3,756	2,709	1,387	0.15%	0.19%	0.10%	0.20%	0.14%	0.07%
Pierce County Total	303	830	628	933	1,423	842	0.03%	0.04%	0.03%	0.05%	0.08%	0.04%
Snohomish County Total	479	1,417	746	1,740	1,211	950	0.05%	0.08%	0.04%	0.09%	0.11%	0.05%
Region Total	1,002	2,431	1,350	2,782	2,276	1,133	0.10%	0.13%	0.07%	0.15%	0.12%	0.06%

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

Geography of Trip Attractions	Minutes						Miles						Average Speed (MPH)						
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	
King County Total	25.9	28.3	31.2	26.4	26.7	26.9	13.1	13.1	14.0	12.2	12.3	12.7	30.3	27.8	26.9	27.7	27.6	28.3	
Pierce County Total	26.9	27.5	26.7	28.6	26.9	30.1	14.1	13.7	13.8	15.1	13.4	13.7	31.4	28.6	27.0	28.8	31.7	29.2	25.4
Snohomish County Total	23.6	22.5	23.2	21.7	21.9	24.7	12.5	10.8	11.0	10.7	10.9	11.3	31.8	28.8	29.6	28.6	29.9	28.3	
Region Total	25.4	26.5	28.1	25.4	25.4	26.2	13.1	12.4	13.1	12.1	12.0	12.3	30.9	28.1	27.0	28.6	28.3	28.2	

Note: SOV skims for the AM peak period used to calculate average time and distance.



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

Geography of Trip Attractions	Minutes						Miles						Average Speed (MPH)					
	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities	2000	Preferred Growth	Growth Targets Extended	Metropolitan Cities	Larger Cities	Smaller Cities
King County Total	14.6	15.3	16.2	14.7	14.5	15.3	6.8	6.8	7.2	6.4	6.2	6.6	27.9	26.7	26.7	26.1	25.7	25.9
Kitsap County Total	14.0	14.6	14.5	13.7	13.2	18.4	5.4	5.4	5.3	5.1	4.8	7.4	23.1	22.2	21.9	22.3	21.8	24.1
Pierce County Total	14.3	13.4	13.9	13.2	13.5	15.3	6.1	5.4	5.6	5.3	5.5	5.8	25.6	24.2	24.2	24.1	24.4	22.7
Snohomish County Total	14.7	14.5	15.7	14.4	14.1	16.1	6.4	5.8	6.4	6.0	5.7	6.3	26.1	24.0	24.5	25.0	24.3	23.5
Region Total	14.5	14.8	15.5	14.3	14.2	15.7	6.5	6.3	6.6	6.1	5.9	6.4	26.9	25.5	25.5	25.6	24.9	24.5

Note: SOV skims for the MID-DAY period used to calculate average time and distance.

