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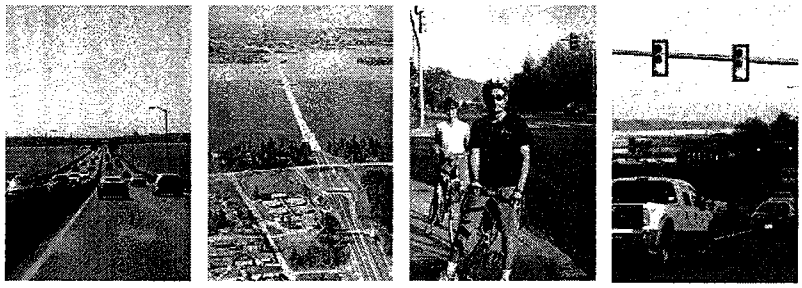
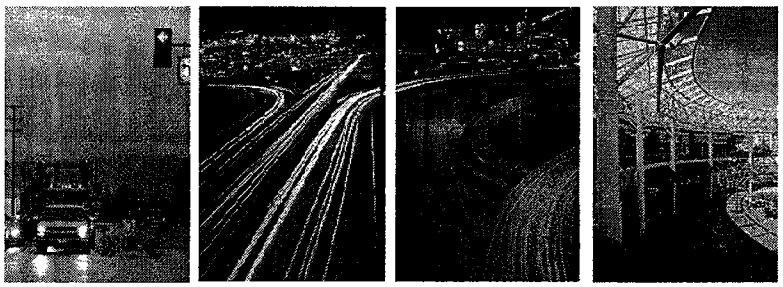


Moving Forward Together:
A Blueprint for Progress
King, Pierce, Snohomish Counties



Regional Transportation Investment District

Planning Committee Recommendation
June 8, 2007

Regional Transportation Investment District

Moving Forward Together: A Blueprint for Progress
King, Pierce, Snohomish Counties

Planning Committee Recommendation
June 8, 2007

Regional Transportation Investment District planning committee members:

Shawn Bunney, Pierce County, executive board chair*
Julia Patterson, King County, executive board vice chair*
Dow Constantine, King County*
Reagan Dunn, King County*
Tim Farrell, Pierce County*
Dave Gossett, Snohomish County*
Gary Nelson, Snohomish County*
Terry Lee, Pierce County**
Calvin Goings, Pierce County**
Larry Phillips, King County**
Bob Ferguson, King County**
Jane Hague, King County**
Kirke Sievers, Snohomish County**
John Koster, Snohomish County**
Dave Sommers, Snohomish County
Barbara Gelman, Pierce County
Dick Muri, Pierce County
Roger Bush, Pierce County
Larry Gossett, King County
Kathy Lambert, King County
Pete von Reichbauer, King County
Doug MacDonald, Secretary of Transportation, WSDOT

*executive board member
**executive board alternate

Regional Transportation Investment District

Moving Forward Together: A Blueprint for Progress
King, Pierce, Snohomish Counties

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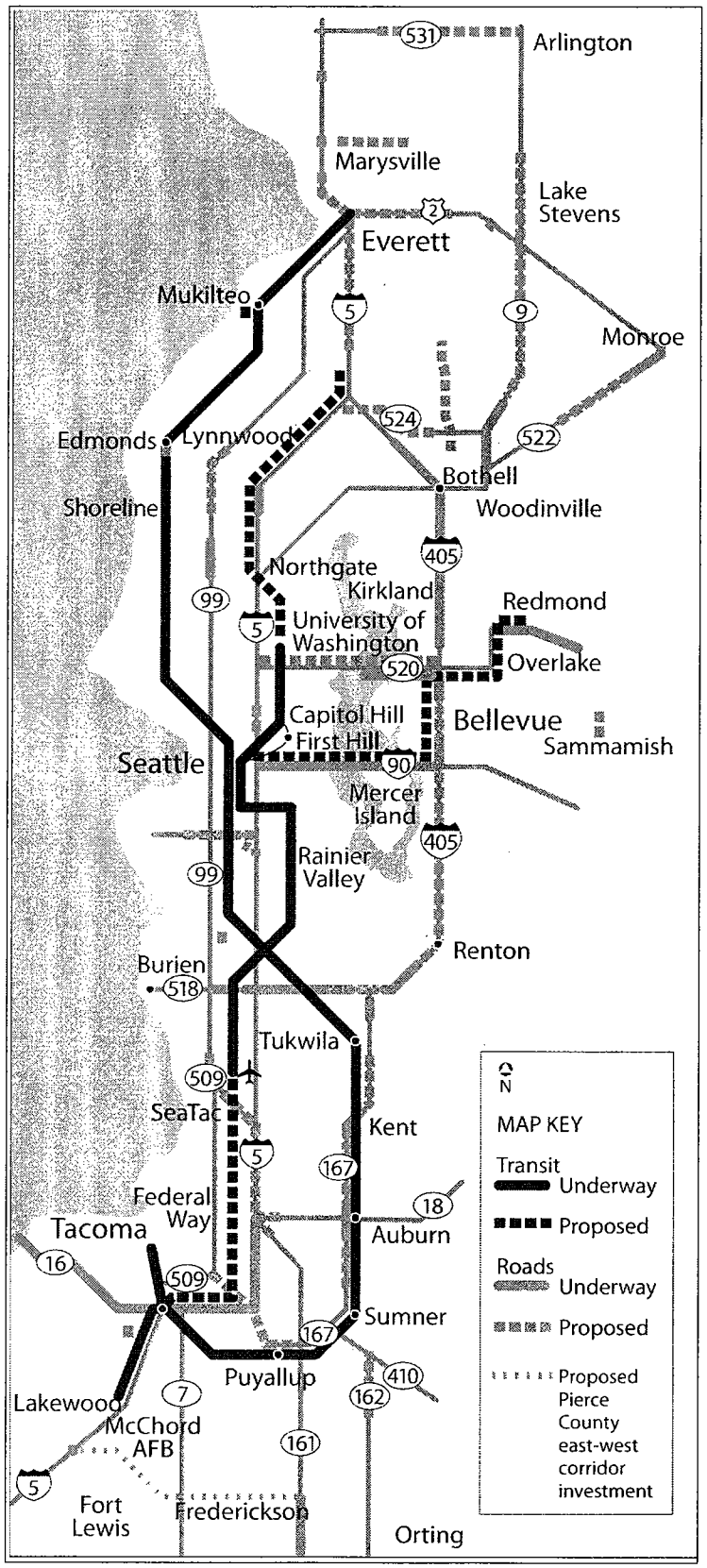


I. Introduction

The central Puget Sound region is on the verge of a great initiative. This spring, the Regional Transportation Investment District (RTID) will finish its plan: the *Blueprint for Progress*. We've been coordinating our planning with Sound Transit's plans for their phase two, *Sound Transit 2*. Our joint *Roads & Transit* plan when implemented will dramatically improve our highways, transit, and safety, and benefit the way people and goods get around the region for generations to come.

The *Blueprint for Progress* is our opportunity to do to do things better, on a scale equal to the traffic problems we face.

Traffic: What it's Doing to Us

Traffic. No other issue has vexed our region for so long. Our past failure to make focused transportation investments is the single biggest threat to our economic prosperity and quality of life.

We have a lot at stake. The central Puget Sound region is the fastest growing area and economic hub for our state. The region is part of a global economy, home to major seaports and employers, including: Boeing, Costco, The Gates Foundation, Microsoft, Nordstrom, Paccar, Puget Sound Energy, REI, Russell Company, Starbucks, Washington Mutual (WaMu), and Weyerhaeuser. Our unique and attractive landscape of mountains, rivers, lakes, and salt water make our region a destination and nurture an environmental ethic. However, our desirability as a place to live and visit, our economic success and our population growth are causing the region to struggle with serious transportation problems.

Extreme and prolonged traffic congestion and aging infrastructure threaten to overwhelm our prosperity. More households than ever before have two workers, and homes and businesses are more dispersed as a result of workers seeking affordable housing and the rise of new employment centers in mid-sized cities. Not surprisingly, traffic congestion, travel times, travel unpredictability, and vehicle crashes have increased.

Meanwhile, the population of the central Puget Sound region continues to grow rapidly, with nearly another 1 million more people expected to be living in King, Pierce, and Snohomish counties by 2030. Most will be our children and our children's children. That is a 40 percent increase in just the next 23 years. Last year alone, our population increased by 60,000 people in Snohomish, King, and Pierce counties—that's 5,000 more people each month. As that trend continues, our already overburdened transportation system will grind to a halt.

More than 40 years of underinvestment in our transportation system has finally caught up with us. Some of our aging infrastructure is dangerous; our roads are overflowing with traffic, and the public wants more to be done now.

It's About Time

Our transportation crisis is the target of RTID's *Blueprint for Progress*—a coordinated plan to improve critical transportation corridors, improve safety, invest in transit-friendly improvements and build new bridges that will reduce traffic backups and keep people and freight moving in the most congested corridors in Snohomish, King and Pierce counties.

The *Blueprint for Progress* invests first in the most congested corridors across central Puget Sound, such as I-405 between Renton and Bellevue, which experiences up to14 hours of traffic congestion a day. The *Blueprint* will make traffic flow better on I-5 by connecting key roads and freeways: for example linking SR 509 to I-5 south of Sea-Tac Airport and reducing the back-up on I-5. The *Blueprint* will also improve heavily congested roads such as SR 9 and US 2 that serve designated growth areas in Snohomish County.

Band-aids and quick fixes won't cut it anymore. We need to make substantial investments in our most heavily-traveled corridors to make a real difference.

RTID is focusing on investments that do the most to reduce congestion and ease choke points—both where they exist today and where they will be in the future. We are planning to phase the construction to minimize disruptions. The project financing is being timed to reduce costs and to leverage limited dollars.

We are coordinating the road improvements with Sound Transit's phase 2 (*ST2*) investments that will expand on the regional transit and light rail system currently being built. The transit package will include light rail extensions from Seattle north to South 164th Street/ Ash Way in Snohomish County, east to the Overlake Transit Center in Redmond and the Microsoft campus and south to downtown Tacoma, along with more commuter rail and express bus service in all three counties. A number of our road investments are designed to reduce bus and car conflicts and delays.

Light rail will dramatically reduce the time it takes to get from Bellevue to Qwest Field in downtown Seattle—from 37 minutes on transit today to about 20 minutes. That's every day, reliably and predictably.

The *Blueprint* and *Sound Transit 2* combine to form the *Roads & Transit* package. The *Roads & Transit* package will present to voters the first unified program of investments in highways, bridges, light- and commuter-rail, HOV lanes, park & ride lots, and express and local bus service in the central Puget Sound area. We are making sure all of them work together for everyone—whether they drive a car or truck or take transit.

We can do this and, fortunately, we are not starting from scratch. The *Blueprint for Progress* builds on the investments in roads, bridges and freight and truck routes that were approved by the legislature in 2003 and 2005, the Nickel and the Transportation Partnership Act (TPA) programs, and the voters upheld the TPA program when some tried to repeal it. Sound Transit's program builds on the investments voters approved in phase one, *Sound Move*, 10 years ago.

One Region, One Transportation Plan

We have made great strides since state legislation in 2002 allowed Snohomish, King, and Pierce counties to develop a regional transportation proposal. It is culminating with our cooperation with Sound Transit and other transit-agency partners in 2007 to develop an integrated *Roads & Transit* package.

Getting here hasn't been easy or assured. The complexity and size of our transportation problems are immense. Despite this, the *Blueprint for Progress* reflects years of close collaboration by local leaders to reach a common view on which transportation projects are going to be built in the Puget Sound region—from Arlington to Lakewood—over the next 20 years.

RTID members—whether we are from urban, suburban or rural communities—are united by a shared vision for the future: a regional transportation system that works and supports a vibrant economy with good jobs.

Public Helps Shape the Plan

The *Blueprint for Progress* is the result of efforts by thousands of community leaders and citizens from across central Puget Sound to reach agreement on the most significant regional transportation investments since the freeway system was built fifty years ago.

RTID members listened to the public, local officials and community leaders as we made decisions on our transportation priorities. People told us to get things done and to think big—to focus on investments that do the most to reduce congestion, address dangerous conditions and make a difference.

The RTID planning committee will send the final *Blueprint for Progress* to the Snohomish, King and Pierce county councils and executives for approval in June 2007. The approved RTID plan will be combined with *Sound Transit 2* as the *Roads & Transit* measure to be placed on the ballot in November 2007.

It's Time to Get Moving

Many of us have lived through the explosive growth in our region. Imagine what our traffic problems will be when another million people come to the Puget Sound region in the next 20 years. The stakes couldn't be higher. The choice is simple: we can get moving on our traffic problems, or we can do nothing and keep sitting in traffic. The *Blueprint for Progress* is about getting us moving.

II. Proposed Investment Strategy and Plan

Overview

The state legislature authorized the creation of regional transportation investment districts in 2002. (See RCW 36.120) Major urban regions were given authority to create investment districts because many of the state's transportation facilities have failed to keep up with population growth and because the state cannot by itself fund in a timely way necessary improvements on the state system.

Snohomish, Pierce and King counties convened the first meeting of the RTID planning committee authorized by the state on June 19, 2002, to begin planning a regional transportation investment strategy. A variety of factors have contributed to how the RTID developed its investment strategy over time. The Puget Sound Regional Council (PSRC), Washington State Department of Transportation (WSDOT), and local government transportation planners provided traffic flow and origin and destination travel information that were used to help identify investments with the greatest congestion relief benefit. WSDOT staff analyzed previous projects to factor in funding from the 2003 Nickel and 2005 Transportation Partnership Act (TPA) approved by the state.

The RTID executive board considered ways to leverage these state investments. Some projects were removed from consideration as other funding became available for construction. For example, the RTID executive board previously considered funding the HOV lanes on I-5 in Pierce County; however, the state TPA is now funding that project. Other factors for project selection included Sound Transit phase 2 planning, and successful votes in 2006 for the City of Seattle's *Bridging the Gap* and King County's *Transit Now* proposals. In addition, public comments from the 2006 and 2007 public comment periods have been analyzed and included where possible.

The RTID executive board worked with WSDOT and other project lead agencies to ensure cost estimates are up to date. This plan uses cost update information from the fall of 2006, reflecting the recent high construction costs due to world-wide demand for materials and labor. The WSDOT web site, www.wsdot.gov, includes detailed information on the cost update assumptions and methods. The costs of projects have changed due to increases in base costs, including rights-of-way purchase assumptions, commodity prices, and scope changes; risk of project delay or other major external events that could increase project costs; and inflation. RTID used independent experts to review the initial investment strategy and worked with WSDOT to ensure that all projects have a high probability of being built within the estimated cost.

The project scopes included in the original *Blueprint for Progress* have been re-examined to ensure the highest value project for the most cost-efficient investment. A project sequencing and staging plan is included with this plan in Appendix C.

State and Regional Policy Foundation

This investment strategy builds upon State goals and objectives regarding the operation of an efficient statewide transportation system, including regional investment in state facilities. Substitute Senate Bill 5412 amends RCW 47.01 to include the following policy goals:

Preservation: To maintain, preserve, and extend the life and utility of priorities investments in transportation systems and services.

Safety: To provide for and improve the safety and security of transportation customers and the transportation system.

Mobility: To improve predictable movement of goods and people throughout Washington State.

Environment: To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities; and protect the environment.

Stewardship: To continuously improve the quality, effectiveness, and efficiency of the transportation system.

Furthermore, RCW 36.120 sets forth performance criteria to be considered in selecting transportation projects to improve corridor performance. Relative to the state's policy goals, RTID is aimed primarily at the mobility goal. RTID's project selection and performance criteria set by law are:

Reduce the level of congestion and improve safety (*mobility* and *safety*)

Improve travel time (*mobility*)

Improve air quality (*environment*)

Increase daily and peak period person and vehicle trip capacity (*mobility*)

Reduce person and vehicle delay (*mobility*)

Improve freight mobility (*mobility*)

Make cost-effective investments (*stewardship*)

Additionally, RCW 36.120.020 identifies the following goals for traffic mitigation during construction in affected corridors:

Reduce drive alone trips

Reduce delay per person and per unit of goods

Improve system performance

Environmental Review and Policy Direction

The Pacific Northwest has a strong environmental ethic including protection of natural resources and endangered species, reducing water and air pollution, preserving farm land and open space, protecting neighborhoods, and leading an active and healthy lifestyle. The *Blueprint for Progress* includes investments that restore and protect habitat. Investments also include sidewalks, bicycle lanes, bus-only lanes, HOV lanes, opportunities for HOT lanes, traffic signals, bus stops and shelters, park and ride lots, bus purchases and operational expenses for traffic mitigation provided solely for specific projects as outlined in this plan. These may include transit service hours; trip reduction incentives; nonmotorized mode support; and ridematching services. This plan includes guiding principles to optimize the regional transportation system and to coordinate with the State of Washington to ensure that state environmental goals are achieved.

The RTID planning committee reviewed the proposed investment strategy for conformance with the Puget Sound Regional Council's metropolitan transportation plan, *Destination 2030,* and they also reviewed the associated environmental documents that were provided to them electronically and in hard copies. In addition, the planning committee also reviewed Sound Transit's *Sound Transit 2* plan and its associated environmental documents. RTID staff worked closely with staff from the PSRC and Sound Transit to coordinate analysis and assumptions to develop an integrated transportation plan for the voters to consider that is consistent with *Destination 2030*. Appropriate project-level environmental reviews will be conducted by the proper agencies for the projects in the proposed Regional Transportation Investment District plan. The RTID investment plan includes highways of statewide significance, arterials, local collectors, transit capital and service investments. *Destination 2030* explicitly references major regional projects and addresses more generally investments at the arterial level as well as localized transit investments. Changes in facilities associated with projects, and changes of projects that are referenced in *Destination 2030* will not change the programmatic analysis associated with this plan.

Transportation and land-use planning have a direct relation to climate change. A system-wide approach is needed to account for and mitigate climate change impacts in the planning, design, construction and operation of transportation projects in the region. On May 4, 2007, the RTID executive board took action to work with the Puget Sound Regional Council to examine and address climate change policies and strategies as part of the required update to *Destination 2030*.

Most of the RTID investments are transportation facilities currently owned by the State of Washington. According to CTED and Department of Ecology, nearly 50% of greenhouse gas emissions in Washington State come from the transportation sector. The governor and state legislature have adopted goals to cut greenhouse gas emissions 50% below 1990 levels by 2050. Recent actions by the state to meet these goals include requiring new cars and light trucks to reduce CO_2 emissions by more than 30%, and a renewable fuel standard requiring 2% of transportation fuel sold to be biodiesel or ethanol.

On top of these measures, the state has committed to reducing per capita vehicle miles traveled to support an environmentally sustainable transportation system. The State of Washington and Puget Sound counties are national leaders in managing vehicle miles traveled. Efforts currently underway such as linking land use and transportation planning will need to be enhanced to achieve climate change goals. The measures may be as far-

reaching as creating affordable housing near jobs; supporting transit-oriented development; increasing alternatives to single-occupancy vehicle trips; and increasing the use of technology and telecommuting. The RTID recognizes that a comprehensive approach is needed to combat climate change and supports the state commitment to reducing vehicle miles traveled. Over the life of the investment plan, the RTID will do this by using its funding to leverage commitments from partner agencies to seek opportunities to reduce vehicle miles traveled. The transit components of the highway projects in the *Blueprint* are sequenced to maximize congestion relief and mobility and the construction mitigation funds are expressly permitted to help shift modal choice. RTID will also work with the lead agencies it funds to encourage identification of opportunities to reduce vehicle miles traveled during design, engineering, construction and operations phases of the projects referenced in the plan.

Anticipating Change

The *Blueprint* identifies transportation projects which, in conjunction with the transit proposal recommended by Sound Transit, represent cost-effective investments to reduce levels of congestion, improve safety, travel time or air quality, increase person and vehicle trip capacity, reduce person and vehicle delay and improve freight mobility within the proposed RTID boundaries. The accompanying financial plan projects that the two revenue sources identified in the *Blueprint* will produce adequate revenues to construct the recommended transportation projects over the projected construction schedule. The estimated costs of the projects assume that certain facilities will be built as part of these projects based on the best engineering and cost projections currently available, including the detailed projections required under RCW 36.120.040(5).

The legislation that authorizes the creation of RTID acknowledges that over the twenty-year investment plan period for RTID, there are likely to be circumstances that may require changes to the transportation projects and certainly modifications to the facilities being considered to implement those projects. These circumstances could include unexpected cost increases for materials, unforeseen environmental conditions, the availability of new technologies or additional federal, state or local funding and other factors that may or may not be foreseeable but are currently unknown.

The legislation establishes limits on the ability of the RTID board to change the transportation projects contained in the voter-approved *Blueprint* while it also acknowledges the likelihood of changed circumstances. The legislation specifically addresses the authority to change the transportation projects and the sources of revenue and allows a change in transportation projects or revenue sources only if two or more participating counties adopt a resolution to modify the plan and voters approve the redefined plan. The RTID board is also authorized to modify the plan to change transportation projects within a county with board and county voter approval, subject to maintaining overall equity among the participating counties. If the cost of a transportation project exceeds its original cost estimate by more than twenty percent, the RTID board may submit to voters a ballot measure that redefines the scope of the project, its schedule, or its costs or the counties may elect to have RTID proceed with the project. The legislation thus assures voters that the RTID board cannot substitute a new project for an approved project or abandon an approved project without resubmitting the issue to the voters.

The legislation acknowledges that transportation projects may have many components and many ways to achieve the mobility, capacity, safety, and environmental goals of the approved projects. These components, as identified in the legislation, can include highway approaches, high-occupancy vehicle lanes, flyover ramps, park-and-ride lots, bus pullouts, vans for vanpools, buses, signalization, ramp metering, operational expenses for traffic mitigation, and other system management improvements. The legislation requires that RTID issue reports, at least annually, to indicate the status of project costs, project expenditures, revenues and construction schedules. These reports may include progress toward meeting the performance criteria established under the legislation.

The completion of the transportation projects recommended in the *Blueprint* will take over twenty years. Each project must be designed and engineered, be subject to environmental review, be approved by the RTID board, be contracted for and constructed. Some of the projects may not commence construction for many years. Subject to the constraints imposed by the legislation, RTID needs to reserve to itself the ability to adjust to changing or unforeseen conditions as it designs the projects and implements the *Blueprint*. Thus, the descriptions of the facilities to be constructed as part of the transportation projects may be modified or replaced with other facilities to implement or improve the same transportation project. Furthermore the sequence of constructing facilities or transportation projects likewise may be modified over time to accomplish the plan, and thus reflect adaptation to changed conditions.

The RTID board will adopt procedures for approving any modification or replacement of a facility or change in sequencing, which will include a public notice procedure and opportunities for public comment. In addition, any modification or replacement of a facility or change in sequencing will be included in the report requirement by the legislature under RCW 36.120.140(4). Although facilities may be modified or replaced, or sequencing changed, upon RTID board approval, in accordance with the board's adopted procedures, any modifications of the plan to change a transportation project must be completed in accordance with RCW 36.120.140(1) or (2), as applicable. If a transportation project cost exceeds its original cost by more than twenty percent as identified in the plan, the board may proceed only in accordance with RCW 36.120.140(3).

The authorizing legislation and the *Blueprint* attempt to balance the need to define with voter consent the projects to be undertaken and the practical need to implement the *Blueprint* with some flexibility to best achieve its goals.

Guiding Principles

The RTID executive board refined a set of principles to help frame the roads investments that are in the *Blueprint for Progress* and will be in the regional *Roads & Transit* package. These principles combine RTID statutory requirements; principles from the original *Blueprint for Progress* adopted on January 26, 2006; and revised principles adopted by the executive board on January 12, 2007. Principles were further expanded in making final investment decisions based on public comment received on the January 26, 2007 draft *Blueprint*.

The guiding principles are listed below:

Build Off Existing Investments in Key Areas

Focus on corridors where the value of existing state and local investments can be significantly increased by completing additional improvements in that corridor.

Focus on important time-sensitive corridor improvements that were not funded or have not been adequately funded by state or local investments.

Recognize that there are shared cost responsibilities for the SR 520 Bridge as described in the SR 520 funding strategy in this plan.

Prioritize Regional Investments into Critical Corridors and Key Investments

Recognize that the region's needs exceed our ability to fund all projects at the same time.

Make investments that further the purposes of the Puget Sound Regional Council's metropolitan transportation plan, *Destination 2030*, to provide transportation mobility and access. Ensure that projects are included in *Destination 2030* and are consistent with associated environmental documents.

Focus on corridors and investments to reduce congestion and improve safety, improve travel time, increase daily and peak person and vehicle trip capacity, reduce person and trip delay, and improve air quality.

Improve freight mobility.

Utilize an implementation plan that provides incentives for re-investing cost savings, efficiencies, and subsequent matching funds to enhance the transportation benefits in that corridor.

Optimize the regional transportation system by focusing on ways to increase mobility within corridors and anticipate change

Use regional funding of state facilities to leverage system management that assures reliable system performance. Reliable system performance is defined as an average travel speed of 45 miles per hour for half the weekdays on a corridor segment. The system performance is not reliable if average travel speed drops below 45 miles per hour for an hour or more. This measurement may be improved over time to better assess system performance but not to accommodate reduced system performance.

Ensure reliable system performance by continuously evaluating design, engineering, construction, and operations to make sure that investments accommodate technology for active traffic management, tolling, intelligent transportation systems, and other technologies that may emerge over the life of the investment plan.

If this evaluation determines that a corridor is unreliable or is projected to become unreliable, the RTID board will work with Washington State and its tolling authority, if necessary, to implement variable pricing, HOT lanes, tolling, and other management tools in the following King County corridors: SR 520, I-90, I-405, SR-167, SR-509. The RTID will work with the State or its tolling authority, if necessary, to implement pricing or tolling measures on highways of statewide significance if they are necessary to fund completion of projects defined in the plan or pay for essential improvements, and may use such funds to retire debt early or reduce the amounts for other revenue sources. In Snohomish and Pierce counties, the RTID board will work with PSRC and WSDOT to ensure tolling feasibility work is accomplished comparable to that completed to date in King County.

Build on the State of Washington SR 167 HOT lane pilot program. The State of Washington has recently undertaken several tolling studies and has adopted legislative direction about the future of tolling. The Regional Transportation Commission (RTC) found "...there is a vital need for ... tolls as a source of revenue and to manage demand." In 2006-2007 the Legislative Evaluation and Accountability Program in its capital study identified corridors in the region for future pricing strategies. During the 2007 legislature HB 1094 and SB 5412 also provide direction on future tolls and pricing.

Work with the State of Washington and its tolling authority to ensure, that when instituted, tolls within the RTID benefit the regional transportation system. Build on the priorities identified in the United States Department of Transportation's national strategy to reduce traffic congestion and the Urban Partnership Agreement, as well as other current and future USDOT congestion relief programs. These priorities now include technology tolling, transit, and telecommuting options.

Look to examples from other states that have adopted design guidelines for highways that are more accommodating to emerging technologies, policy priorities, and unique geographical constraints and conditions.

Ensure RTID-funded investments are constructed using the best practices for energy savings and reduced emissions consistent with state policy. Encourage the purchase of hybrid buses or other clean technology. Consider the provision of services for plug-in electric cars at park and ride lots.

Support integrated transportation and land use within the region by ensuring investments serve designated urban growth areas with a mix of jobs and housing.

Create an Integrated Regional Transportation Plan that Includes Both Roads and Transit Together

Model integration after successful examples of combined road and transit packages from San Diego, Denver, and Vancouver, B.C.

Review project phasing and staging to maximize reliability and certainty of the region's transportation system while minimizing disruption during construction.

Plan for transit to assist in traffic flow as an eligible investment for RTID funding to provide construction traffic impact mitigation.

Demonstrate to our voters that we have a unified regional transportation plan that makes sense and is affordable.

Keep the Roads & Transit Package Affordable

Ensure that investments are cost effective.

Limit revenue sources.

Reduce reliance on the sales tax and place primary reliance on the motor vehicle excise tax (MVET) to provide the necessary funding.

Use bonding to the extent necessary to implement the *Blueprint for Progress* projects on a timely basis.

Leverage federal, state, regional, and local funds to minimize financing costs.

Ensure Project Delivery Accountability

Optimize investments by remaining flexible and using alternative contracting approaches for project delivery such as design-build.

Establish accountability mechanisms to encourage the State of Washington and other transportation facility owners receiving regional funds to comply with project reporting requirements to be set by the district. These measure will include but not be limited to the following provisions in Chapter 47.01.012 (Section 6) RCW:

Balance system safety and convenience through all phases of a project to accommodate all users of the transportation system to safely, reliably and efficiently provide mobility to people and goods.

Develop strategies to gradually reduce the per capita vehicle miles traveled based on consideration of a range of reduction methods.

Consider efficiency tools including high-occupancy vehicle and high-occupancy toll lanes, corridor specific and system-wide pricing strategies, active traffic management, commute trip reduction, and other demand management tools.

Promote integrated multi-modal planning.

Encourage engineers and architects to design environmentally sustainable, context sensitive transportation systems.

Leverage regional funds to achieve the greatest ecosystem benefits by coordinating project level environmental mitigation.

Coordinate with the Puget Sound Regional Council to achieve policy goals established through *Destination 2030* and updates to *Destination 2030*.

Commit to efficient project planning and delivery by coordinating with Sound Transit from project planning though construction.

Establish system performance metrics to be monitored in conjunction with project sponsors, WSDOT, and PSRC to track system performance and to recommend plan modifications if necessary to achieve reliable system performance.

Work with PSRC and other agencies developing metrics for monitoring environmental and public health impacts related to carbon emissions.

Provide Appropriate Oversight

Issue reports consistent with Chapter 36.120 RCW, at least annually, to indicate the status of project costs, project expenditures, revenues and construction schedules. These reports may include progress toward meeting the performance criteria established under the legislation.

Adopt procedures for approving any modification or replacement of a facility or change in sequencing, which will include a public notice procedure and opportunities for public comment.

Optimize the structure of issuing debt to increase project investments and decrease debt service and interest payments.

Adopt procedures for allocating interest and finance savings to the transportation projects in this plan and to retire debt early.

Allow RTID revenue to be used to back bonds and other debt instruments that may be issued by the state, federal government or other lead agencies in order to minimize finance costs.

Establish financial policies consistent with best practices from the U.S. Government Accountability Office (GAO) and the Washington State municipal finance officers association.

The RTID board will establish an oversight panel to provide independent expertise to the RTID in monitoring plan compliance, contracts with project owners, system performance, and the construction mitigation program.

III. District Boundary

In both King and Pierce counties, the proposed RTID boundary line generally matches the boundaries of the existing Sound Transit district, except for a difference in state law that requires the RTID boundary to include complete parcels of land. In Snohomish County the RTID boundary is larger than the Sound Transit district in order to include key road and highway corridors.

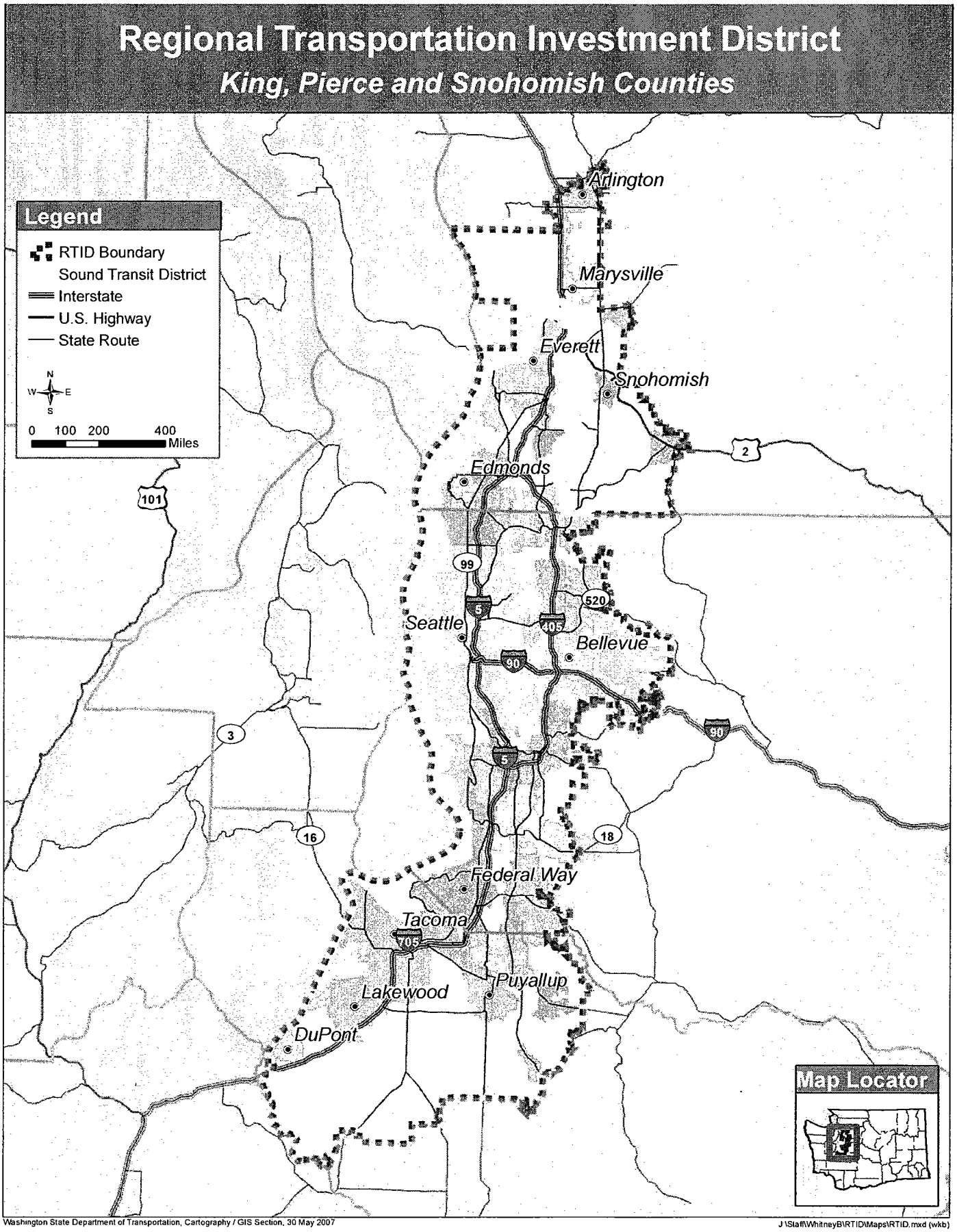
Snohomish County presented a different set of needs because the existing Sound Transit (Central Puget Sound Regional Transit Authority or RTA) boundary only includes the southwest urban growth areas (as far north as Everett) and does not include much of the northern and eastern portions of the county where new designated growth areas are located. The RTID boundary includes four major highways of statewide significance (I-5, State Routes 9 and 522, and US 2); several critical road projects to the north, and local transit services. Significant work was undertaken on how best to address the boundary question. Ultimately, after consultation and legal analysis, it was determined that the best way to proceed was to establish a boundary for the RTID that includes Sound Transit's boundary in King and Pierce counties but that also includes additional areas in Snohomish County.

The following guidelines were used in developing the Snohomish County boundary proposal:

- Include projects within the I-5 Snohomish Corridor Action Plan (SNOCAP). This includes both the I-5 and SR 9 corridors from the King County line to Arlington.
- Include the adjoining urban growth areas (UGAs) along the SNOCAP corridor, i.e. I-5 and SR 9.
- Consider existing transit service areas or major routes within Snohomish County for inclusion in the new boundary.
- Include the Tulalip Reservation within the new boundary due to recent and continuing economic development expansion.

Applying these guidelines resulted in a Snohomish County RTID area bounded by King County to the south; Puget Sound to the west; SR 9 and associated urban growth areas, including Monroe to the east; and Arlington to the north. This boundary allows for a system approach that includes both road and transit projects in the majority of Snohomish County.

The RTID executive board directed staff to take additional steps to establish a legally defined boundary. RCW 36.120.040(1)(a) requires the RTID boundary line to be at least contiguous with the Sound Transit area, and to include complete parcels of land. To meet these requirements, staff worked with county auditors, county election officials and state officials to verify the legal location of the boundary line. Appendix A to this report includes the legal descriptions for the district boundary. Maps of the district are included here and in Appendix A.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Washington State Department of Transportation, Cartography / GIS Section, 30 May 2007
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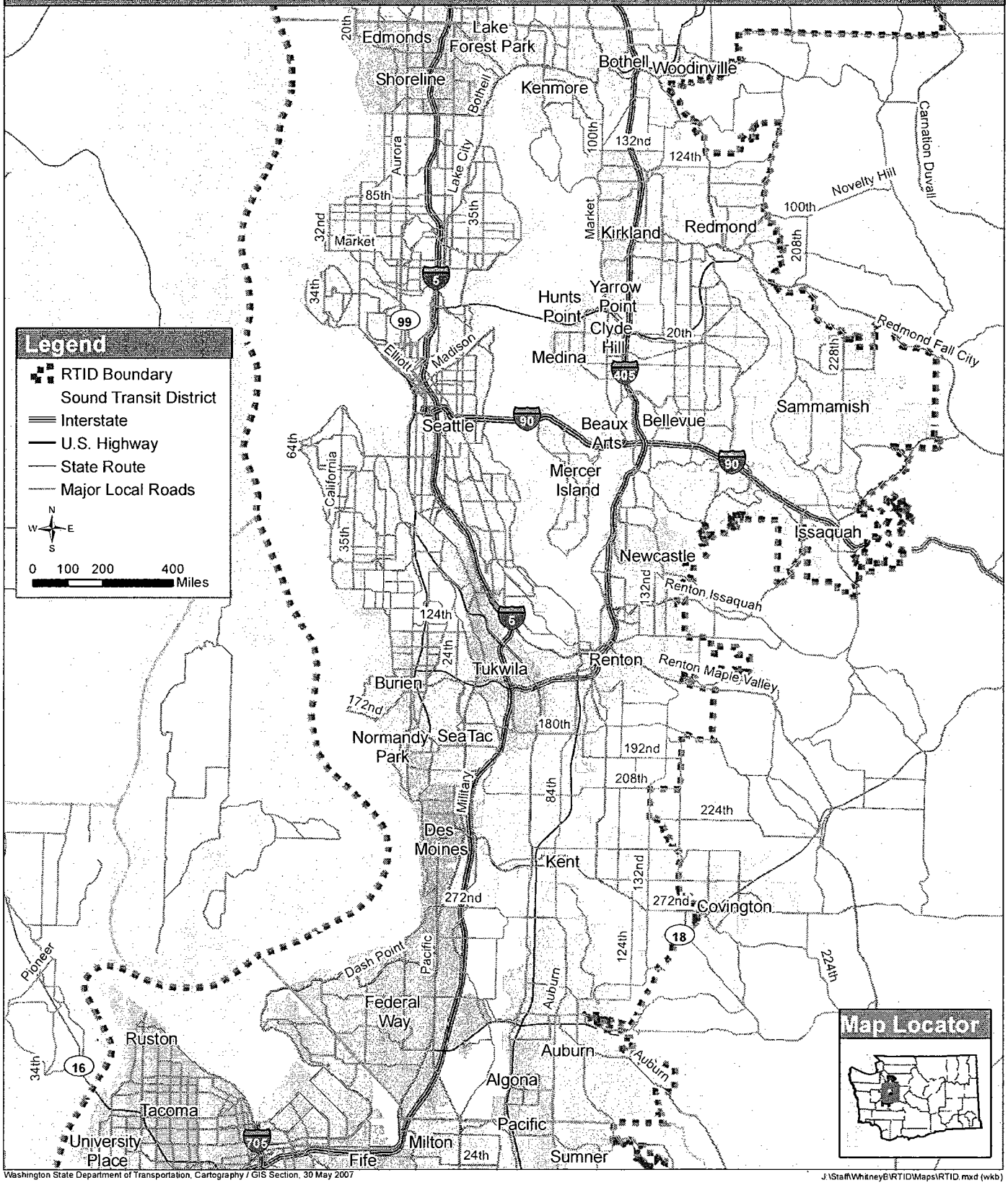
Regional Transportation Investment District

King County



Washington State Department of Transportation, Cartography / GIS Section, 30 May 2007

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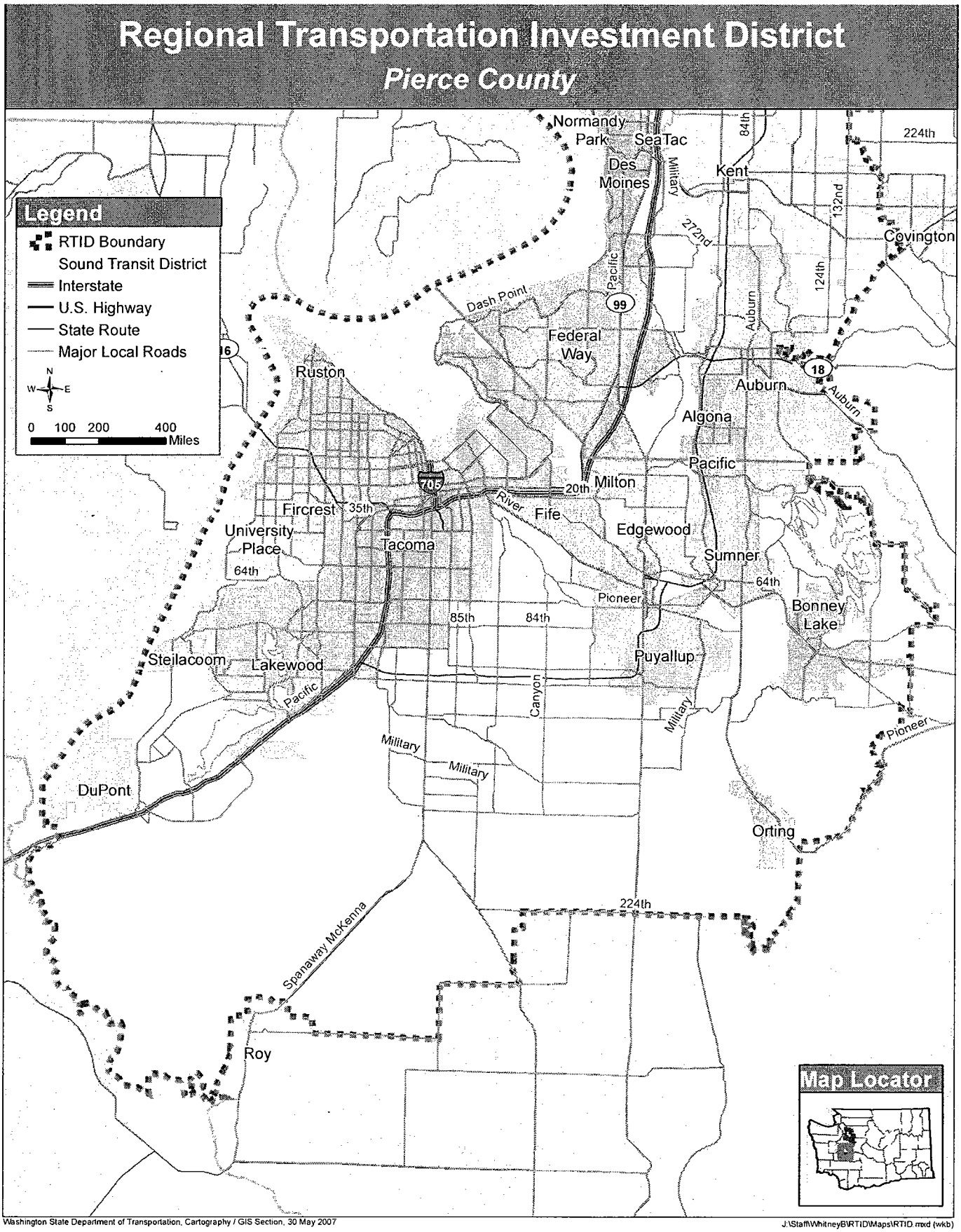

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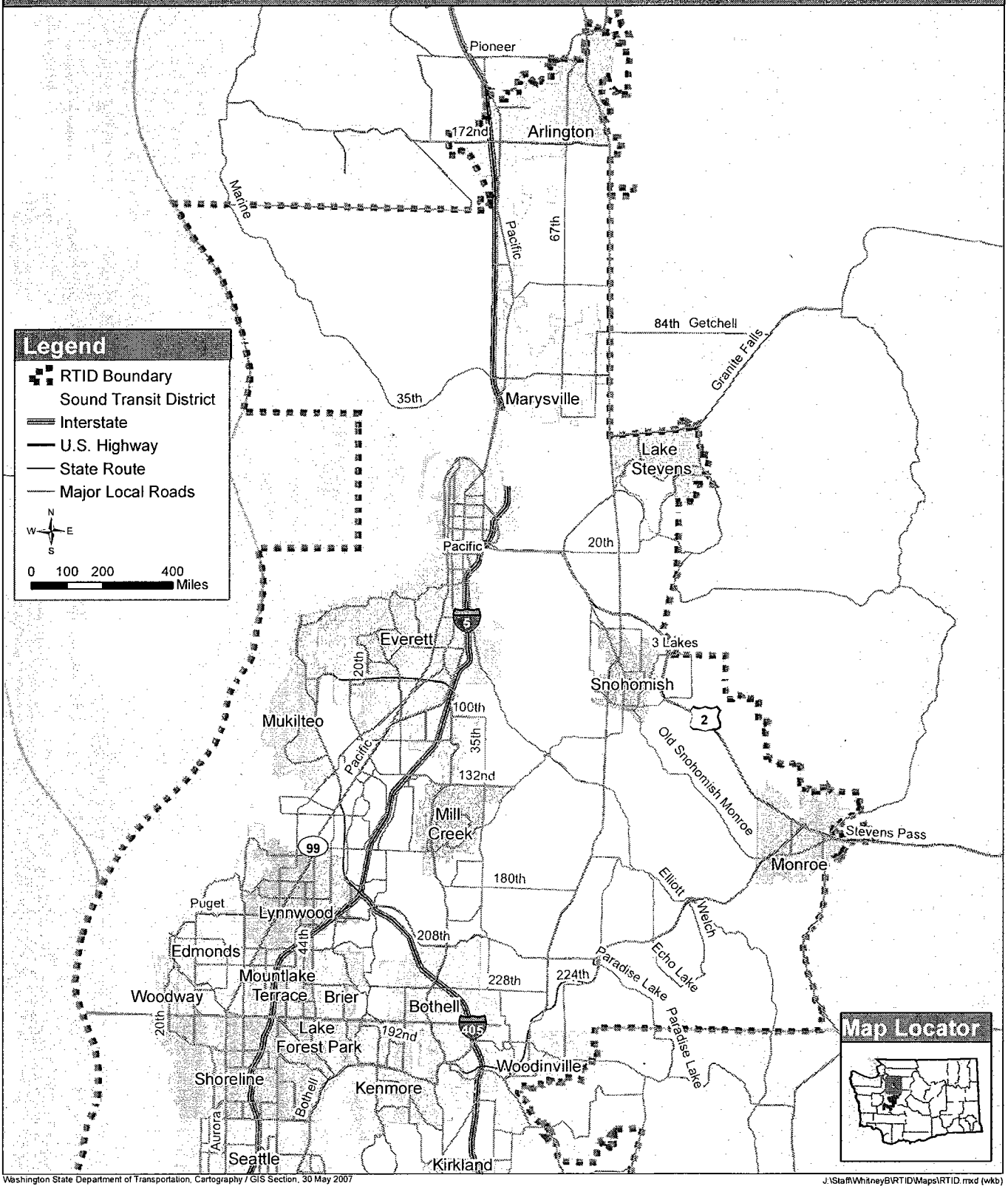
Regional Transportation Investment District

Snohomish County



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IV. District Administration and Management

It is the intent of the legislature as codified in 36.120.110 RCW that administrative and overhead costs of RTID be minimized. For projects costing up to $50 million, administrative and overhead costs may not exceed 3% of the total construction and design project costs per year. For projects costing more than $50 million, administrative and overhead costs may not exceed 3% of the first $50 million in costs, plus an additional 0.1% of each additional dollar above $50 million. These limitations apply only to RTID and do not limit the administration or expenditures of WSDOT.

RTID may not acquire, hold, or dispose of real property provided under RCW 36.120.020(8). Except for limited purposes, RTID may not own, operate, or maintain an ongoing facility, road, or transportation system.

RTID may use the "design-build procedure" for its projects, in which RTID contracts with another party for that party to both design and build the structures, facilities, and other items specified in the contract.

RTID is also responsible for designating a person with experience in financial matters as treasurer. This person may be the treasurer of a county within the district. Such a treasurer would have all of the powers, responsibilities, and duties the county treasurer has related to investing surplus funds. RTID will require a bond with a surety company authorized to do business in Washington, in an amount and under the terms and conditions RTID finds will protect the district against loss. RTID shall pay the premium on the bond.

If the treasurer of RTID is the treasurer of a county, all RTID funds must be deposited with a county depository under the same restrictions, contracts, and security as provided for county depositories. If the treasurer of the district is not the treasurer of a county, all funds must be deposited in a bank or banks authorized to do business in Washington, covered under the State's public deposit protection act and qualified for insured deposits under any federal deposit insurance act as RTID designates by resolution. RTID may provide and require a reasonable bond of any other person handling monies or securities of the district, but RTID must pay the premium on the bond.

In RCW 36.120.200, an account referred to as the Regional Transportation Investment District account was created in the custody of the Washington State Treasurer. State money, if any, may be deposited into this account so that it may be used in conjunction with RTID money to fund transportation projects. Additionally, RTID may deposit funds into this account for disbursement, as appropriate, on projects. There is no requirement for state matching money in the creation of this account. All money deposited in this account will be used for design, right of way acquisition, capital acquisition, and construction, or for the payment of debt service associated with these activities for RTID projects. Only RTID may authorize expenditures from the account. The account is subject to allotment procedures under RCW 43.88, but appropriations are not required for expenditures.

RTID is authorized by RCW 36.120.130(3) to enter into agreements with another agency or the State under which such other agency or the State would issue bonds and RTID would agree to pledge a portion of its revenues to the issuer of the bonds to pay its share of such indebtedness. Under the right circumstances this could be advantageous to RTID taxpayers by lowering interest costs and transaction costs, for example when RTID is partnering on a project with a county or the State with a higher credit rating. In short, RTID revenues could make more capital available for the transportation improvement.

Financial Oversight

As a municipal corporation, RTID will be audited by the Washington State auditor under the authority of RCW 43.09. Independent auditors may also be used at the discretion of the RTID executive board.

Financial Structure

The financial statements of RTID will be maintained in accordance with methods prescribed by the Washington State auditor under the authority of RCW 43.09 and the Office of Financial Management under RCW 43.88. RTID will use the budgeting, accounting, and reporting systems (BARS) for special revenue type funds in the state of Washington as well as general accepted accounting principles (GAAP) established by the governmental accounting standards board (GASB).

The Regional Transportation Investment District account has been established as a non-appropriated, allotted treasury trust account in accordance with RCW 36.120.200. Special revenue funds are accounted for by using the modified accrual basis of accounting. Therefore, revenues are recognized when they become both measurable and available. Expenditures are recognized when the related liability is incurred. Funds are accounted for on a current financial resources measurement focus.

With the current financial resources measurement focus, generally only current assets and current liabilities are included on the governmental funds balance sheet. Operating statements for these funds present inflows (i.e. revenues and other financing sources) and outflows (i.e. expenditures and other financing uses) of expendable financial resources. As an account within the Washington State Treasury, these balances and activities will be reported in the State of Washington's comprehensive annual financial report (CAFR).

In addition to the Regional Transportation Investment District account, the RTID treasurer may establish a special account, into which may be paid district funds. The RTID treasurer may disburse district funds only on warrants issued by the district upon orders or vouchers approved by the district.

V. Construction Mitigation

During the 2006 state legislative session the legislature approved and the governor signed into law engrossed Substitute House Bill 2871 requiring the RTID to finance transportation construction mitigation projects, as defined and described below:

> *Operational expenses for traffic mitigation provided solely for transportation project construction mitigation directly related to specific projects as outlined in the plan shall be included in a regional transportation investment plan. Construction mitigation strategies may include, but are not limited to, funding for increased transit service hours, trip reduction incentives, nonmotorized mode support, and ridematching services. Prior to construction of any project, corridor mitigation plans must be developed in conjunction with the department and partner transit agencies, including local transit agencies and the regional transit authority serving the counties, with the following goals: (i) Reducing drive alone trips in affected corridors; (ii) reducing delay per person and delay per unit of goods in affected corridors; and (iii) improving levels of service that improve system performance for all transportation users in affected corridors. The regional transportation commission established under section 2 of this act, or a successor regional governing entity, shall review transit investments according to these performance measures to determine whether to continue funding for successful and effective operations after the construction period is completed.*

Mitigation program requirements

The mitigation program must show a direct relationship to the construction projects: operational expenses for mitigation may be allowed only if they are directly related to projects in the plan. A variety of mitigation strategies are prescribed and permitted: mitigation strategies may include increased transit service hours, trip reduction incentives, non-motorized mode support, and ride matching services. Mitigation strategies, however, are "not limited to" these.

Mitigation plans must be collaborative: corridor mitigation plans must be developed prior to construction, and in partnership with WSDOT, Sound Transit, and other transit agencies including Community Transit, Everett Transit, King County Metro, and Pierce Transit.

Mitigation plans must have the following goals in each of the affected corridors:

- Reduce drive-alone trips
- Reduce delay per person and per unit of goods
- Improve service levels and system performance for all users.

Construction mitigation investments

This plan assumes spending $198 million for construction mitigation in year of expenditure dollars. The investment section of this report includes an investment category for construction mitigation. Actual investments will be selected closer in time to actual construction activity.

Appendix B at the back of this report includes greater detail on the assumptions being used to formulate construction mitigation investments.

Construction mitigation allotments in project budgets and RTID finance

There is no requirement for, and thus no plan for, a certain percentage of RTID funds to be allocated for mitigation. RTID estimates for mitigation have been determined at the corridor level for planning purposes, and are included in the proposed RTID budget for each county, and not on a project-by-project basis. This will allow flexibility in the program and an ability to optimize resources, as construction mitigation needs will vary by corridor, and may change as project scopes are resolved, and project construction schedules are determined.

Project level mitigation for environmental impacts

PSRC's environmental impact statement associated with *Destination 2030* contains guidelines for environmental impact mitigation. Appropriate and required project-level environmental mitigation related to projects contained within this plan will be conducted by the appropriate agencies. RTID will seek ways to optimize project level mitigation to achieve the greatest ecosystem benefits.

Corridors not requiring mitigation

The configuration of new corridors, such as SR 509 south of Sea-Tac Airport ands its connection with I-5, and the SR 167 extension in Pierce County, have no impact on traffic flow, and do not require construction mitigation plans.

After construction is complete

RTID's 2006 legislation makes a provision for extension of transit mitigation services following completion of transportation construction projects, as stated below:

> *The regional transportation commission established under section 2 of this act, or a successor regional governing entity, shall review transit investments according to these performance measures to determine whether to continue funding for successful and effective operations after the construction period is completed.*

Guiding principles for construction mitigation

- Work with the Puget Sound Regional Council, WSDOT Office of Transit Mobility and stakeholders to develop a centralized construction mitigation program that leverages RTID mitigation funds and the expertise of transit providers and users of the system.
- Use construction mitigation funds to optimize system performance during construction and to achieve longer-term mobility improvements.
- Encourage flexibility and innovation in the development of construction mitigation tools to be responsive to real-time needs.
- Evaluate the cost and benefits of keeping HOV lanes open during construction in order to maximize traffic flow.
- Coordinate construction sequencing to minimize disruption and to take into account system performance. Examples include coordinating investments with the City of Seattle,

King County, and WSDOT to accommodate the Alaskan Way viaduct closure plans, co-ordinating investments with Sound Transit and WSDOT to ensure cross-lake functionality during replacement of the SR 520 bridge and building of light rail across I-90.

- Accelerate transit investments to assist mobility during construction.

Construction mitigation funds

County	2006 dollars ($ millions)	Year of expenditure ($ millions)
King	*74*	*100*
Pierce	*6*	*10*
Snohomish	*66*	*87*
Total	*146*	*197*

VI. Targeted Corridor Investments

Investment Totals by County *(totals numbers are rounded)*

	RTID Funding Share	
	($ millions 2006)	($ millions YOE)
Snohomish County Investments	*1,534*	*2,092*
King County Investments	*4,087*	*5,380*
Pierce County Investments	*1,349*	*2,200*
Total Investment	**6,970**	**9,672**

Definitions of corridors, projects and capital improvements and facilities

Corridor—A corridor may be the subject of one or many transportation projects.

Transportation Project—A project may include one or more capital improvements to all or a portion of a specified highway, street, bridge or road.

Capital Improvements—Capital improvements may result in new or repaired facilities.

Capital Facilities—Facilities may include new lanes, highway extensions, flyover ramps, park and ride lots, bus pull-outs, vans, buses, signalization, ramp metering, and transportation system management improvements.

Expressing project costs in 2006 dollars and year of expenditure

The RTID is required to present costs in both current year dollars and year-of-expenditure dollars (YOE). Current year dollars for purposes of this report is 2006. Project cost estimates were developed and refined over time with the final estimates for purposes of this plan completed in 2006.

Year-of-expenditure dollar estimates include inflation assumptions for all components of the projects and in addition estimates for risk factors and contingencies.

Project cost estimate process and review

This section describes the process and assumptions used in estimating and validating costs for the projects in this plan.

Lead agencies prepared cost estimates for the projects included in this plan. The RTID executive board hired US Cost in 2004 to review over 74 potential projects, including those selected to be included in this plan. US Cost was engaged to review the cost and schedule estimates, including the cost estimating methodologies used to produce these estimates, and to provide an assessment of these estimates in terms of the likelihood that

the projects will not overrun the estimate. The methods used by the lead agencies and evaluated by US Cost included conventional cost estimating procedures, WSDOT's cost estimate validation process (CVEP), cost risk assessment (CRA), and schedule cost risk evaluation (SCoRE) processes.

US Cost scored the 74 projects evaluated for a confidence level at the point in time when the review took place. Scores ranged from insufficient data to assess, to low, fair, and good. Ninety-one percent of the projects achieved a good or fair confidence rating.

Following US Cost's assessment, lead agencies updated their cost estimates and procedures.

In 2006, worldwide materials and labor inflation reached record levels. WSDOT determined that the projects included in this plan should be reevaluated based on new cost data.

As a result, the RTID executive board worked with lead agencies to re-scope projects to achieve transportation mobility and access within a constrained budget.

Described below is the process used by lead agencies regarding cost assumptions. Lead agencies include WSDOT, King, Pierce, and Snohomish counties, and city governments in all three counties. These agencies have on record detailed information for project specific cost estimates.

Base Design and Construction Costs

Throughout the nation, commodity prices have increased dramatically in the last two years. Global competition, rising oil prices, the impacts of Hurricane Katrina, and an improving economy have all contributed to a sharp spike in prices WSDOT and its contractors pay for key commodities necessary to build roads and bridges.

In addition, as projects move further along in the design process, project details are refined, and in some cases this leads to increased project costs. WSDOT provided the RTID executive board with summary sheet listing the key elements responsible for increasing the base costs of each project.

Updated Risks

For each project, lead agencies assigned risk factors to the key project elements. An example of this category would be the potential for increased environmental mitigation cost or unforeseen changes in design standards for seismic safety.

Updated Inflation Rates

The governor's expert review panel formed to review the Alaskan Way viaduct and SR 520 projects called for more robust inflation assumptions. WSDOT uses a forecast of inflation developed by Global Insights, an economic forecasting firm, that reflects the spike in commodity prices and construction costs over the past couple of years and for the next one or two years. However, the Global Insights forecasts that such costs will level out to a lower rate of average increases from this higher base. WSDOT determined that it would be prudent to have these cost estimates also include an inflation risk factor. Therefore an adjustment was made that assumes that in any given year, there is a three out of four chance of inflation exceeding the Global Insights number.

By adding this inflation risk factor into the cost estimates, the WSDOT projects and the Sound Transit projects are projected to be at roughly the same 3.5% rate of inflation per year. [1]

Investment Choices

WSDOT and lead agencies provided RTID executive board members with a range of investment choices taking the RTID contribution in the *Blueprint* as a given and tried to match an investment to that number. The project teams looked at the elements that would provide the most significant congestion relief, or the biggest safety benefits and estimated the cost of each of these.

Annual average inflation cost index (2008-2027)

- Construction cost annual average inflation (King and Pierce counties): 3.5%
- Construction cost annual average inflation (Snohomish County): 2.3%
- Engineering cost annual average inflation (King and Pierce counties): 3.5%
- Engineering cost annual average inflation (Snohomish County): 1.9%
- Right-of-way cost annual average inflation (all counties): 7.0%

Performance criteria for project selection

The RTID statute lists the following benefits to be evaluated in selecting transportation projects to be included in this plan:

- Reduced level of congestion and improved safety
- Improved travel time
- Improved air quality
- Increases in person and vehicle trip capacity
- Reductions in person and vehicle delay
- Improved freight mobility
- Cost effectiveness

WSDOT conducted the analysis using the best practices for transportation planning in this region. The PSRC regional model was the technical tool used to analyze data related to this plan. Staff from RTID, WSDOT, Sound Transit, and PSRC met several times to review underlying assumptions and to integrate system-modeling assumptions. The regional model includes the following factors:

- Population and employment based on local and regional GMA plans
- All improvements tested together as a system
- System performance measured for King, Pierce and Snohomish counties.
- Projects then tested individually

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[1] It should also be noted that there is a slight methodological difference between the ways some of the WSDOT inflation estimates were developed. Most projects used the risk factor approach, but in others, generally the less complex ones, a surrogate measure of additional contingency funds was added to approximate the inflation risk.

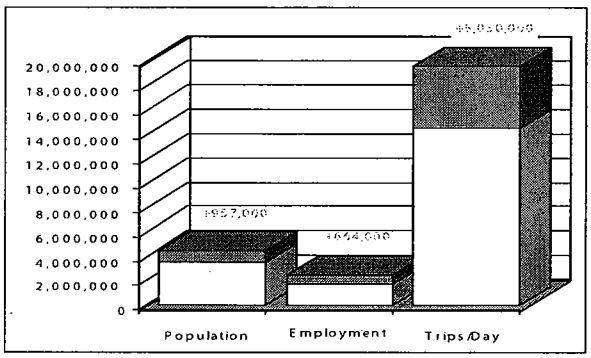
- Performance improvement measured against 2028 baseline congestion.

The system analysis was based on RTID projects defined as of May 23, 2007. Two future scenarios were analyzed:

1. 2028 baseline including all state-funded projects, plus *Sound Move.*
2. 2028 baseline without state-funded projects, but still including *Sound Move.*

Sound Transit 2 projects are included in 2028 system-level performance benefits.

The chart below presents projected populations, employment, and trips per day from today to 2028, the twenty-year investment period for this plan.



Scenario one

Scenario one compared the 2028 baseline against the RTID plan.

2028 baseline (including state-funded projects and *Sound Move)*:

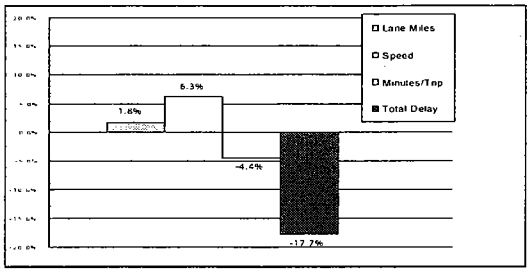
- Existing network plus local projects planned to be completed by 2028
- Funded state highway projects
- *Sound Move* is completed
- Other anticipated transit investments to be completed by 2028.

2028 with the RTID plan implemented:
Included in the *Roads & Transit* built scenario is the 2028 baseline above, plus

- RTID proposal (as of May 23, 2007)
- 186 added lane miles
- 30 miles of HOV lanes
- 4 miles of transit (BAT) lanes
- 152 miles of general-purpose lanes
- *Sound Transit 2* light rail construction (164th/Ash Way to Tacoma Dome, and downtown Seattle to Overlake).

Improved system performance under scenario one

1.8% additional system lane miles plus 50 miles of additional light rail would produce higher speeds and reduce both travel time and overall delay, as shown below.



Road capacity added under scenario one

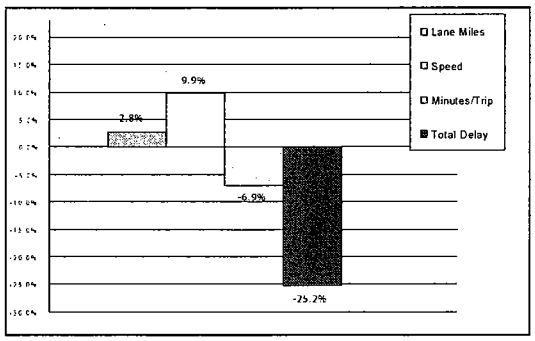
Freeway general-purpose	*74 lane miles*
Freeway HOV	*30 lane miles*
Other general-purpose	*75 lane miles*
Transit lanes (BAT)	*4 lane miles*
Total roads	*186 lane miles*

Scenario two

Scenario one compared the 2028 baseline without state-funded projects against the 2028 *Roads & Transit* plan with state investments.

Improved system performance under scenario two

Including state investments and *Roads & Transit* would add 2.8% of road system lane miles plus 50 miles of additional light rail, producing higher speeds while travel time and total delay would be significantly reduced (see chart below).



Road capacity added under scenario two

Freeway general-purpose	*122 lane miles*
Freeway HOV	*79 lane miles*
Other general-purpose	*107 lane miles*
Other HOV	*5 lane miles*
Total roads	*313 lane miles*

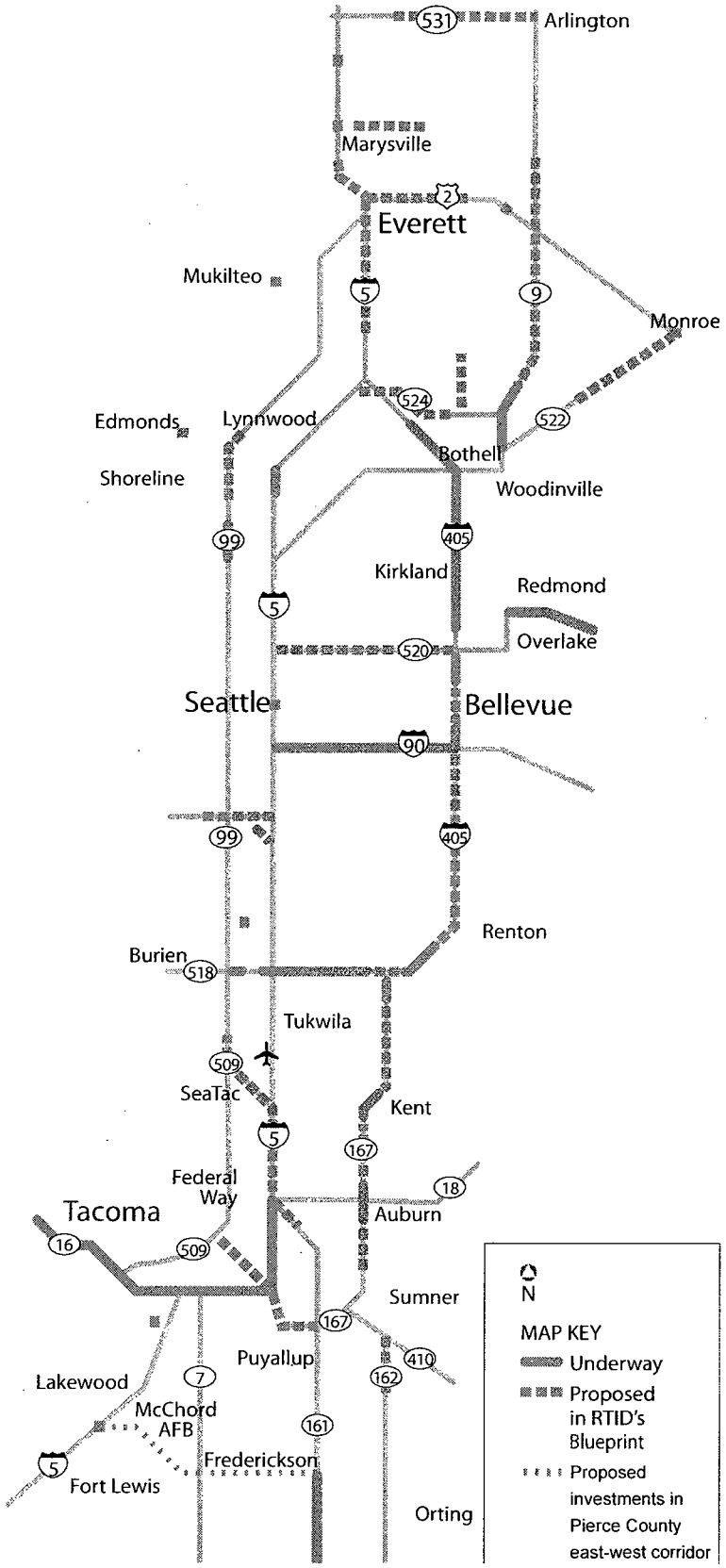
Freight benefits

- Many proposed improvements are on major freight routes.
- System-wide, truck hours delay reduction is estimated at 10,900 hours/day.
- Translated to dollar value, this plan would save about $160 million annually in freight shipping costs.

Safety benefits

- 50 high-accident locations in the three-county area will be addressed.
- 88 centerline miles of high-accident corridors will be addressed.
- Three seismically vulnerable structures will be upgraded (SR 520, South Park bridge and Spokane Street viaduct).

The RTID Investment Package



Project Summary by County

North Corridor

Snohomish County:	**RTID Funding Share:**	
10 projects 22 facilities construction mitigation	2006 dollars ($ in millions)	YOE dollars ($ in millions)
I-5 Improvement Project	*256*	*356*
U.S. 2 Improvement Project	*350*	*477*
SR 99 Improvement Project 244th Street SW to SR 104 reconstruct interchange	*40*	*64*
SR 9 Improvement Project Lanes, signals, intersection improvements, turn lanes, safety	*304*	*486*
SR 522 Improvement Project Paradise Lake Road interchange widening	*127*	*143*
SR 524 Improvement Project	*104*	*123*
SR 531 Improvement Project I-5/Smokey Point to SR 9 widening	*55*	*68*
39th Ave. SE/35th Ave. SE Improvement Project	*79*	*110*
Transit and Multi-modal Improvement Project	*154*	*179*
Construction Mitigation Program	*66*	*87*
Total Snohomish County Investments (rounded numbers)	***1,534***	***2,092***

Project Summary by County

Central/East and South Corridors

King County:	**RTID Funding Share:**	
12 projects construction mitigation	2006 dollars ($ in millions)	YOE dollars ($ in millions)
Seattle Mobility Project	*289*	*323*
I-5 Direct Access Project	*83*	*114*
South Park Bridge Replacement Project	*99*	*110*
SR 520 Bridge and HOV Lane Project	*972*	*1,139*
I-90 HOV Lane Project	*25*	*35*
I-405 Bellevue to Renton Project	*904*	*1,283*
I-5/SR 509 Corridor Completion and Freight Improvement Project	*798*	*1,051*
SR 167/I-405 Interchange HOV-to-HOV Direct Connection Project	*316*	*403*
SR 167 Green River Valley Corridor Congestion Relief Project	*391*	*650*
I-5/SR 18 Federal Way Congestion Relief Project	*89*	*120*
East Sammamish Plateau Access Project	*10*	*12*
SR 99 Transit Improvement Project	*37*	*40*
Construction Mitigation	*74*	*100*
Total King County Investments (rounded numbers)	***4,087***	***5,380***

Project Summary by County

South Corridor

Pierce County:	**RTID Funding Share:**	
5 projects construction mitigation	2006 dollars ($ in millions)	YOE dollars ($ in millions)
SR 167 Tacoma to Puyallup Project	*1,004*	*1,590*
I-5/SR 704/176th Corridor—Cross-Base Highway Project	*246*	*427*
Tacoma Mall Access Project	*12*	*17*
SR 410/SR 162 Congestion Relief Project	*58*	*121*
Non-motorized Investment Project	*23*	*35*
Construction Mitigation	*6*	*10*
Total Pierce County Investments (rounded numbers)	***1,349***	***2,200***

Funds raised in each county are invested in that county. Projects will be built between 2008-2027. Project sequencing assumptions are in Appendix C: Financial Plan.

Snohomish County Investments

Project Descriptions by County

Snohomish County

Snohomish County is experiencing a high rate of growth and traffic congestion problems. Between 1990 and 2000, Snohomish County's population grew by 30.1 percent—the fastest growth in the RTID tri-county area. Approximately 40 percent of Snohomish County's 300,000 workers commute outside of the county every day, with most traveling to King County (34 percent). Approximately 20 percent of workers in Snohomish County commute from other counties. Commuting alternatives are critical to ensure that the local work force can reliably get to work on time.

The Snohomish County economy is forecasted to grow by 20 percent between 1998 and 2010, adding approximately 45,000 new jobs. Current projections show that most growth is expected to occur in the southwest portion of the county (Everett, Lynnwood, and Bothell.) All three are designated regional centers by the Puget Sound Regional Council. All RTID funded projects serve areas where housing and commercial development growth is allowed.

The proposed RTID investments would continue to build on the current state-funded investments by focusing significant improvements on key state highway corridors of SR 9, US 2, and key interchange improvements along I-5. US 2 is one of two main corridors across the Cascade Mountains. The other corridor is I-90. US 2 is accessed by SR 522 by drivers coming from northeast King County.

Improvements on SR 522, 524 and 531 will provide improved east-west connections. In addition, three major arterial projects in Marysville, Bothell, and unincorporated Snohomish County would be completed and additional funds would be invested in park & ride lots, transit related intersection improvements, the Edmonds multi-modal ferry terminal and capital purchases for Community Transit.

Snohomish County Investments

Snohomish County	**RTID Funding Share:** 2006 dollars ($ in millions)	YOE dollars ($ in millions)
I-5 Improvement Project	**256**	**356**
I-5/128th Street (SR 96) SW/SE reconstruct interchange, phase 1	*113*	*185*
I-5 south Everett interchange improvements (Everett Mall Way – 100th St. SE phase 1 HOV access)	*3*	*3*
I-5 south Everett interchange improvements (Everett Mall Way – 100th St. SE phase 2 HOV access)	*56*	*71*
I-5/41st Street interchange South Broadway/SB I-5 on-ramp bridge	*6*	*6*
I-5/116th Street NE interchange	*25*	*27*
I-5/88th Street NE interchange	*38*	*43*
88th Street corridor improvements (Marysville) widening	*15*	*20*
U.S. 2 Improvement Project	**350**	**477**
U.S. 2 Trestle: I-5 to SR 204	*281*	*396*
Everett arterial access improvements at U.S. 2/I-5 interchange	*25*	*32*
Monroe bypass/U.S. 2 phase 1 improvements	*44*	*49*
Contingency scope to include Monroe bypass/U.S. 2 improvements phase 2		
Contingency scope to include U.S. 2/Bickford interchange		
SR 99 Improvement Project	**40**	**64**
244th Street SW to SR 104 reconstruct interchange		
SR 9 Improvement Project	**304**	**486**
Lanes, signals, intersection improvements, turn lanes, safety		
SR 522 Improvement Project	**127**	**143**
Paradise Lake Road interchange and widening		
SR 524 Improvement Project	**104**	**123**
SR 524, 24th Avenue West to Royal Anne Road (vicinity SR 527) widening	*94*	*111*
196th Street SW (SR 524) from 48th Avenue West to 37th Avenue West widening	*10*	*12*
SR 531 Improvement Project	**55**	**68**
I-5/Smokey Point to SR 9 widening		
39th Ave. SE/35th Ave. SE Improvement Project	**79**	**110**
39th Avenue SE from 228th Street SE to 240th Street SE missing link	*30*	*36*
39th/35th Avenue SE from 228th St. SE to Seattle Hill Road widening	*49*	*74*
Transit and Multi-modal Improvement Project	**154**	**179**
Edmonds Crossing (SR 104) multi-modal terminal, ferry and transit	*122*	*137*
Bus and van fleet expansion	*12*	*15*
Park & ride facilities, north county	*12*	*13*
Park & ride facilities, SR 9	*8*	*14*
Construction Mitigation Program	**66**	**87**
Total Snohomish County Investments (rounded numbers)	***1,534***	***2,092***

I-5 Improvement Project

I-5/128th Street (SR 96) SW/SE Reconstruct Interchange, Phase 1

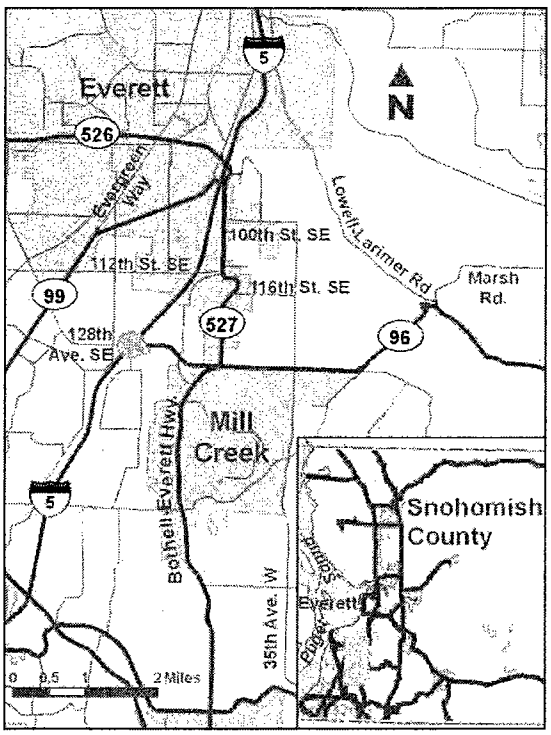
RTID Share ($ 2006) *$113 million*

RTID Share ($ YOE) *$185 million*

Lead Agency: WSDOT

Located in a rapidly growing residential and commercial area just south of Everett in Snohomish County, this busy interchange needs safety and traffic flow improvements to meet the area's heavy traffic needs. Crews would replace the existing I–5/128th Street SW bridge and ramps with a single–point urban interchange, giving drivers smoother traffic flow and improved safety on 128th Street (SR 96) and as they get on and off I–5.

The new interchange would help alleviate backups onto I–5 by increasing interchange capacity and flow. Reducing these daily backups would also improve safety. To improve pedestrian safety, crews would build sidewalks along 128th Street SW to meet up with existing sidewalks at each end of the project.



I-5 Improvement Project

I-5 South Everett Interchange Improvements (Everett Mall Way – 100th Street SE Phase 1 HOV Access)

RTID Share ($ 2006) *$3 million*

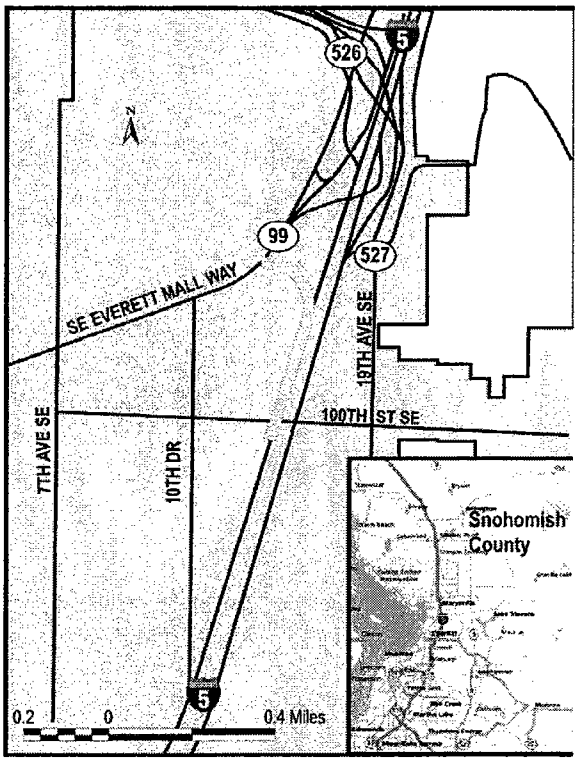
RTID Share ($ YOE) *$3 million*

Lead Agencies: WSDOT, City of Everett

Phase I of this project involves the construction an on-ramp to southbound I-5 south of the SR 526/ SR 527/South Broadway intersection. This project would significantly reduce traffic congestion at the existing SR 526/SR 527/South Broadway intersection.

With completion of both phases of this project, approximately 23 percent of the traffic from the SR 526/SR 527/Everett Mall Way intersection in the afternoon peak travel period would be removed, which would also reduce crashes at this location by about 23 percent.

The South Everett interchange improvements are also expected to improve the operation of the northbound and westbound legs of the SR 526/ SR 527/Everett Mall Way intersection by reducing overall traffic delay by 50% and 60%, respectively.



Funding Partners: WSDOT, City of Everett

I-5 Improvement Project

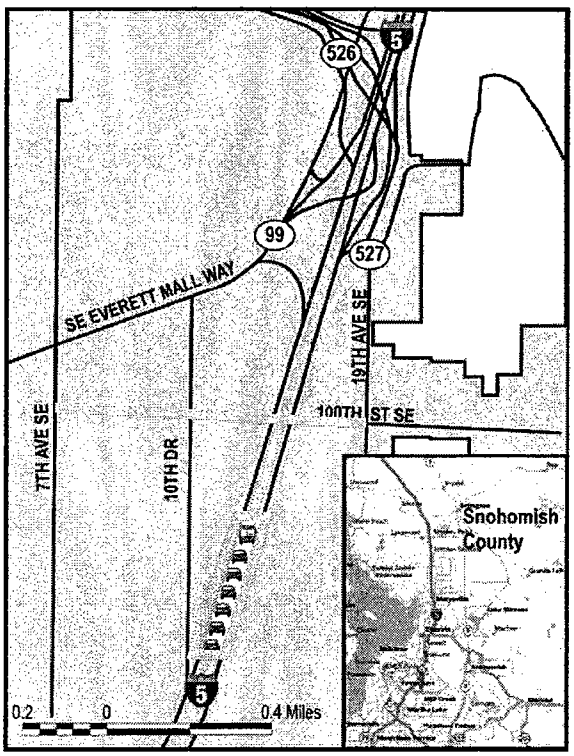
I-5 South Everett Interchange Improvements (Everett Mall Way - 100th St SE Phase 2 HOV Access)

RTID Share ($ 2006) *$56 million*

RTID Share ($ YOE) *$71 million*

Lead Agencies: WSDOT, City of Everett

Phase II of this project involves the construction of a crossing (tunnel) under I-5 at 100th St SE, with HOV–only access to the I-5 South Everett freeway station. Connecting improvements will also be made to 100th Street SE, east and west of the I-5 right-of-way, between SR 527 and 7th Avenue SE. This project would significantly reduce traffic congestion at the existing SR 526/SR 527/South Broadway intersection.



With completion of both phases of this project, approximately 23 percent of the traffic from the SR 526/SR 527/Everett Mall Way intersection in the afternoon peak travel period would be removed, which would also reduce crashes at this location by about 23 percent.

The South Everett interchange improvements are also expected to improve the operation of the northbound and westbound legs of the SR 526/ SR 527/Everett Mall Way intersection by reducing overall traffic delay by 50% and 60%, respectively.

The I-5/100th Street undercrossing project would also provide a safe place for pedestrians and bicycles to cross the freeway, which the current I-5/SR 526/SR527 interchange currently lacks. Some pedestrians are known to run across I-5 near this interchange, due to the lack of adequate pedestrian facilities.

Funding Partners: WSDOT, City of Everett

I-5 Improvement Project

I-5/41st Street Interchange
South Broadway/southbound I-5 on-ramp bridge

RTID Share ($ 2006) *$6 million*

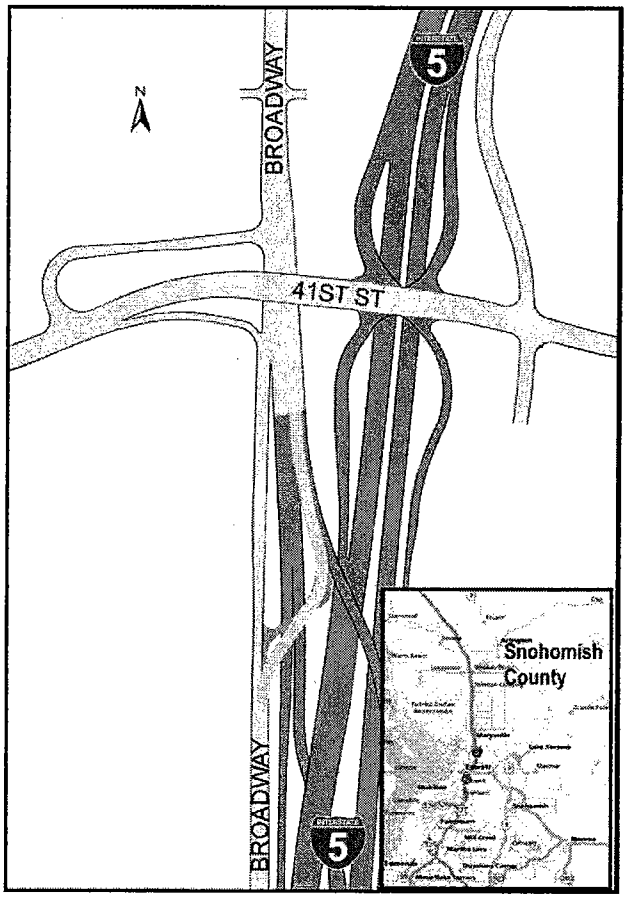
RTID Share ($ YOE) *$6 million*

Lead Agency: City of Everett

This facility involves the construction of arterial improvements to support the new single-point interchange at I-5 and 41st Street. This facility would reduce traffic congestion in the area.

The RTID funding for this location would be used to re-construct the substandard, one-lane bridge over the Broadway on-ramp to southbound Interstate 5 just south of the new I-5/41st Street interchange. This bridge connects northbound traffic on South Broadway with the northbound lanes of Broadway at 41st Street.

Funding Partners: City of Everett



I-5 Improvement Project

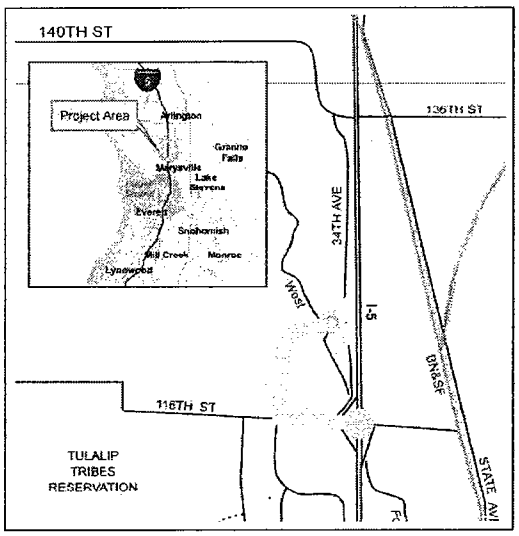
I-5/116th Street NE Interchange

RTID Share ($ 2006) *$25 million*

RTID Share ($ YOE) *$27 million*

Lead Agency: Tulalip Tribes

The 116th Street NE interchange facility will replace the existing diamond interchange with a single-point urban interchange. Key facility elements include widening of all interchange ramps to two lanes, with accommodation for future HOV bypass lanes and ramp metering; construction of a wider bridge overpass; addition of bicycle lanes and sidewalks across I-5; and extension of Quil Ceda Boulvard to connect to 34th Avenue NE and improve interchange operations.



The facility is being designed and constructed in four phases:

- Phase 1 is currently under construction, and will realign 34th Avenue NE to connect with Quil Ceda Boulevard further west from the interchange. This phase will be complete and open to traffic Spring 2007.
- Phase 2A will replace a major culvert under 116th Street NE, and widen 116th Street NE between the southbound ramp terminals and Quil Ceda Boulevard. This phase will provide the additional lanes west of the interchange and accommodate the temporary traffic control stages of the interchange reconstruction.
- Phase 2B will replace the existing bridge over I-5 with a widened structure including bicycle lanes and sidewalks. The new structure will provide additional westbound and eastbound through lanes and left-turn storage for the existing diamond interchange.
- Phase 2C will realign the existing ramps at the interchange from a diamond interchange layout with two signals into a single-point urban interchange layout with one signal. The realigned off-ramps will include additional left and right turning lanes to provide adequate storage lengths for traffic queues. Ramp metering and HOV bypass lane will be provided on the southbound on-ramp.

This facility will reduce congestion at this busy interchange leading into Marysville and the Tulalip Tribes Reservation. Other project benefits include:

- Queues onto I-5 will be eliminated on the northbound off-ramp, improving safety for I-5 motorists.
- Average vehicle delay at interchange ramp signals will be reduced from 252 seconds to 31 seconds through 2030.
- Facility area intersections' level of service (LOS) will improve from LOS E/F to D or better through 2030.

Funding Partners: Tulalip Tribes, WSDOT, Snohomish County, City of Marysville

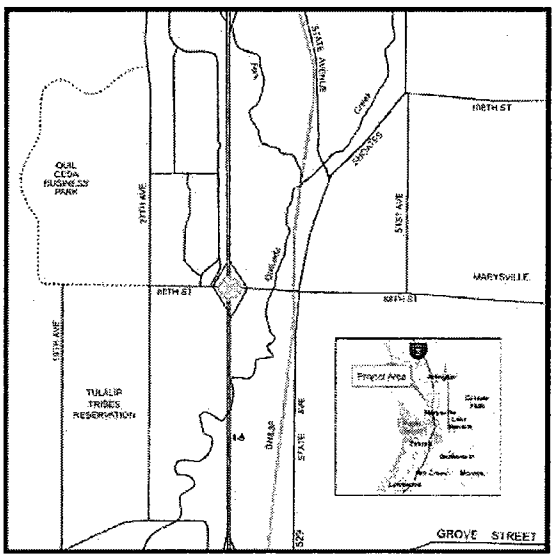
I-5 Improvement Project

I-5/88th Street NE Interchange

RTID Share ($ 2006) *$38 million*

RTID Share ($ YOE) *$43 million*

Lead Agency: Tulalip Tribes



The 88th Street NE interchange facility would provide major interchange improvements to the existing diamond interchange, with one possible option being a single-point urban interchange. Key facility elements include providing additional lanes on the ramps with accommodation for future HOV bypass lanes and ramp metering; providing additional through lanes and turn lanes on the bridge overpass on to I-5; addition of bicycle lanes and sidewalks across I-5; auxiliary lanes on I-5 south, and continuity with the 88th St NE corridor facility east of the interchange to improve interchange operations

These improvements would:

- Reduce northbound off-ramp queue lengths by almost 600 feet, thus eliminating queues from backing up onto the I-5 mainline and improving safety.
- Reduce average vehicle delay at interchange ramp signals from 605 seconds to 29 seconds through 2030.
- Improve level of service (LOS) at project intersections from LOS F to LOS C/D through 2030.

Funding Partners: Tulalip Tribes, WSDOT, Snohomish County, City of Marysville

I-5 Improvement Project

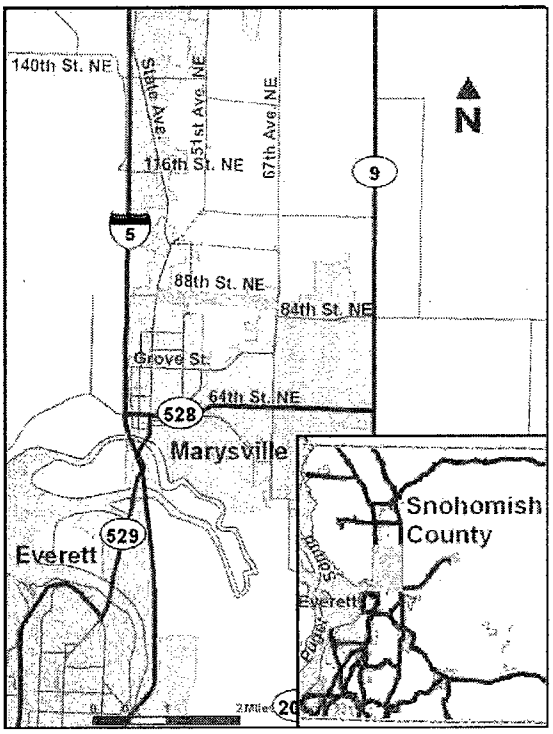
88th Street Corridor Improvements (Marysville) Widening

RTID Share ($ 2006) *$15 million*

RTID Share ($YOE) *$20 million*

Lead Agency: City of Marysville

The improvement would widen the existing 2-lane arterial corridor by expanding to a 5-lane roadway section with curb, gutter, sidewalks, bicycle lanes and landscape buffer through the Marysville city limits and unincorporated Snohomish County. The improvement would revise the State Avenue intersection and install traffic signals at the 48th and 55th Avenue intersections.



RTID funding would:

- Improve one of only two east–west routes within Marysville that connect I–5 to SR 9.
- Accommodate transit through the installation of bus stops and shelters.
- Improve traffic flow and capacity, and allow for non-motorized transportation by widening the roadway and installing sidewalks, bicycle lanes and roadway illumination.
- Improve safety by reducing the amount of cut-through traffic in residential neighborhoods, and by installing a roadway illumination system.

Funding Partners: City of Marysville, Snohomish County

U.S. 2 Improvement Project

U.S. 2 Trestle: I-5 to SR 204

RTID Share ($ 2006) *$281 million*

RTID share ($ YOE) *$396 million*

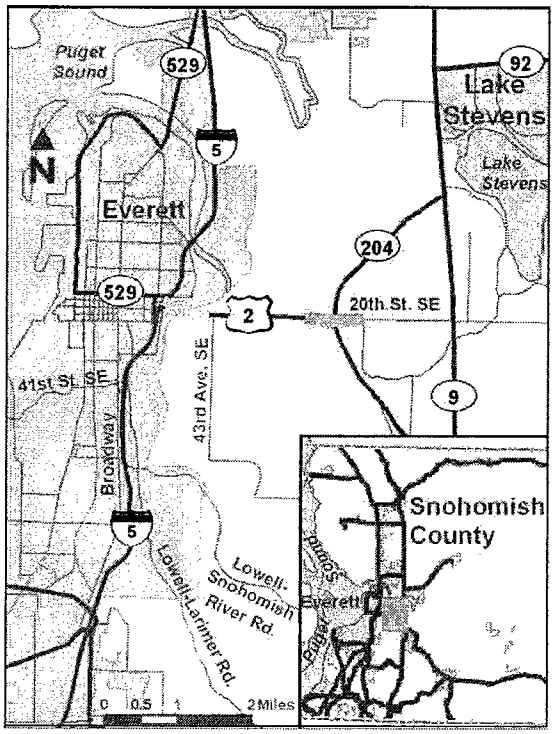
Lead Agency: WSDOT

The project would relieve congestion and improve safety at one of the worst chokepoints in Snohomish County. The US 2 Trestle is the major access point to I–5 and Everett for residents in the designated urban growth areas of Lake Stevens, Snohomish, and Monroe.

RTID funding would:

- Modify the US 2/SR 204 interchange to add capacity to all on and off-ramps.
- Improve westbound mobility.
- Improve Everett arterial access at I-5/US 2 to increase mobility in downtown Everett for general use and transit access.

This project would complement improvements already scheduled for the on- and off-ramps that connect US 2 to I-5, and would reduce traffic congestion and improve safety for users from I-5 and US 2.



U.S. 2 Improvement Project

Everett Arterial Access Improvements at U.S. 2/I-5 Interchange

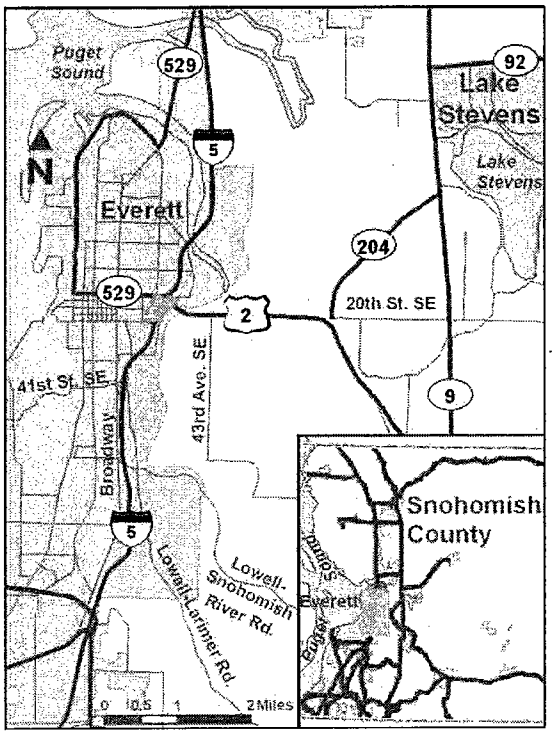
RTID Share ($ 2006) *$25 million*

RTID Share ($ YOE) *$32 million*

Lead Agencies: WSDOT, City of Everett

This facility would improve Everett arterial access at I-5/US 2, to increase mobility in downtown Everett for general use and transit access. This will reduce traffic congestion and improve safety for users from I-5 and US 2.

Specifically, the RTID funding would provide access improvements between the downtown Everett arterial street system, I–5, and US 2. These arterial access improvements, which would enhance the improvements to the I-5/US 2 interchange currently being constructed under the WSDOT Everett I-5 HOV project, include improved arterial connections to I-5 on- and off-ramps, an arterial couplet parallel to I-5, various traffic signal improvements, revised channelization, and traffic control measures.



Funding Partners: WSDOT, City of Everett

U.S. 2 Improvement Project

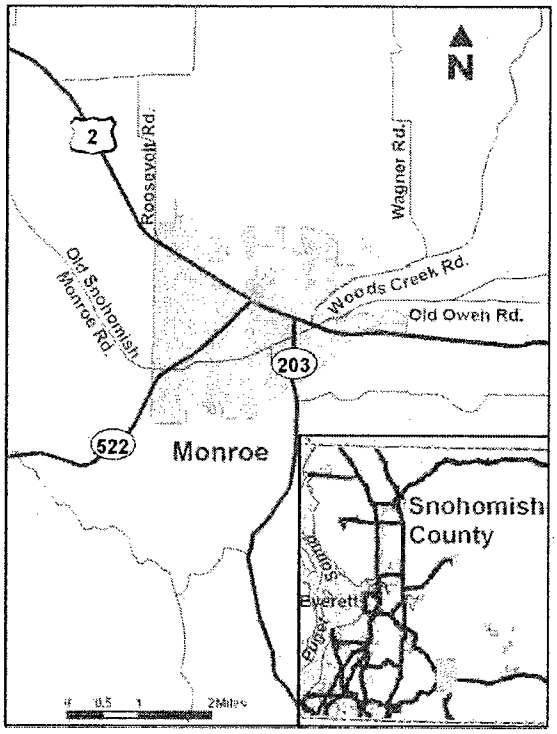
Monroe Bypass/US 2 Phase 1 Improvements

RTID Share ($ 2006) *$44 million*

RTID Share ($ YOE) *$49 million*

Lead Agency: WSDOT

US 2 is one of only two year-round east-west links across the Cascade Mountains. In addition to the Burlington Northern Santa Fe rail line, US 2 is a major transportation corridor for all east-west container shipments to and from the ports of Tacoma and Seattle.



The city of Monroe is one of the fastest growing cities along US 2. Over the past 15 years its population almost quadrupled from just over 4,200 people in 1990 to almost 16,000 in 2005. As a result of this population surge, average daily traffic through the city has almost doubled. In 1990, 21,400 vehicles traveled on this stretch of US 2 each day. Now, over 40,000 vehicles use this section of US 2 each day. Recreational traffic on weekends also contributes to congestion. Between January 1999 and October 2006, 1,247 collisions occurred on US 2 within the Monroe city limits, including five fatalities.

RTID funding would:

- Build a two-lane limited access highway that terminates in a roundabout to the north of the Kelsey Shopping center.
- Collect trips generated in the residential area north of Monroe and direct them to SR 522 or westbound US 2.
- Build a roundabout connecting to Kelsey Street and Chain Lake Road.

This facility would alleviate the chokepoint on US 2 at SR 522 by diverting traffic from US 2 to (Phase I of) the bypass and local street connections.

Funding Partner: City of Monroe

SR 99 Improvement Project

244th Street SW to SR 104 Reconstruct Interchange

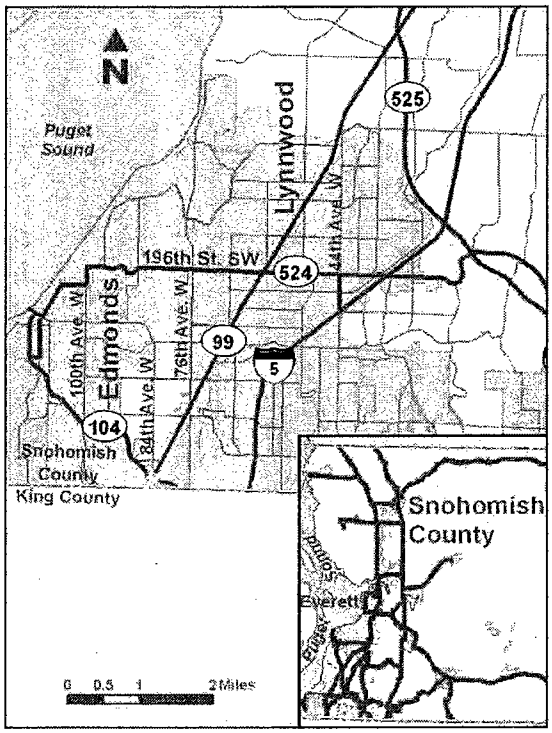
RTID Share ($ 2006) *$40 million*

RTID Share ($ YOE) *$64 million*

Lead Agency: WSDOT

SR 104 is the major east-west access from I–5 to the Edmonds ferry terminal and Kingston. SR 99 is the north-south corridor known as Aurora Avenue in Seattle. SR 99 is a major retail and business corridor and before construction of I–5, it was the state's major north-south corridor. This location experiences a high rate of crashes.

This intersection is one of the remaining chokepoints on SR 99.



RTID funding would:

- Widen the SR 99 bridge over SR 104 from four lanes to seven lanes, with three lanes in each direction.
- Provide signal improvements at SR 104 and 256th Street, which serves as the westbound connector from SR 99 to SR 104.
- Build a center median.
- Add sidewalks.
- Connect the City of Shoreline's SR 99 widening with the previously constructed widening of SR 99 in Edmonds.
- Reduce traffic congestion and collisions.

SR 9 Improvement Project

Lanes, signals, intersection improvements, turn lanes, safety

RTID Share ($ 2006) *$304 million*

RTID Share ($ YOE) *$486 million*

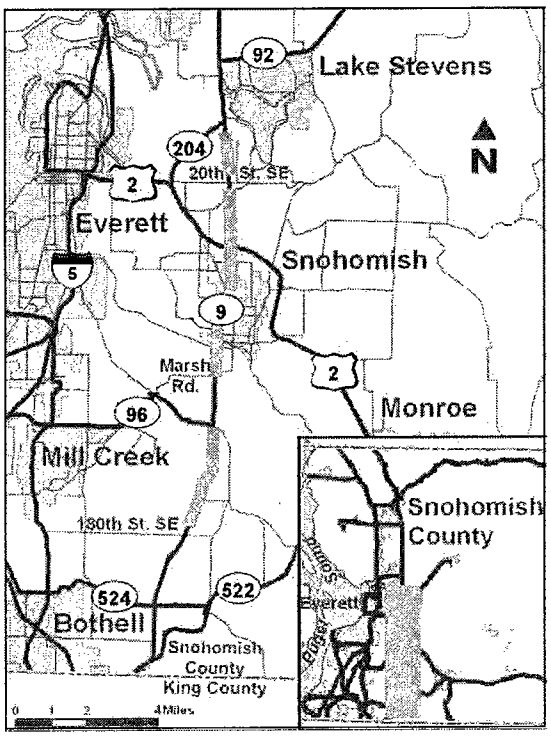
Lead Agency: WSDOT

SR 9 extends from just north of Woodinville to the Canadian border a distance of about 100 miles. SR 9 largely parallels I-5. Lake Stevens is located along SR 9 and was incorporated as a city in 1960. This area of rapid population growth in Snohomish County and is served by Community Transit.

Investments in the SR 9 corridor will meld road and transit solutions. This project expands SR 9 from two to five lanes for about 14 miles, and improves intersections with turn lanes and signals to increase capacity and achieve current safety standards.

RTID funding would:

- Widen SR 9 from 176th Street to SR 92 (vicinity), to four and five lanes with access control.
- Build a new bridge over the Snohomish River.
- Make intersection improvements to facilitate transit and general mobility.
- Build park & ride lots (see related transit and multimodal improvement project).



This facility would improve the alternate route to I-5 by widening SR 9 from 176th Street SE to SR 92 to four/five lanes with access control. In addition to widening the existing highway from two lanes, various public road intersections would be improved to match the new highway.

SR 522 Improvement Project

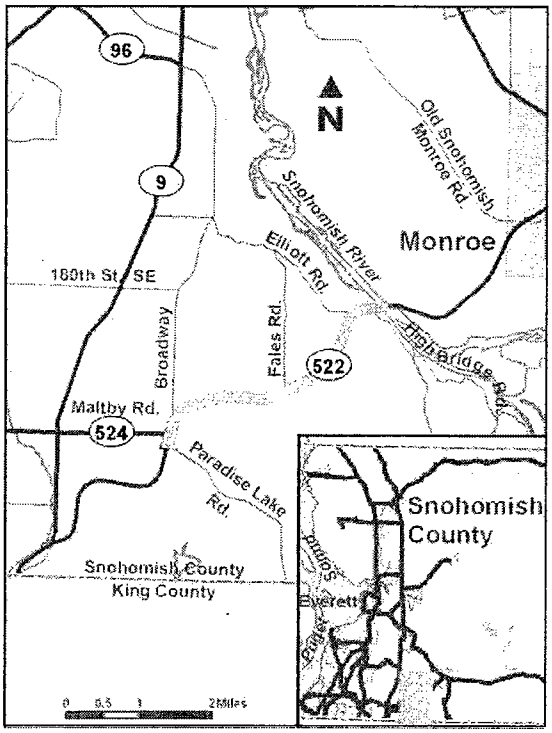
Paradise Lake Road Interchange and Widening

RTID Share ($ 2006) *$127 million*

RTID Share ($ YOE) *$143 million*

Lead Agency: WSDOT

SR 522 is a major access point from I-405 and vicinity to US 2 (one of only two year–round routes over the Cascade Mountains to eastern Washington). It is also the location for the University of Washington's Bothell campus. This corridor was considered by *Reader's Digest* magazine to be one of the least safe routes in the United States. WSDOT completed the widening of SR 522 from SR 9 to Paradise Lake Road widening in 2002. This improvement significantly enhanced safety. During the two years before construction began (1995-96), an average 40 collisions per year occurred on this three-mile stretch of highway. Sixteen of these caused injuries. During the two years after construction was complete (2003-04) an average 23 collisions per year occurred, with 11 causing injuries. Fatal collisions were eliminated. However, the intersection at SR 522 and Paradise Lake Road remains a bottleneck and accident location. This project will complete the widening of SR 522 to four lanes from I-405 to US 2.



RTID funding would:

- Build a new interchange at the existing Paradise Lake Road intersection in Maltby.
- Complete four-lane, median divided highway.
- Eliminate existing signalized intersection and resulting stop and go traffic.
- Build on and off-ramps.
- Construct detention ponds to capture and clean highway runoff.
- Alleviate bottlenecks.
- Reduce collisions.
- Improve driver safety.

SR 524 Improvement Project

SR 524, 24th Avenue West to Royal Anne Road (vicinity SR 527) Widening

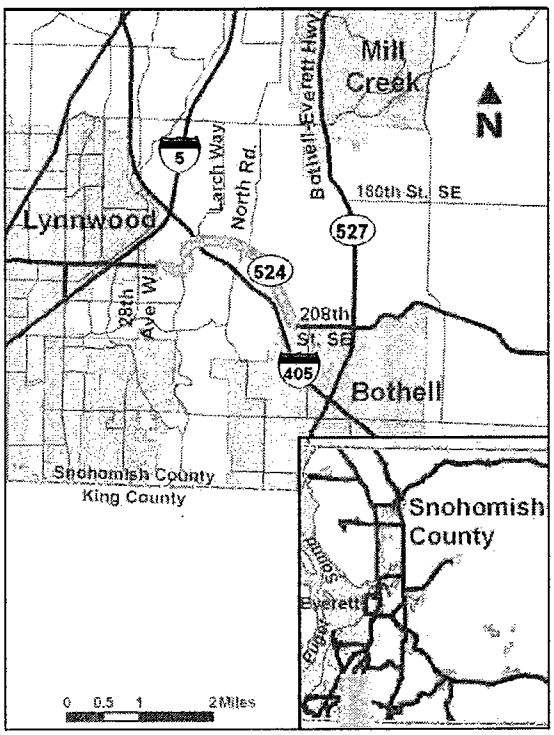
RTID Share ($ 2006) *$94 million*

RTID Share ($ YOE) *$111 million*

Lead Agency: Snohomish County

State Route 524 is also known as 196th Street SW in Lynnwood, Filbert Road east of I-5, or Maltby Road east of Thrashers Corner. It runs about 15 miles from Edmonds in the west to Bothell in the east. It passes south of the Alderwood Mall west of I-5, and ends at SR 522.

The RTID-funded facility would widen SR 524 between 24th Ave W. in Lynnwood and Royal Anne Road (near SR 527) in Bothell, in two phases. The easternmost portion of the route would be widened first.



RTID funding would:

- Widen the existing two-lane road to four and five lanes through most of the corridor.
- Add a center-turn lane.
- Add sidewalks.
- Add bicycle lanes.
- Add new traffic signals at some intersections.
- Construct replacement bridges at the North Creek and Swamp Creek crossings.

SR 524 Improvement Project

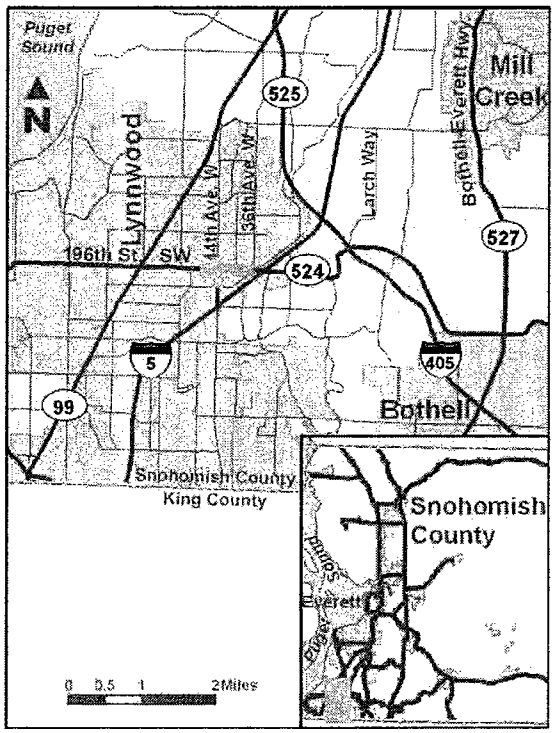
196th Street SW (SR 524) from 48th Avenue W. to 37th Avenue W. Widening

RTID Share ($ 2006) *$10 million*

RTID Share ($ YOE) *$12 million*

Lead Agency: City of Lynnwood

This location is the major access point from I-5 to downtown Lynnwood. Lynnwood is evolving from a suburban town to an urban center. It is one of three designated urban centers in Snohomish County. Lynnwood recently opened a convention center and is building a high-density urban core. Sound Transit 2 is planning light rail to extend from Seattle to Lynnwood. Sound Transit currently operates a transit center and park & ride lot located near 44th Avenue West.



RTID funding would:

- Widen 196th Street SW from 5 lanes to 7 lanes, from 48th Avenue West to 37th Avenue West.
- Construct a new northbound lane on 44th Avenue West from 200th Street SW to 196th Street SW.
- Add capacity for traffic exiting I-5.
- Improve access to the Sound Transit park & ride lot.

SR 531 Improvement Project

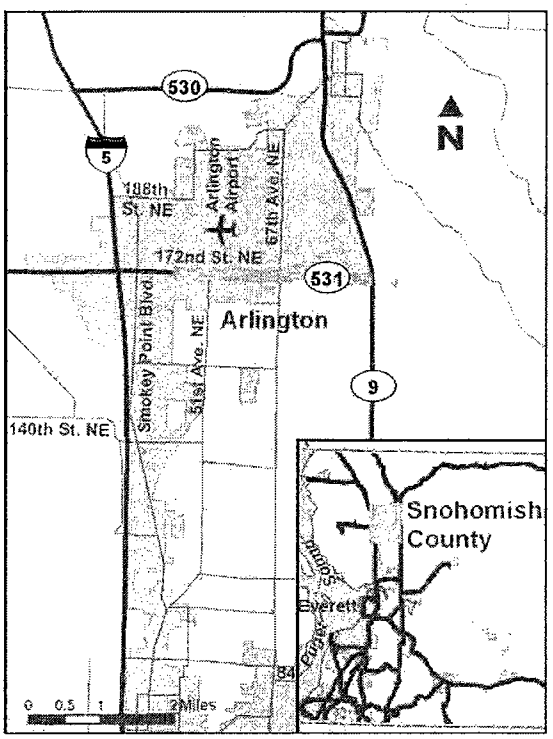
I-5/Smokey Point to SR 9 Widening

RTID Share ($ 2006) *$55 million*

RTID share ($ YOE) *$68 million*

Lead Agency: WSDOT

SR 531 is located in the vicinity of the Smokey Point exit from I-5 near Marysville and Arlington. The area of the proposed improvement is from 43rd Avenue NE (east of I-5) to SR 9. Locally, SR 531 is also known as 172nd Street NE. The section between 43rd and 67th Avenues is a commercial and light-industrial area close to the Arlington Airport, and the portion from 67th east to SR 9 is primarily residential.



RTID funding would:

- Widen the state highway to be two lanes in each direction with a two-way left-turn lane in the signalized areas, with the possibility of roundabouts in lieu of signals between 43d and 67th Avenues.
- Add pedestrian facilities.
- Add bicycle lanes.
- Add landscaped planters.
- Relieve chokepoints.
- Improve safety and capacity.

This facility would alleviate chokepoints between SR 9 and I-5 by widening 2.65 miles of SR 531 from two lanes to four lanes. In addition to widening the existing highway, all public road intersections would be upgraded to match the new highway.

Funding Partners: City of Arlington, private development, future annexation

39th Ave. SE/35th Ave. SE Improvement Project

39th Avenue SE from 228th Street SE to 240th Street SE Missing Link

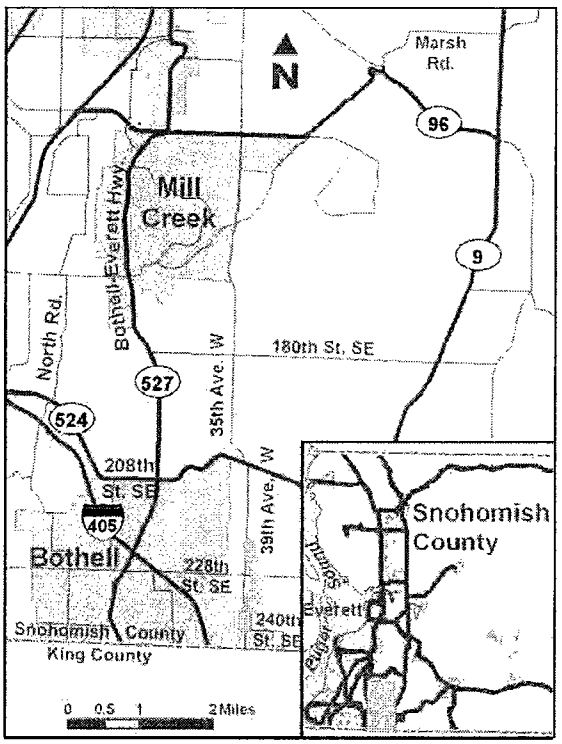
RTID Share ($ 2006) *$30 million*

RTID Share ($ YOE) *$36 million*

Lead Agencies: Snohomish County, City of Bothell

This facility, stage 1 of the overall project, will complete a vital missing link in the north-south 39th Avenue SE arterial corridor from the vicinity of 228th Street SE to 240th Street SE. The project will construct a new county and city arterial. The project will improve capacity and improve pedestrian, bicycle, and vehicle safety.

The overall project, when completed, will result in a continuous north-south local arterial from Mill Creek and South Everett to Woodinville that will complement the I-405 and SR 9 proposed improvements by providing an alternative route for local traffic. This will reduce congestion on these state highways as well as SR 527, reduce traffic on nearby north-south residential streets, and put traffic on an arterial designed for the appropriate volumes and speeds, thereby reducing congestion and enhancing safety in the local area.



Stage 1

RTID funding would:

- Complete the final design.
- Assist in the right-of-way acquisition.
- Complete the construction of the project.

Funding Partners: Snohomish County, City of Bothell, Transportation Improvement Board

39th Ave. SE/35th Ave. SE Improvement Project

39th/35th Avenue SE from 228th Street SE to Seattle Hill Road Widening

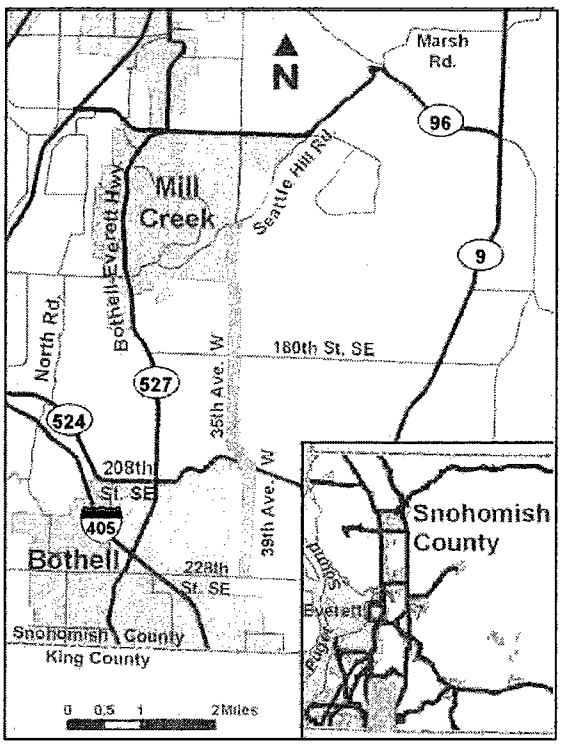
RTID Share ($ 2006) *$49 million*

RTID Share ($ YOE) *$74 million*

Lead Agency: Snohomish County

This facility, stage 2 of the overall project, will widen the existing corridor to improve capacity and construct curb, gutter, sidewalks and bicycle lanes. This facility will improve capacity by adding a two-way left-turn lane, and will also improve pedestrian and bicycle safety.

The overall project, when completed, will result in a continuous north-south local arterial from Mill Creek and South Everett to Woodinville that will complement the I-405 and SR 9 proposed improvements by providing an alternative route for local traffic. This will reduce congestion on these state highways as well as SR 527, reduce traffic on nearby north-south residential streets, and put traffic on an arterial designed for the appropriate volumes and speeds, thereby reducing congestion and enhancing safety in the local area.



Stage 2

RTID funding would:

- Complete the final design.
- Assist in the right-of-way acquisition.
- Complete the construction of the project.

Funding Partners: Snohomish County, Transportation Improvement Board

Transit & Multimodal Improvement Project

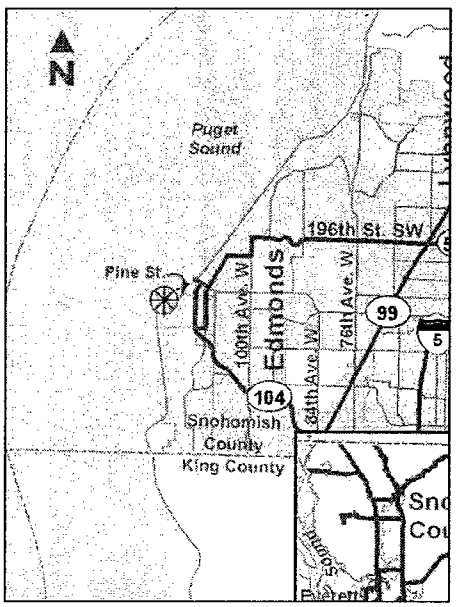
Edmonds Crossing (SR 104) Multi-modal Terminal, Ferry and Transit

RTID Share ($ 2006) *$122 million*

RTID Share ($ YOE) *$137 million*

Lead Agencies: Washington State Ferries, City of Edmonds

Edmonds Crossing is a regional multi-modal facility intended to accommodate future growth in travel along the State Route (SR) 104 corridor which includes the Edmonds/Kingston ferry route, while providing a long-term solution to current operational and safety conflicts between ferry, passenger and commuter rail, carpool/automobile, bus, and pedestrian traffic. The Federal Highway Administration, Federal Transit Administration, Washington State Department of Transportation (including Washington State Ferries), and City of Edmonds propose to develop a multi-modal center that would integrate ferry, commuter and intercity rail, and transit services into a single complex.



Facility Components

- A new ferry terminal that meets the operational requirements for forecasted ferry ridership through 2030, by providing adequate on-site vehicle storage that would virtually eliminate queuing along State Route 104, thus improving arterial operations, eliminating street congestion, and improving on-time efficiency.
- A train station designed to provide for intercity (Amtrak) passenger and commuter rail (Sounder) service while providing amenities for passenger comfort and convenience.
- A transit center that meets local bus and regional transit system requirements while providing an opportunity to connect the downtown business centers with the multi-modal terminal through the use of a local circulator service.
- Flexibility to operate the facility to respond to changing travel demands for transportation providers in the future.
- Facilities for accommodating both vehicular commuters and walk-on passengers of the available transportation modes (parking, drop-off and waiting areas).
- Safety features including grade separation of train traffic from other modes of travel, designated vehicle parking and holding areas, and safer more convenient waiting for bus, train and ferry riders.

This facility addresses environmental concerns by:

- Removing over-the-water structures made of creosote-treated timber and building new structures made of concrete and steel, thus eliminating marine contamination from creosote-treated timber.
- Making environmental enhancements such as replanting eel-grass, day-lighting creeks, treating storm water, replacing undersized culverts, removing an old tanker dock, and coordinating with Unocal for the cleanup of the tank farm property.

Funding Partners: Federal Highway Administration, Federal Transit Administration, Washington State Department of Transportation, Sound Transit (Phase 2), Community Transit, City of Edmonds

Transit & Multimodal Improvement Project

Park & Ride Facilities, North County and SR 9

RTID Share ($ 2006) *$20 million*

RTID Share ($ YOE) *$27 million*

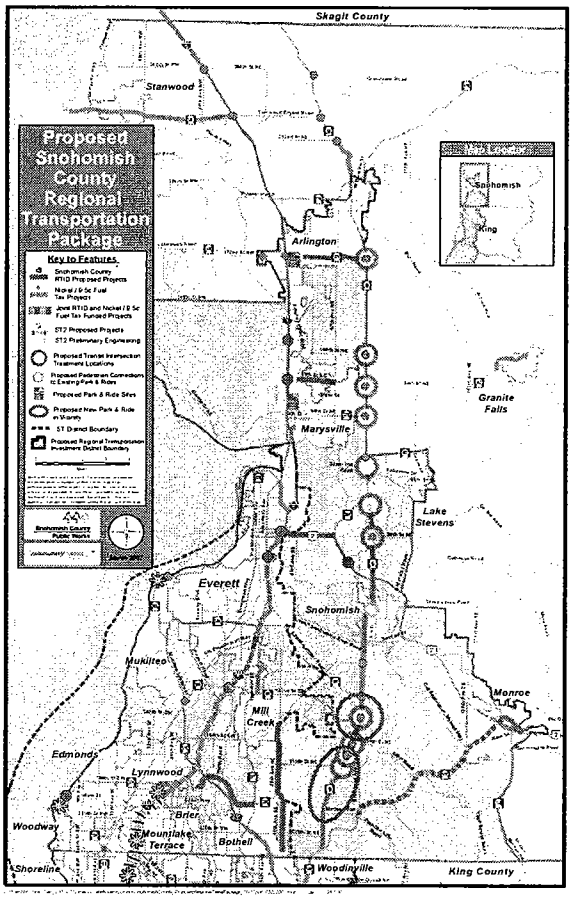
Lead Agency: Community Transit

Community Transit will supply the transit component for the Snohomish County RTID area outside of the Sound Transit boundary. (*See map for locations.*)

Four new park & ride lots are proposed to serve the increasing demand for transit service being generated by the rapid development in Snohomish County: two in the Marysville/Arlington portion of Snohomish County, and two in the southern portion of the SR 9 corridor. Specific locations are:

- Smokey Point Park & Ride (Smokey Point Boulevard and 169th Street): 374 stalls
- Cedar and Grove Park & Ride in Marysville (Cedar Avenue and Grove Street): 226 stalls
- Cathcart Park & Ride (in the vicinity of Cathcart Way and SR 9): 200 stalls
- SR-524 Park & Ride (in the vicinity of SR 524 and SR 9): 200 stalls

Funding Partners: FTA, Community Transit



Transit & Multimodal Improvement Project

Bus and Van Fleet Expansion

RTID Share ($ 2006) *$12 million*

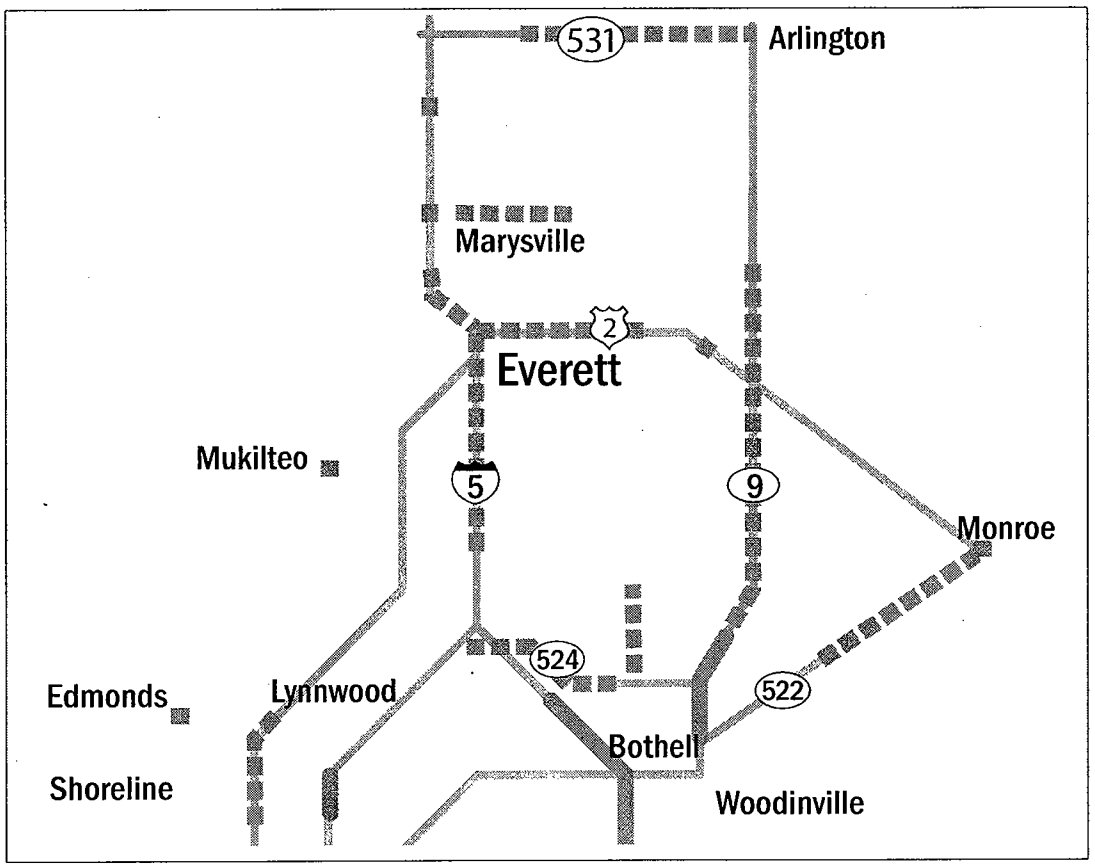
RTID Share ($ YOE) *$15 million*

Lead Agency: Community Transit

In addition to park & ride lots and transit-related infrastructure improvements, RTID money is planned for purchase of additional buses and vans for use in the RTID areas of Snohomish County as part of the overall transportation improvement package. Community Transit would deploy buses and vans to specific routes and situations as transit markets develop, taking into account the density of land use, proposed development, and transit-related infrastructure. The fleet expansion would allow for the provision of additional transit service in Snohomish County, particularly along SR 9 and US 2.

Funding Partner: Community Transit

Map of North Corridor Investments



Project Descriptions by County

King County

King County's population of 1,793,600 makes it the 14th largest county in the United States, according to the U.S. Census Bureau (July 2005 estimate). King County is home to nine of the top 15 largest cities in the state. Heavily congested roads are the result of population growth, new urban centers and new travel patterns. At the same time, King County and the region's economy depends on a number of large and expanding employment centers as well as the Port of Seattle and the large warehousing, distribution and manufacturing district in the Green River Valley cities area. Severe traffic congestion problems hamper commuters and freight mobility.

In addition, some of our most critical transportation infrastructure is unsafe and needs to be repaired. Proposed investments in King County are targeted at six main corridors: I-5, I-405, SR 167, SR 520, SR 509, and SR 99. These investments will help improve traffic flow throughout the region and address critical safety concerns.

King County Investments

King County	**RTID Funding Share:**	
	2006 dollars ($ in millions)	YOE dollars ($ in millions)
Seattle Mobility Project, SR 99 to I-5 I-5 approach, Mercer Street widening Lander Street improvements I-5/Spokane Street viaduct	289	323
I-5 Direct Access Project	83	114
South Park Bridge Replacement Project	99	110
SR 520 Bridge and HOV Lane Project Bridge replacement, connections to I-5, connections to I-405, mitigation integral to and inseparable from the project, non-motorized improvements	972	1,139
I-90 HOV Lane Project HOV lanes *contingency scope I-90 congestion relief*	25	35
I-405 Bellevue to Renton Project SR 520 to Bellevue, I-90 to downtown Bellevue, SR 169 (Maple Valley Highway) to I-90, non-motorized and transit improvements	904	1,283
I-5 / SR 509 Corridor Completion and Freight Improvement Project SR 509, I-5 improvements	798	1,051
SR 167/I-405 Interchange HOV to HOV Direct Connection Project	316	403
SR 167 Green River Valley Corridor Congestion Relief Project	391	650
I-5/SR 18 Federal Way Congestion Relief Project	89	120
East Sammamish Plateau Access Project 244th Avenue SE widening	10	12
SR 99 Transit Improvement Project Shoreline bus rapid transit improvements	37	40
Construction Mitigation Program	74	100
Total King County Investments (rounded numbers)	***4,087***	***5,380***

Seattle Mobility Project, SR 99 to I-5

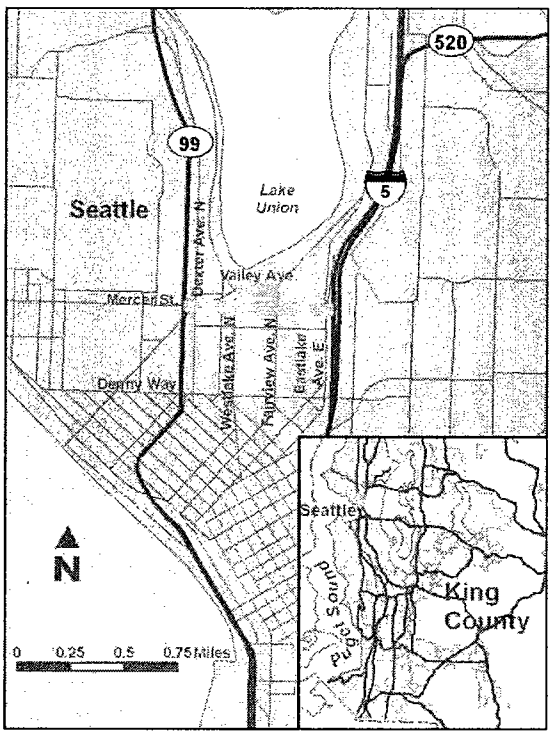
RTID Share ($ 2006) *$289 million*

RTID Share ($ YOE) *$323 million*

I-5 Approach, Mercer Street Widening

Lead Agency: City of Seattle

Mercer Street is the major corridor linking I-5 to SR 99, or Aurora Avenue, and the Seattle Center. The corridor helps carry the 12 million visitors a year going to the Seattle Center and supports the region's emerging biotechnology center. Over the next two decades, the number of jobs in this area is expected to increase by 8,000 to 10,000.



This portion of Mercer Street is one of the most congested in Seattle, with backups onto I-5 due to numerous turns and the chokepoint at Fairview Avenue–Valley Street. Increases in employment and travel are expected to continue in coming years, putting more traffic pressure on an already-congested area.

RTID funding would:

- Keep motorists moving. Widen Mercer Street from I-5 to Dexter Avenue, converting Mercer from one-way to two-way, with three lanes eastbound and three lanes westbound, on-street parking and left-turn lanes.
- Add new connections. Reconnect two urban centers by extending two-way Mercer across Aurora and building up to two additional crossings.
- Improve freight movement. Decrease the number of turns from I-5 to Westlake Avenue N. from three to one, and create an easy-to-navigate street grid.
- Remove barriers. Eliminate turn restrictions and add bicycle lanes and sidewalks.
- Provide congestion relief during major construction. A Mercer two-way corridor would enhance access to alternative routes for traffic when the Alaskan Way Viaduct replacement is under construction.

Funding Partner: City of Seattle

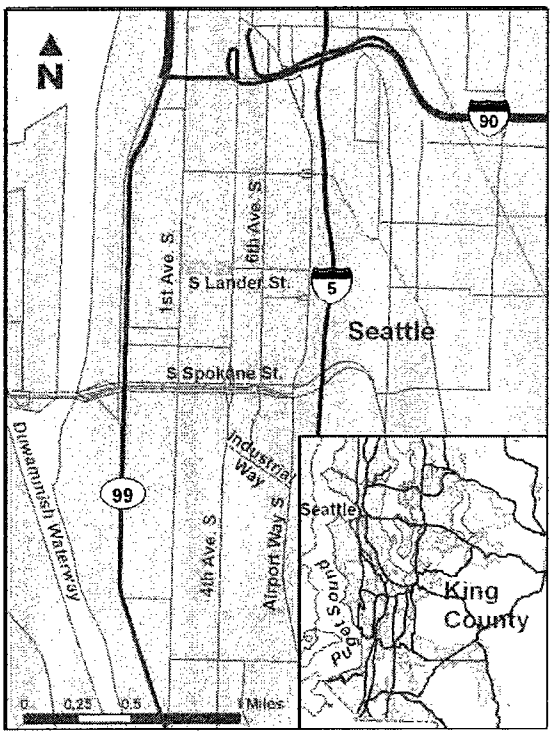
Seattle Mobility Project, SR 99 to I-5

RTID Share ($ 2006) *$289 million*

RTID Share ($ YOE) *$323 million*

Lander Street Improvements

Lead Agency: City of Seattle



The South Lander Street overpass is a companion facility to the South Spokane Street viaduct facility, as well as an alternative to SR 519—a corridor heavily used by stadium-goers and trucks. Building a link over the BNSF railroad tracks would reconnect a part of one of our most important industrial areas, the Duwamish Manufacturing and Industrial Center (DMIC). The DMIC is a major employment hub that provides around 68,000 jobs.

South Lander Street and the BNSF rail line currently intersect, creating significant vehicle and pedestrian delay. By 2030, delays at this location are expected to double due to substantial increases in freight and passenger rail traffic.

RTID funding would:

- Improve safety. The overpass would separate trains from vehicles and pedestrians.
- Keep commuters, transit and freight moving. Reduce traffic delays caused by train crossings.
- Make it easier to drive. Enhance circulation around the future Link light rail station, the Port of Seattle, stadium district and DMIC.
- Provide transportation options. Provide a grade-separated connection to the SoDo busway to create a continuous transit connection between West Seattle, the Lander Link station, and downtown Seattle.
- Provide congestion relief during major construction. The South Lander overpass would enhance access to alternative routes for traffic when the Alaskan Way Viaduct replacement is under construction.

Funding Partner: City of Seattle

Seattle Mobility Project, SR 99 to I-5

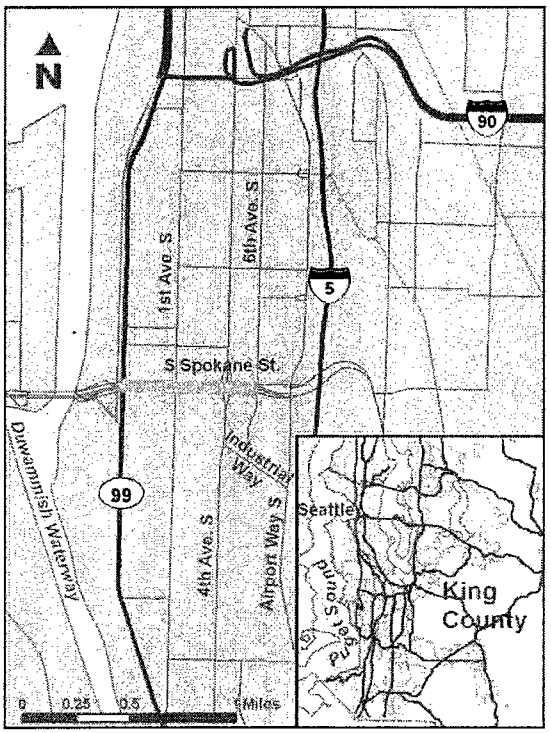
RTID Share ($ 2006) *$289 million*

RTID Share ($ YOE) *$323 million*

I-5/Spokane Street Viaduct

Lead Agency: City of Seattle

The S. Spokane Street viaduct is a critical connection linking I-5 to Port of Seattle terminals, businesses along the Duwamish River, and West Seattle to I-5, I-90 and SR 99. This corridor is important to the region's economic success. The Port of Seattle is one of the largest in the country, and provides 195,000 jobs throughout the region.



The structure has several deficiencies, including narrow lanes, no permanent barrier between lanes, no safety shoulders and substandard off-ramps creating a significant chokepoint, resulting in high levels of congestion.

RTID funding would:

- Keep buses moving. Extend a lane between First and Fourth S. avenues for transit.
- Make it easier to drive. Widen the structure, expand lanes and construct a new westbound on- and off-ramp at First Avenue South, allowing more time for I-5 drivers to merge right.
- Add options to driving. Build a new eastbound off-ramp at Fourth Avenue South to provide a potential continuous transit connection between West Seattle and the Seattle central business district. Rebuild the lower road and add a sidewalk and bike path along the north side, connecting the SoDo busway to the East Marginal Way trail.
- Keep freight moving. The state Freight Mobility Strategic Investment Board and the FAST Corridor partnership recognize the project as a high priority for regional and statewide freight movement.
- Provide congestion relief during major construction. An improved corridor would enhance access to alternative routes for traffic when the Alaskan Way Viaduct replacement is under construction.

Funding Partner: City of Seattle

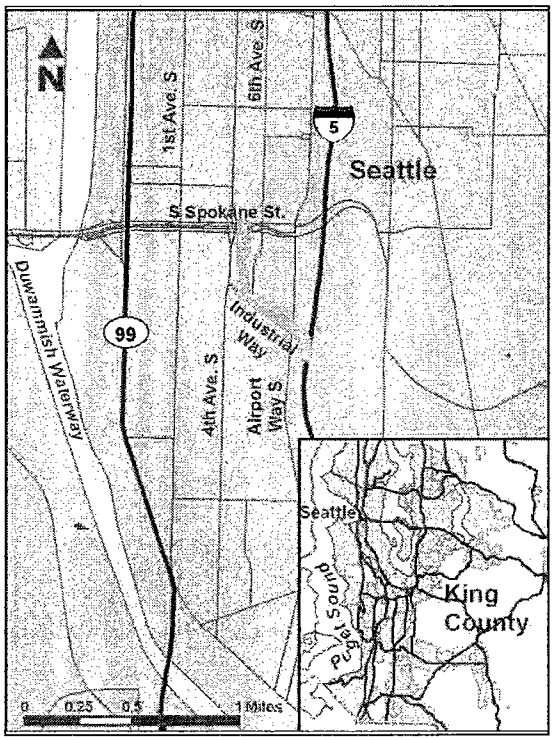
I-5 Direct Access Project

RTID Share ($ 2006) *$83 million*

RTID Share ($ YOE) *$114 million*

Lead Agency: WSDOT

The SoDo busway, operating in the right-of-way that would be Fifth Avenue South, begins at the south portal of the downtown Seattle transit tunnel at South Dearborn Street, and continues south to Spokane Street. Express buses traveling on I-5 between south King County, Pierce County, southeast Seattle, and downtown Seattle use this transit-exclusive right-of-way. Buses enter or exit I-5 at Spokane Street, and must weave through several lanes of traffic in each direction of travel to enter or exit I-5. King County Metro and Sound Transit buses operate at this location, and approximately 10,000 daily riders will benefit from this improvement. This project has been identified as a needed mitigation to the transportation impacts that would be caused by the Alaska Way Viaduct replacement construction. Ideally, the I-5 components of this project should be completed on or before the start date for the viaduct replacement.



RTID funding would:

- Construct an HOV direct access ramp from the northbound I-5 HOV lane to South Industrial Way.
- Link I-5 to the existing SoDo busway via a busway extension between South Spokane Street and South Industrial Way. This extension would improve speed and reliability for express buses operating northbound to downtown Seattle.
- Eliminate weaving conflicts between transit/HOV and northbound I-5 general-purpose traffic at the exit approach.
- Provide congestion relief during major construction. The Industrial Way transit ramp would enhance transit access while the central waterfront portion of the Alaskan Way Viaduct replacement is under construction.

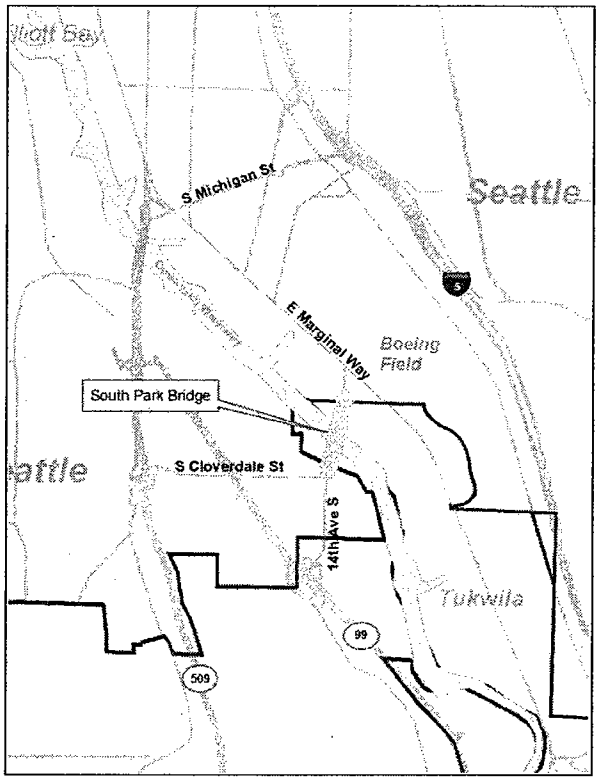
South Park Bridge Replacement Project

RTID Share ($ 2006) *$99 million*

RTID Share ($ YOE) *$110 million*

Lead Agency: King County

The South Park bridge is located immediately west of Boeing Field, the King County Airport. The 77-year-old bridge crosses the Duwamish Waterway, connecting East Marginal Way and 16th Avenue South in Seattle with 14th Avenue South in unincorporated King County, in the area known as South Park. The bridge provides access to White Center, West Seattle, Georgetown, and Boulevard Park. More than 20,000 vehicles a day use the bridge. Traffic counts show that 14% of the trips are truck traffic. The bridge is located on a principal freight corridor linking downtown Seattle, the Port of Seattle, and the manufacturing and industrial centers in the Duwamish River valley.



The bridge sufficiency rating is 4, one of the lowest ratings of any major structure in the region. This project has been identified as a necessary mitigation to transportation impacts that would be caused by replacement of the Alaska Way viaduct. Ideally, this project should be completed on or before the construction start date for the viaduct replacement.

The bridge has major structural deficiencies; it is very vulnerable and could suffer structural failure even in a moderate earthquake. It will be closed by the year 2010 if funding has not been secured for its replacement. Replacement of the South Park bridge is critical to the future smooth functioning of the I-5/SR 509 corridor project improvements and the First Avenue South bridge.

RTID funding would:

- Replace the bridge with a new parallel bascule drawbridge, which keeps traffic flowing throughout the project.
- Add capacity and meet current standards.
- Improve capacity by widening substandard lanes and providing a protected, separate bicycle and pedestrian facility.
- Preserve an important freight corridor across the Duwamish River.

Funding Partners: King County, City of Seattle, City of Tukwila, and federal funds

SR 520 Bridge and HOV Lane Project

Bridge replacement, mitigation integral to and inseparable from the project, connections to I-5, non-motorized improvements, connections to I-405

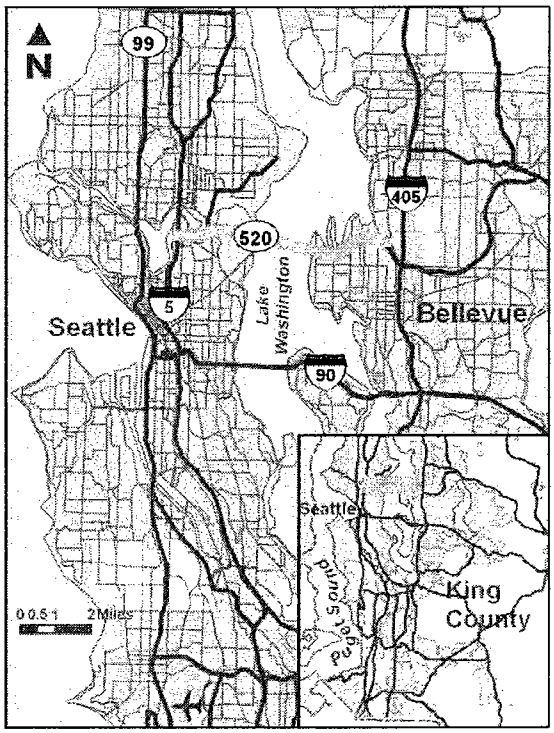
RTID Share ($ 2006) *$972 million*

RTID Share ($ YOE) *$1,139 million*

Other *$700 – $1,200 million tolls*

Lead Agency: WSDOT

The purpose of this project is to improve mobility for people and goods across Lake Washington within the SR 520 corridor from I-405 to I-5 in a manner that is safe, reliable and cost effective while avoiding, minimizing, and/or mitigating impacts on affected neighborhoods and the environment. The SR 520 Bridge faces danger from earthquakes and windstorms and needs to be replaced. In addition, the capacity of the corridor needs to be increased with the addition of HOV lanes and provision of pontoons sized to allow for future high-capacity transit in the corridor. Governor Gregoire expressed her findings in support of a six-lane alternative in her report issued on SR 520 Bridge released, December 15, 2006. The six-lane alternative would accommodate 120,000 vehicle trips by 2030.



RTID funding would:

- Expand lane capacity from 4 lanes to 6 lanes by adding one HOV lane in each direction.
- Add safety shoulders.
- Add a bicycle lane and pedestrian walkway.
- Provide pontoon support adequate for future high-capacity transit on the bridge.

Financial plans for SR 520 include tolling. Future tolling in the corridor, which will be set by the State of Washington, will be comparable to tolls on the Tacoma Narrows bridge, reinvested in the corridor, and managed to ensure reliable system performance.

I-90 HOV Lane Project

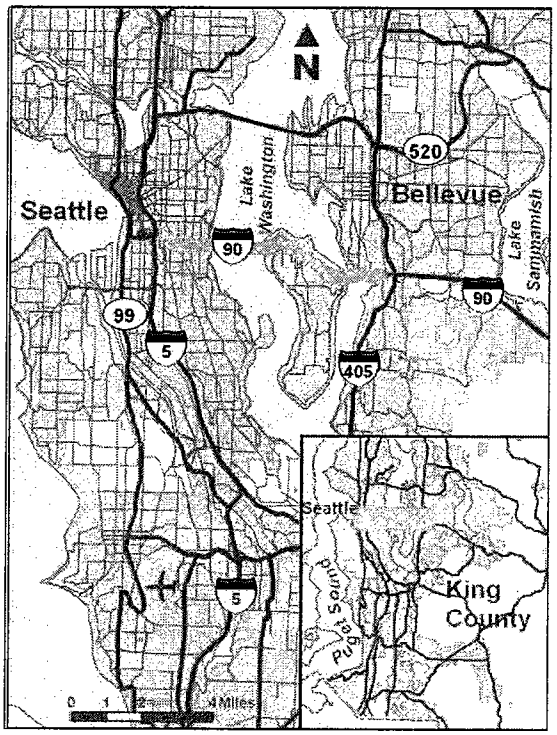
HOV lanes

RTID Share ($ 2006) *$25 million*

RTID Share ($ YOE) *$35 million*

Lead Agency: WSDOT

The I-90 corridor faces growing population and increased traffic congestion. The project would provide reliable transit and high-occupancy vehicle (HOV) operations between Bellevue and Seattle by reconfiguring the I-90 roadway to add new HOV lanes to the outer roadway lanes, and adding new (and modifying) existing HOV direct access ramps.



RTID funding would allow for completion of the new HOV lanes on I-90 between Seattle and Bellevue. RTID funding would supplement current funding from Sound Transit, WSDOT, and other funding sources to complete the new outer roadway HOV lanes, enabling 24-hour/day HOV operations between Bellevue and Seattle. This project would improve roadway and transit capacity during both peak and non-peak travel periods. The project would be a first step in the ultimate configuration of I-90 with high-capacity transit (light rail) in the center roadway.

To date, WSDOT and Sound Transit have budgeted approximately $98.6 million for this project. RTID funding would complete the project.

RTID funding would:

- Extend eastbound and westbound HOV lanes from Rainier Avenue to Bellevue Way.
- Construct a new 80th Avenue SE HOV ramp from westbound HOV lane.
- Reconstruct the existing 80th Avenue SE HOV ramp so that HOV/transit users have access to the new eastbound HOV lane.
- Build new direct access to 77th Avenue SE HOV ramp from the new eastbound I-90 HOV lane.
- Modify Bellevue Way HOV direct access ramps to provide for 24-hour per day operation in both the westbound and eastbound direction.

Construction of proposed additional traffic congestion relief facilities on the east side of the I-90 bridge would proceed as funding permits.

Funding Partners: Sound Transit, WSDOT

I-405 Bellevue to Renton Project

SR 520 to Bellevue, I-90 to downtown Bellevue, SR 169 (Maple Valley Highway) to I-90, non-motorized and transit improvements

RTID Share ($ 2006) *$904 million*

RTID Share ($YOE) *$1,283 million*

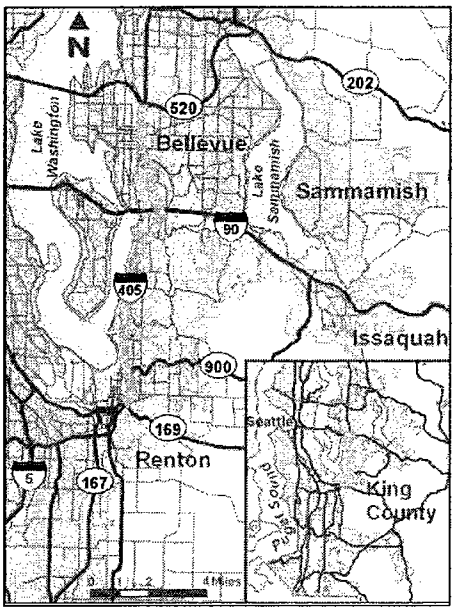
Lead Agency: WSDOT

The I-405 corridor project's primary purpose is to construct a series of facilities in stages to relieve traffic congestion. This corridor experiences gridlock more than 50 percent of the day. Relieving traffic congestion along I-405 would significantly reduce congestion-related crashes and improve traffic safety. Construction of the proposed facilities will proceed as funding permits. State funds will complement those provided by RTID.

The RTID investments are targeted to improve the most congest¬ed section of highway in the state. With completion of the I-405 project described below, traffic congestion between Renton and I-90 would be reduced by more than nine hours per day.

Construction of key facilities listed would add new capacity to accommodate an additional 40,000 vehicles per day on I-405. The I-405 RTID project would also connect with existing and planned improvements on SR 167 and SR 512, to create a 62-mile eastern alternative to I-5.

These improvements include elements necessary to establish the infrastructure for bus rapid transit (BRT) on I-405 and the northern portion of the SR 167 corridor. The corridor improvements from Renton to Bellevue would facilitate and may include express/toll (HOT) lanes, pending the outcome of the state's high-occupancy toll (HOT) lane pilot program.



RTID funding would:

SR-520 to Bellevue

- Build an elevated ramp that separates traffic (a "braided ramp") on southbound I-405 between SR 520 and NE 8th Street in Bellevue. This complements state funding for the braided ramps in the northbound direction.
- Eliminate the conflict between vehicles and the congestion created by weaving traffic on I-405 exiting to NE 8th Street and vehicles coming from SR 520 that are merging south onto I-405.
- Connect with the NE 10th Street bridge across I-405.

I-90 to Downtown Bellevue

- Construct an additional lane in the northbound and southbound directions to complement lanes being added with state funds, and facilitate possible future express/toll lanes.

SR 169 (Maple Valley Highway) in Renton to I-90

This section will be constructed in two stages. Stage 1 will be constructed to accommodate stage 2 and will be consistent with the I-405 Corridor Program Final Environmental Impact Statement.

Stage 1: Build one lane in each direction from SR 169 to I-90.

Stage 2: Build an additional lane in each direction from SR 169 in Renton to I-90.

Build mobility projects consistent with the I-405 master plan or other projects that provide equal or greater benefit.

I-405 bicycle, pedestrian and transit improvements:

- Build bicycle and pedestrian facilities on Burlington Northern Santa Fe right-of-way between the 44th Street interchange and the Wilburton tunnel near SE 8th Street in Bellevue.
- Build a transit/HOV direct access ramp at North 8th Street in Renton with funding provided by partners.

Funding Partners: Sound Transit, WSDOT

I-5/SR 509 Corridor Completion and Freight Improvement Project

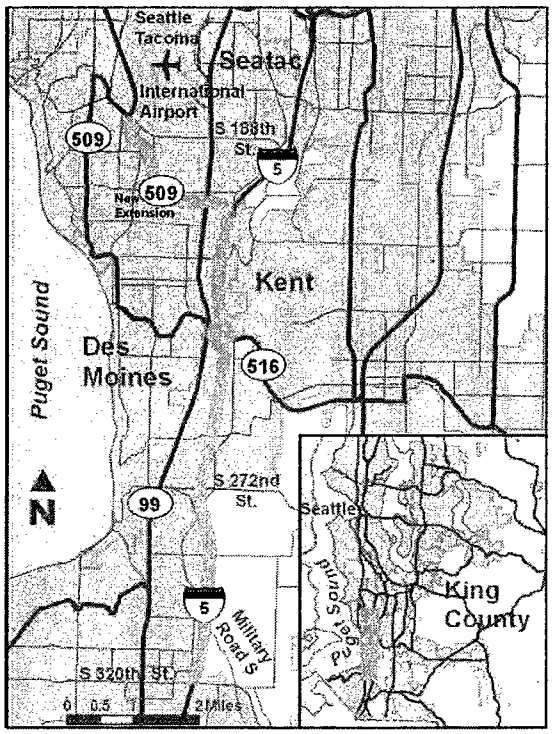
SR 509, I-5 improvements

RTID Share ($ 2006) *$798 million*

RTID Share ($ YOE) *$1,051 million*

Lead Agency: WSDOT

Under this project, SR 509 would become a western alternative corridor to I-5 for freight, transit, and general-purpose traffic. The existing SR 509 freeway currently terminates on the southwest side of Seattle–Tacoma International Airport. RTID funding would extend SR 509 as a limited-access freeway from South 188th Street near Burien and SeaTac to Interstate 5 in the vicinity of South 210th Street in Des Moines, approximately 2.5 miles.



The new route would directly link I-5 and SR 509 in south King County, relieving congestion and improving freight mobility. Computer models show that a significant portion of truck and other freight-related traffic destined for the Port of Seattle's facilities in the Duwamish area and at Sea–Tac airport would use the new SR 509 alignment, relieving I-5 of considerable freight-related traffic and congestion.

RTID funding would:

- Build a four-lane road between South 210th Street and South 188th Street in SeaTac and Burien.
- Construct a major new I-5/SR 509 interchange.
- Add collector/distributor lanes to I-5 from South 210th Street to SR 516.
- Improve the I-5/SR 516 interchange, including a new connection to South 228th Street.
- Add general-purpose lanes to I-5 from SR 516 (Kent-Des Moines Road) to South 320th Street.
- Provide direct access to Sea–Tac Airport at South 200th Street.
- Construct a new connection to the SeaTac business district at 24th/28th Avenue South.
- Build frontage roads for easier access to the Green River valley cities, and warehouse and distribution centers.
- Extend Des Moines Creek Trail to the south.
- Provide sidewalks in targeted locations.

Funding Partners: WSDOT, Port of Seattle, federal and local funding

SR 167/I-405 Interchange HOV-to-HOV Direct Connection Project

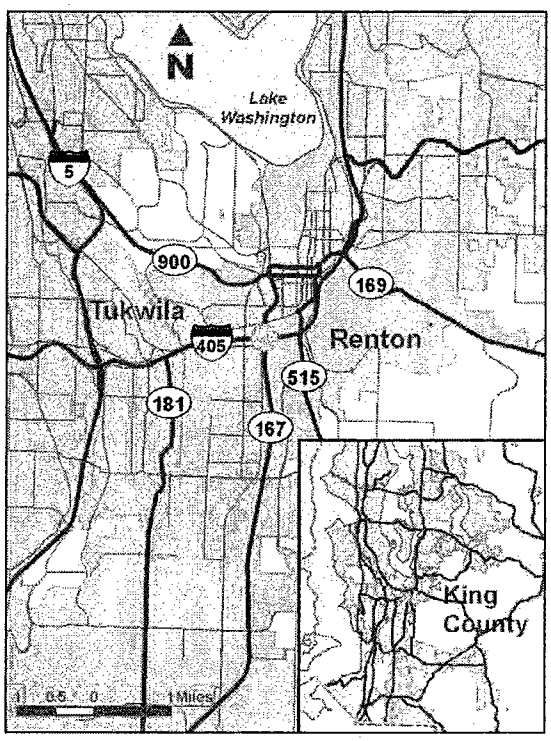
RTID Share ($ 2006) *$316 million*

RTID Share ($ YOE) *$403 million*

Lead Agency: WSDOT

The I-405/SR 167 interchange is one of the most heavily congested interchanges in the state of Washington. Traffic analysis shows that this project significantly reduces person hours of delay that is currently experienced by motorists both at the interchange and throughout the SR 167 corridor and the southern portion of I-405.

Improvements on SR 167 in King County would provide commuters better access to affordable housing and employment centers, and would expand freight mobility to the Green River Valley cities' warehousing and distribution center. These investments would build upon state funded investments in the corridor.



RTID funding would:

- Provide a direct HOV-to-HOV connection between SR 167 and I-405.
- Eliminate the existing weave for both northbound and southbound traffic.
- Provide a direct connection between I-405 HOV and SR 167 proposed HOT lanes.

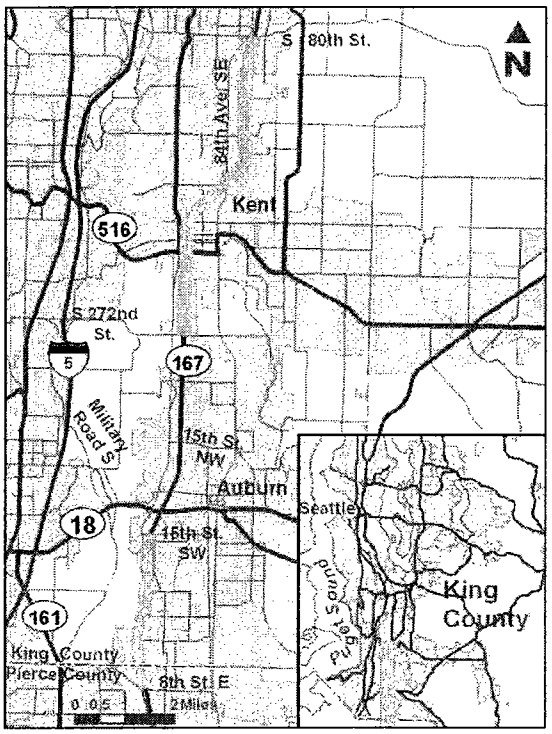
SR 167 Green River Valley Corridor Congestion Relief Project

RTID Share ($ 2006) *$391 million*

RTID Share ($ YOE) *$650 million*

Lead Agency: WSDOT

State Route 167 connects with I-405 at Renton on the north and SR 512 in Pierce County on the south. Along with I-405, it provides a 62-mile alternative to I-5, and is a primary freight corridor. SR 167 serves one of the fastest-growing areas of King County, and experiences more than six hours of congestion a day. This project will provide commuters better access to affordable housing and employment centers, and would improve freight mobility to the Green River Valley cities warehousing and distribution center. The purpose of the improvement program is to fix chokepoints and bottlenecks, in order to ease congestion and increase safety.



These investments are complemented and improved by the HOV-to-HOV connection at the SR 167 and I-405 interchange.

RTID funding would:

From 8th Street East in Pierce County to 15th SW in Auburn (near the Super Mall)

- Add one northbound HOV/HOT lane for 3 miles between Pacific and Auburn, completing the HOV/HOT lane system on SR 167 in King County.
- Provide additional capacity for transit and vanpools.
- Provide a more reliable trip for paying single-occupant vehicles in the HOV lane if HOT (high-occupancy toll) lanes are implemented.

From SE 180th in Renton/Kent to South 277th Street in Kent/Auburn:

- Add one southbound lane to increase capacity and reduce delays.
- Provide more space to get on and off the freeway.
- Reduce sideswipe and rear-end collisions caused by merging and exiting traffic.

The southbound lane would be constructed in stages.

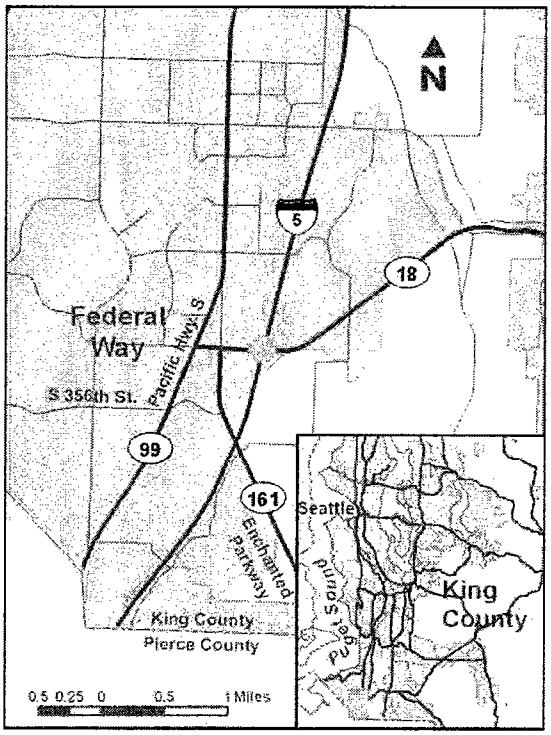
I-5/SR 18 Federal Way Congestion Relief Project

RTID Share ($ 2006) *$89 million*

RTID Share ($ YOE) *$120 million*

Lead Agency: WSDOT

This interchange is a high crash location and experiences traffic congestion at the cloverleaf as drivers navigate among I-5, SR 18, SR 161 and access to the city of Federal Way. The project will eliminate the loop ramps and eliminate the current weave situation caused by closely spaced on- and off-ramps on I-5 and SR 18. The loop ramps would be replaced with flyover ramps that are safer; they would also increase the capacity of I-5 and SR 18. Traffic congestion would lessen and safety would improve in all directions as a result.



RTID funding would:

- Construct a collector/distributor roadway that provides both a southbound I-5 and a westbound SR 18 direct connection to SR 161.
- Rebuild the southbound I-5 ramp to eastbound SR 18.
- Construct auxiliary lanes on I-5 to improve merging and exiting from the freeway.
- Rebuild several ramps at the I-5/SR 18 and SR 18/Weyerhaeuser Way interchanges to improve safety and capacity.
- If funding allows, rebuild the SR 161 bridge crossing over I-5.

Funding Partners: FHWA, WSDOT, local jurisdictions

East Sammamish Plateau Access Project

244th Avenue SE Widening

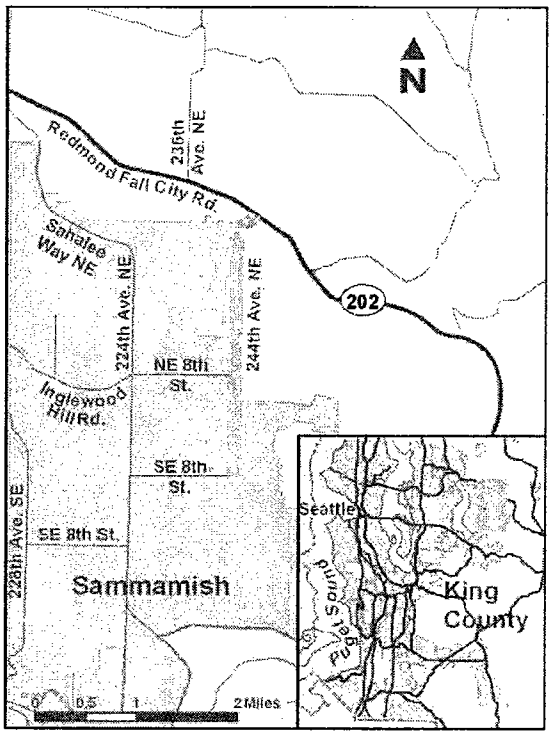
RTID Share ($ 2006) *$10 million*

RTID Share ($ YOE) *$12 million*

Lead Agency: City of Sammamish

This project would construct the northern missing link and retrofit existing portions of roadway to complete a three-lane (one lane in each direction, plus turn lane) minor arterial, providing much-needed additional capacity and congestion relief on the north end of the Sammamish plateau. This project would include curbs, gutters, sidewalks, bicycle lanes, street lighting, storm drainage, and landscaping.

This project would be a cost-effective means of addressing severe congestion and access constraints on the north end of the Sammamish plateau, according to the Sammamish Plateau Area Corridor study, involving Issaquah, Redmond, Sammamish, King County and WSDOT. Alternatives (widening Sahalee Way or East Lake Sammamish Parkway) have been determined to be far more costly. The 2020 traffic volume for this corridor, based on Sammamish's projected future growth would be around 15,000 vehicles on an average weekday (AWDT), which is a significant increase over the current 9,300 AWDT. This project also provides secondary access for emergency vehicles to a fast-growing area within the urban growth boundary. In addition, safety for pedestrians and bicyclists would be improved.



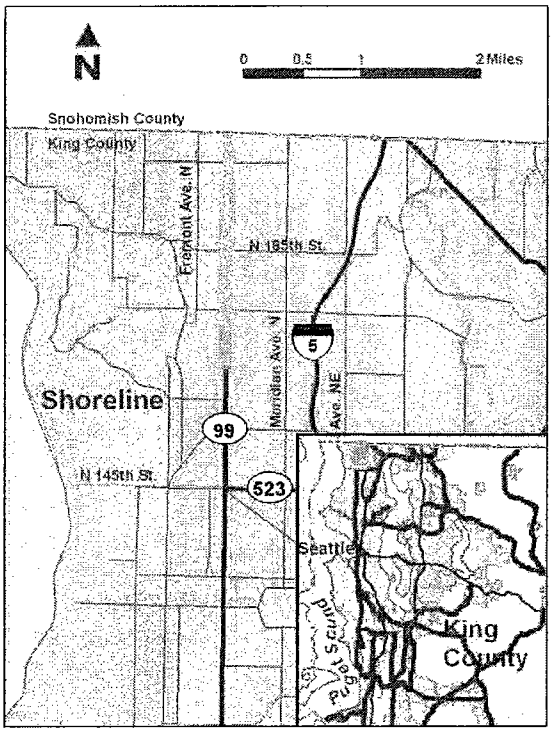
SR 99 Transit Improvement Project

Bus Rapid Transit Improvements, Shoreline

RTID Share ($ 2006) *$37 million*

RTID Share ($ YOE) *$40 million*

Lead Agency: City of Shoreline



This project provides a major capital component of the arterial bus rapid transit (BRT) system envisioned for this corridor. RTID funding would complete arterial business access transit (BAT) lanes, increase transit speed and reliability, and improve safety for all modes in Shoreline between N. 165th and N. 205th streets.

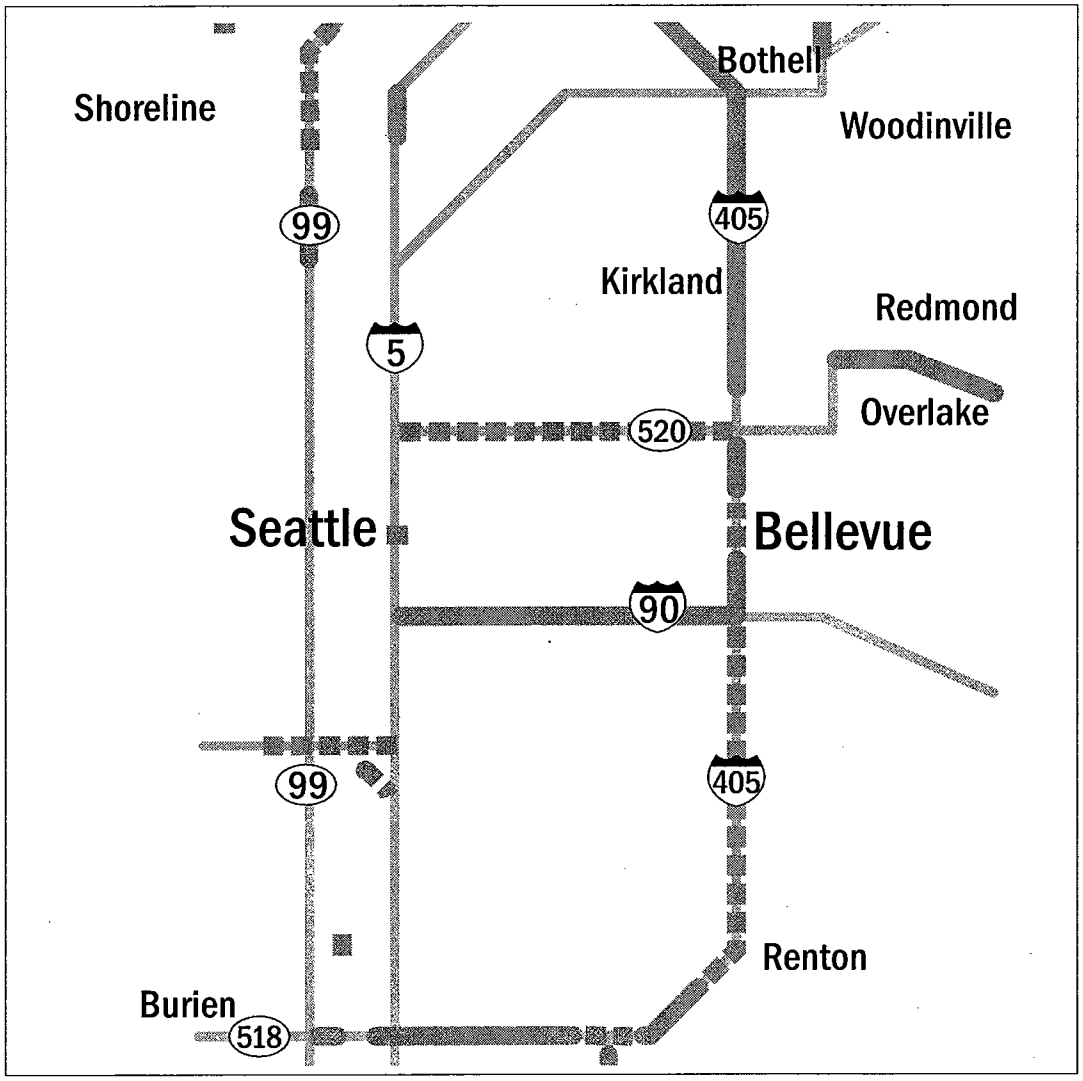
RTID funding would:

- Provide bus enhancements including sidewalks, curbs and gutter, pedestrian lighting and ADA compliant bus zone additions.
- Add proposed new traffic signals and pedestrian crossings at North 182nd and North 195th Streets.
- Connect the widening projects for SR 99 by the Cities of Shoreline and Edmonds with the Snohomish County RTID project to widen the SR 99 bridge over SR 104.
- Allow for continuous transit lanes on SR 99 in South Snohomish and North King Counties.
- Provide congestion relief during major construction. The SR 99 North improvements would enhance transit access to alternative routes when the Alaskan Way Viaduct replacement is under construction.

This project complements similar investments being made in Snohomish County by RTID and Community Transit, and by King County and the City of Seattle in King County.

Funding Partners: WSDOT, FHWA, City of Shoreline, and King County

Map of Central/East Corridor Investments



Project Descriptions by County

Pierce County

A growing transportation infrastructure is Pierce County's economic engine. In fact, the number of Pierce County jobs in the Transportation and Public Utilities sector has grown 124 percent since 1990. The economic well-being of Pierce County is inextricably linked with its freeways, rail systems, and maritime traffic that serve as sources for job growth, commercial traffic, and a quality of life residents have come to know and love.

The job growth and quality of life accounts for why Pierce County is expected to grow by more than 200,000 people by 2020. It is important that the transportation infrastructure grows with it. The investments in the RTID package will help Pierce County build the highway to its future, creating more than 80,000 new jobs through one project alone.

The Port of Tacoma is a major source of jobs in Pierce County. It is the second-largest port in the state and the seventh-largest container port in North America. A study released in July 2005 highlighted the port's economic impact at both the local and state level. More than 43,000 jobs in Pierce County are related to the Port of Tacoma's activities. Port-related jobs generate $637 million in annual wages in Pierce County. The port, and jobs, will grow exponentially over the next several years if the transportation infrastructure can keep pace.

With almost 30 percent of Pierce County's residents commuting to jobs in King County, there is excitement about creating new jobs that will stay in Pierce. In 2005, the mean travel time to work for a Pierce County resident was 28.4 minutes, 3 minutes longer than the statewide mean. There is hope that new jobs and a more efficient transportation infrastructure in Pierce County will reduce commute times and congestion for residents.

The proposed RTID investments seek to link Pierce County's jobs to highways, so workers and goods have freedom of movement throughout the region. As more jobs are created in Pierce County, these corridor investments will help implement the county's growth management plan and fewer people will have to commute to King County for good jobs.

Pierce County's proposed investments address key corridors for economic development and sustainability and truly will be the blood lines to the heart of Pierce County's growing economic prosperity.

Pierce County Investments

Pierce County	**RTID Funding Share:**	
	2006 dollars ($ in millions)	YOE dollars ($ in millions)
SR 167 Tacoma to Puyallup Project	1,004	1,590
I-5/SR 704/176th Corridor—Cross-Base Highway Project	246	427
Tacoma Mall Access Project	12	17
SR 410/SR 162 Congestion Relief Project	58	121
Non-motorized Investment Project	23	35
Construction Mitigation	6	10
Total Pierce County Investments (rounded numbers)	*1,349*	*2,200*

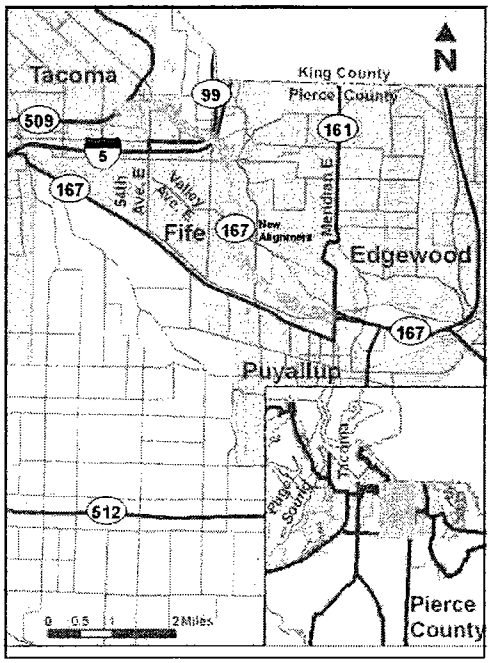
SR 167 Tacoma to Puyallup Project

RTID Share ($ 2006) *$1,004 million*

RTID share ($ YOE) *$1,590 million*

Lead Agency: WSDOT

From Renton in King County to Puyallup in Pierce County, SR 167 operates as a limited-access freeway, a vital north-south commuter and freight corridor and alternative route to I-5. Between Puyallup and SR 509 at the Port of Tacoma, SR 167 becomes a signalized urban arterial of slow-moving traffic.



This key project in Pierce County would build the remaining six-mile portion of SR 167, connecting SR 509 in Tacoma to the existing SR 167 at Puyallup. This connection would allow direct access from Tacoma to SR 167 as an alternative route to I-5 for those traveling to destinations in east King County. It would improve freight mobility and access from the Port of Tacoma to the Green River valley warehousing, distribution and manufacturing center.

The funding plan anticipates a contribution of approximately $40 million from the Port of Tacoma through use of fill, early land acquisition, and other actions by the port.

The proposed RTID investment would be a first phase of the overall SR 167 corridor completion and extension plan. Traffic analysis would be performed to prioritize the sequencing of construction.

RTID funding would:

- Acquire the majority of the needed right-of-way. (Note: Some remaining parcels along I-5 have existing businesses. Property acquisition of these parcels would not take place until the later phases of construction have been funded and are ready to be constructed.)
- Construct an on-ramp connecting I-5 and SR 167 at Fife. (WSDOT would conduct a traffic study to determine the most beneficial ramp investment that could be built with available RTID funding, including, but not limited to, a ramp from northbound I-5 to northbound 167 or a ramp from southbound 167 to northbound I-5.)
- Construct one lane in each direction from 54th Avenue East to Valley Avenue East, and two lanes in each direction from Valley Avenue East to SR 161, North Meridian Avenue East.
- Construct a second lane southbound on SR 167 from the Valley Avenue interchange to I-5.
- Construct a direct connect ramp from SR 509, South Frontage Road, to northbound SR 167.
- Construct an interchange at 54th Avenue East in Fife.
- Construct the first half of a complete interchange at Valley Avenue East with access to northbound SR 167 and an exit from southbound SR 167.
- Modify the existing SR 161 interchange into an interim configuration to provide for movement in four directions. The current interchange only allows movement in two directions.
- Partially restore Hylebos Creek and Surprise Lake drain, and construct storm water facilities to improve storm water collection and treatment.

In addition to freight benefits, this project would include a separated bicycle lane along the right-of-way between SR 99 and 54th Avenue. Property acquisition for two park & ride lots is also expected in the first phase.

When additional funding becomes available, it would be used to accelerate the construction timetable and to complete the entire scope of this project.

Funding Partner: Port of Tacoma

I-5/SR 704/176th Corridor—Cross-Base Highway Project

RTID Share ($ 2006) *$246 million*

RTID Share ($ YOE) *$427 million*

Lead Agency: WSDOT

RTID funding for this corridor is subject to the following requirements:

1. $5 million for environmental enhancements
2. $5 million for environmental or other mitigation
3. $30 million is dedicated to the SR 704 corridor
4. $60 million is available for the SR 704 or 176th St. E. corridor contingent on a mediation with affected government, business and environmental parties.
5. The funding in paragraphs 1, 2, and 3 is not contingent on successful mediation but may not be expended until after completion of the mediation. If the mediation is successful, the funding in paragraph 4 will be used for the agreed upon solution. If the mediation is not successful, the funding in paragraph 4 shall be used in the 176th St. corridor or in other arterial improvements in South Pierce County of comparable functional benefit.

   Mediation is open to all transportation and environmental impact issues. This includes, but is not limited to seeking a solution for the mobility of goods and people in the South Pierce east-west corridor and priority consideration of preventing impacts to the Oak Prairie habitat. Costs of mediation and technical and fact-seeking analyses to be funded under RTID. The funding in paragraph 4 may not be expended until after completion of the mediation.
6. Mediation would not begin until January 5, 2009.

- Mediation parties to include:

  Military base representatives
  Washington State Department of Transportation
  Pierce County
  Spanaway/Parkland community
  Washington Environmental Council
  Transportation Choices Coalition
  Futurewise
  Tahoma Audubon Society
  Equestrian community and Hunt Club
  Retired military community
  Frederickson Industrial Group
  City of Lakewood

During the mediation all parties to current or future litigation who participate in the mediation shall agree not to litigate before and during the mediation process and the legal rights of all standing parties shall be preserved. All parties reserve their legal rights in the event that mediation agreement is not successful.

The Record of Decision remains in its current status until the end of the mediation process. If the mediation is successful, then the Record of Decision will be modified as necessary to implement the mediation agreement. If the mediation is not successful, then the Record of Decision retains its status. The RTID executive board is directed to develop a plan to implement these provisions.

Pierce County Investments

This project would improve access from I-5 to Frederickson manufacturing facilities.

RTID funding would:

- Reduce congestion and delay on I-5, SR 512, SR 7, Spanaway Loop Road, and 176th Street.
- Rebuild the I-5 Thorne Lane interchange.
- Grade-separate the existing rail line near the Thorne Lane interchange.
- Provide for secure troop access between Fort Lewis and McChord Air Force Base, and reduce congestion on I-5 attributable to military operations.
- Link SR 7 to Interstate 5. Provide east-west connector from I-5 to Frederickson area.
- Accommodate future transit service.

This project will meet and exceed the latest environmental standards, including:

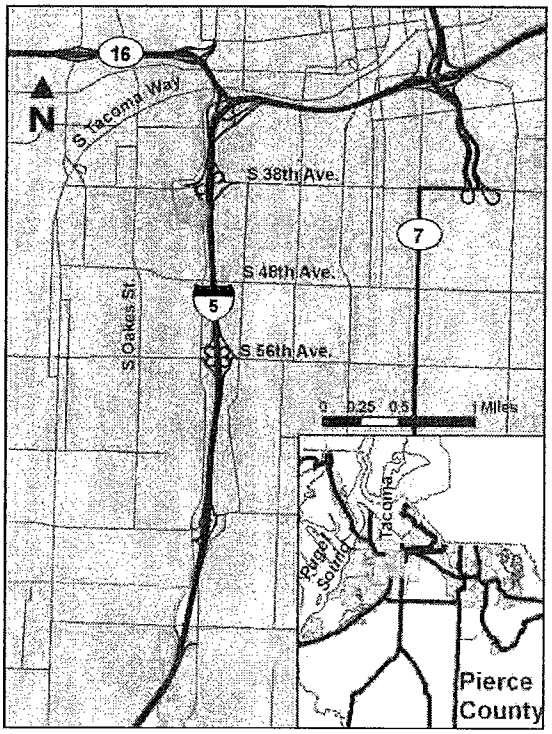
- Developing a substantial habitat to preserve and enhance plant life and wildlife.
- Providing modern facilities designed to enhance and filter storm water runoff from the roadways.
- Meeting or exceeding local and state requirements regarding erosion and sediment control, biofiltration swales, groundwater protection, pretreatment basins, pollutant control and stormier treatment.
- Protecting the Central Pierce County sole-source aquifer.
- Providing barriers to reduce traffic noise on adjacent lands.
- Bridging wetlands to minimize harm.
- Providing wildlife corridor passages for continued movement of wildlife within habitat zones.

Tacoma Mall Access Project

RTID Share ($ 2006) *$12 million*

RTID Share ($ YOE) *$17 million*

Lead Agency: WSDOT



There is currently no direct access from I-5 to the Tacoma Mall and the transit station at this location. Lack of a direct freeway connection contributes to traffic congestion on nearby streets and arterials, as well as queuing on I-5.

Currently, the 38th Street/Steele Street intersection operates at level of service "F" during the evening peak period. It is not unusual for westbound traffic queues to extend back to the I-5 interchange, over a quarter-mile east of this intersection. Traffic waiting for the 38th/Steele Street signal blocks traffic exiting from southbound I-5, making weaving difficult for traffic wishing to access the Tacoma Mall retail area.

This project completely alters the way southbound I-5 traffic will access Tacoma Mall Boulevard, thereby eliminating a serious chokepoint at the 38th Street/Steele Street intersection. A ramp would be constructed from the southbound I-5 collector/distributor lane, crossing over the existing 38th Street on-ramp, and intersecting Tacoma Mall Boulevard. The ramp would widen from one to two lanes approaching Tacoma Mall Boulevard and the transit station to provide more efficient traffic flow at the intersection, which would be signalized.

RTID funding would complete the facility.

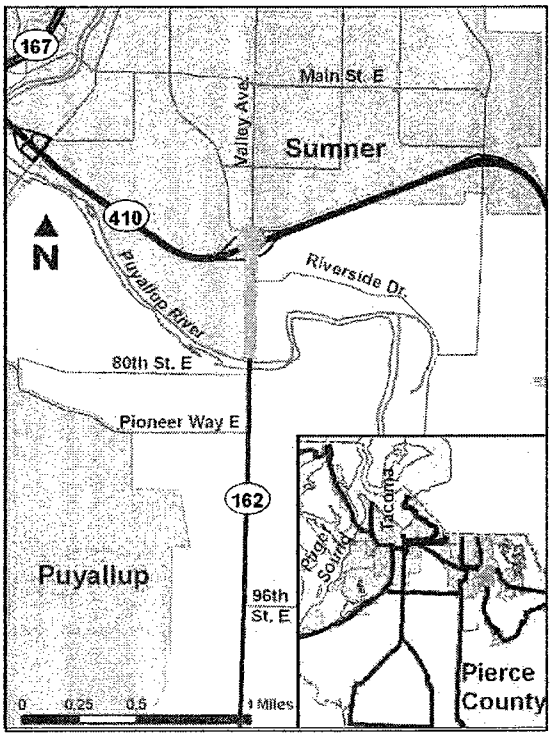
SR 410/SR 162 Congestion Relief Project

RTID Share ($ 2006) *$58 million*

RTID Share ($ YOE) *$121 million*

Lead Agency: WSDOT

This corridor is an important connector for residents of eastern Pierce County. With recent population and traffic growth in East Pierce County, including the Sumner and Bonney Lake area, the corridor is frequently congested. The proposed project will focus on the most congested portion of the corridor within the urban growth boundary: it would fix a chokepoint by reconstructing the existing SR 410 and SR 162 interchange, and provide congestion relief by adding lanes to SR 162 from the SR 410 interchange to the Puyallup River bridge.



It would also make improvements to the Traffic Avenue/Main St. interchange with SR 410. Sidewalks would be provided from SR 410 to the Puyallup River.

RTID funding would:

- Reconstruct the SR 410/SR 162 interchange.
- Widen SR 162 to five lanes with curbs and sidewalks from SR 410 to the Puyallup River bridge (urban growth boundary).
- Modify the SR 410/Traffic Avenue interchange

RTID's investment will be matched by local contributions.

Non-Motorized Investments

RTID Share ($ 2006) *$23 million*

RTID Share ($ YOE) *$35 million*

Lead Agencies: WSDOT, Pierce County

This project will fund the design and construction of non-motorized enhancements to the RTID projects. Examples of possible projects include design and integration of bicycle and pedestrian trails into existing RTID project corridors, such as the Milton Interurban Trail adjacent to SR 167, and other corridors affected by RTID projects.

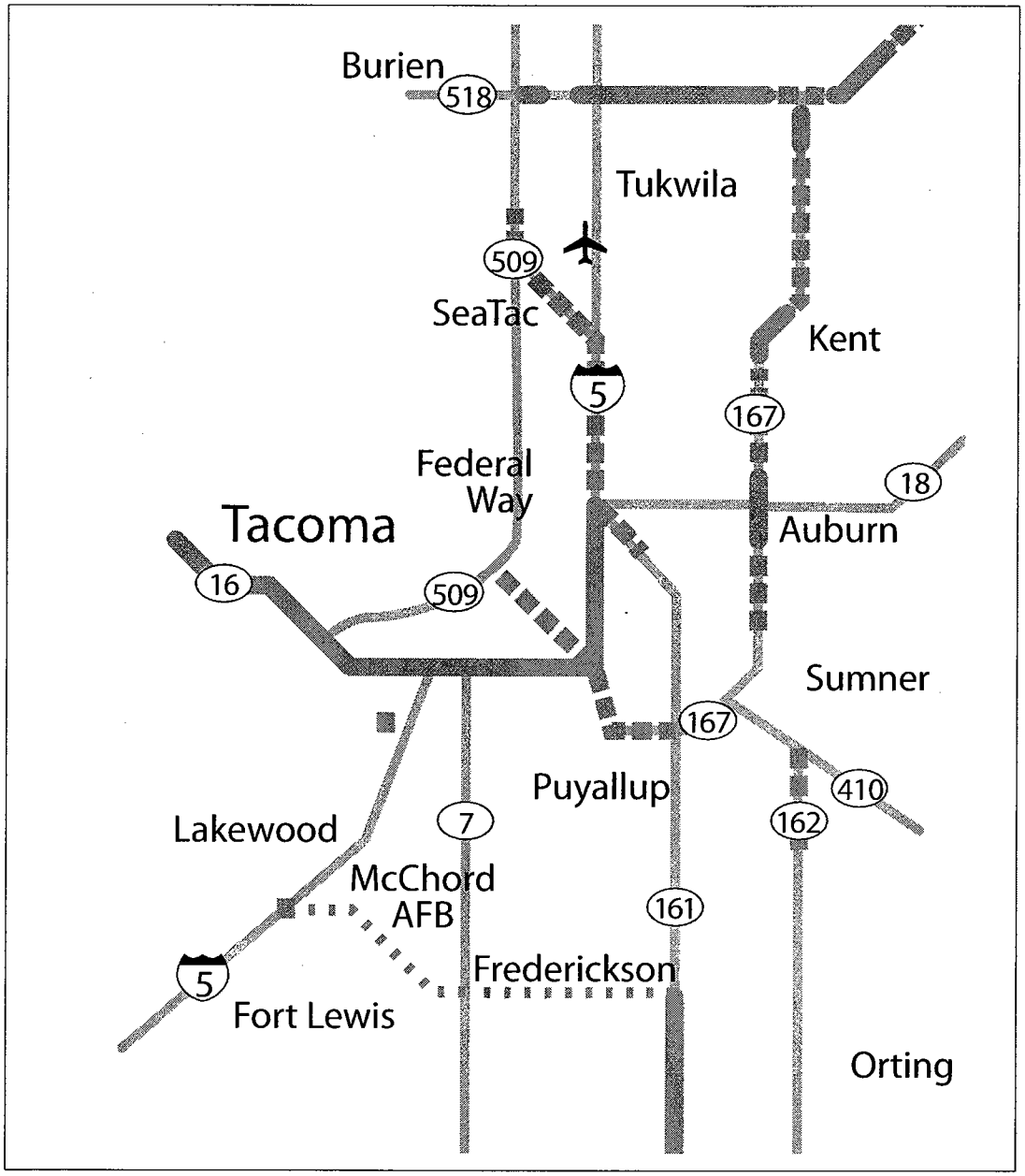
Pierce County will supplement this amount by $15 million (YOE) for a total of $50 million (YOE).

RTID funding would:

- Design and construct non-motorized enhancements to RTID projects, including pedestrian and bicycle facilities.

Funding Partners: Pierce County

Map of South Corridor Investments



VII. Revenue Forecasts and Project Funding

Summary

This investment plan assumes RTID investments of $6.9 billion in 2006 dollars, over a 20-year period beginning July 2008. Costs and revenues were estimated in 2006 and are presented in both 2006 and year-of-expenditure dollars. The assumption for the year-of-expenditure program investment cost is $9.5 billion.

Two revenue sources are proposed: a 0.1 percent sales tax and a 0.8 percent motor vehicle excise tax (MVET) based on vehicle values and a depreciation schedule set by new state law that is closer to "Blue Book" value. In 2006 dollars, these tax sources generate $4.7 billion in revenue over the investment period. In nominal dollars, these sources yield $7.5 billion. The difference between program investments and estimated revenue is due to borrowing. Bonding some of the revenue results in accelerating projects and leveraging funds.

Financial Assumptions and Method

This long-term financial plan includes refinements based on a review performed by an expert review team in June 2004 and also by a group of financial experts in April 2007.

The plan is maintained on a cash basis. It states and projects all sources and uses of funds for the 20-year investment period, from 2008 to 2027, and the subsequent debt service payments. The plan represents the revenue forecast, financial plan, debt amortization schedules and expenditures for this period. The plan incorporates the 20-year investment plan described in this report for projects addressing highway corridor needs in RTID district within King, Pierce, and Snohomish counties.

Funding Sources

The RTID planning committee is recommending using two revenue sources from the array of revenue options provided by law. The RTID financial plan incorporates a regional sales and use tax of 0.1% [RCW 82.14.430(1)] and a motor vehicle excise tax (MVET) of 0.8% [RCW 82.14.430(2)].

RCW 36.120.050 section (g) provides that the regional transportation plan must identify the facilities that may be tolled. However, the State transportation commission is designated under state law as the current authority to impose tolls, set tolling rates, and collect tolls, therefore this plan includes identification of facilities that may be tolled in the future and policies for coordinating with the state to represent the region's interests when and if tolls are imposed by the state.

Implementation and Collection of Taxes

The RTID financial plan assumes all taxes will be implemented beginning in July 2008 with the first actual collections occurring in September 2008. However, there is the possibility that the sales and use tax could be implemented as early as April 2008 and the motor vehicle excise tax collections could be received as early as July 2008.

The RTID financial plan assumes collection costs to be 1% of the total tax revenue. The RTID is required to contract with the Washington State Department of Licensing (DOL) and the Washington State Department of Revenue (DOR), as appropriate for collection of the motor vehicle excise tax (RCW 81.100.060) and the sales and use tax (RCW 82.14.050). Current law states that the collecting department shall deduct a percentage amount not to exceed 2% of the taxes for administration and collection expenses.

Sales Tax Transfer on Initial Construction for RTID projects

The legislation authorizing the RTID included a mechanism for sales tax paid on the initial construction of RTID projects to be transferred back to the project to defray costs. This section of law was codified in RCW 82.32.470(1) and states:

- The tax imposed and collected under chapters 82.08 and 82.12 RCW, less any credits allowed under chapter 82.14 RCW, on initial construction for a transportation project to be constructed under chapter 36.120 RCW, must be transferred to the transportation project to defray costs or pay debt service on that transportation project. In the case of a toll project, this transfer or credit must be used to lower the overall cost of the project and thereby the corresponding tolls.

To calculate the sales tax transfer on RTID projects, several assumptions were made:

- The sales tax transfer applies to all RTID projects.
- The language of RCW 82.32.470(1) applies to an entire transportation project to be constructed under chapter 36.120 RCW.
- The allocation of sales and use tax revenues collected on the construction of transportation projects applies only to the state share, currently imposed at 6.5%.

Project expenditures were estimated by year in three phases: preliminary engineering, right of way acquisition and construction. Sales tax is paid only on the construction phase, except in the case of design-build projects. Although some projects may use design-build, these decisions have not yet been made. For the purposes of making the initial estimates of the sales tax transfer for each project, this plan assumes the use of design, bid, build contracting. Based on that assumption, the construction phase expenditures for each project were reduced by 15% to represent the estimated amount of construction engineering and other expenses that would not be subject to sales tax.

The sales tax rate of 6.5% was then applied to this net construction phase expenditure. Since the sales tax must first be paid, then transferred back to the project, it was assumed that the sales tax paid in a given year would be transferred back to the project in the next year.

Revenue Forecasting Methodology

The RTID planning committee and Sound Transit are using the same tax base forecast to calculate revenue from the proposed district and revenue sources. Both districts include incorporated and unincorporated areas in the three counties.

To forecast revenues for King, Pierce, and Snohomish counties, the RTID planning committee used Sound Transit's summer of 2006 regional forecast produced by Conway Pederson Economics, Inc. (CPE). This long-term forecast was developed with a regional econometric model that depicts the economic behavior of the tri-county region within the context of the national economic environment and is based upon a national economic forecast developed by a blue chip panel of economic forecasters and Global Insight. The national economic forecast is an input into the regional economic model that combined with a separate model of the aerospace sector and Microsoft accounts for the three major forecasting assumptions underlying the Puget Sound and county projections.

The model generates 25-year estimates of taxable retail sales and motor vehicle value for the three counties and indicates, via the growth rates associated with the forecast tax bases, the business cycles expected within the next 25 years. The variables used to predict taxable retail sales include personal income, the unemployment rate and housing permits. Per capita personal income, the driving age population, and the average value of motor vehicles are the principal determinants of the MVET base. An adjustment is made to the retail sales and use tax base to account for use taxes not captured by the CPE's model.

Sound Transit's MVET base is the sum of the original and depreciated manufacturer's suggested retail price (MSRP) values of the vehicle fleet in the Sound Transit boundary area using the old statewide MVET valuation statute. The MVET base for RTID would be governed by SSB 6247 (Chapter 318, Laws of 2006) that specifies a new method for calculating a newly enacted local MVET more closely based on Blue Book valuation. The new method uses 85% of MSRP or purchase price and a longer depreciation schedule. The MVET Study final report to the Joint Transportation Committee (JTC), January 6, 2006, concluded that the new method for calculating local MVET enacted in SSB 6247 which include new definitions for vehicle value and new market based annual depreciation schedules are 26% lower than the old statewide MVET valuation method.

The vehicle fleet data set used in the JTC MVET study is from the DOL statewide vehicle database for 2005. It matches individual vehicles in the Sound Transit district with values (85% of MSRP or purchase price) and the appropriate depreciation schedule for each vehicle. The reduction in total base MVET value from the old statewide method to the SSB 6247 method is 26% for 2005. This reduction is assumed as a constant throughout the forecast horizon. The forecast beyond 2030 uses average annual growth rates for the applicable local jurisdiction from the Sound Transit base forecast.

The tax bases are distributed among the three counties using shares of regional tax bases computed with historical data from the DOR, the DOL and Sound Transit collections. Shares for future periods are estimated with regression models. The retail sales and use

tax, and MVET rates are applied to the estimated tax bases to derive the RTID revenues. Revenues are converted from an accrual to a cash basis using a one-month lag for MVET revenues and a two-month lag for retail sales and use tax revenues.

The regional forecast provided by CPE's model estimates the tax base for the Puget Sound region including King, Pierce, and Snohomish counties. These countywide tax base forecasts form the basis for Sound Transit's and the RTID's forecasts. The revenue estimates for MVET and retail sales and use tax rely on these countywide tax base estimates and are adjusted for boundary differences between each county, Sound Transit's district, and the proposed RTID boundaries. Adjustments for Sound Transit's boundary within each county utilize the historical collections of actual MVET and sales and use tax to derive an estimate of the Sound Transit tax base for that county. Projected annual growth rates in each county's tax base from CPE's model are then used to determine the tax base forecast for Sound Transit.

For the RTID, a similar approach is used. In King and Pierce counties, the RTID boundaries are assumed to be the same as Sound Transit's boundary and therefore rely on the forecasts prepared for Sound Transit. In Snohomish County, the RTID boundary is larger than Sound Transit's boundary. To estimate the tax base for the RTID in Snohomish County, a simple approach of extrapolating from similar areas was used. Per capita MVET taxable base levels were extended to the expansion areas using known per capita MVET taxable base levels for the Snohomish County portion of Sound Transit and expansion area population estimates provided by the Washington State Office of Financial Management. Sales tax base estimates relied on actual retail sales for incorporated areas from the DOR and conservative assumptions for per capita taxable retail sales for the unincorporated portions of the expansion areas. Projections for future periods are estimated using the growth rate of each tax base as forecast in the Sound Transit regional forecast prepared by CPE.

The respective retail sales and use tax, and motor vehicle excise tax rates are applied to the estimated tax bases to derive the RTID revenues.

Interest Earnings

The financial plan assumes that the RTID will earn a 4.0% rate of return on its cash balances throughout the planning period from 2008 until the debt is retired.

Bonding Assumptions

The RTID executive board policy direction is to use debt strategically to leverage the purchasing power of the revenue from the district. In addition, bonding will allow critical projects to be accelerated into the early years of the program. If the board were to rely on cash only, funding for most projects would not accrue sufficiently for construction to proceed until the mid-point of the 20-year plan.

The RTID may issue general obligation bonds or other evidences of indebtedness, secured by the pledge of one or more of the taxes, tolls, charges, or fees authorized to be imposed by the district, in an amount not exceeding, together with any existing indebtedness of the district not authorized by the voters, 1.5% of the value of the taxable property within the boundaries of the district. The bonds would be issued and sold in accordance with RCW 39.46.

This plan would allow the RTID to enter into agreements with the lead agencies or the state of Washington to pledge taxes or other revenues of the district for the purpose of paying in part or whole principal and interest on bonds issues by the lead agency or the state of Washington. The agreement pledging revenues and taxes shall be binding for their terms, but not to exceed 30-years, and no tax pledged by an agreement may be eliminated or modified if it would impair the pledge made in any agreement. (36.120.130 RCW)

The current bond capacity at 1.5% based on the 2006 assessed property valuation within the Sound Transit boundary is $5.6 billion. This does not include the additional assessed property valuation for the expanded RTID boundary in Snohomish County.

The current financial plan for RTID estimates issuing approximately $6.3 billion during the 20-year investment period. Since bond principal is paid down throughout this period, the highest level of outstanding bond principal is estimated to be $5.5 billion in 2026. This amount is right about the $5.6 billion level of capacity based on the 2006 valuation described above without including the Snohomish County expansion area. Additionally, during the past decade, the total assessed valuation in the three-county area has more than doubled, growing by 7.4% annually resulting in a bond capacity growth of $3.0 billion. Therefore, it is reasonable to assume that there will be sufficient growth in assessed valuation to provide a surplus bond capacity throughout the 20-year investment period.

In the unlikely event that the borrowing need would exceed the 1.5% of assessed property valuation threshold, with the approval of three-fifths of the voters voting at an election, the RTID may issue general obligation bonds or other evidences of indebtedness as long as the total indebtedness of the district does not exceed 5% of the assessed value of the taxable property within the district.

The RTID may at any time issue revenue bonds or other evidences of indebtedness, secured by the pledge of one or more of the revenues authorized to be collected by the district, to provide funds to carry out its authorized functions without submitting the matter to voters of the district.

Once construction of projects in the plan has been completed, including contingency projects, revenues collected by the district may only be used for the following purposes: payment of principal and interest on outstanding indebtedness of the district; to make payments required under a pledging agreement; and to make payments for maintenance and operations of toll facilities as may be required by toll bond covenants. The RTID investment plan may include a list of contingency projects and the RTID may submit a new investment plan to the voters

The financial policies adopted by the RTID executive board encourage a conservative use of debt. The RTID's debt service coverage ratio policy will be set at a minimum coverage ratio of 1.25 for gross revenues over annual debt service costs.

The plan assumes that bonds will be structured with a 30-year term in accordance with RCW 36.120.130, with principal payments deferred for five years as needed. The plan assumes 1.5% issuance cost and the ending balance of six months debt service or greater. All program debt service could be paid off as early as 2037.

A group of financial experts consisting of investment bankers and financial consultants reviewed the financial plan in June 2004. The group noted that the financial plan found a balance between interest rates and debt service coverage. At that time, the panel concluded that the financial plan could assume a bond rating of "A".

Interest Rates

The financial model assumes that the agency can, on average borrow at 6.0% interest rate for its long-term bonds. If interest rates were to rise substantially from the current levels and remain at those levels for a prolonged period, the agency's borrowing costs would rise and there would be a corresponding increase in its debt service and a reduction in its total financial capacity. If the interest rates were to drop, the borrowing costs would decrease, debt service would decrease and there would be an increase in financial capacity.

Summary of Financial Assumptions

Funding Sources

Sales and Use Tax Rate: 0.1%

Sales and Use Tax Annual Average Growth (2008-2027): 5.1%

MVET Rate: 0.8%

MVET Annual Average Growth (2008-2027): 5.2%

Annual Average Inflation Cost Index (2008-2027)

Construction Cost Annual Average Inflation (King and Pierce counties): 3.5%

Construction Cost Annual Average Inflation (Snohomish County): 2.3%

Engineering Cost Annual Average Inflation (King and Pierce counties): 3.5%

Engineering Cost Annual Average Inflation (Snohomish County): 1.9%

Right of Way Cost Annual Average Inflation (all counties): 7.0%

Borrowing Rates

Bond Interest Rate (level-loaded): 6.00%

Bond Interest Rate (interest-only first 5 years): 6.25%

Bonding

Bond Term (level-loaded): 30 years of principal and interest payments.

Bond Term (interest-only first 5 years): First 5 years include interest only payments followed by 25 years of principal and interest payments.

Bond Issuance Costs: 1.5% of Par Value

Gross Debt Service Coverage Ratio: >1.25

Debt Service Reserves: 6 months of debt service

Administrative Costs

Annual RTID administrative costs: $2 million in 2008, later years are inflated by the Implicit price deflator for personal consumption as forecasted by Global Insight in February 2007.

DOL and DOR Tax Collection Costs: up to 1% of tax revenue

Other

Interest Earnings Rate: 4.0%

Financial Modeling Results

The table below presents a summary of the projected sources and uses from the RTID 20-year investment plan (2008-2027). The financial plan is based upon the policies, contingencies, and assumptions described in this document including the capital plan recommended in the most current 20-year investment plan presented to the RTID executive board on May 31, 2007 and maintaining adequate debt service coverage ratios and reserves.

Detailed modeling results are included in Appendix C, Financial Plan Assumptions.

RTID 2007 Financial Plan – Twenty-Year Investment Plan

Sources & Uses of Funds 2008-2027

(data displayed in millions of nominal dollars)

	King	Pierce	Snohomish	Tri-County
Sources of Funds				
Tax Revenue				
Sound Transit Area	4,492	1,532	1,026	7,051
Expansion Area			419	419
Subtotal Tax Revenue	4,492	1,532	1,445	7,470
Sales Tax Transfers	395	102	90	587
Bond Proceeds	3,540	1,308	1,407	6,255
Interest Earnings	75	44	35	154
Total Sources of Funds	**8,503**	**2,986**	**2,976**	**14,466**
Uses of Funds				
Administration	115	39	39	193
Debt Service	2,840	684	790	4,313
Project Expenditures	5,380	2,200	2,092	9,672
Total Uses of Funds	**8,334**	**2,923**	**2,921**	**14,178**
Balance Before Debt Service	169	63	55	288
Debt Service Reserve	139	49	54	242
Balance After Debt Service Reserve	**30**	**14**	**1**	**46**

Financial Risks

In order to gauge the vulnerability, the RTID financial plan considered the following risks:

Local Tax Revenue Growth

The RTID financial plan relies on an independent forecast of its local tax bases. The forecast does not anticipate another recession in the near term. Long-term economic forecasts are inherently uncertain and actual economic growth in the region could still be lower than the revised forecast, especially if we experience a period of stagflation on the path to full economy recovery. If revenue growth were below the revised forecast, RTID's near-term

revenue collections as well as its long-term bonding capacity would be reduced.
A stress test was made to the financial plan model to analyze its sensitivity to changes in the economy. To test the RTID's financial plan sensitivity to alternative revenue projections, a typical business cycle of expansion and contraction was imposed over the long-term trends used in the base analysis. A seven-year business cycle was derived from historical information that reflects an expansionary time period and a recessionary time period. This business cycle was repeated throughout the forecast of 2008 to 2027. To significantly stress the financial plan, the first two-year recessionary cycle began in 2008. The financial plan model was able to manage the cash flow with the impact of the stress test requiring an increase to bond proceeds of $63 million over the 20-year investment period. This increase in bonds decreased the lowest debt service coverage ratio by 0.06%.

Inflation

Inflation estimates impact both the sources and uses of the financial plan. The RTID financial plan is required to present costs in both current year dollars and year-of-expenditure dollars (YOE). Current year for purposes of this report is 2006 because that is when cost estimates were completed. The revenue and expenditure detail tables in Appendix C display both current year dollars and YOE dollars allowing for an easy comparison between the RTID (roads) and *Sound Transit 2* (transit) funding packages.

The Puget Sound region has experienced a relatively mild period of price increases for general goods and services. For example, the Consumer Price Index (CPI) grew at 1.9% in 2002, 1.6% in 2003, and 1.2% in 2004. However, higher energy prices due to an escalation of the conflicts in the Middle East, the disruption of supply due to natural disasters such as hurricanes Katrina and Wilma, and continued rapid growth of the Chinese and Indian economies have resulted in recent spikes of inflation on construction materials.

Interest Rates

The financial model assumes that the agency can, on average, borrow at 6.0% interest rate for its long-term bonds. If interest rates were to rise substantially from the current levels and remain at those levels for a prolonged period, the agency's borrowing costs would rise and there would be a corresponding increase in its debt service and a reduction in its total financial capacity. Interest rates are currently relatively low, but the Federal Reserve Board over the last several years has increased the federal funds rate in an effort to reduce the risk of inflation.

Management

To manage the risk of revenue collections becoming lower than forecasted amounts, significant cost increases, or interest rate increases, RTID will:

- Guard against any proposed legislation that would erode the tax base;
- Review policy decisions regarding cash reserve levels;
- Continuously monitor trends in tax collections and update the financial model used to develop the long-term revenue forecasts in order to provide an early warning for potential issues.
- Seek the financial advice of its expert panel of investment bankers and financial consultants and;
- Continuously monitor trends in the bond market and update the financial plan in order to provide an early warning for potential issues.

VIII. SR 520 Funding Strategy

Summary

This funding strategy includes a menu of financing elements that will provide sufficient funds to replace the SR 520 bridge and make the necessary connections between I-5 and I-405. Of course, not all of the options presented here will be used; this funding strategy provides a sound foundation for moving ahead while design and engineering work continue to refine the project cost estimates. This funding strategy moves the state and region forward in another important step toward replacing the SR 520 bridge.

A. Background

Thousands of citizens depend on SR 520 every day. The corridor connects large employment centers, including the University of Washington and Microsoft. It is an economic lifeline for the Puget Sound region and Washington State. The 42-year-old structure is vulnerable to failure and must be replaced. With the replacement of the bridge deck, additional improvements are necessary to make connections functional through dense urban areas, address community needs, and to address sensitive environmental conditions between I-5 and I-405. The complexity of this project requires close collaboration between local, regional, state, and federal officials.

In 2006, the Washington State legislature instructed the Regional Transportation Investment District (RTID) to:

> *"...develop and include in the regional transportation investment plan a funding proposal for the state route number 520 bridge replacement and HOV project that assures full project funding for seismic safety and corridor connectivity on state route number 520 between Interstate 5 and Interstate 405."* ESHB 2871.

B. Situation Today

Project Definition

The Washington State Legislature has defined the project as a six-lane configuration with four general-purpose lanes, two HOV lanes, and with the ability to accommodate high capacity transit (ESSB 6099). A mediator will work with interested parties to develop a Project Impact Plan that addresses impacts of the project on Seattle neighborhoods, parks and the University of Washington. ESSB 6099 also sets forth a process for integrating high capacity transit, highway, and bus transit planning in this corridor.

The Seattle City Council on April 23, 2007, passed a resolution that describes the city's priorities for the six-lane bridge replacement.

The State of Washington and local jurisdictions on the east side of Lake Washington support corridor connections and the mitigation described in SR 520 project environmental documents. These include connections to a multi-use path on highway lids between Medina and Clyde Hill, and improved transit access to SR 520.

Project Costs and Future Action

WSDOT has updated project costs that were reviewed by an expert review panel in the fall of 2006. The current cost estimate for the entire six-lane corridor from I-5 to I-405 ranges between $3.9 billion and $4.4 billion. Construction is expected to be staged so that the pontoons necessary for the bridge replacement will be started in 2008; the SR 520 bridge replacement is currently scheduled for 2011-2018.

The City of Seattle, the RTID executive board, environmentalists, and neighborhood activists, have asked the State DOT to revisit engineering road standards and to use context-sensitive design in this corridor similar to that used by other states. Revisiting design standards and conducting value engineering may reduce project costs and at a minimum protect the public from unexpected cost increases. The Governor's expert review panel report in 2006 also recommended that value engineering be conducted on this project.

Identified Funding

The State of Washington has designated $560 million for the project and has also created a funding pool of up to $1 billion for the SR 520 corridor project between I-5 and I-405 and for the Alaskan Way viaduct replacement.

The State of Washington has prioritized its federal bridge and transit funds through 2021 to the SR 520 corridor in the currently adopted 16-year spending plan associated with the state transportation budget and the Legislative Evaluation and Accountability Program committee (LEAP) transportation project list.

Since at least 2003, tolling has been contemplated as an essential revenue source to both finance bridge construction and to manage reliable system performance. Used as revenue to support repayment of bonds, tolls have been estimated to provide $700 million - $1.2 billion for the project. Several technical studies and a recent finance study have been completed to assess the feasibility of tolling in this corridor and the impact of traffic diversion on I-90. The United States Department of Transportation, Urban Partnership, is considering designating this corridor for congestion relief funds and technology investments to facilitate future tolling.

The *Roads & Transit* plan to be presented to the voters this fall will include $1.1 billion in the RTID plan to finance construction in this corridor.

In addition, viable bonding options could strengthen the regional district's financing; result in lower interest costs and thus more funding for the project. For example, state or federal backing of regional bonds for King County projects could reduce financing costs by up to $200 million. These funds could then pay for direct project costs. The federal government leverages regionally significant projects by providing credit assistance in the form of loans, loan guarantees and stand-by lines of credit through its Transportation Infrastructure Finance and Innovation Act (TIFIA) program. TIFIA currently has $2 billion in active credit agreements.

RTID authority includes a provision to transfer sales tax on construction of the transportation projects it funds to reinvest in the project. Extending this provision for other mega projects in the region would allow the state to transfer gas tax funding to SR 520. For example, the sales tax transfer for construction costs on I-405 and the Alaskan Way Viaduct could save those projects $140 million. That $140 million in gas taxes currently pledged to those projects could then be transferred to SR 520.

C. Principles to Move Forward on SR 520

The following principles underlie this financial strategy and will guide future actions on the SR 520 corridor by the RTID board:

- The six-lane bridge configuration has been decided. Design standards will be responsive to the context, setting, value engineering and cost savings.
- The choice of Montlake or Pacific interchange will be selected before construction begins, except for pontoon construction.
- Mitigation is inseparable from construction of the bridge replacement and connections on both sides of Lake Washington.
- Until construction is completed, the public will be protected from safety hazards by continuing to manage bridge closures and the assurance of full corridor funding.
- Future tolling in the corridor, which will be set by the State of Washington, will be comparable to tolls on the Tacoma Narrows bridge, reinvested in the corridor, and managed to ensure reliable system performance.
- The region will work with the state to optimize regional revenue by maximizing the financing structure to benefit direct project investment and reduce financing costs. Examples include backing of regional bonds through state or federal programs. This will allow the state, in partnership with the federal government and the region, to fully fund the SR 520 corridor without raising new state taxes for the project.
- The region will maintain maximum flexibility in developing the legal authorizations governing its debt so that it retains options for future financing structures. It is too early to determine the optimal mix of borrowing mechanisms.
- The state will consider transferring sales tax from other transportation mega-projects, thus freeing gas taxes to be transferred to the SR 520 project.
- Project cost estimates will be updated and reviewed at key benchmarks during design, engineering, and bid preparation to ensure value engineering is used and that costs are controlled.

A vote for the *Roads & Transit* plan is a vote for bridge replacement. Without regional funding the state will need to raise an additional $1.1 billion for replacing the bridge deck and making the connections between I-5 and I-405.

Funding Sources (2007-2020)	Low range	High range	Status	Assumptions
State Gas Tax	560.0	560.0	Legislatively enacted	Pre-existing and 2003-2005 gas tax
Federal Funds to date	1	1	Received	
Allocation from State Pooled Funds	600.0	1,000.0	2007-09 Budget Conference Report	2007 Transportation Budget provides access to a $1 billion pool of funds for either the AWV or SR 520 Bridge. Since the viaduct's total state funding is limited, the range of funds available from this pool to SR 520 is from $600 million to $1 billion.
Federal FHWA Bridge Funds	110.0	110.0	2007-09 Budget Conference Report	State is estimated to receive $2 billion in bridge funds statewide over 16-year finance plan period.
Federal FTA Funds	200.0	200.0	2007-09 Budget Conference Report	FTA funds may be increased if the region's Federal Urban Partnership grant is approved.
Roads & Transit Plan	1,100.0	1,100.0	Included in ballot measure	
Tolling	700.0	1,200.0	Feasibility Studies: 2004 Parsons Brinckerhoff; Transportation Commission (2006 Cambridge Systematics); WSDOT; State Treasurer; USDOT Urban Partnership Application	State policy includes identification of potential tolling corridors in the region, including SR 520. LEAP 2006-07 Capital Finance Study; Regional Transportation Commission final report; HB 1094 and SB 5412 (2007 Legislature). A 2004 PB Study assumed variable $0.75-4.60 toll with average of $3.07 would support approx. $1 billion in financing. Updated study in 2007 assumed $1.00-5.00 tolls in 2019 dollars. The Tacoma Narrows Bridge toll in 2018 dollars is approximately $6.00. Diversion is expected to be 12% with both bridges tolled and 30% with one bridge tolled.
Minimized Financing Cost	0	200.0	RTID statute 36.120.130 allows the RTID to use its revenues to back bonds issued by the state of Washington or other lead agencies.	Lowering interest costs on debt would allow RTID to spend more of its tax dollars on investment and less on interest payments. Federal programs such as the Transportation Infrastructure Finance and Innovation Act (TIFIA) leverage federal resources to projects of regional significance.
Sales Tax Transfer	0.0	140.0	Existing statute allows RTID funded projects to transfer sales tax on construction back to the project generating the sales tax.	Extension of this provision to other regionally significant mega-projects would allow state gas taxes to be transferred to SR 520.
Total Funding	**Low range $3.3 B**	**High range $4.5 B**		**Most likely cost estimate for six-lanes with Montlake Interchange: $3,900; With Pacific Interchange $4,380.**

D. Legislative Responsibility for the RTID and the Financial Strategy Intent & Principles

In 2006 the state amended the authorizing statute for regional transportation investment districts to include the following regarding the SR 520 project:

> *The planning committee must develop and include in the regional transportation investment plan a funding proposal for the state route number 520 bridge replacement and HOV project that assures full project funding for seismic safety and corridor connectivity on state route 520 between Interstate 5 and Interstate 405. (RCW 36.120.045)*

The strategy described in this report is the recommendation to be acted upon by the Regional Transportation Investment District planning committee to fulfill this requirement.

This strategy shows that there are sufficient funds identified to assure full project funding for seismic safety and corridor connectivity on SR 520 between I-5 and I-405. Further, the strategy meets the requirements of RCW 36.12.040, that states:

> *The overall plan must leverage the district's financial contributions so that federal, state, local and other revenue sources continue to fund major congestion relief and transportation capacity improvement projects in each county and the district. A combination of local, state, and federal revenues may be necessary to pay for transportation projects, and the planning committee shall consider all of these revenue sources in developing a plan.*

E. Situation Today: State and Local Progress

State Defines Project in ESSB 6099: SR 520 Legislation

The Washington State Legislature through legislation (ESSB 6099) has defined a six-lane configuration with four general-purpose lanes, two HOV lanes, and the ability to accommodate high capacity transit. A mediator will work with interested parties to develop a Project Impact Plan that addresses impacts of the project on Seattle neighborhoods, parks and the University of Washington. SB 6099 also sets forth a process for integrating high capacity transit, highway, and bus transit planning in this corridor. A finance plan must also be prepared and submitted to the Governor and the legislature's Joint Transportation Committee by January 1, 2008. That plan must include state and federal funding, at least $1 billion in regional contributions, and revenue from tolling.

This *financial strategy* is a significant component of that *financial plan*.

Local Jurisdiction Resolutions

The Seattle City Council on April 23, 2007, passed a resolution that lays out the city's priorities for the six-lane bridge replacement.

Local jurisdictions on the eastside of Lake Washington and the State of Washington support corridor connections and the mitigation described in SR 520 project environmental documents. These include connections to a multi-use path on highway lids between Medina and Clyde Hill and improved transit access to SR 520.

F. Project Costs and Future Actions

WSDOT has conducted project cost updates and current cost estimate for the six-lane corridor from I-5 to I-405 ranges between $3.9 billion and $4.4 billion. Construction of pontoons necessary for the bridge replacement will be started concurrently with the final design and mitigation efforts. The SR 520 bridge replacement construction is currently scheduled for 2011-2018.

The City of Seattle, the RTID executive board, environmentalists, and neighborhood activists have asked the State DOT to revisit engineering road standards and to use context sensitive design in this corridor similar to that used by other states. Revisiting design standards and conducting value engineering can reduce project costs and at a minimum protect the public from unexpected cost increases. The governor's expert review panel report in 2006 recommended that value engineering be conducted on this project.

The following excerpt is from Governor Chris Gregoire's findings and conclusions report on SR 520, December 15, 2006:

> *In 2006, the Legislature directed the Governor, along with the Chairs of the Senate and House Transportation committees and the Secretary of Transportation, to form an Expert Review Panel to review the funding and implementation plans for the SR 520 Bridge Replacement and HOV Project to determine if they were reasonable and feasible. The law provided the panel should include experts in relevant fields, such as planning, engineering, finance, law, the environment, emerging transportation technologies, geography, and economics.*
>
> *The Expert Review Panel found the project implementation plan comprehensive and sufficient for the level of design development, noting the SR 520 project design and construction plans are still in the preliminary stages.*
>
> *WSDOT has estimated costs for a Four-Lane Alternative, a base Six-Lane Alternative, and a Six-Lane Alternative with the Pacific Street Interchange design option. The cost estimate for the Six-Lane with Pacific Interchange also includes the removal of the Montlake freeway transit stop, relocation of the bike/pedestrian path to the north of the highway on the Eastside, and improvements to the South Kirkland Park and Ride at 108th Avenue NE.*
>
> *The most recent project cost estimates were prepared in response to comments made in the September 1, 2006, Expert Review Panel report. The Expert Review Panel reviewed the project finance and implementation plans to determine if the key assumptions upon which they were based were feasible and sufficient.*
>
> *The Panel found that the Cost Estimate Validation Process used by WSDOT to develop the cost estimates is a valid methodology for evaluating the variability of cost and schedule predictions due to unforeseen risks and opportunities. The Panel also commented that this cost estimate methodology represents a "best practice" and is gaining popularity nationally. However, the Panel noted that the cost estimates did not consider the recent worldwide construction cost inflation increases, and that the general inflation rate applied to the estimates was too low. The panel also observed that both projects are in a very early stage of design.*
>
> *As a result, the Panel recommended that WSDOT broaden the cost estimate range to acknowledge that there are unknown issues at such an early design phase, and at the same time the panel recommended that for budgeting purposes the cost that had a 60% confidence level of not being exceeded should be used. This figure has been labeled as "the most likely cost." Finally, the Panel also recommended that the project cost estimates be updated when approximately 15-20% design engineering work is completed.*
>
> *In response to the Expert Review Panel's findings and the Governor's request, WSDOT completed a cost reevaluation of the project alternatives that considered new information about the likely impact of recent worldwide construction cost inflation on project costs, and effects of increased construction costs that have resulted from the activity to address Hurricane Katrina damage, which occurred after original cost estimates.*

The reevaluation found that the most likely cost for the base Six-Lane Alternative (4 General and 2 HOV Lanes) is $3.90 billion.

The reevaluation found that the most likely cost for the Six-Lane Alternative (4 General and 2 HOV Lanes) with the Pacific Street Interchange is $4.38 billion.

Panel members participated in the cost reevaluation and found that "these new cost ranges more accurately reflect the uncertainty associated with both projects at this early stage of design."

The Expert Review Panel found that after the project has reached 15 to 20 percent design, cost estimates should be updated.

G. Identified Funding

State Transportation Budget 2007-09

To reserve adequate funding for the SR 520 bridge, the 2007-09 *Transportation Budget Conference Report* identifies funds consisting of:

- $560 million in state funds;
- $110 million in federal bridge funds;
- $200 million in federal transit funds expected to be allocated by the Puget Sound Regional Council;
- Access to a $1 billion pool of funds earmarked exclusively for either the Alaskan Way viaduct or SR 520 bridge. Since the viaduct's total state funding is limited, the range of additional funds available from this pool to SR 520 is from $600 million to $1 billion.

Sources identified in the 2007-09 State transportation budget range from $900 million to $1.3 billion.

The conference report goes on to state:

It is expected that revenues from RTID, tolling and other funding mechanisms will be used to fund the remainder of the project's cost.

Regional Contribution

The *Roads & Transit* plan to be presented to the voters this fall by the Regional Transportation Investment District (RTID) will include $1.1 billion to finance construction in this corridor. In addition, optimizing the financing structure could also reduce interest costs by up to $200 million. Those interest savings could be spent on direct project costs rather than finance charges.

State sales tax transfer for construction costs on I-405 and the Alaskan Way viaduct would yield up to $140 million in savings for those projects. This would allow the transfer of gas taxes, now dedicated to those projects, to SR 520.

Tolling Assumptions

Since at least 2003, tolling has been contemplated as an essential revenue source to both finance bridge construction and to manage reliable system performance. Used as revenue to support repayment of bonds, tolls have been estimated to provide $700 million - $1.2 billion for the SR 520 project. Several technical studies and a recent finance study have been completed to assess the feasibility of tolling in this corridor, and the relationship to I-90 and traffic diversion.

A report prepared for the Office of the State Treasurer by Seattle-Northwest Securities Corporation and Montague DeRose and Associates, LLC (March 28, 2007) presents several tolling scenarios that the state might consider. Tolls, when bonded, could contribute from $1.28 billion to $2.85 billion, depending on the assumptions used for when tolls are imposed and whether or not both SR 520 and I-90 are tolled. (See page 29 of the Treasurer's report).

At the time the Treasurer's report was issued it showed $1.4 billion as unfunded if only SR 520 is tolled. This report was issued prior to approval of the 2007-09 State transportation budget that identifies between $900 million and $1.3 billion in state and federal funds. The Treasurer's report stated:

> *Regardless of the bonding vehicle (s) chosen, in order to be financially feasible, the state must elect either to 1) toll both the SR 520 and I-90 bridges or 2) contribute additional funds to the project construction costs. Without additional funding, some tolling of both bridges will be likely prior to completion of the project.*

The legislature's budget for 2007-09 and the associated spending plan identified up to $1.3 billion of the Treasurer's identified shortfall in the scenario that assumes tolling only SR 520.

One goal in determining tolling feasibility is minimizing traffic diversion to non-toll highways to avoid impacting traffic in other corridors and to keep tolls affordable. A technical memorandum prepared by Parsons Brinckerhoff for WSDOT in May 2007 assessed toll rates and traffic diversion under a variety of scenarios. Assuming tolls only on SR 520, imposed after bridge completion in 2018 and using variable rate tolling, the weighted average toll rate in 2018 dollars would be $3.07 each way, or $6.14 round-trip. This is comparable to the forecasted toll charge at the Tacoma Narrows bridge in 2018.

The United States Department of Transportation (USDOT), Urban Partnership, is considering designating this corridor for congestion relief funds and technology investments to facilitate future tolling. A grant application submitted by King County, PSRC, and WSDOT is pending with USDOT.

RTID will coordinate with the state on future tolling in the region. State law (RCW 36.120.050) states:

> *The (RTID) planning committee may recommend the imposition or authorization of vehicle tolls on new or reconstructed local or regional arterials or state or federal highways within the boundaries of the district if the following conditions are met:*
>
> *Any such tolls must be approved by the state transportation commission or its successor statewide tolling authority; the regional plan must identify the facilities that may be tolled; and unless otherwise specified by law the department (WSDOT) shall administer the collection of vehicle tolls on designated facilities and the state transportation commission or its successor shall be the tolling authority.*

Sales Tax Transfer on Initial Construction for RTID projects

The legislation creating the Regional Transportation Investment District included a mechanism for sales tax paid on the initial construction of RTID projects to be transferred back to the project to defray costs. This section of law was codified in RCW 82.32.470 (1) and states:

> *The tax imposed and collected under chapters 82.08 and 82.12 RCW, less any credits allowed under chapter 82.14 RCW, on initial construction for a transportation project to be constructed under chapter 36.120 RCW, must be transferred to the transportation project to defray costs or pay debt service on that transportation project. In the case of a toll project, this transfer or credit must be used to lower the overall cost of the project and thereby the corresponding tolls.*

This provision could be extended to other mega-projects in the region not currently in the RTID program such as the Alaskan Way viaduct replacement and I-405 corridor improvements. Those projects could save $140 million by extending this provision. That savings would allow the transfer of a corresponding amount of gas tax now dedicated to those projects. Approximately $140 million could then be transferred to SR 520 construction costs.

Minimized Financial Costs

State law provides authorization for the district to work with the state to issue debt. RCW 36.120.130 states:

> *The district may enter into agreements with...the State of Washington, when authorized by the plan, to pledge taxes or other revenues of the district for the purpose of paying in part or whole principal and interest on bonds issued by ... the state of Washington. The agreements pledging revenue and taxes shall be binding in their terms, but not to exceed thirty years, and no taxes pledged by an agreement may be eliminated or modified if it would impair the pledge in any agreement.*

Further RCW 36.120.200 establishes:

> *The regional transportation investment district account is created in the custody of the state treasurer. The purpose of this account is to act as an account into which may be deposited state money, if any, that may be used in conjunction with district money to fund transportation projects.*

RTID may issue bonds pursuant to RCW 36.120.130, payable from sales taxes and MVET. Because the RTID bonds would be paid only from the two excise taxes, including sales taxes that tend to fluctuate in response to seasonal and economic cycles, the bond market (and the proxies for the bond market in the form of the bond insurance companies and ratings agencies) may require RTID to make relatively conservative assumptions in connection with the issuance of its bonds. These conservative assumptions are embedded in the financial plan for RTID.

Given that the purpose of RTID is to provide funding for state highways, the state is a potential source of assistance to reduce interest rates and thereby contribute more regional funds to direct project costs. State credit support could take the form of either state bonds or a state guarantee. The state could issue bonds to directly finance RTID improvements that the state itself could fund, and the RTID taxes could be pledged to the state for repayment of the bonds.

RTID will work with the Washington State Treasurer's office to explore ways to leverage the district's revenue using tools such as credit support, credit enhancements, state bonds, or state guarantees. Other tools will also be explored as identified by the State Treasurer.

State debt issuance requires 60% approval of state house and senate or 50% approval and voter consent. [*Washington State Constitution*, Article VIII, Section 1(i)]. State bonds payable directly or indirectly from "general state revenues" are subject to both constitutional and statutory debt limits.[2]

The state may issue motor vehicle fuel tax bonds for state highway purposes, which are further secured by a pledge of the full faith, credit and taxing power of the state, without incurring "debt". State motor vehicle fuel tax bonds are not subject to either the constitutional or statutory debt limit.

Although the state may pledge its full faith and credit to its motor vehicle fuel tax bonds without consuming state debt capacity, the constitution and statutes require that the legislature provide sufficient revenues from motor vehicle fuel taxes to pay debt service on motor vehicle fuel tax bonds.

If the state issues motor vehicle fuel tax bonds to pay for RTID projects, the state would need to provide for motor vehicle fuel taxes to pay the bonds even though RTID would in fact reimburse the state for debt service on the bonds. Issuing motor vehicle fuel tax bonds may, as a practical matter, impact the availability of motor vehicle fuel taxes to be pledged to other state motor vehicle fuel tax bonds. The RTID projects would also need to qualify as a proper expenditure for state motor vehicle fuel taxes.

This action would require approval by the state finance committee composed of Governor, Lieutenant Governor, and State Treasurer.

The State Treasurer's report on SR 520 notes that it is too early to refine the plan of finance, or to determine the optimal mix or sequencing of general obligation (GO)/motor vehicle excise tax (MVET) bonds and revenue bonds:

> *...there are some planning level enhancements which can be considered at this time. The state may have the opportunity to reduce overall borrowing costs by implementing a program that includes interim financing. This would involve the use of a short-term GO/MVET borrowing facility (interim loan or commercial paper) in the early stages of construction. We estimate that the aggregate overall debt service cost savings for such a program as compared to issuing 30-year GO/MVET bonds, would be over $500 million.*
>
> (page 18 and Appendix B of the Treasurer's report on SR 520 funding alternatives).

[2] The statutory exemption provides as follows: "A pledge of the full faith, credit, and taxing power of the state to guarantee the payment of any obligation payable from any of revenues received from any of the following sources: (a) the fees collected by the state as license fees for motor vehicles; (b) excise taxes collected by the state on the sale, distribution, or use of motor vehicle fuel; and (c) interest on the permanent common school fund: PROVIDED, That the legislature shall, at all times, provide sufficient revenues from such sources to pay the principal and interest due on all obligations for which said source of revenue is pledged. RCW 39.42.080.

Source Documents

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Washington State Legislature. *Revised Code of Washington, Title 82: Excise Taxes. RCW 82.32.470 sales tax transfer.*

Appendix A: Narrative Description of the RTID Boundary

The following description provides a listing of the features that were used as the boundary for the Regional Transportation Investment District as approved by Resolution No. PC-2007-02 on June 8, 2007. The names for the physical features are those contained in the 2001 Thomas Guide. All references to city limit boundaries and corporation boundaries are those that were in force as of August 1996, unless otherwise stated. All references to roads and highways refer to the right of way of that road or highway which is farthest from the center of the Regional Transportation Investment District as described in this text, unless otherwise stated. All references to railroad, power line and pipeline right of way refer to the right of way which is farthest from the center of the Regional Transportation Investment District as described in this text, unless otherwise stated. All references to rivers, creeks and other waterways refer to the center of the centerline of the water body, unless otherwise described.

SNOHOMISH COUNTY

Beginning at the intersection of Puget Sound, Snohomish and King County boundary line. Follows east along the county boundary line to the east boundary line of parcel #27063600400500, to the point of beginning

North along east boundary line of parcel #27063600400500 to the northeast corner of parcel #27063600100400,

West along north boundary of parcel #27063600100400 to the east right of way line of State Route 203,

Follows north along the east right of way line of State Route 203 to the intersection of the easterly boundary of parcel #27061200100500,

Northeasterly and west along parcel #27061200100500 boundary to east right of way line of State Route 203,

North along the east right of way line of State Route 203 to the south boundary of the Monroe Urban Growth Area ("UGA") in force as of 2007,

Continues east, north and west following along the Monroe UGA boundary to intersection of parcel #28062500400700 boundary,

Continues north, west and south along parcels #28062500400700 and #28062500401600 boundaries to Monroe UGA intersection,

West along the Monroe UGA boundary to intersection of east boundary of parcel #28062500303600,

Northeasterly and west around parcel #28062500303600 to intersection of the Monroe UGA,

Continues north along Monroe UGA to 400 feet west of Robinhood Lane,

Continues along the north right of way line of Trombley Rd to the east right of way line of 167th Ave SE,

North along the east right of way line of 167th Ave SE to the north right of way line of Westwick Rd,

West along the north right of way line of Westwick Rd to the east right of way line of 163rd Ave SE,

North along the east right of way line of 163rd Ave SE to the north right of way line of 88th St SE,

West along the north right of way line of 88th St SE to the east right of way line of 147th Ave SE,

North along the east right of way line of 147th Ave SE to the north right of way line of Three Lakes Rd,

West along the north right of way line of Three Lakes Rd to the west right of way line of 123rd Ave SE,

North along the west right of way line of 123rd Ave SE to northwest corner of parcel #28060600300200,

West along the north boundary of parcel #28060600300200 to the east right of way line of US Route 2,

North and west along the east and north right of way lines of US Route 2 to the parcel #28060500202200 boundary,

Northerly along the boundary of parcel #28060500202200 to northeast corner of parcel #28060500202200,

Continues west along the north boundary of parcel #28060500202200 to the east right of way line of S Machias Rd,

North along the east right of way line of S Machias Rd to east-west centerline of Section 29, Township 29N, Range 06E,

West along the east-west centerline of Section 29 Township 29N, Range R06E to south boundary of the Lake Stevens UGA in force as of 2007,

Northerly around the city limits of Lake Stevens in force as of 2007 along the Lake Stevens UGA boundary to the north right of way line of State Route 92,

West along the north right of way line of State Route 92 to parcel #29060500101000 boundary,

Northwesterly and southeasterly along parcel boundary to intersection with State Route 92,

West along State Route 92 to State Route 9,

North along the east right of way line of State Route 9 to south boundary of parcel #31053600100300,

East, north and west along boundary of parcel #31053600100300 to east right of way line of State Route 9,

North along the east right of way line of State Route 9 to the intersection of the south boundary of the Arlington UGA in force as of 2007,

Continues northerly and southeasterly along Arlington UGA to the boundary of parcel #31051300201700,

West, southeasterly and east along parcel #31051300201700 boundary to Arlington UGA boundary,

Continues north along Arlington UGA to northeast corner of parcel #31051200100500,

West along north boundary of parcel #31051200100500 to Arlington UGA,

Continues north and west along Arlington UGA boundary around city limits of Arlington in force as of 2007 to the boundary of parcel #31050200401000,

North and westerly along the boundary of parcel #31050200401000 to Arlington UGA boundary,

Continues west and south along Arlington UGA boundary to the boundary of parcel #31051100200300,

West and south along the boundary of parcel #31051100200300 to the boundary of parcel #31051100200400,

South and east along the boundary of parcel #31051100200400 to the boundary of parcel #31051100202700,

South and east along the boundary of parcel #31051100202700 to Arlington UGA boundary,

Continues southerly along Arlington UGA boundary to the boundary of parcel #31051500200100,

Westerly and southerly to the boundary of parcel #31051500200300,

Westerly and south along the boundary of parcel #31051500200300 to Arlington UGA Boundary,

Continues along Arlington UGA boundary to the boundary of the parcel #999 of the Plat of Heartland,

West along the boundary of parcel #999 of the Plat of Heartland to parcel #31051600300400,

West and south along the boundary of parcel #31051600300400 to parcel #31051600300500,

West along north boundary of parcel #31051600300500 to Arlington UGA,

West and northerly along Arlington UGA to the boundary of parcel #31051700100500,

East, north and west along the boundary of parcel #31051700100500 to Arlington UGA,

Continues along Arlington UGA to the north boundary of the Marysville UGA in force as of 2007,

Continues south and west along the Marysville UGA boundary to the boundary of parcel #31052000303000,

North, west and south along the boundary of parcel #31052000303000 to Marysville UGA,

West, south and easterly along the Marysville UGA boundary to the boundary of parcel #31052900200600,

South along the south boundary of Snohomish County Assessor's Parcel No. 3152000303000 to Marysville UGA,

Southeasterly along the Marysville UGA boundary to the north right of way line of 140th St NE,

West along the north right of way line of 140th St NE / 140th St NW extending to the west boundary of Snohomish County in force as of 1996,

South along the west boundary of Snohomish County in force as of 1996 through Possession Sound to the intersection of east-west boundary of Township 30N Range 04E,

East along the east-west boundary of T30N R04E to southwest corner of Section 35, Township 30N, Range 6E W.M.,

Due south through Possession Sound passing east of Hat Island (Gedney Island) to the intersection of due west projection of southwest corner of Section 19, Township 29N, Range 5E W.M.,

Southwesterly through Possession Sound passing south of Hat Island to the west boundary of Snohomish County in force as of 1996,

Along west boundary of Snohomish County in force as of 1996 to the true point of beginning at Snohomish and King County boundary line intersection.

KING COUNTY

Beginning at the westerly intersection of Snohomish / King County boundary line in force as of 1996 and located in Puget Sound,

Follow east along the Snohomish / King County boundary to 170th Ave NE,

Southerly on 170th Ave NE to NE 195th St,

West on NE 195th St to 170th Ave NE extended,

Southerly on 170th Ave NE extended to NE 190th St,

East on NE 190th St to 171st Place NE,

South on 171st Place NE to NE Woodinville-Duvall Rd (NE 185th St),

West on Woodinville-Duvall Rd to 167th Ave NE,

South on 167th Ave NE to NE 180th Place,

Southwesterly on NE 180th Place to NE 180th St,

West on NE 180th St to 164th Ave NE,

South on 164th Ave NE to NE 175th St,

Westerly on NE 175th St to 155th Place NE,

Southerly on 155th Place NE to NE 173rd St,

Westerly on NE 173rd St to 146th Place NE,

Southerly on 146th Place NE to NE 171st St,

Westerly on NE 171st St to the Woodinville corporation boundary in force as of 1996,

South and west following that boundary to 140th Ave NE,

Northerly on 140th Ave NE to NE 171st St,

Westerly on NE 171st St to the Woodinville corporation boundary,

South along that boundary to the north boundary of King County Assessor's Parcel No. 1026059133,

Along the parcel boundary to the southeast corner,

Follow west to the Sammamish River,

Southeasterly following the Sammamish River to NE 145th St,

East on NE 145th St to the Woodinville corporation boundary,

North, east and north along the Woodinville corporation boundary to 147th Place NE (extended),

Easterly on 147th Place (extended) and 147th Place NE and the Woodinville corporation boundary,

South and southwest following the corporation boundary to Woodinville-Redmond Rd,

Southeast on Woodinville-Redmond Rd to NE 143rd St,

Southwest on NE 143rd St to the northeast corner of King County Assessor's Parcel No. 3404700135,

Follow southeast along the parcel boundary to its intersection with the northwest corner of King County Assessor's Parcel No. 3404700161,

Northeasterly along its boundary to Woodinville-Redmond Rd,

Southeasterly on Woodinville-Redmond Rd to NE 132nd St (extended),

East on NE 132nd St and NE 132nd St (extended) to 172nd Ave NE,

North and northeast on 172nd Ave NE to NE 141st St,

Southeast on NE 141st St to NE 139th St,

East on NE 139th St to 180th Ave NE,

Southeasterly on 180th Ave NE to the east boundary of Range 05E,

North on the east boundary of Range 05E to the southeast corner of King County Assessor's Parcel No. 2426059139,

Northwesterly to the southwest corner of the parcel,

Follow northeasterly to the northwest corner of King County Assessor's Parcel No. 1926069190,

Follow east to the east boundary of Range 05E,

North to the intersection with the boundary of King County Assessor's Parcel No. 192606141,

West to the intersection of the boundary with King County Assessor's Parcel No. 2426059001,

South to the southeast corner of the parcel,

West to the southwest corner of the parcel,

East on NE 145th St and NE 145th St (extended) to Avondale Rd NE,

Southwesterly on Avondale Rd NE to the north boundary of Tax Lot 80, Section 31, Township 26N, Range 06E and the Redmond corporation boundary in force as of 1996,

East along the Redmond Corporation boundary to Bear Creek,

Southeasterly following Bear Creek to the Redmond corporation boundary,

Southeasterly along the Redmond corporation boundary to its intersection with the boundary of King County Assessor's Parcel No. 0625069113,

East to the northeast corner of parcel,

South to northeast Union Hill Rd,

Easterly on NE Union Hill Rd to 196th Ave NE and the Redmond corporation boundary,

South, westerly, southerly, west, following the Redmond corporation boundary,

South, east, southerly, west, southwesterly and southeasterly following the Redmond corporation boundary to Redmond-Fall City Rd (State Route 202)

Easterly on Redmond-Fall City Rd to 192nd Drive NE,

South on 192nd Drive NE to 192nd Place NE,

Southeasterly on 192nd Place NE to NE 50th St,

Easterly on NE 50th St to Sahalee Way NE,

Southeasterly on Sahalee Way NE to 228th Ave NE,

Southerly on 228th Ave NE to the south boundary of Section 22, Township 25N, Range 06E,

East along the south boundary of Section 22, Township 25N, Range 06E to the west boundary of King County Assessor's Parcel No. 6817801470,

North to the northwest corner of the parcel,

East to the northeast corner of the parcel,

South to the south boundary of Section 22, Township 25N, Range 06E to the southwest corner of King County Assessor's Parcel No. 6817801480,

North to the northwest corner of the parcel,

East to the north-south centerline of the west one-half of Section 22, Township 25N, Range 06E,

North along the north-south centerline of the west one-half of Section 22, Township 25N, Range 06E to NE 25th Way,

Easterly on NE 25th Way to 236th Ave NE,

South on 236th Ave NE to NE 20th St,

East on NE 20th St to 244th Ave NE,

Northerly on 244th Ave NE to Redmond-Fall City Rd,

Southeasterly on Redmond-Fall City Rd to the west boundary of Range 07E,

South along the west boundary of Range 07E to south right of way line of Duthie Hill Rd,

East to the northeast corner of the plat of Aldarra Division 3,

South along the east boundary of Aldarra Division 3 to the south boundary of the north half of Section 7, Township 24N, Range 07E,

West along the south of the north half of Section 7, Township 24N, Range 07E, and along the south boundary of the north half of Section 12, Township 24N, Range 06E,

West along the south boundary of the north half of Section 11, Township 24N, Range 06E to E Beaver Lake Drive SE,

Southerly on E Beaver Lake Drive SE to SE Issaquah-Beaver Lake Rd,

Southeasterly on SE Issaquah-Beaver Lake Drive to SE Duthie Hill Rd (264th Place SE)

Southwesterly on SE Duthie Hill Rd to Issaquah Fall City Rd,

Southwesterly on Issaquah Fall City Rd to the North Sammamish Plateau Access Rd (SPAR) (Highlands Dr NE)

Southerly on the North SPAR (Highlands Dr NE) to the north boundary of Issaquah corporation boundary in force as of November 2001,

Easterly along the north boundary of the Issaquah corporation boundary,

Southerly along the east boundary of the Issaquah corporation boundary to the intersection with the east boundary of King County Assessor's Parcel No. 2624069006,

Southerly along the east boundary of parcel to the southeast corner,

West along the south boundary of parcel to its intersection with the south boundary of Issaquah corporation boundary,

Westerly along the south boundary of the Issaquah corporation boundary to South SPAR (Highlands Dr NE),

Southerly on South SPAR (Highlands Dr NE) to Interstate 90,

Easterly on Interstate 90 to the east boundary of the Issaquah corporation boundary,

Southerly and westerly following the Issaquah corporation boundary to the east boundary of Section 34, Township 24N, Range 06E,

North along the east boundary of Section 34, Township 24N, Range 06E to the northeast corner of Section 34, Township 24N, Range 06E,

West along the north boundary of Section 34, Township 24N, Range 06E to the Burlington Northern Railroad right of way,

Southwesterly following the Burlington Northern Railroad right of way to SE Darst St (extended) and the Issaquah corporation boundary,

East, south, southeast, south, west and south following the Issaquah corporation boundary to SE 96th St,

West on SE 96th St to Front St S,

Southeasterly on Front St S to Issaquah-Hobart Rd,

Southeasterly and south on Issaquah-Hobart Rd to the south boundary of Issaquah corporation boundary,

West, north, west, north and west along the Issaquah corporation boundary to the east boundary of Sections 32 and 29, Township 24N, Range 06E,

North along the east boundary of Sections 32 and 29, Township 24N, Range 06E to the Issaquah corporation boundary in force as of 1996,

Westerly along the Issaquah corporation boundary in force as of 1996 to 17th Ave NW,

Southerly on 17th Ave NW to Renton-Issaquah Rd (State Route 900),

Southwesterly on Renton-Issaquah Rd to the east boundary of Section 6, Township 23, N, Range 06E,

North along the east boundary of Section 6, Township 23N, Range 06E to the Bellevue corporation boundary in force as of 1996,

West along the Bellevue corporation boundary and following the Bellevue corporation boundary to the intersection with the northerly boundary of King County Assessor's Parcel No. 2624059048,

Southeasterly and northwesterly along the boundary of that parcel to its intersection with the Newcastle corporation boundary in force as of 1996,

South, west, south east, south and westerly following the Newcastle corporation boundary to 148th Ave SE and the Renton corporation boundary in force as of 1996,

South, west, southwesterly, south, west, south and west following the Renton corporation boundary to the west boundary line of the NE Quarter of the SE Quarter of Section 3, Township 23N, Range 05E,

South along the west boundaries of the NE and SE Quarters of the SE Quarter of Section 3, Township 23N, Range 05E, to SE Renton-Issaquah Rd,

Easterly on SE Renton-Issaquah Rd to 148th Ave SE,

South on 148th Ave SE to SE 128th St,

East on SE 128th St to 162nd Ave SE,

South on 162nd Ave SE and 162nd Ave SE extended to SE 136th St,

East on SE 136th St extended to 164th Ave SE,

North on 164th Ave SE to SE 132nd St extended,

East on SE 132nd St extended to 175th Ave SE,

Southerly on 175th Ave SE to SE 136th St and SE 136th St extended,

East on SE 136th and SE 136th St extended to 182nd Ave SE,

Southerly on 182nd Ave SE to SE 147th St,

West on SE 147th St to 180th Ave SE,

Northerly on 180th Ave SE to SE 146th St,

Southwesterly on SE 146th St to 178th Ave SE,

Northeasterly on 178th Ave SE to SE 143rd St,

Northwesterly on SE 143rd St to 177th Ave SE,

Southwesterly on 177th Ave SE to SE 144th St,

Continue west on SE 144th St to 154th Place SE,

Southerly on 154th Place SE to Jones Rd,

Westerly on Jones Rd to the Cedar River,

Northwesterly along the Cedar River to the Renton corporation boundary in force as of 1996,

Southwesterly along the Renton corporation boundary to Renton-Maple Valley Rd,

Southeasterly on Renton-Maple Valley Rd to the east boundary line of King County Assessor's Parcel No. 2323059029 to the southeast corner of parcel,

West to the east boundary of Sections 23, 26 and 35, Township 23N, Range 05E,

South along the east boundary of Sections 23, 26 and 35, Township 23N, Range 05E to the northwest corner of parcel 352059030,

East to the northeast corner of parcel,

South along east boundary of parcel to SE Petrovitsky Rd,

Westerly on SE Petrovitsky Rd to 148th Ave SE extended,

South on 148th Ave SE to SE 208th St,

West on SE 208th St to 132nd Ave SE,

South on 132nd Ave SE to SE 224th St,

Easterly on SE 224th St and SE 224th St extended to the northeast corner of King County Assessor's Parcel No. 1522059007,

Southerly along the east boundary of the parcel and the east boundaries of King County Assessor's Parcel Nos. 1522059101, 1522059104, 1522059105, 1522059133 and 2222059117 to 148th Ave SE,

Southerly on 148th Ave SE then following the Kent corporation boundary in force as of 1998 to the north boundary of King County Assessor's Parcel No. 2622059047,

East to the northeast corner of parcel,

South to southeast corner at intersection with Kent corporation boundary,

South along Kent corporation boundary to State Highway 18,

Southwesterly on State Highway 18 to Green River,

Northwesterly along the Green River to Main St E extended,

West on Main St E extended and Main St E to "R" St SE,

South on "R" St SE to Auburn corporation boundary in force as of 1996,

Southeasterly along the Auburn Corporation Boundary in force as of 1996 to Auburn Black Diamond Road,

Easterly on Auburn -Black Diamond Rd to the east boundary of the NW Quarter of the NW Quarter of Section 21, Township 21N, Range 05E and the Auburn city limits in force as of 1996,

Southeasterly along the Auburn city limits in force as of 1996 to the north boundary of King County Assessor's Parcel No. 2121059007,

East along the north boundary to the northeast corner,

South and southeasterly along the east boundary to Green Valley Rd,

West along the south boundary of parcel to the Auburn city limits,

Southeasterly along the Auburn city limits to the Green River

Southeasterly along the Green River to 148th Ave SE extended,

South on 148th Ave SE extended and 148th Ave SE to SE 368th St and the southeast corner of Section 27, Township 21N, Range 05E,

West along the south boundary of Section 27, Township 21N, Range 05E to the White River,

Southeasterly along the White River to the King / Pierce County boundary in force as of 1996,

Westerly along the King / Pierce County boundary to the common corner of King County and Pierce County in Puget Sound.

PIERCE COUNTY

Westerly along the King County /Pierce County boundary in force as of 1996 to 182nd Ave E,

South on 182nd Ave E, also the west boundary line of Section 4, Township 20N, Range 5E,

Continue south along the west boundary of Section 4, Township 20N, Range 5E to the shoreline of Lake Tapps,

Follow southeasterly along the shoreline of Lake Tapps to the west boundary line of the SE Quarter of Section 4, Township 20N, Range 05E,

North on the west boundary line of the SE Quarter of Section 4, Township 20N, Range 05E to 9th St E,

East on 9th St E to 198th Ave E,

South on 198th Ave E to the south boundary of Section 4, Township 20N, Range 05E,

West on the south boundary of Section 4, Township 20N, Range 5E to the shoreline of Lake Tapps,

Southeasterly along the eastern shoreline of Lake Tapps to its second intersection with the west boundary of Pierce County Assessor's Parcel No. 0520101007,

North along the west boundary to the parcel's north boundary,

East along the north boundary to the east boundary,

South along the east boundary to the shoreline of Lake Tapps,

Southeasterly along the shoreline to the south boundary of Section 10, Township 20N, Range 05E,

East to 214th Ave E,

Southerly on 214th Ave E to 40th St E,

East on 40th St E to 230th Ave E to north boundary of Pierce County Assessor's Parcel No. 0520234010,

East along the north boundary to the northeast corner,

South to Buckley-Tapps Highway,

Southeasterly on Buckley-Tapps Highway to 242nd Ave Court E,

Northerly on 242nd Ave Court E to 70th St E,

Easterly on 70th St E to the east boundary of Range 05E,

South along the east boundary of Range 5E to Sumner-Buckley Highway (State Route 410),

West on Sumner-Buckley Highway to 234th Ave E (Werron Rd),

South on 234th Ave E to 96th St E (Bagnal Rd),

West on 96th St E to 233rd Ave E (Werron Rd),

South on 233rd Ave E to Sumner-Buckley Highway (State Route 410),

Easterly on State Route 410 to 234th Ave E (South Prairie-Connell Rd),

South on 234th Ave E to South Prairie Rd E,

Northwesterly on South Prairie Rd E to 230th Ave E,

South on 230th Ave E to the northeast corner of the Plat of Prairie Ridge Division 2,

Southwesterly along the east boundary of the Plat of Prairie Ridge Division 2 to the northeast corner of Pierce County Assessor's Parcel No. 6995202091,

Southwest along the north boundary of the parcel to intersection with the north boundary of Pierce County Assessor's Parcel No. 6995301761,

Southwest along the north boundary of Pierce County Assessor's Parcel No. 6995301761 to intersection with the north boundary of Pierce County Assessor's Parcel No. 6995327180,

Southwest along the north boundary of Pierce County Assessor's Parcel No. 6995327180 to the north boundary line of the SW quarter of the NW Quarter of Section 23, Township 19N, Range 05E,

East along the north boundaries of SW and SE Quarters of NW Quarter of Section 23, Township 19N, Range 05E,

East along the SW Quarter of the NE Quarter of Section 23, Township 19N, Range 05E to Pioneer Way East (State Route 162),

Southwesterly on Pioneer Way East (State Route 162) to the north boundary of Pierce County Assessor's Parcel No. 0519233012,

Easterly to the northeast corner of parcel,

South to the southeast corner of parcel,

West to intersection with east boundary of Pierce County Assessor's Parcel No. 0519233000,

Southwesterly to the intersection with the south boundary of Section 23, Township 19N, Range 05E,

Westerly to the northeast corner of Pierce County Assessor's Parcel No. 0519262008,

Southwest to the southwest corner of parcel,

North to Pioneer Way East (State Route 162),

Southwest on Pioneer Way East (State Route 162) to intersection with westerly boundary of Pierce County Assessor's Parcel No. 0519343012 (extended),

North along the west boundary to intersection with Burlington Northern Railroad right of way (abandoned),

Westerly following the Burlington Northern Railroad right of way (abandoned) to the intersection of the west boundary line of Section 33, Township 19N, Range 05E,

South along the west boundary of Section 33, Township 19N, Range 05E to Orville Rd E,

South on Orville Rd E to the east boundary of Pierce County Assessor's Parcel No. 0518084001,

South along boundary to the southeast corner,

West along the south boundary to Orville Rd E,

South on Orville Rd E to the intersection with the east boundary of Pierce County Assessor's Parcel No. 0518173009 (extended northwesterly),

Southeasterly along the east boundary to the southeast corner of parcel,

West along the south boundary to intersection with Orville Rd E,

South on Orville Rd E to intersection with easterly boundary of Pierce County Assessor's Parcel No. 0518173012,

Southeasterly along the east boundary to the most southern northeast corner, south to the southeast corner of parcel,

West to the south line of Section 17, Township 18N, Range 05E,

West along south line of Section 17 and Section 18, Township 18N, Range 05E to an intersection of a creek,

Follow along the creek southwesterly, then northwesterly to Country Drive E,

Northerly on Country Drive E to the intersection with the east boundary of Pierce County Assessor's Parcel No. 0518182003,

South to the southeast corner of parcel,

West to the southwest corner of parcel,

North to the intersection with Country Drive E,

Northerly along Country Drive E to 224th St E (Muck-Kapowsin Rd),

West on 224th St E to 46th Ave E,

South on 46th Ave E to the north boundary line of the SW Quarter of Section 13, Township 18N, Range 03E,

West along the north boundary line of the SW Quarter of Section 13, Township 18N, Range 03E to the west boundary line of the NE Quarter of the SW Quarter of Section 13, Township 18N, Range 03E,

South along the west boundary line of the NE and SE Quarters of the SW Quarter of Section 13, Township 18N, Range 03E,

Continue south along the west boundary of the NE and SE Quarters of the NW Quarter of Section 24, Township 18 N, Range 03E,

Continue south along the west boundary of the NE Quarter of the SW Quarter of Section 24, Township 18N, Range 03E to 251st St E,

West on 251st St E to Mountain Highway E,

Southeasterly on Mountain Highway E to the south intersection of 260th St E,

West on 260th St E to 8th Ave E (Kinsman Rd),

South on 8th Ave E to 288th St E,

West on 288th St E to 288th St S,

Continue west on 288th St S to 56th Ave S (Ledford Rd),

North on 56th Ave S to 280th St S (Rondo Rd)

West on 280th St S to the Fort Lewis Military Reservation boundary,

Northwesterly and then southwesterly following the Fort Lewis Military Reservation boundary to the Pierce County / Thurston County boundary and the Nisqually River,

Northwesterly along the Pierce County / Thurston County boundary to the Burlington Northern Railroad right of way,

Northerly following the Burlington Northern Railroad right of way to the east boundary of Section 04, Township 18N, Range 01E,

North along the east boundary of Section 04, Township 18N, Range 01E,

North along the east boundary of Section 33, Township 19N, Range 01E to Mounts Rd,

West on Mounts Rd to the west boundary of the DuPont city limits in force as of 1996,

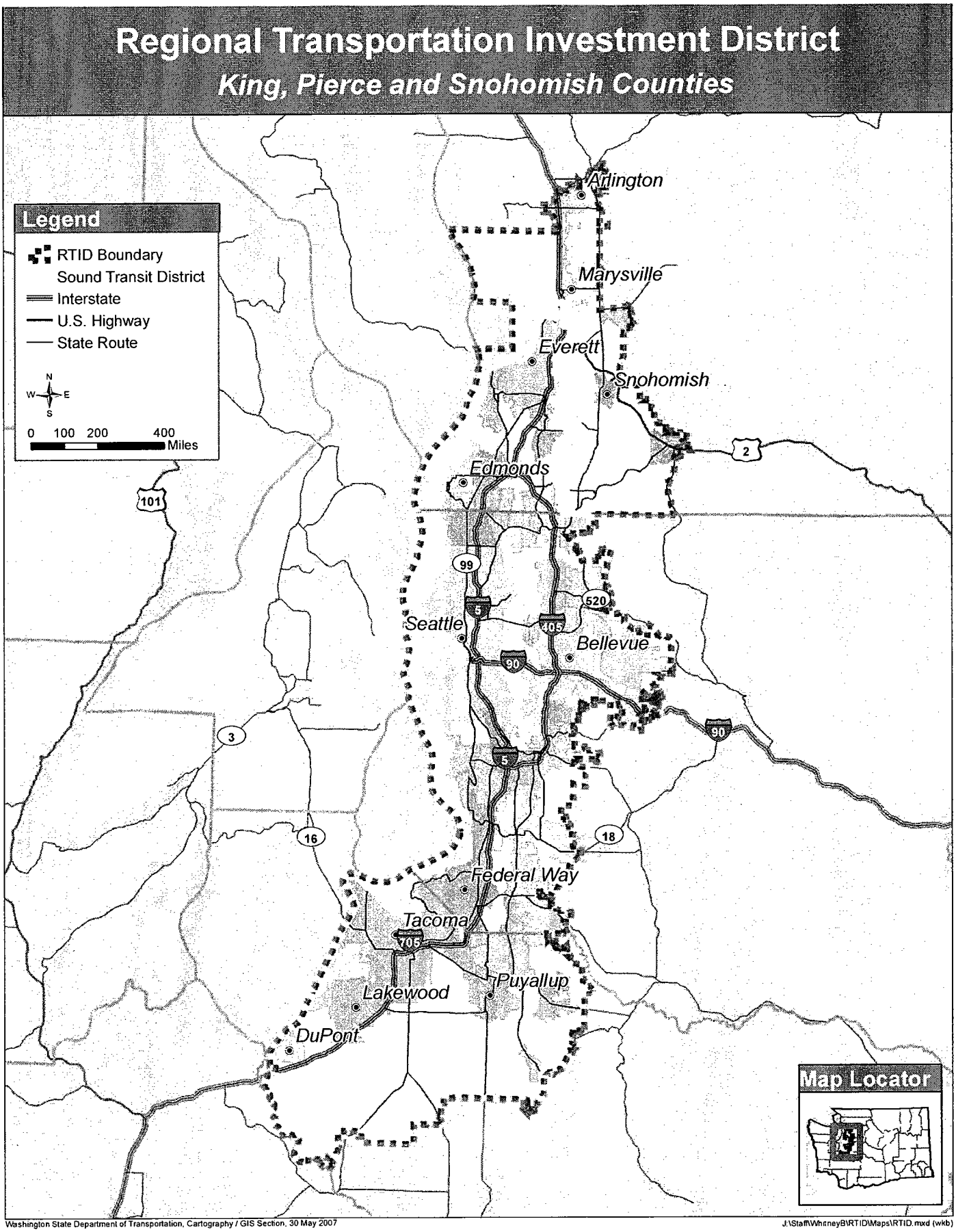
Northerly along the DuPont city limits to the shore of Puget Sound,

Northerly through Puget Sound passing east of Anderson Island, Ketron Island, McNeil Island and Fox Island and west of Day Island to the Narrows,

Northerly through the Narrows to Dalco Passage,

Easterly through Dalco Passage and East Passage passing south of Vashon Island and Maury Island to Puget Sound,

Northerly through Puget Sound passing east of Maury Island, Vashon Island and Blake Island to the west boundary of King County in force as of 1996.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Map Locator
Washington State Department of Transportation, Cartography / GIS Section, 30 May 2007
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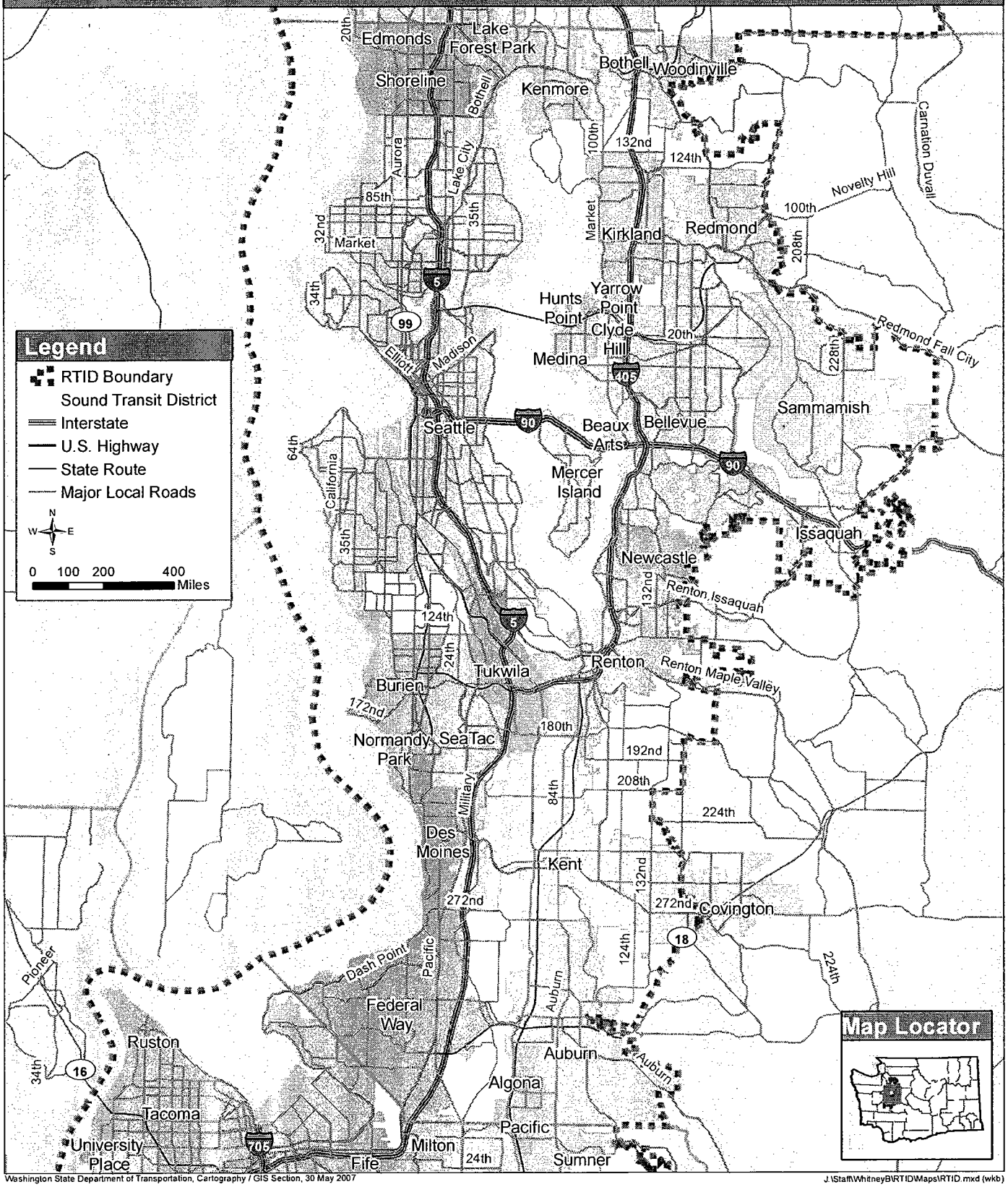
Regional Transportation Investment District

King County



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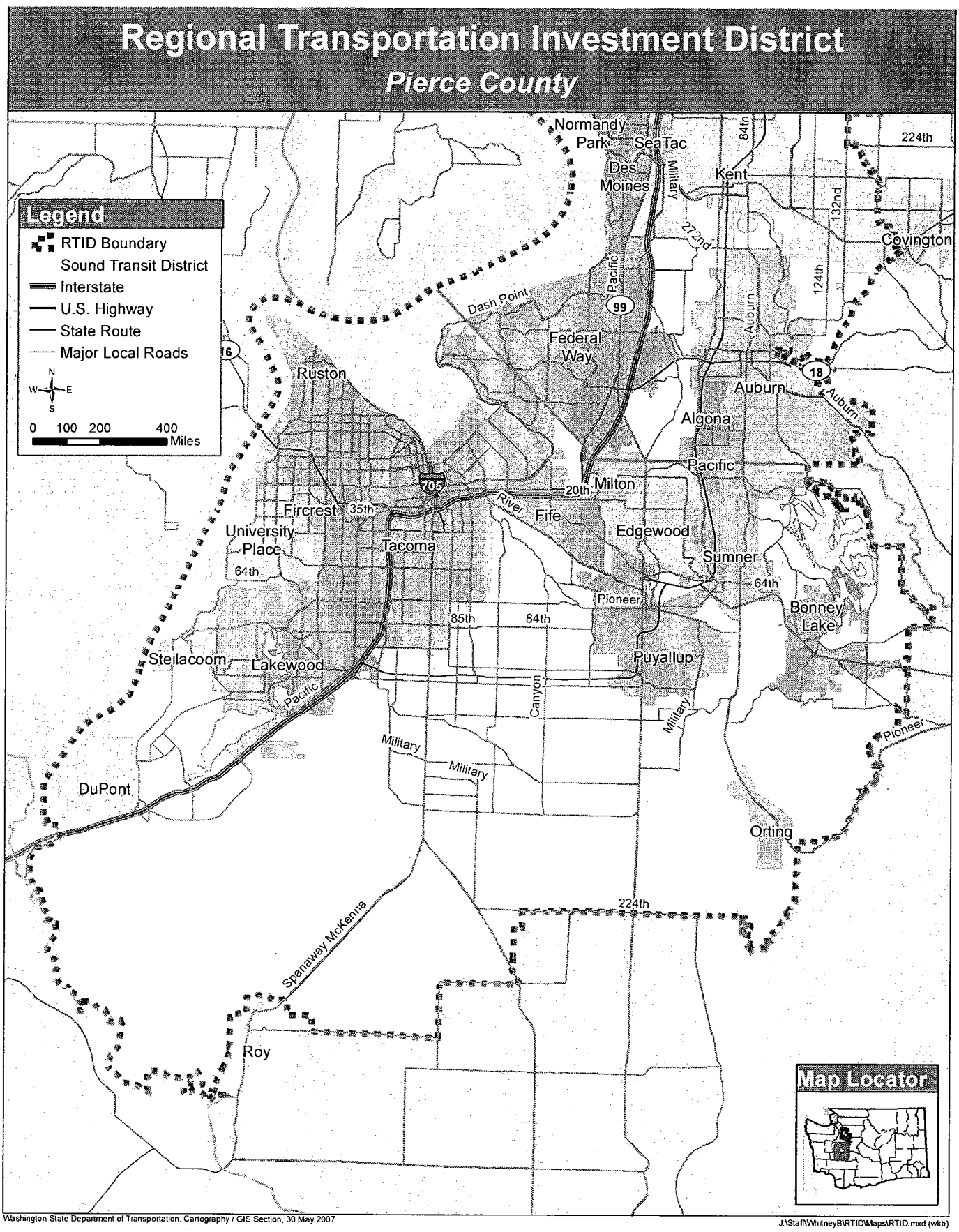

Washington State Department of Transportation, Cartography / GIS Section, 30 May 2007

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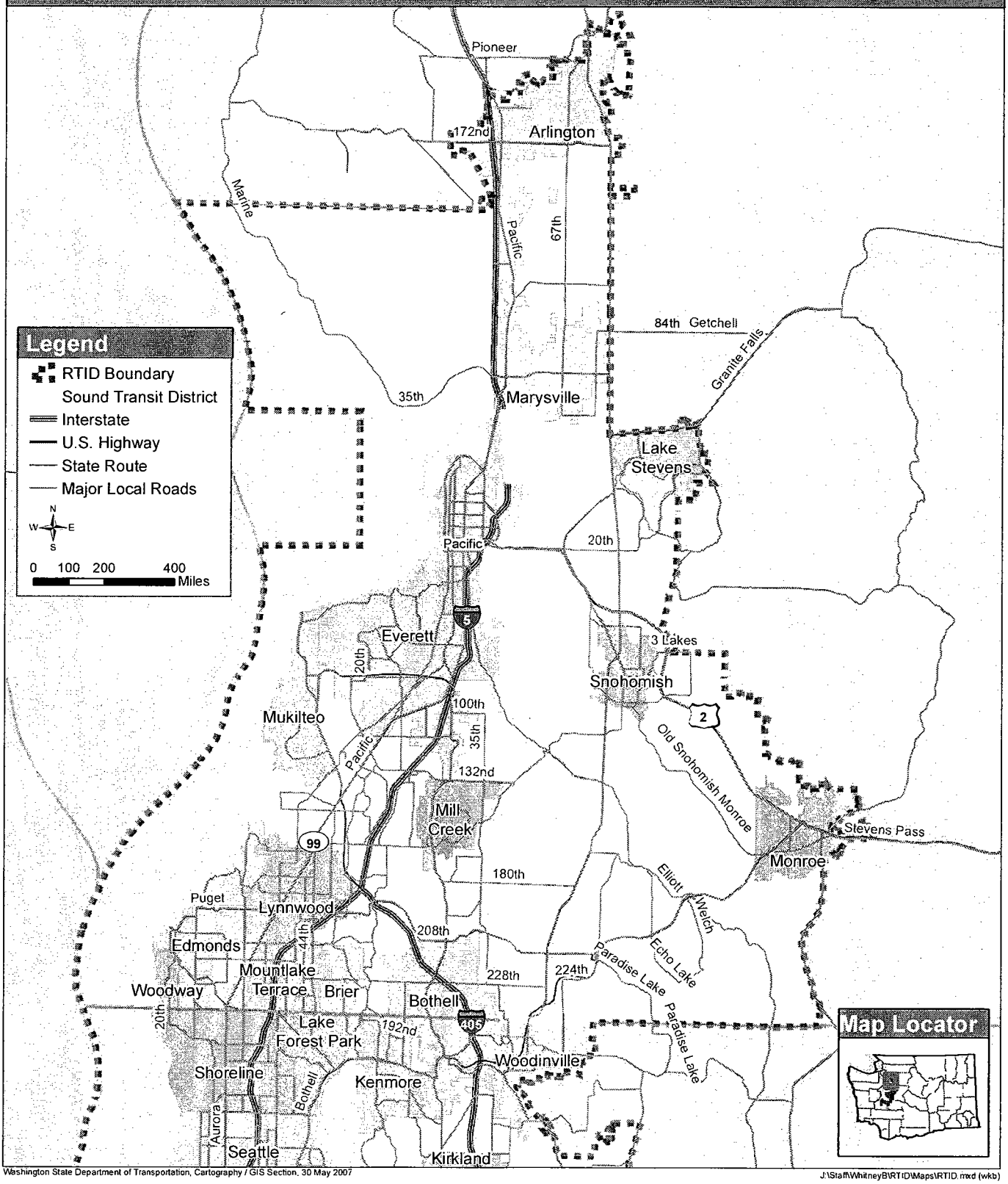
Regional Transportation Investment District

Snohomish County



Washington State Department of Transportation, Cartography / GIS Section, 30 May 2007

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Appendix B: Construction Mitigation Approach

WSDOT's approach to construction mitigation

With the advent of the 2003 Nickel Program and the 2005 Transportation Partnership Act, WSDOT began to develop a scalable construction mitigation program that keeps people moving during construction. This will be done largely through transportation demand management (TDM), and, in certain corridors, increased transit service.

WSDOT developed a computer model to identify mitigation needs for transportation construction projects. Factors used to determine the need include speed and volume of traffic on affected corridors, the availability of public transportation, the origin and destination of trips, single occupant vehicle ratio on the corridor, and land uses surrounding the corridor.

In WSDOT's methodology, new corridors will not require mitigation.

For the corridors requiring construction mitigation, WSDOT uses the best available data to estimate the impact of construction on overall travel, including the number of trips affected and needing to be mitigated. The best estimates on the timing and duration of construction, the number of lanes to be closed by time of day and direction of travel, whether or not HOV lanes will remain open or be available, whether or not lanes will be narrowed, and other construction impacts as well as policy directives will also be factors. WSDOT uses this data and these factors to model the best estimate of the number of trips that will be impacted by construction, as well as the impacts that can be managed or mitigated.

Of those impacts that can be mitigated, WSDOT will determine how best to mitigate through maintaining or replacing roadway capacity, or through shifting the trip (geographically, temporally, modally). Public information and outreach will be provided to the travelers in that area about the best strategy mix for maintaining mobility.

WSDOT has also assigned costs to various types of replacement trips. Generally speaking, TDM measures are less costly on a per-trip basis than the provision of additional transit service. Specific costs will vary by corridor.

WSDOT proposes to use these TDM strategies to affect travel choice:

- Maintain roadway capacity with increased bus service, maximize HOV use, and enhance incident response.
- Shift trips to transit and HOV with park & ride enhancements, as well as through efforts to affect when and where travel occurs.
- Engage and inform the public through expanded highway real-time travel information.
- Target outreach to specific geographic and trip markets to ensure the most people have good information about the situation and their travel options.

Sizing transit service for construction mitigation projects

The transit mitigation program should be sized to meet anticipated demand. Individual services should be sized to remain cost-effective, and the total program should not exceed transit capacity limits. Additionally, public information and outreach, as well as the approach taken to managing project construction, will impact demand for transit service during the construction period.

The following factors provide a basis for determining the proper size of a transit mitigation program:

- Severity and duration of construction–related congestion.
- Strength of underlying transit market—the success of transit as a mitigation strategy will be proportionate to the underlying fit and attractiveness of transit in the corridor.
- Change in relative travel time between transit and driving—in some corridors, if travel time for single-occupant vehicles erodes, and travel time for transit remains the same or improves, incremental transit ridership will rise.
- Likely effectiveness of cost and incentive programs— marketing and transit incentive programs may provide incremental increases in transit ridership. Data from other mitigation programs should be used to determine effectiveness.
- Capacity constraints—recognize that there are reasonable limits to the amount of transit service that can be added to an existing system or within a specific time period.

Transit's effectiveness as a mitigation strategy improves when the following conditions are met:

- Speed and reliability—transit provides a faster and more reliable trip than driving. HOV lanes must remain available and managed, or an alternate route provided for transit.
- Incentives—rider incentives should include subsidized transit passes, parking management, and tolls
- Fleet and base capacity—both must be sufficient and commensurate with the anticipated service growth.
- Funding and capacity—for operating additional transit service hours, as well as for fleet and base expansion that may be necessary.

Transit mitigation service principles

The general principles guiding transit service as a construction mitigation strategy are identified below:

- **Enhance existing service.** Enhancing existing services will be more effective and will have longer lasting benefits than new services. It takes time to build ridership on any transit route, and to build awareness of the service among potential customers. It is also faster to implement an increase in existing service rather than establishing a new service or route, since customer service information and driver training materials exist, facilities are in place, and there is already a knowledgeable customer base from which to build additional ridership. Customers gained on existing transit services during the mitigation period are more likely to continue riding transit once the construction period is over.
- **Increase the use of existing capacity.** Beginning in 2009 with the opening of Sound Transit light rail, there will be significant added capacity in the transit system. Timing project construction to take advantage of this added transit capacity in commuter rail and light rail will place transit in a better position to play a large role in construction mitigation. To be successful, feeder bus routes and park & ride access must already be in place and sufficient to allow potential riders to access the system. Where capacity also exists on the local and express bus system, it can be used more effectively if targeted marketing and incentive programs are implemented.
- **Keep transit mitigation service and programs simple.** Additional services should be simple to understand for potential riders. Short and direct services to well-known sites will be more effective than complicated, customized services.

Constraints on transit capacity for mitigation

- **Growth in service hours.** New transit service can only be added incrementally. The rate of service growth is limited by the ability to hire and train drivers. For King County Metro, this is estimated to be an additional 100,000 to 125,000 hours per year maximum.
- **Availability of fleet.** A determination must be made early in the mitigation planning process whether to purchase new buses for transit service. A new bus is a twelve-year investment for a transit operator, so it must be decided whether the investment is worth the added service needed for mitigation. Alternately, extending the service life of the existing fleet is another option. Both of these strategies will have capital and operating costs to the operator.
- **Base capacity.** The most significant capacity constraint for the transit operators is at the operating bases. Providing transit mitigation service will likely require an investment in additional capacity at several existing operating bases, either temporarily or permanently.

The above constraints for transit service must be kept in mind as construction schedules and mitigation programs are developed. One concern that transit operators have expressed is the potential for significant spikes and troughs in the construction program, where overlapping construction projects could overwhelm transit's ability to provide sufficient fleet, operators, and base capacity for the demand in the spike periods.

Construction mitigation costs and financing

Determining costs. As part of its needs identification, WSDOT determines the number of trips that will be impacted by a specific construction project, and then determines how many of those trips can reasonably be mitigated. WSDOT assigns costs for each trip to be mitigated, depending on the type of mitigation provided, typically transit or demand management. The percentage targets that WSDOT assigns for transit and demand management mitigation will depend both on the presumed effectiveness of that measure, as well as the cost per trip to mitigate. Transit service tends to be more productive (and less costly) when the service carries passengers in both directions, and there is frequent passenger turnover. Long-haul, single-direction, single-seat passenger trips are the most costly to deliver.

Construction mitigation allotments in project budgets and RTID finance. There is no requirement for, and thus no plan for, a certain percentage of RTID funds to be allocated for mitigation. RTID estimates for mitigation have been determined at the corridor level for planning purposes, and are included in the proposed RTID budget for each county, and not on a project-by-project basis. This will allow flexibility in the program and an ability to optimize resources, as mitigation needs will vary by corridor, and may change as project scopes are resolved, and project construction schedules are determined.

Sample corridor mitigation program: I-405

WSDOT has performed a sample analysis for mitigation by examining one segment of southbound I-405 during the 7 am – 8 am morning rush period, during the proposed period of construction of this project. WSDOT's model has determined that throughput in the general-purpose lanes, normally at 2200 cars for this one-hour period, would be reduced to 1720. The HOV lanes, however, would have capacity for an additional 170 vehicles per hour. WSDOT's mitigation goal would be to shift the people traveling in at least 375 vehicles per hour from the general-purpose lanes to other means.

The mitigation strategies in this example include:

- Expanded real-time travel information along the corridor for personal vehicles and transit.
- Increased incident response services.
- Increased use of vanpool and carpools.
- Increased use of van sharing.
- Coordinated communications with employers, business organizations, property managers, transportation coordinators, and residential communities.

Transit's role in mitigation in this corridor could be significant, as long as HOV lane performance is maintained throughout the construction period. Transit could carry a large share of commuters heading toward activity centers, especially Bellevue, Renton, and Overlake. For example, some I-405 routes from the Renton Highlands could be re-routed to use the Sunset Highway and I-5 instead of I-405 and I-90.

Transit operators could also do the following:

- Expand existing Sound Transit regional express service.
- Provide express services targeted to corridor activity centers.
- Provide additional service on Coal Creek Parkway.
- Add feeder bus service to enhance access to Sounder commuter rail.

APPENDIX C: Detailed Financial Modeling Results

RTID Revenue Forecast
Funding levels do not include leveraging from bonds
20-Year Totals • dollars in millions

Nominal Dollars	King County	Pierce County	Snohomish County			Total
Source	*Sound Transit Area*	*Sound Transit Area*	*Sound Transit Area*	*Proposed Expansion Area*	Total Area	*King, Pierce, Snohomish All Areas*
0.1% Sales Tax	1,626	402	*282*	*89*	371	**2,400**
0.8% MVET	2,866	1,130	*744*	*330*	1,074	**5,070**
Total Sources	**4,492**	**1,532**	***1,026***	***419***	**1,445**	**7,470**

2006 Dollars	King County	Pierce County	Snohomish County			Total
Source	*Sound Transit Area*	*Sound Transit Area*	*Sound Transit Area*	*Proposed Expansion Area*	Total Area	*King, Pierce, Snohomish All Areas*
0.1% Sales Tax	1,032	255	*179*	*57*	236	**1,523**
0.8% MVET	1,819	714	*471*	*209*	679	**3,213**
Total Sources	**2,851**	**970**	***650***	***265***	**915**	**4,736**

Notes:

- Revenue estimates assume implementation of taxes by July 2008.
- The tax base forecast used in the revenue estimates are based on the August 2006 Sound Transit tax base forecast.
- The boundaries assumed to estimate tax revenue for King and Pierce Counties were the same as the Sound Transit boundaries. In Snohomish County, the boundaries include the Sound Transit boundary plus an expanded area that includes Monroe and the county's cities and neighborhoods along I-5 and SR 9.
- Sales and Use Tax estimates assumes the implementation of a 0.1% tax rate applied to the tax base forecast within the boundaries described above.
- Motor Vehicle Excise Tax (MVET) estimate assumes that the MVET tax base within the boundaries is the sum of the original and depreciated MSRP values of the vehicle fleet using the statewide MVET valuation that was in place prior to the passage of SSB 6247. This tax base was then reduced by 26% to reflect the new MVET vehicle value definitions and depreciation schedules set forth in SSB 6247.
- 2006 dollars were estimated using the CPI forecast used in Sound Transit's 2007 Draft Financial Plan.

RTID Revenue Forecast Detail

Funding levels do not include leveraging from bonds

20-Year Totals • dollars in millions

Nominal Dollars

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	20-Year Total
King County																					
0.1% Sales Tax	17	53	55	58	61	64	67	70	74	78	82	86	90	95	99	105	110	116	122	128	1,626
0.8% MVET	30	93	97	102	107	112	118	124	131	137	144	151	158	166	175	184	193	204	215	226	2,866
Total Revenue	46	146	152	159	167	176	185	195	205	215	226	237	248	261	274	288	303	319	336	354	4,492

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	20-Year Total
Pierce County																					
0.1% Sales Tax	4	13	14	14	15	16	17	17	18	19	20	21	22	23	25	26	27	29	30	32	402
0.8% MVET	11	35	37	39	41	43	46	48	51	54	57	60	63	66	70	73	77	82	86	91	1,130
Total Revenue	15	48	51	53	56	59	62	66	69	73	77	81	85	89	94	99	105	110	116	123	1,532

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	20-Year Total
Snohomish County																					
0.1% Sales Tax	3	9	9	10	10	11	12	12	13	13	14	15	16	16	17	18	19	20	21	22	282
Expansion Area	1	3	3	3	3	3	4	4	4	4	4	5	5	5	6	6	6	6	7	7	90
0.8% MVET	7	23	25	26	27	29	30	32	34	36	37	39	41	43	46	48	51	53	56	60	744
Expansion Area	3	10	11	11	12	13	13	14	15	16	17	17	18	19	20	21	22	24	25	26	330
Total Revenue	15	46	48	50	53	56	59	62	66	69	73	76	80	84	89	94	99	104	110	116	1,445

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	20-Year Total
Three County Total																					
0.1% Sales Tax	25	78	81	85	89	94	99	104	109	115	120	126	133	140	147	154	162	171	180	189	2,400
0.8% MVET	52	162	170	178	187	197	207	219	230	242	255	267	280	295	310	327	344	363	382	404	5,070
Total Revenue	76	240	251	263	276	291	306	322	340	357	375	393	413	434	457	481	507	533	562	593	7,470

2006 Dollars

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	20-Year Total
King County																					
0.1% Sales Tax	16	47	48	48	49	50	51	51	52	53	53	54	55	56	56	57	58	59	60	60	1,032
0.8% MVET	28	83	84	85	86	88	89	90	92	93	94	95	96	98	99	100	102	103	105	107	1,819
Total Revenue	43	131	132	133	135	137	140	142	144	146	148	149	151	153	155	158	160	162	165	167	2,851

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	20-Year Total
Pierce County																					
0.1% Sales Tax	4	12	12	12	12	12	13	13	13	13	13	13	14	14	14	14	14	15	15	15	255
0.8% MVET	10	32	32	32	33	34	34	35	36	37	37	38	38	39	39	40	41	42	42	43	714
Total Revenue	14	43	44	44	45	46	47	48	49	50	50	51	52	53	53	54	55	56	57	58	970

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	20-Year Total
Snohomish County																					
0.1% Sales Tax	3	8	8	8	8	9	9	9	9	9	9	9	10	10	10	10	10	10	10	11	179
Expansion Area	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	57
0.8% MVET	7	21	21	22	22	22	23	23	24	24	24	25	25	25	26	26	27	27	28	28	471
Expansion Area	3	9	9	10	10	10	10	10	11	11	11	11	11	11	11	12	12	12	12	12	209
Total Revenue	14	41	41	42	43	44	44	45	46	47	47	48	49	50	50	51	52	53	54	55	915

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	20-Year Total
Three County Total																					
0.1% Sales Tax	23	70	70	71	72	73	74	76	77	78	79	80	81	82	83	84	86	87	88	89	1,523
0.8% MVET	48	145	147	149	151	154	156	159	162	165	167	169	171	173	176	179	181	184	187	190	3,213
Total Revenue	71	215	217	219	223	227	231	235	239	243	246	249	252	255	259	263	267	271	275	280	4,736

RTID Projects and Capital Facilities Cost and Present Value (King & Pierce Counties)
Projects and Capital Facilities Cost estimates are based on the expenditure plan adopted by the RTID Planning Committee on June 8, 2007

Dollars in Millions

King County Investment Plan	Tot RTID Cost 2007 Dollars (see note)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	20-Year Total
Seattle Mobility Project (SR 99 TO I-5)	289	0	0	40	90	101	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	323
I-5 Transit Direct Access Project	83	0	0	0	2	5	29	30	0	0	0	0	0	0	0	2	30	16	0	0	0	114
South Park Bridge Replacement Project	99	0	0	0	29	36	37	10	0	0	0	0	0	0	0	0	0	0	0	0	0	110
SR 520 Bridge & HOV Lane Project	972	0	0	0	0	0	0	0	140	361	365	193	74	15	0	0	0	0	0	0	0	1,139
I-90 HOV Lane Project	26	0	0	0	0	0	0	0	0	4	20	11	0	0	0	0	0	0	0	0	0	35
I-405 Bellevue to Renton Project	904	0	0	0	17	37	84	148	186	181	155	56	0	0	0	0	61	123	118	118	0	1,283
I-5/SR 509 Corridor Completion and Freight Project	788	0	61	168	183	197	197	166	21	0	0	0	0	0	0	0	3	3	3	38	35	1,061
SR 167/I-405 Interchange HOV-to-HOV Direct Connection Project	316	0	0	0	62	74	96	116	67	0	0	0	0	0	0	0	0	0	0	0	0	403
SR 167 Green River Valley Corridor Congestion Relief Project	391	0	0	0	0	7	32	30	33	34	26	17	38	59	28	37	46	86	70	70	38	550
I-5/SR 18 Federal Way Congestion Relief Project	89	0	0	0	13	26	13	0	0	0	3	12	25	22	6	0	0	0	0	0	0	120
East Sammamish Plateau Access Project	10	0	0	0	2	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
SR 99 Transit Improvement Project	37	0	0	0	0	8	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	40
Construction Mitigation	74	0	0	0	10	12	15	9	6	5	5	8	4	3	3	3	3	3	3	3	2	100
Gross RTID Project Expenditures	4,087	0	61	208	397	506	614	614	452	584	565	288	142	100	38	42	142	231	193	229	76	5,380

Pierce County Investment Plan	Tot RTID Cost 2007 Dollars (see note)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	20-Year Total
SR 167 Tacoma to Puyallup Project	1,004	0	0	123	162	100	37	0	0	0	0	110	219	269	269	200	100	0	0	0	0	1,589.837
I-5/SR 704/176th Corridor - Cross Base Highway	246	1	0	3	0	0	0	0	0	0	0	0	16	126	90	58	66	64	6	0	0	427.357
Tacoma Mall Access	12	0	0	0	1	2	2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	18.781
SR 410/162 Congestion Relief Project	89	0	0	0	0	0	0	0	0	0	0	0	9	7	10	17	10	8	17	28	17	121.168
Non-motorized Investment	23	0	0	1	1	2	2	2	2	2	2	1	2	2	2	2	2	2	2	3	1	35.000
Construction Mitigation	6	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	10.287
Gross RTID Project Expenditures	1,349	1	0	127	165	104	42	8	3	2	2	113	244	407	372	276	179	76	26	31	19	2,200

RTID Projects and Capital Facilities Cost and Present Value (Snohomish & Combined Counties)
Projects and Capital Facilities Cost estimates are based on the expenditure plan adopted by the RTID Planning Committee on June 8, 2007

Dollars in Millions

Snohomish County Investment Plan	Total RTID Cost 2006 Dollars (see note 3)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	20-Year Total
I-5 Improvement Project	255	13	14	5	2	4	18	27	9	12	10	54	56	25	21	21	21	22	21	0	0	355
I-5/128th St. (SR 96) SW/SE Reconstruct Interchange, Phase 1	*113*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*4*	*4*	*22*	*23*	*25*	*21*	*21*	*21*	*22*	*21*	*0*	*0*	*185*
I-5 South Everett Interchange Improvements (Everett Mall Way-100th Street SE - Phase 1 HOV Access)	*3*	*0*	*0*	*3*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*3*
I-5 South Everett Interchange Improvements (Everett Mall Way-100th Street SE - Phase 2 HOV Access)	*56*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*2*	*2*	*32*	*33*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*71*
I-5/41st Street Interchange - South Broadway / Southbound I-5 on-ramp Bridge	*6*	*0*	*0*	*0*	*0*	*0*	*1*	*6*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*6*
I-5/116th St NE Interchange and I-5/88th St NE Interchange	*63*	*13*	*14*	*2*	*2*	*4*	*17*	*18*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*70*
88th Street Corridor Improvements (Marysville) Widening	*15*	*0*	*0*	*0*	*0*	*0*	*1*	*4*	*7*	*5*	*3*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*20*
US 2 Improvement Project	351	2	3	5	12	25	27	18	15	20	34	31	32	33	34	35	35	36	32	33	14	477
US 2 Trestle: I-5 to SR 204	*281*	*0*	*0*	*0*	*0*	*2*	*4*	*10*	*10*	*20*	*34*	*31*	*32*	*33*	*34*	*35*	*35*	*36*	*32*	*33*	*14*	*396*
Everett Arterial Access Improvements at US 2 / I-5 Interchange & Monroe Bypass Phase 1 Improvements	*70*	*2*	*3*	*5*	*12*	*24*	*23*	*8*	*4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*81*
SR 99 Improvement Project	40	0	0	0	0	0	0	0	0	0	0	3	7	15	10	14	15	0	0	0	0	64
SR 9 Improvement Project	304	0	0	0	0	0	0	0	0	0	1	7	23	44	62	65	79	64	69	37	35	486
SR 522 Improvement Project	127	0	9	27	45	34	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	143
SR 524 Improvement Project	104	1	5	3	6	9	23	31	24	21	0	0	0	0	0	0	0	0	0	0	0	122
24th Ave W to Royal Anne Road (SR 527) Widening	*94*	*0*	*0*	*1*	*2*	*9*	*23*	*31*	*24*	*21*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*111*
196th St SW (SR 524) from 48th Ave W to 37th Ave W - Widening	*10*	*1*	*5*	*3*	*4*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*12*
SR 531 Improvement Project	55	0	0	0	1	5	8	10	15	18	15	0	0	0	0	0	0	0	0	0	0	68
39th Avenue SE / 35th Avenue SE Improvement Project	79	7	13	8	9	0	0	1	4	2	2	2	2	5	5	11	15	15	11	0	0	109
39th Avenue SE 228th St SE to 240th St SE Complete Missing Link	*30*	*7*	*13*	*8*	*9*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*36*
39th/35th Ave SE from 228th St SE to Seattle Hill Rd Widening	*49*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*4*	*2*	*2*	*2*	*2*	*5*	*5*	*11*	*15*	*15*	*11*	*0*	*0*	*74*
Transit & Multimodal Improvement Project	154	2	8	6	26	46	48	15	8	0	0	0	0	12	3	3	3	0	0	0	0	179
Edmonds Crossing (SR 104) Multimodal Terminal, Ferry and Transit	*122*	*1*	*1*	*0*	*26*	*46*	*48*	*15*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*137*
Park & Ride Facilities, North County and SR 9	*20*	*1*	*7*	*5*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*4*	*3*	*3*	*3*	*0*	*0*	*0*	*0*	*26*
Bus and Van Fleet Expansion	*12*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*8*	*0*	*0*	*0*	*0*	*7*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*15*
CONSTRUCTION MITIGATION PROGRAM	66	0	0	2	2	1	5	5	5	3	3	7	7	4	7	7	8	6	6	4	5	87
Gross RTID Project Expenditures	1,534	25	52	55	101	125	158	107	81	73	64	104	127	137	143	156	176	143	140	75	53	2,092

Combined County Expenditure plan	Total RTID Cost 2006 Dollars	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	20-Year Total
Total	8,969	26	103	390	664	735	813	626	641	659	631	514	513	644	552	474	497	448	359	334	147	9,672
King County	*4,087*	*0*	*51*	*208*	*397*	*506*	*614*	*514*	*452*	*584*	*565*	*298*	*142*	*100*	*38*	*42*	*142*	*231*	*193*	*229*	*75*	*5,380*
Pierce County	*1,349*	*1*	*0*	*127*	*166*	*104*	*42*	*8*	*8*	*2*	*2*	*113*	*244*	*407*	*372*	*276*	*179*	*75*	*26*	*31*	*19*	*2,200*
Snohomish County	*1,534*	*25*	*52*	*55*	*101*	*125*	*158*	*107*	*81*	*73*	*64*	*104*	*127*	*137*	*143*	*156*	*176*	*143*	*140*	*75*	*53*	*2,092*

Notes:

1. The King County 2006 dollar total was derived by using a deflation factor of 3.5% for PE and Construction and a deflation factor of 7% for R/W.
2. The Pierce County 2006 dollar total was derived by using a deflation factor of 3.5% for PE and Construction and a deflation factor of 7% for R/W.
3. The Snohomish County 2006 dollar total was derived by using the inflation rates from the WSDOT Capital Projects Management System (CPMS) for PE and Construction and a 7% deflation factor for R/W.

RTID Financial Plan King County

Nominal dollars in millions • Calendar Years

RTID
King County Financial Plan
Nominal dollars in millions • Calendar Years

	CY 2009	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025	CY 2026	CY 2027	20-Year Total	
Sources of Funds																						
Beginning Balance	0	41,195	137,095	85	7	21	40	54	55	83	98	107	112	117	135	146	128	135	140	140		
Revenue Sources																						
0.1% Sales Tax and Use Tax	16,758	52,703	55,023	58	61	64	67	70	74	78	82	86	90	95	99	105	110	116	122	128	1,626	
0.8% MVET	29,691	92,993	97,131	102	107	112	118	124	131	137	144	151	158	166	175	184	193	204	215	225	2,866	
Subtotal Tax Revenue	46,459	145,697	152,154	159	167	176	185	195	205	215	226	237	248	261	274	288	303	318	336	354	4,492	Subtotal Tax Revenue
Sales Tax Transfers	0.000	0.000	2.014	8	18	25	31	27	42	59	59	45	26	9	1	0	5	12	8	15	385	
Total Tax Revenue	46,459	145,697	154,168	167	185	201	216	222	247	275	285	283	276	269	276	288	308	331	344	369	4,888	Total Tax Revenue
Other Sources of Funds																						
Level Loaded Bond Proceeds	0.000	0.000	0.000	159	363	486	50	0	0	0	0	0	0	0	0	0	0	0	0	0	1,070	
Interest-Only Bond Proceeds	0.000	0.000	0.000	0	0	0	340	354	493	474	208	62	35	0	0	68	171	119	145	0	2,470	
Total Bond Proceeds	0.000	0.000	0.000	159	363	486	490	354	493	474	208	62	35	0	0	68	171	119	145	0	3,540	Bond Proceeds
Interest Earnings	0.9	3.5	4.4	1.9	0.7	1.4	2.0	2.5	3.1	3.7	4.1	4.4	4.5	5.0	5.5	5.4	5.3	5.5	5.6	6.1	75	Interest Earnings
Total Sources of Funds	47,378	190,407	295,641	413	556	713	658	632	808	835	597	456	427	391	416	508	613	593	635	515	8,503	Total Sources
Uses of Funds																						
Administration & Debt Service																						
Repay State for Planng & Elction	4.450																				4.5	
Start up DOL costs	0.573																				0.6	
On-going DOR costs	0.158	0.527	0.550	0.6	0.5	0.6	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.1	1.2	1.2	1.3	15	
On-going DOL costs	0.389	0.458	0.507	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	12	
Administrative Costs	0.501	1.227	1.252	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.7	1.7	1.7	29	
Issuance Costs	0.000	0.000	0.000	2.4	5.4	7.3	6.0	5.3	7.4	7.1	3.1	0.9	0.5	0.0	0.0	1.0	2.6	1.8	2.2	0.0	53	
Total Administration Costs	6.181	2.252	2.309	4.7	7.9	9.8	8.6	8.0	10.1	9.9	5.0	3.9	3.6	3.1	3.2	4.3	6.0	5.3	5.8	4.7	115	Administration
Debt Service	0.000	0.000	0.000	4	20	50	82	106	131	162	186	198	207	215	224	233	242	252	261	267	2,840	Debt Service
Total Operations	6.181	2.252	2.309	9	28	59	90	114	141	172	192	202	211	218	228	237	248	258	266	270	2,954	
King County Capital Projects																						
Project Expenditures	0.000	51.060	208.206	397	506	614	514	452	594	565	298	142	100	58	42	142	293	194	229	75	5,380	Project Expenditures
Total Uses of Funds	6.181	53.312	210.515	406	534	673	604	566	735	736	490	344	310	257	270	378	478	451	495	346	8,334	Total Uses
Balance Before Debt Service Reserve	41,195	137,095	85,125	7	21	40	54	55	83	98	107	112	117	135	145	128	135	140	140	169	169	Balance Before Debt Service Reserve
Cumulative Debt Service Reserve	0	0	0	6	20	30	53	68	82	98	106	111	116	121	125	128	135	139	139	139	139	Cumulative Debt Service Reserve
Balance After Debt Service Reserve	41,195	137,095	85,125	1	1	1	1	1	1	1	1	1	1	14	21	1	1	1	1	30	30	Balance After Debt Service Reserve

RTID Financial Plan Pierce County

Nominal dollars in millions • Calendar Years

RTID
Pierce County Funding Potential
Nominal dollars in millions • Calendar Years

	CY 2009	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025	CY 2026	CY 2027	20-Year Total	
Sources of Funds																						
Beginning Balance	0.00	12.92	61.85	1	7	8	11	51	86	153	216	172	9	21	31	39	44	46	49	49		
Revenue Sources																						
0.1% Sales Tax and Use Tax	4.15	13.04	13.62	14	15	16	17	17	18	19	20	21	22	23	25	26	27	29	30	32	402	
0.8% MVET	11.15	35.13	36.91	39	41	43	46	48	51	54	57	60	63	66	70	73	77	82	86	91	1,130	
SubtotalTax Revenue	15.30	48.18	50.52	53	56	59	62	66	69	73	77	81	85	89	94	99	105	110	116	123	1,532	SubtotalTax Revenue
Sales Tax Transfers	0.00	0.00	0.00	0	0	0	0	1	0	0	0	8	14	25	21	21	5	5	1	3	102	
TotalTax Revenue	15.30	48.18	50.52	53	56	59	62	66	69	73	77	87	99	114	115	120	110	115	118	126	1,634	TotalTax Revenue
Other Sources of Funds																						
Level/Loaded Bond Proceeds	0.00	0.00	16.00	125	63	0	0	0	0	0	0	7	175	0	0	0	0	0	3	0	385	
Interest-Only Bond Proceeds	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	175	318	235	142	50	0	0	0	920	
TotalBond Proceeds	0.00	0.00	16.00	125	63	0	0	0	0	0	0	7	349	318	235	142	50	0	3	0	1,308	Bond Proceeds
Interest Earnings	0.3	1.5	1.3	0.2	0.3	0.4	1.2	2.9	4.8	7.2	7.6	3.6	0.6	1.0	1.4	1.6	1.8	1.9	2.0	2.2	44	Interest Earnings
Total Sources of Funds	16	63	130	180	126	68	74	120	171	233	300	269	458	454	383	303	205	163	172	177	3,886	TotalSources
Uses of Funds																						
Administration & Debt Service																						
Repay State for Planning & Election	1.518																				2	
Start up DOL costs	0.195																				0	
On-going DOR costs	0.041	0.130	0.136	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	4	
On-going DOL costs	0.133	0.170	0.173	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	4	
Administrative Costs	0.205	0.419	0.427	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	10	
Issuance Costs	0.000	0.000	0.240	1.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.1	5.2	4.9	3.5	2.1	0.8	0.0	0.0	0.0	20	
Total Administration Costs	2.09	0.72	0.98	2.6	1.7	0.8	0.8	0.8	0.9	0.9	0.9	1.0	6.2	5.7	4.5	3.2	1.8	1.1	1.2	1.1	39	Administration
Debt Service	0.000	0.000	0.384	4	12	15	15	15	15	15	15	15	23	45	64	76	83	86	90	94	684	Debt Service
Total Operations	2.093	0.719	1.360	7	13	16	16	16	16	16	16	16	29	51	68	80	85	88	92	96	723	
Pierce County Capital Projects																						
Project Expenditures	0.58	0.00	126.96	166	104	42	8	8	2	2	113	244	407	372	276	175	75	25	31	19	2,200	Project Expenditures
Total Uses of Funds	2.67	0.72	128.32	173	118	57	24	24	18	18	129	260	437	423	344	259	160	113	122	114	2,923	TotalUses
Balance Before Debt Service Reserve	12.92	61.85	1.31	7	8	11	51	96	153	216	172	9	21	31	39	44	46	49	49	63	63	Balance Before Debt Service Reserve
Cumulative Debt Service Reserve	0	0	1	5	8	8	8	8	8	8	8	8	20	30	38	43	45	47	49	49	49	Cumulative Debt Service Reserve
Balance After Debt Service Reserve	12.92	61.85	0.67	1	1	3	43	88	145	208	164	1	1	1	1	1	1	1	3	1	14	14	Balance After Debt Service Reserve

RTID Financial Plan Snohomish County

Nominal dollars in millions – Calendar years

	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025	CY 2026	CY 2027	30 Year Total	
Sources of Funds																						
Beginning Balance	0	5.846	1.203	2	4	7	12	15	17	18	19	22	25	30	34	39	44	48	52	55		
Revenue Sources																						
0.1% Sales Tax and Use Tax	2.850	8.978	9.394	10	10	11	12	12	13	13	14	15	16	16	17	18	19	20	21	22	282	
Sales Tax and Use Tax Expansion Area	0.665	2.651	2.955	3	3	3	4	4	4	4	4	5	5	5	6	6	6	6	7	7	90	
0.8% MVET	7.456	23.450	24.589	26	27	29	30	32	34	36	37	39	41	43	46	48	51	53	56	60	744	
MVET Expansion Area	3.304	10.392	10.897	11	12	13	13	14	15	16	17	17	18	19	20	21	22	24	25	26	330	
Subtotal Tax Revenue	14.515	45.672	47.863	50	53	56	59	62	66	69	73	76	80	84	89	94	99	104	110	116	1,445	Subtotal Tax Revenue
Sales Tax Transfers	0.000	2.332	0.960	3	4	8	11	2	4	3	2	5	2	3	5	8	7	9	6	7	90	
Total Tax Revenue	14.515	48.005	48.823	53	57	64	69	64	69	72	74	81	82	87	94	101	106	113	115	122	1,535	Total Tax Revenue
Other Sources of Funds																						
Level-Loaded Bond Proceeds	19.000	1.000	9.000	55	81	116	62	45	33	24	67	89	0	0	0	0	0	0	0	0	601	
Interest-Only Bond Proceeds	0.000	0.000	0.000	0	0	0	0	0	0	0	0	0	106	113	126	148	118	115	53	26	805	
Total Bond Proceeds	19.000	1.000	9.000	55	81	116	62	45	33	24	67	89	106	113	126	148	118	115	53	26	1,407	Bond Proceeds
Interest Earnings	0.2	0.2	0.1	0.2	0.4	0.7	1.0	1.1	1.3	1.4	1.5	1.7	2.0	2.3	2.6	3.0	3.3	3.7	3.9	4.1	35	Interest Earnings
Total Sources of Funds	33.677	55.019	59.124	110	142	188	145	125	121	116	162	194	215	232	257	291	270	279	225	208	2,976	Total Sources
Uses of Funds																						
Administration & Debt Service																						
Repay State for Planning & Election	1.432																				1	
Start up DOL costs	0.184																				0	
On-going DOR costs	0.038	0.118	0.124	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	4	
On-going DOL costs	0.125	0.160	0.163	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	4	
Administrative Costs	0.193	0.395	0.403	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	9	
Issuance Costs	0.285	0.015	0.135	0.8	1.2	1.7	0.9	0.7	0.5	0.4	1.0	1.3	1.6	1.7	1.9	2.2	1.8	1.7	0.8	0.4	21	
Total Administration Costs	2.257	0.688	0.825	1.5	1.9	2.5	1.7	1.5	1.3	1.2	1.9	2.2	2.5	2.6	2.8	3.2	2.8	2.7	1.9	1.5	39	Administration
Debt Service	0.456	1.404	1.668	3	8	15	22	26	29	31	34	39	46	53	60	68	77	85	93	98	790	Debt Service
Total Operations	2.713	2.092	2.493	5	10	17	24	27	30	32	36	42	48	55	63	71	80	88	95	99	829	
Snohomish County Capital Projects																						
Project Expenditures	25.118	51.723	54.775	101	125	158	107	81	73	64	104	127	137	143	156	176	143	140	75	53	2,092	Project Expenditures
Total Uses of Funds	27.831	53.815	57.269	106	135	175	130	108	103	96	140	169	185	198	218	247	222	227	169	152	2,921	Total Uses
Balance Before Debt Service Reserve	5.846	1.203	1.855	4	7	12	15	17	18	19	22	25	30	34	39	44	48	52	55	55	55	Balance Before Debt Service Reserve
Cumulative Debt Service Reserve	0.771	0.811	1.176	3	7	11	14	16	17	18	21	24	29	33	37	42	47	51	54	54	54	Cumulative Debt Service Reserve
Balance After Debt Service Reserve	5.075	0.392	0.679	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Balance After Debt Service Reserve

RTID Financial Plan All Three Counties

Nominal dollars in millions • Calendar Years

	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025	CY 2026	CY 2027	20-Year Total	
Sources of Funds																						
Beginning Balance	0	59.958	200.153	88	18	37	63	119	179	254	334	301	147	168	201	224	217	229	242	245		
Revenue Sources																						
0.1% Sales Tax and Use Tax	24.672	77.575	81.018	85	89	94	99	104	109	115	120	126	133	140	147	154	162	171	180	189	2,400	
0.8% MVET	51.599	161.970	169.523	178	187	197	207	219	230	242	255	267	280	295	310	327	344	363	382	404	5,070	
Subtotal Tax Revenue	76.271	239.545	250.541	263	276	291	306	322	340	357	375	393	413	434	457	481	507	533	562	593	7,470	Subtotal Tax Revenue
Sales Tax Transfers	0.000	2.332	2.974	11	22	33	42	30	46	63	61	57	43	36	28	29	17	26	15	24	587	
Total Tax Revenue	76.271	241.877	253.515	274	298	324	348	352	385	420	436	451	456	470	485	510	523	559	577	617	8,057	Total Tax Revenue
Other Sources of Funds																						
Level-Loaded Bond Proceeds	19.000	1.000	25.000	339	507	605	122	45	33	24	67	96	175	0	0	0	0	0	3	0	2,060	
Interest-Only Bond Proceeds	0.000	0.000	0.000	0	0	0	340	354	493	474	209	62	316	431	361	358	339	234	198	26	4,195	
Total Bond Proceeds	19.000	1.000	25.000	339	507	605	462	399	526	498	276	158	490	431	361	358	339	234	201	26	6,255	Bond Proceeds
Interest Earnings	1.373	5.165	5.729	2	1	2	4	7	9	12	13	10	7	8	10	10	10	11	11	12	154	Interest Earnings
Total Sources of Funds	96.644	308.000	484.397	703	824	968	877	877	1,100	1,184	1,059	920	1,101	1,078	1,057	1,102	1,090	1,033	1,032	900	14,466	Total Sources
Uses of Funds																						
Administration & Debt Service																						
Repay State for Planning & Election	7.400																				7.4	
Start up DOL costs	0.952																				1.0	
On-going DOR costs	0.247	0.776	0.810	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	24	
On-going DOL costs	0.648	0.827	0.844	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19	
Administrative Costs	1.000	2.041	2.082	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	47	
Issuance Costs	0.285	0.015	0.375	5	8	9	7	6	8	7	4	2	7	6	5	5	5	4	3	0	94	
Total Administration Costs	10.531	3.659	4.110	9	12	13	11	10	12	12	9	7	12	11	11	11	11	9	9	6	183	Administration
Debt Service	0.456	1.404	2.052	11	40	79	119	147	175	208	235	252	276	314	348	377	402	424	444	459	4,313	Debt Service
Total Operations	10.987	5.063	6.163	20	52	92	130	157	187	220	243	259	288	325	358	388	413	433	453	465	4,506	
Capital Projects																						
Project Expenditures	25.699	102.783	389.940	664	735	813	628	541	659	631	514	513	644	552	474	497	448	359	334	147	9,672	Project Expenditures
Total Uses of Funds	36.686	107.847	396.103	684	787	906	758	698	846	850	758	772	932	877	832	885	861	792	787	612	14,178	Total Uses
Balance Before Debt Service Reserve	59.958	200.153	88.294	18	37	63	119	179	254	334	301	147	168	201	224	217	229	242	245	288	288	Balance Before Debt Service Reserve
Cumulative Debt Service Reserve	0.771	0.811	1.816	15	34	58	74	88	106	124	135	144	165	184	200	213	226	237	242	242	242	Cumulative Debt Service Reserve
Balance After Debt Service Reserve	59.188	199.342	86.478	3	3	5	45	90	147	210	166	3	3	16	24	3	3	5	3	46	46	Balance After Debt Service Reserve
Required Debt Service Coverage Ratio	1.25																					
Debt Service Coverage Ratio	167.44	170.58	122.08	23.06	6.90	3.67	2.58	2.19	1.94	1.72	1.60	1.56	1.49	1.38	1.31	1.28	1.26	1.26	1.27	1.29	1.26	Lowest Debt Service Coverage Ratio
Sufficient cash accum. to paydebt by	2037																				2037	Sufficient cash accum. to paydebt by

RTID Level-Loaded Debt Service Calculations

Nominal dollars in millions • Calendar Years

Level-Loaded Debt Service Calculations																						
		CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025	CY 2026	CY 2027	20-Year Total
Bond Sales		19	1	25	339	507	605	122	45	33	24	67	96	175	-	-	-	-	-	3	-	2,050
Debt Service Estimates																						
	2008	0.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	27
	2009		0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1
	2010			0.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	31
	2011				8.1	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	402
	2012					12.1	36.8	36.8	36.8	36.8	36.8	36.8	36.8	36.8	36.8	36.8	36.8	36.8	36.8	36.8	36.8	564
	2013						14.5	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	630
	2014							2.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	118
	2015								1.1	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	40
	2016									0.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	27
	2017										0.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	18
	2018											1.6	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	45
	2019												2.3	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	58
	2020													4.2	12.7	12.7	12.7	12.7	12.7	12.7	12.7	93
	2021														-	-	-	-	-	-	-	-
	2022															-	-	-	-	-	-	-
	2023																-	-	-	-	-	-
	2024																	-	-	-	-	-
	2025																		-	-	-	-
	2026																			0.1	0.2	0
	2027																				-	-
Total Debt Service		0.5	1.4	2.1	11.4	40.0	79.2	111.5	118.6	121.6	123.8	126.5	132.1	140.9	149.4	149.4	149.4	149.4	149.4	149.5	149.7	2,056
Bond Sales Costs		0.3	0.0	0.4	5.1	7.6	9.1	1.8	0.7	0.5	0.4	1.0	1.4	2.6	-	-	-	-	-	0.0	-	31
level-loaded interest rates		6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	
Remaining Principal																						
	2008	18.9	18.7	18.4	18.1	17.8	17.5	17.2	16.9	16.5	16.1	15.7	15.3	14.8	14.3	13.8	13.2	12.6	12.0	11.3	10.6	
	2009		1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.6	
	2010			24.9	24.6	24.2	23.9	23.5	23.1	22.6	22.2	21.7	21.2	20.6	20.1	19.5	18.8	18.1	17.4	16.6	15.8	
	2011				337.1	332.7	328.1	323.2	318.0	312.5	306.6	300.4	293.9	286.9	279.5	271.7	263.4	254.6	245.3	235.5	225.0	
	2012					504.5	498.0	491.0	483.7	475.9	467.6	458.9	449.6	439.8	429.4	418.4	406.6	394.2	381.1	367.2	352.4	
	2013						602.5	594.7	586.4	577.6	568.3	558.5	548.0	537.0	525.2	512.8	499.6	485.6	470.8	455.1	438.5	
	2014							121.5	119.9	118.2	116.5	114.6	112.6	110.5	108.3	105.9	103.4	100.7	97.9	94.9	91.8	
	2015								44.8	44.2	43.6	43.0	42.3	41.5	40.8	39.9	39.1	38.1	37.2	36.1	35.0	
	2016									33.3	32.8	32.4	31.9	31.4	30.8	30.3	29.6	29.0	28.3	27.6	26.8	
	2017										23.9	23.6	23.3	22.9	22.5	22.2	21.7	21.3	20.8	20.3	19.8	
	2018											66.7	65.9	64.9	64.0	62.9	61.8	60.7	59.5	58.2	56.8	
	2019												95.6	94.4	93.0	91.7	90.2	88.6	87.0	85.2	83.3	
	2020													173.8	171.5	169.1	166.6	163.9	161.1	158.1	154.9	
	2021														-	-	-	-	-	-	-	
	2022															-	-	-	-	-	-	
	2023																-	-	-	-	-	
	2024																	-	-	-	-	
	2025																		-	-	-	
	2026																			3.0	2.9	
	2027																				-	
Level-Loaded Remaining Principal		19	20	44	381	880	1,471	1,572	1,594	1,602	1,599	1,636	1,700	1,839	1,800	1,759	1,715	1,668	1,619	1,570	1,514	

RTID Interest-Only Debt Service Calculations

Nominal dollars in millions • Calendar Years

Interest-Only Debt Service Calculations

	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025	CY 2026	CY 2027	20-Year Total
Bond Sales	-	-	-	-	-	-	340	354	493	474	209	62	316	431	361	358	339	234	198	26	4,195
Debt Service Estimates																					
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2009		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2010			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2011				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2012					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2013						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2014							7.0	21.3	21.3	21.3	21.3	23.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2	333
2015								7.3	22.1	22.1	22.1	22.1	24.2	28.4	28.4	28.4	28.4	28.4	28.4	28.4	318
2016									10.2	30.8	30.8	30.8	30.8	33.7	39.5	39.5	39.5	39.5	39.5	39.5	404
2017										9.8	29.6	29.6	29.6	29.6	32.4	38.0	38.0	38.0	38.0	38.0	350
2018											4.3	13.1	13.1	13.1	13.1	14.3	16.7	16.7	16.7	16.7	138
2019												1.3	3.9	3.9	3.9	3.9	4.3	5.0	5.0	5.0	36
2020													6.5	19.7	19.7	19.7	19.7	21.6	25.3	25.3	157
2021														8.9	26.9	26.9	26.9	26.9	29.4	34.5	181
2022															7.4	22.6	22.6	22.6	22.6	22.6	120
2023																7.4	22.4	22.4	22.4	22.4	97
2024																	7.0	21.2	21.2	21.2	71
2025																		4.8	14.6	14.6	34
2026																			4.1	12.4	16
2027																				0.5	1
Total Debt Service	-	-	-	-	-	-	7.0	28.6	53.5	84.0	108.1	120.1	135.3	164.5	198.5	227.8	252.6	274.2	294.3	308.2	2,257
Bond Sales Costs	-	-	-	-	-	-	5.1	5.3	7.4	7.1	3.1	0.9	4.7	6.5	5.4	5.4	5.1	3.5	3.0	0.4	63
Interest-only interest rates	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	
Remaining Principal																					
2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2009		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2010			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2011				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2012					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2013						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2014							340	340	340	340	340	340	334	328	321	314	306	298	289	280	
2015								354	354	354	354	354	354	348	341	334	327	319	310	301	
2016									493	493	493	493	493	493	484	475	465	455	444	432	
2017										474	474	474	474	474	474	466	457	447	437	427	
2018											209	209	209	209	209	209	205	201	197	193	
2019												62	62	62	62	62	62	61	60	59	
2020													316	316	316	316	316	316	310	304	
2021														431	431	431	431	431	431	431	
2022															361	361	361	361	361	361	
2023																358	358	358	358	358	
2024																	339	339	339	339	
2025																		234	234	234	
2026																			198	198	
2027																				26	
Interest-Only Remaining Principal	-	-	-	-	-	-	340	694	1,187	1,661	1,870	1,932	2,242	2,660	2,999	3,326	3,627	3,820	3,970	3,943	
Total Remaining Principal	19	20	44	381	880	1,471	1,912	2,288	2,789	3,260	3,506	3,633	4,081	4,461	4,758	5,040	5,295	5,439	5,539	5,458	

Appendix D: Supporting Environmental Documentation

Final Environmental Impact Statement — May 10, 2001

Proposed

DESTINATION 2030

Metropolitan Transportation Plan for the Central Puget Sound Region

Volume 1

— Description of the Preferred Alternative and Environmental Impact/Mitigation Measures

Puget Sound Regional Council

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Pierce County
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Washington Transportation Commission

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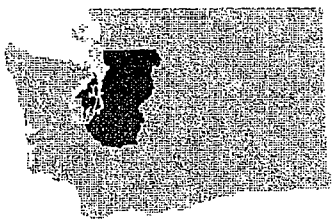
The Tulalip Tribes



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

Additional copies of this report may be obtained by contacting:

Puget Sound Regional Council
Information Center
1011 Western Avenue, Suite 500
Seattle, Washington 98104-1035
(206) 464-7532 • fax (206) 587-4825
infoctr@psrc.org

Sign language, and communication material in alternative formats, can be arranged given sufficient notice by calling (206) 464-7090. TDD\TTY: (206) 464-5409.

May 10, 2001

Dear Member of the Puget Sound Regional Council and Interested Parties:

Enclosed is a copy of the Final Environmental Impact Statement (FEIS) for *Destination 2030*, the Metropolitan Transportation Plan for the central Puget Sound region. *Destination 2030* is scheduled to be adopted by the General Assembly of the Puget Sound Regional Council on May 24, 2001. This plan clarifies and adds implementation details to the Metropolitan Transportation Plan that was adopted in 1995 and amended in 1996. The plan represents the efforts of government agencies serving the region comprised of King, Pierce, Snohomish, and Kitsap counties to coordinate planning of diverse transportation systems to support the region's anticipated growth and meet it's economic and environmental goals through the year 2030.

Volume One of the Final Environmental Impact Statement contains a description of the Preferred Alternative, identifies the environmental impacts associated with the Preferred Alternative, and identifies appropriate mitigation measures. Volume Two contains the comment letters received on the Draft Environmental Impact Statement and responses to those letters.

Preparation of the Final Environmental Impact Statement and the *Destination 2030* plan has included extensive agency and public involvement over the past two years. Work on *Destination 2030* and its environmental review was guided by the Regional Council's Transportation and Growth Management Policy Boards, and the Executive Board.

Destination 2030 is available through the Regional Council's Information Center at 206-464-7532, on the Web at psrc.org, or through your local library. The Final Environmental Impact Statement is available on compact disk (and paper upon request) from the Information Center. Volume I of the FEIS is also available on the Web at psrc.org.

Sincerely,

Norman A. Abbott
SEPA Responsible Official

TABLE OF CONTENTS

Volume One — Description of the Preferred Alternative, and Environmental Impact/Mitigation Measures

Volume Two: Comment Letters and Responses to Comment Letters on Draft Environmental Impact Statement (under separate cover)

Volume Two: Appendices (under separate cover)

EIS FACT SHEET

Description:

This document is a Final Environmental Impact Statement for *Destination 2030*, the Metropolitan Transportation Plan for the central Puget Sound region. This is a "non-project" environmental impact statement that complies with State Environmental Policy Act rules under RCW 43.21C and Chapter 197-11 WAC. The purpose of this environmental document is to 1) analyze the environmental impacts of the preferred transportation alternative published in the *Destination 2030* plan dated May 3, 2001, and 2) respond to comments received on the *Metropolitan Transportation Plan Alternatives Analysis and Draft Environmental Impact Statement* dated August 31, 2000.

Lead Agency and Source of Proposal:

Puget Sound Regional Council
1011 Western Avenue, Suite 500
Seattle, Washington 98104
206-464-7090 • psrc.org

Contact: Puget Sound Regional Council Information Center • 206-464-7532

State Environmental Policy Act (SEPA) Responsible Official: Norman A. Abbott, Principal Planner

Authors and Principal Contributors:

Puget Sound Regional Council
1011 Western Avenue, Suite 500
Seattle, Washington 98104

Huckell/Weinman Associates, Inc.
270 3rd Avenue, Suite 200
Kirkland, Washington 98033

Licenses Required: No licenses are required.

Final Environmental Impact Statement Date of Issue: May 10, 2001

Scheduled Date of Adoption of Destination 2030: May 24, 2001

Location of Document and Supporting Technical Reports: Copies available from:

Puget Sound Regional Council
Information Center
1011 Western Avenue, Suite 500
Seattle, Washington 98104
206-464-7090 • psrc.org

Cost of Document to the Public: No cost for individual copies.

ABOUT THE REGIONAL COUNCIL

The Puget Sound Regional Council is the regional growth, economic, and transportation planning agency for King, Kitsap, Pierce, and Snohomish counties. In addition to the four counties, its members include 70 cities and towns in the region; the Ports of Seattle, Tacoma, and Everett; the Washington State Department of Transportation; and the Washington Transportation Commission. Associate members include the Daniel J. Evans School of Public Affairs, Island County, the Thurston Regional Planning Council, the Port of Bremerton, the Puyallup Tribal Council, and the Tulalip Tribes. Local and regional transit agencies are also engaged in the Council's work. The Regional Council is governed by a General Assembly and Executive Board. The General Assembly, composed of all members, meets at least once annually to make decisions on key issues, including the agency's annual budget and major policy issues. The Executive Board, appointed by the General Assembly, meets monthly to carry out delegated powers and responsibilities. A Transportation Policy Board and a Growth Management Policy Board provide recommendations to the Executive Board. The Policy Boards include representatives of the Regional Council's member jurisdictions and representatives of business, labor, civic, and environmental groups. The Transportation Policy Board also includes representatives from transit agencies.

SECTION ONE: INTRODUCTION

This document contains the Final Environmental Impact Statement (FEIS) for *Destination 2030*, the Metropolitan Transportation Plan for the central Puget Sound region. This is a "non-project" environmental impact statement that complies with State Environmental Policy Act rules under RCW 43.21C and Chapter 197-11 WAC. The purpose of this environmental document is to 1) analyze the environmental impacts of the preferred transportation alternative published in the *Destination 2030* plan dated May 3, 2001, and 2) respond to comments received on the *Metropolitan Transportation Plan Alternatives Analysis and Draft Environmental Impact Statement* dated August 31, 2000.

Volume One of this environmental review contains an introduction and explanation of the *Destination 2030* plan and its environmental review. It provides a description of the Preferred Alternative and identifies the environmental impacts and mitigation measures associated with the plan. Volume Two contains the comment letters received and a response to each comment.

What is Destination 2030?

The Puget Sound Regional Council is updating the 1995 Metropolitan Transportation Plan, the new plan being titled *Destination 2030*. The work focuses on implementing and updating the Metropolitan Transportation Plan that was adopted in 1995 and amended in 1996. *Destination 2030* is scheduled for adoption by the Regional Council's General Assembly on May 24, 2001.

Destination 2030 is a detailed, long-range plan for future investments in the central Puget Sound region's transportation system. Developed as the transportation element of VISION 2020, the region's economic and growth strategy, *Destination 2030* serves as the region's required Metropolitan Transportation Plan, and represents a primary step in the ongoing efforts of regional planning and the process of implementation. It provides a comprehensive statement of the region's future transportation needs and contains policies aimed at improving mobility and access.

The basic building blocks of *Destination 2030* are city, county, port and transit agency plans, adopted multicounty and countywide planning policies, and the Washington State Department of Transportation (WSDOT) Multimodal and Transportation System Plans. *Destination 2030* includes a 2001 - 2010 "action strategy" within the context of the long-term plan.

Process and Schedule for Developing the Environmental Statement

The process and schedule for developing the Environmental Impact Statement is outlined below.

Date	Milestone
September 1, 1999	Initiation of Destination 2030 environmental scoping process.
October 15, 1999	Close of public comment period on scope of the environmental review for Destination 2030.
December 9, 1999	Transportation and Growth Management Policy Boards approve environmental review scoping report.
August 31, 2000	Destination 2030 Alternatives Analysis and Draft Environmental Impact Statement published.
October 20, 2000	Close of public comment period on Draft Environmental Impact Statement.
November 27, 2000	Close of extended public comment period for least cost planning analysis.
February 21, 2001	Regional Staff Committee reviews/recommends draft plan to Policy Boards.
March 8, 2001	Policy Boards recommend draft plan to Executive Board.
March 15, 2001	Draft Destination 2030 plan available.
March 29, 2001	General Assembly presentation and discussion on draft plan.
April 10, 2001	Public hearing on draft Destination 2030 plan.
April 26, 2001	Executive Board recommends plan to General Assembly.
May 3, 2001	Final Destination 2030 plan available.
May 10, 2001	Final Environmental Impact Statement available.
May 24, 2001	General Assembly action on Destination 2030.

Scoping Process

The scoping process began in September 1999. The purpose of environmental scoping is to narrow the focus of the EIS to significant environmental issues related to plan implementation options, to eliminate insignificant impacts from detailed study, and to identify alternatives to be analyzed in the EIS. The scoping process concluded in December 1999 with the Transportation and Growth Management Policy Boards review and approval of a report entitled *Scope of the Environmental Review for the 2001 Update of the Metropolitan Transportation Plan.* The scoping process yielded three broad strategies designed to stimulate discussion and analysis of alternative means of implementing policies in the adopted Metropolitan Transportation Plan (MTP) and VISION 2020. For analysis purposes, the strategies were categorized into the following types of alternatives: No Action, Re-Affirm Adopted MTP, and Modify MTP. An announcement of the scoping process was published in local newspapers and in the Regional Council's newsletter, *Regional VIEW.* The scoping documents were mailed to local jurisdictions, agencies with jurisdiction and expertise, tribal governments, interest and community groups, and individual citizens who have asked to be placed on the mailing list.[1] The scoping report is available by contacting the Regional Council's Information Center at 206-464-7532.

[1] See Appendix 1 of *Scope of the Environmental Review for the 2001 Update of the Metropolitan Transportation* Plan (December 1999).

Public Outreach

Beginning in the Spring of 1999, and continuing throughout the adoption process, the Regional Council engaged in early and continuous outreach efforts to inform the general public and decision-makers about the update scope and process, and to elicit comment and advice that would guide development of the plan. During the scoping process in the fall of 1999, four public meetings were held during a 30 day public review period. This public process produced a wide range of thoughtful comments. In total, thirty-four comments were received from persons attending one of the public meetings and thirteen letters or email correspondences were received from persons not attending one of the meetings.

To encourage citizen comment and raise awareness about the plan update, the Regional Council held five public meetings throughout the region on alternatives for the plan, and made over 240 presentations to civic, business and community groups reaching over 5,100 persons. The Regional Council's website featured detailed information about the plan and its development process. The Council also employed direct mail, telephone calls, and display advertisements in daily regional newspapers to inform the public of opportunities to participate in the plan development process. In addition, videotapes of Regional Council board meetings were distributed for broadcast to community cable television stations throughout the region. In February 2001, the Regional Council partnered with KING TV to deliver a series of public service announcements to raise public awareness about the plan.

Public Review and Comment on Draft Environmental Impact Statement

The Regional Council received a large volume of comments on the alternatives analyzed in the Destination 2030 Draft Environmental Impact Statement. The comments that were received cover a wide-range of issues and represent a cross section of the regional community. In total, 326 letters containing 1,400 individual comments were received, including over 271 letters and emails from individuals. In addition 33 late letters were received, twenty-six from individuals and seven from agencies. The late letters were included in comment letters binders and made available to Regional Council decision-makers, but they were not responded to as part of the Final Environmental Impact Statement.

Both the comment letters and responses are contained in Volume Two of this Final Environmental Impact Statement.

SECTION TWO: SUMMARY DESCRIPTION OF THE PREFERRED ALTERNATIVE — DESTINATION 2030 - METROPOLITAN TRANSPORTATION PLAN FOR THE CENTRAL PUGET SOUND REGION*

Destination 2030 includes better roads, better transit, better ferry service and much more. The Plan includes:

- **Roads.** Over 2,000 new miles of road to fix the region's clogged traffic arteries – targeting today's worst choke-points, finishing what's been started, and anticipating future snarls. More than 1,000 lanes of new road would be added within the next 10 years, along with 27 new interchanges, 15 new overpasses and 185 upgrades to intersections.

- **Transit.** The first 21 miles of light rail through the region's most heavily traveled corridor would be running within the next 10 years, when local bus service would also increase by 40 percent. Bus service would increase 80 percent region-wide by 2030. *Destination 2030* also includes more frequent rush hour commuter rail service from Everett to Lakewood and faster and more frequent Amtrak train service between major cities from Portland to Vancouver, BC; over 25,000 new park-and-ride stalls; 800 more vanpools; traffic signal upgrades on over 1,000 miles of road; and about 2,000 miles of new walkways and bikeways that connect to communities and transit.

- **Ferries.** Six new capacity passenger ferries and two new capacity auto ferries would be added to the fleet to provide faster and more frequent trips across Puget Sound from far better terminals. Within 20 years, the total people- carrying capacity of ferries would increase 24 percent, and car capacity would be up 13 percent.

- **System and Demand Management.** *Destination 2030* also emphasizes the critical role of managing and making maximum use of the transportation facilities that are currently in place. The plan includes Intelligent Transportation System (ITS) and Transportation Demand Management (TDM) components. It also includes growth management initiatives designed to influence travel and implement local comprehensive plans.

By 2030, the region will support nearly 4.7 million people – about 1.5 million more people and 800,000 more jobs. These additional people and jobs are expected to increase travel by 60 percent. By comparing current trends to changes identified in *Destination 2030*, it's possible to use computer models to glimpse the future 30 years from now. Here are some of the results:

Better Value

In order to get the best deal for taxpayers, transportation planners and elected leadership within the region have assessed the region's options based on the total costs to all of us, listened to people, and have advanced a plan that strives to provide the best value.

* Please see Destination 2030 and its Executive Summary for a complete description of the plan.

Destination 2030 identifies ways to reduce and control costs. Early action is one cost-effective tool. With delay, costs spiral. The plan also provides guidance regarding how investments should be prioritized to maximize benefits to the transportation system. Traffic management tools are identified to get more out of each investment. Pricing incentives are called for in future years to help better manage transportation resources and reduce the need for ever more expensive infrastructure.

For central Puget Sound residents, reducing costs also means keeping more of the tax dollars collected here. *Destination 2030* supports state and federal policies to assure the region a fair rate of return on every state and federal transportation tax. It also promotes new regional sources of funding that raise money here, and invest all of it here, on regional priorities, period.

Better Coordination

Destination 2030 supports planning efforts in every part of the region. It's the result of extensive coordination between federal, state, regional, and local transportation agencies, tribes and ports. But it's not just the government's plan. The specifics have been developed with broad input and the help of the region's many private sector engineering and planning resources, and business, labor and environmental interests. The plan has benefitted from advice from thousands of people motivated to help make their region an even better place to live.

The plan was also coordinated extensively with the Blue Ribbon Commission on Transportation, which spent over two years studying the transportation needs of the entire state of Washington. The Commission's recommendations support what's in *Destination 2030* and urge action. Commission reforms that don't require action by the state legislature, or voters, have already been included in *Destination 2030*.

Better Plan Management

Destination 2030 includes a commitment to develop benchmarks to track the region's progress toward key goals like: making travel faster, keeping the air clean and healthy, making roads and buses more safe, providing more access to transit, adequately maintaining roads and bridges, and making growth management work. Monitoring performance will allow the region to make adjustments if things aren't working. The plan is not set in stone. It is updated every two years.

Better Ways To Grow

Destination 2030 supports growth in ways most people who live here say they want to grow. The Puget Sound region's enviable cultural environment, outstanding natural setting and economic vitality have combined to produce tremendous civic pride, a strong sense of citizen ownership, and significant region-wide consensus about the future. That vision, detailed in a pioneering strategy called VISION 2020, is designed to keep and enhance the things people treasure.

In support of that vision, *Destination 2030* focuses first on maintaining, preserving and managing the existing multi-billion dollar public investment in the transportation system. New roads designed to support planned growth don't get built until old roads are fixed and made safer. Ferry routes don't

get expanded until workhorse routes are safely sustained. New bus service doesn't get deployed until existing productive routes are adequately maintained.

The plan supports the diverse and coordinated ambitions of the region's counties, ports, cities, towns and neighborhoods. This includes focusing more growth in lively urban environments connected by swifter and safer roads, buses, fast ferries and rails. This connection between land use and transportation is intended to reduce infrastructure costs and provide better links between home and work, and all the other things that are part of life.

For the first time, all of the region's growth management plans are in-sync with a long-range transportation plan to support them.

Central Puget Sound Region

KING, KITSAP, PIERCE AND SNOHOMISH COUNTIES

Current Population	3.2 million
2030 Population	4.7 million

Destination 2030 Financial Summary

PROGRAM AREA

System Expansion	$49.5 Billion
Basic Needs	$53.9 Billion
Total Planned Investments	$105.5 Billion
Current Law Revenue, 2001-2030	$57.2 Billion
New Revenues	$40.0-45.0 Billion

The next two tables address system performance in terms of vehicle miles traveled, daily person trips, and average daily delay. These tables demonstrate that *Destination 2030* reduces the amount of travel, changes the way we travel, and improves the efficiency of the mode of travel we select to use. Data in the 2030 "Trend" column refers to the continuation of status quo without implementing investments and strategies in *Destination 2030.*

Transportation System Performance

PERFORMANCE INDICATOR	2030 TREND	DESTINATION 2030
Total Daily Vehicle Miles Traveled	97,968,509	93,501,250
Daily Vehicle Miles Traveled Per Capita	20.8	19.9
TOTAL DAILY PERSON TRIPS		
SOV	9,244,296	9,088,504
Carpool	6,331,287	6,459,464
Transit	773,625	839,049
All Motorized Modes	16,349,208	16,387,017

Average Daily Vehicle Delay

Subarea	2030 Trend Hours of Delay	2030 Trend Minutes of Delay Per Household	Destination 2030 Hours of Delay	Destination 2030 Minutes of Delay Per Household
Region	999,998	29.8	239,731	7.2
Northwest King County	65,407	9.3	31,640	4.5
East King County	69,032	14.8	41,912	9.0
South King County	122,091	19.5	63,929	10.2
King County	256,531	14.3	137,481	7.7
Kitsap County	23,649	8.3	3,827	1.3
Pierce County	650,514	97.2	54,145	8.1
Snohomish County	69,235	11.5	44,278	7.4

Summary of Investments

- US 2: Everett to Skykomish
- SR 522: Woodinville to Monroe
- SR 9: Woodinville to Arlington
- SR 509: Complete SR 509 (Burien to I-5)
- SR 99: Federal Way to Lynnwood
- SR 520: Seattle to Redmond
- I-405: Tukwila to Lynnwood
- I-90: I-5 to I-405 and from Sunset Interchange (Issaquah) going east
- SR 18: I-5 to I-90 (Covington to Snoqualmie)
- SR 3: Belfair to Silverdale and Poulsbo to Hood Canal
- SR 167: Puyallup to Port of Tacoma
- Cross Base Highway: I-5 to Meridian (SR 161)
- SR 512: I-5 to Meridian (SR 161)
- SR 16: Tacoma to Kitsap County
- Ferries: Six new capacity passenger ferries and two new capacity auto ferries added to the fleet to provide faster and more frequent trips across Puget Sound from far better terminals. Within 20 years total people-carrying capacity of ferries would increase 24 percent, and car capacity would be up 13 percent.
- Better Technology: Traffic signal upgrades on over 1,000 miles of road, better traveler information via the Web and other emerging technologies, improved response times to clean up accidents faster, and more.
- Roads: Over 2,000 new lanes of road to fix the region's worst choke-points, finish what's been started, and anticipate future snarls. More than 1,000 miles of new road could be open to traffic within the next 10 years, along with 27 new interchanges, 15 new overpasses and 185 upgrades to intersections. Our existing roads would be adequately maintained and critical bridges retrofitted to meet earthquake standards.
- Transportation Choices: *Destination 2030* contains over 25,000 new park-and-ride stalls; 800 more vanpools, and about 2,000 miles of new walkways and bikeways.
- Bus and Rail: The first 21 miles of light rail through the region's most heavily traveled corridor would be running within the next 10 years. Local bus service would also increase by 40 percent. Bus service would increase 80 percent region-wide by 2030. Further out: extensions of light rail or even better bus or monorail service. *Destination 2030* also includes more frequent rush hour commuter rail service from Everett to Lakewood, and faster and more frequent Amtrak train service between major cities from Portland to Vancouver, BC.

SECTION THREE: IMPACTS OF THE PREFERRED ALTERNATIVE AND MITIGATION MEASURES

This section of the FEIS contains two parts. The first sub-section contains a summary of the impacts and mitigation measures and the second contains a detailed analysis of the impacts and mitigation measures.

Summary of Environmental Impacts and Mitigation Measures

This section of the FEIS summarizes environmental impacts and mitigation measures for the *Destination 2030* Preferred Alternative.

Transportation

Impacts: Under the Preferred Alternative (*Destination 2030*), VMT is expected to increase by 45% and population by 50% over the next 30 years. To address this growth, the plan calls for an aggressive program of transportation investments. The result is that the growth can be accommodated with relatively minor impacts – for example a 2% increase in congestion (PM peak) in 2030.

Mitigation Measures: Mitigation would be inherent with adoption of the Preferred Alternative.

Air Quality

Impacts: Federal air quality conformity requirements will be met. Pollutant levels for CO, VOC's, and NOx will not be exceeded.

Mitigation Measures: Federal air quality conformity requirements will be met through reducing VMT and congestion.

Global Warming

Impacts: Investment in transportation modes that would reduce VMT would minimize impacts on global warming from related fossil fuel burning.

Mitigation Measures: Under the Preferred Alternative, transportation modes that would reduce VMT include transit, HOV, and non-motorized. TDM and pricing strategies also assist with mitigation of global warming.

Land and Shoreline Use

Impacts: The regional land use pattern would follow VISION 2020; land use impacts would generally be as identified in the environmental documents for VISION 2020, countywide planning policies for the region's counties, and city and county comprehensive plans. The Preferred Alternative would be consistent with GMA to the degree that it supports and implements the regional land use patterns. The Preferred Alternative would also support Multicounty Planning Policies.

Mitigation Measures: The Preferred Alternative is intended to implement regional policy and mitigate potential impacts associated with urban growth from a regional perspective. At a local level,

jurisdictions with land use planning responsibilities would identify discrete actions to mitigate the direct impacts of urbanization.

Water Quantity

Impacts: New transportation facilities in the region would generate an incremental increase in impervious surfaces. However, it is unlikely that significant impacts to water quantity characteristics would occur on a regional basis or for individual watersheds in the region.

Mitigation Measures: Stormwater management actions would be implemented, particularly those designed to control peak flows under post-development conditions. Current technical standards for stormwater management measures in the Central Puget Sound Basin are established in the Stormwater Management Manual for the Puget Sound Basin (WDOE, 1992). Washington Department of Ecology (WDOE) has developed and is refining a 1999 draft update of the manual in conjunction with recovery planning efforts for Puget Sound chinook salmon. WDOE expects to issue a final updated manual during 2001. The final manual is expected to be approved by national Marine Fisheries Service as sufficiently protective of salmon and their habitat.

Water Quality

Impacts: New transportation facilities in the region would generate an incremental increase in water pollutants. Each project would need site-specific analysis of potential water quality impacts and application of mitigation measures prior to approval for construction.

Mitigation Measures: Stormwater management actions would be implemented, particularly those designed to provide source control of runoff pollution and water quality treatment of Stormwater. Current technical standards for stormwater management measures in the Central Puget Sound Basin are established in the Stormwater Management Manual for the Puget Sound Basin (WDOE, 1992). WDOE has developed and is refining a 1999 draft update of the manual in conjunction with recovery planning efforts for Puget Sound chinook salmon. WDOE expects to issue a final updated manual during 2001. The final manual is expected to be approved by national Marine Fisheries Service as sufficiently protective of salmon and their habitat.

Wildlife

Impacts: New transportation facilities in the region would result in removal of vegetation, loss of wetland area, and associated loss of wildlife habitat. The greatest habitat loss and disturbance effects would likely be concentrated in the urbanized portions of the region with relatively low-value habitat. However, transportation improvements that would be located in less-developed areas would have the greatest potential to affect natural vegetation and higher-quality wildlife habitat. Indirect impacts on wildlife would likely be of greater concern than direct impacts. Habitat loss and disturbance effects from the spread of urban development would likely be greater than from regional transportation projects. Indirect effects would more likely occur in less-developed and/or rural areas.

Mitigation Measures: Measures would include limiting the extent of right-of-way expansion and leaving existing vegetation within the right-of-way where possible. It may be feasible to relocate transportation facility alignments to avoid relatively rare or high quality wildlife habitats. Transportation projects can also incorporate design features such as berms, walls, and vegetative screening that reduce the disturbance effects on wildlife and habitat. Mitigation funding could be allocated by local governments and agencies to acquire off-site lands that provide quality wildlife habitat, and to enhance the habitat on those lands or existing protected lands, as compensatory mitigation.

Fish

Impacts: Impacts on fish could include worsening habitat conditions in some areas that have already been degraded, plus new threats to some aquatic systems that are currently in relatively good condition. Direct effects on fish would likely consist of small incremental impacts in the form of water quality and quantity changes and the loss or physical degradation of fish habitat. Indirect impacts of the same types would likely be of greater concern than direct impacts. Indirect impacts would occur on a more widespread basis through expanded urban areas and particularly into rural areas.

Mitigation Measures: Construction and maintenance of projects will be subject to careful review for compliance with the "4(d) rule" issued by the National Marines Fishing Service (NMFS) in June 2000 to protect listed fish and their habitat. Typical construction mitigation includes:

- Seasonal restrictions on in-channel work.
- Requirements for temporary erosion and sedimentation control plans.
- Spill prevention and control plans.
- Inspection and enforcement provisions.

In addition, specific requirements promulgated under the Endangered Species Act (ESA) requires jurisdictions within the Puget Sound Evolutionarily Significant Unit (ESU) to apply road maintenance Best Management Practices.

Vegetation and Wetlands

Impacts: New transportation facilities in the region would likely result in a relatively small incremental increase in the development-related loss of vegetation. Mandatory wetland mitigation provisions, including replacement ratios for lost wetland area, would reduce the signification of wetland impacts and could result in a numeric increase in wetland area. Impacts on existing vegetation and wetlands from expansion of the regional transportation system will be evaluated on a project-specific basis as individual actions are implemented in the future. Indirect impacts to vegetation and wetlands are likely to be of greater concern than direct impacts.

Mitigation Measures: Measures would include limiting the extent of right-of-way expansion, leaving existing vegetation within the right-of-way where possible, and salvage of native vegetation that must be removed for transplanting to other sites. It may be feasible to relocated transportation facility

alignments to avoid relatively rare or high value vegetative communities. Federal, state and local laws and regulations would provide an extensive framework for mitigation of wetland impacts. Indirect impacts to wetlands associated with changes in land use patterns would be subject to similar mitigation provisions administered by respective local land use jurisdictions.

Historic and Cultural Resources

Impacts: New transportation facilities in the region could intrude on historic districts or disturb the setting of individual sites. Potential impacts could be greatest in urban areas where the highest concentration of resources are located. Impacts to historic or cultural properties are defined as those that would result in the following:

- Isolation of the resource or alternation of the historic setting.
- Economic deterioration of historic commercial districts or the deterioration of livability of historic residential districts through traffic pattern changes.
- Out-of-character visual or noise disruptions.
- Deterioration of property or setting through, settlement, erosion, etc.

Mitigation Measures: Specific mitigation measures will depend on specific impacts to identified resources determined during project-level planning. Mitigation measures could include the following:

- Locate facilities to avoid historic property destruction or alternation.
- Provide landscape elements to lessen noise and visual impacts.
- Assure design compatibility of facilities near historic district sites.
- Monitor construction to identify and mitigate unforeseen adverse impacts.
- Relocate historic propertied if necessary.
- Make an appropriate record of historic properties if no alternative to demolition exist.

While federal and State governments provide guidelines and incentives for preservation, local governments make the final decisions. Local governments should evaluate the following strategies to preserve historic, archaeological and cultural resources:

- Local policies should be developed to identify and protect resources.
- A review board or commission should provide review and comment on proposed projects.
- Property taxes on historic properties can be assessed by their current use rather than highest and best use or market value.
- Governments or public interest groups could consider purchase of historic properties to ensure against their destruction through development.

Noise

Impacts: The character and level of noise impacts will depend on the proximity to noise sensitive land uses, local noise levels, and the location and design of transportation facilities.

Mitigation Measures: Noise impacts could be reduced by selecting and designing sites and facilities to avoid major noise impacts such as avoiding residential areas, when possible. Using major existing transportation corridors for development of new facilities can also reduce impacts. Specific measures would be developed during project level planning.

Visual Quality

Impacts: Although congestion would be reduced, more land would be developed for transportation facilities. As a result, the potential for visual quality impacts would increase.

Mitigation Measures: Specific measures would be developed during project-level planning. Visual impacts during operation could be mitigated through proper design of facilities, including landscaping, special signage, lighting, and compatible scale and building materials. Landscaping would replace lost vegetation and reduce the scale of parking facilities and stations. Night illumination should be designed to minimize spillover into residential areas. Parking lots should be located and designed to be compatible with adjacent residential areas. Structures should complement the architectural character of the surrounding area. Berms, trees, and shrubs could be placed to mask vehicle facilities. Stations could be designed for visual orientation. Design should emphasize quality as well as safety and separate vehicle areas and pedestrian areas. Alignments should avoid or minimize impacts to viewpoints, parks, view corridors, and scenic routes. Stations and support facilities should fit into neighborhood service and retail areas adjacent to, rather than within, residential development. Height, scale, landscaping, built form, materials, paving, and street furniture should relate to preexisting architectural features. Landscaping and vegetative screening could reduce the visual impacts and enhance views.

Earth and Seismic Issues

Impacts: Existing urban development has already significantly altered surficial geological conditions throughout the urbanized portions of the region and these effects will persist in the future. New transportation projects would be geographically distributed throughout the region rather than concentrated in several limited areas. As a result, a relatively small incremental increase in the potential for earth impacts would occur. Although most soils in the region are glacially overconsolodated and therefore are not susceptible to vibration-induced settlement, some areas include soils that are prone to liquefaction. Ground vibration could cause settlement of unconsolidated soils, which could affect operation of transportation facilities.

Mitigation Measures: Geologic concerns may be avoided by adjusting the location or alignment of new transportation facilities and improvements. Where the location or alignment cannot be changed, potential problem areas should be identified and mitigated in design and construction. Facilities will need to meet applicable state and local earthquake safety codes. In addition, facilities should be designed

to avoid worsening potential seismic effects on adjacent property or structures and to counteract potential liquefaction through ground densification, dewatering, or alternate means of support.

Detailed Analysis of Impacts and Mitigation Measures

Introduction

A Draft EIS that analyzed alternatives was circulated for public review and comment on August 31, 2000. Based upon extensive public input (see Volume Two for Comments/Responses) and discussion, the Preferred Alternative for *Destination 2030* was identified (see Section Two of Volume One). The DEIS analyzed and compared environmental impacts associated with alternatives. This section presents impacts and mitigation measures for the *Destination 2030* Preferred Alternative. Because the Preferred Alternative is a combination of Draft EIS Alternatives 3a and 3b (with refinements and additions), the impacts and mitigation measures described herein are similar to the impacts and mitigation measures described for Alternatives 3a and 3b in the Draft EIS. However, this section includes results of updated and refined analysis as well as public input.

Destination 2030 would result in a substantial increased investment in transportation facilities and overall improvement in roads and bus, rail, and ferry service. The first 21 miles of light rail through the regions most heavily traveled corridor would be running by 2010. By 2010, local bus service would increase by 40 percent and would increase by 80 percent region-wide by 2030. Freeway HOV lane miles would increase by 103 percent by 2010 and an additional 53 percent between 2011 and 2030. Within 20 years, total people carrying capacity of ferries would increase 24 percent, car capacity would be up 13 percent. Since approximately 33 percent of the *Destination 2030* projects and 50 percent of the total budget for these projects would be expended by 2010, the intensity of impacts discussed in this chapter would be greatest in the first ten years of the plan, by 2010. Impacts between 2011 and 2030 are expected to be similar but less than experienced in the first ten years, since the subsequent period is twice as long and the intensity of development would be less.

Transportation

In 1998, the region, with a population of 3.2 million, generated over 64 million miles of travel every day, or 20.5 miles per capita. Approximately 45 percent of the region's freeway lanes were congested during the average afternoon peak travel period. This congestion created over 130,000 hours of delay each day, or 6.4 minutes per household. Approximately 62 percent of all trips in the region were by single occupant vehicle, 35 percent were car pools, and just under 3 percent were transit. Northwest King County, including Seattle, currently has the region's highest level of transit use, with transit comprising 9 percent of all daily trips.

The region's population will increase by over 1.5 million people, or nearly 50 percent by 2030. By 2030 there will be 800,000 net new jobs in the region, a 40 percent increase during this period. Under the *Destination 2030* Preferred Alternative vehicle miles traveled will increase by over 50 percent over the next 30 years, from 64 million daily vehicle miles traveled to over 93 million daily vehicle miles traveled

by 2030. Total daily trips in the region, on the other hand, will increase 60 percent by 2030. The region is beginning to turn the tide in the amount of per capita vehicle miles traveled. Over the life of the plan per capita vehicle miles traveled is expected to stabilize near current levels, for several reasons: (1) regional land use and development trends are influencing the distribution of new jobs and housing, bringing them closer together, (2) growth management planning is reducing sprawl by encouraging growth inside the urban growth boundary, (3) the region is developing alternatives to single occupant vehicle travel, and (4) increasing costs and congestion are changing travel behavior.

Impacts: Transportation impacts for the Preferred Alternative are shown in Table 1, *Destination 2030 Performance Data**. Under the Preferred Alternative (Destination 2030), VMT is expected to increase by 45% and population by 50% over the next 30 years. To address this growth, the plan calls for an aggressive program of transportation investments. The result is that the growth can be accommodated with relatively minor impacts – for example a 2% increase in congestion (PM peak) in 2030.

Although SOV person trips would increase, SOV trips would decrease as a mode choice and transit use would increase significantly. Generally, transportation system performance would improve, reflecting an increased investment in transportation facilities.

Table 1. Destination 2030 Performance Data Summary

System Performance Data of 1998 Baseline, 2010 Action Strategy, and 2030 Plan

Performance Indicator	1998 Baseline	2010 Action Strategy	2030 Plan
Daily Vehicle Miles Traveled (Millions) on Arterial/Freeway Network			
During AM-Peak Period	11,954,352	14,639,310	16,151,130
During PM-Peak Period	16,617,237	20,633,848	22,624,760
During Off-Peak Period	35,950,740	44,021,456	54,725,360
Total	64,522,329	77,016,816	93,501,250
Daily Vehicle Miles Traveled Per Capita	20.49		19.91
Average Vehicle Speed (MPH) on Arterial/Freeway Network			
During AM-Peak Period	35.9	35.4	34.6
During PM-Peak Period	34.3	33.6	32.3
During Off-Peak Period	36.5	35.7	34.1
Hours of Delay on Arterial/Freeway Network			
During AM-Peak Period	25,840	34,145	32,685
During PM-Peak Period	52,746	74,803	85,597
During Off-Peak Period	51,895	75,629	124,614
Total	130,480	238,895	243,896
Daily Minutes of Delay Per Capita	2.49		3.10

* Modifications to the calculation of modeled system performance data were made after the DEIS was published. The revised method removed centroid connectors in the model. The system performance data in *Destination 2030* and the FEIS reflect this modeling procedural improvement. Appendix I-C in the FEIS contains system performance data (relating to the Preferred Alternative) that is directly comparable to the alternatives as reported in the DEIS.

Table 1. Destination 2030 Performance Data Summary (continued)

System Performance Data of 1998 Baseline, 2010 Action Strategy, and 2030 Plan

Performance Indicator	1998 Baseline	2010 Action Strategy	2030 Plan
Percent of Network Experiencing Congestion			
During AM-Peak Period			
Freeways	24.59	28.30	19.91
Regional Arterials	1.94	2.58	2.52
Overall	4.51	5.97	4.87
During PM-Peak Period			
Freeways	44.91	52.08	35.96
Regional Arterials	4.32	5.73	6.95
Overall	8.93	11.58	11.09
During Off-Peak Period			
Freeways	22.50	23.91	27.49
Regional Arterial	1.17	1.78	3.31
Overall	3.64	4.65	6.79
Percent Mode Choice			
All Trips			
SOV	62.5	59.3	55.5
Carpool	34.8	37.4	39.4
Transit	2.8	3.3	5.1
Work Trips			
SOV	72.2	63.1	55.7
Carpool	20.5	29.5	32.5
Transit	7.2	7.4	11.8
Non-Work Trips			
SOV	59.8	58.3	55.4
Carpool	38.7	39.5	41.3
Transit	1.5	2.2	3.3
Person Trips			
All Trips			
SOV	6,391,095	7,751,885	9,088,504
Carpool	3,554,548	4,880,144	6,459,464
Transit	283,429	431,596	839,049
All Motorized Modes	10,229,072	13,063,625	16,387,017
Work Trips			
SOV	1,616,630	1,782,431	1,973,217
Carpool	459,690	834,588	1,153,245
Transit	161,433	209,661	418,351
All Motorized Modes	2,237,753	2,826,680	3,544,813
Non-Work Trips			
SOV	4,774,465	5,969,454	7,115,286
Carpool	3,094,858	4,045,556	5,306,219
Transit	121,996	221,936	420,698
All Motorized Modes	7,991,319	10,236,946	12,842,203

Freight and Goods Mobility. Delay due to congestion or other disruptions on major regional roadways can affect the timely and predictable movement of freight within and through the region. Infrastructure and programmatic improvements contained in *Destination 2030* will reduce rail freight and general purpose traffic conflicts through grade separation projects and will result in less arterial congestion. Rail track improvements will allow more efficient joint operation of passenger and freight rail services, which is important to the region's economic health.

Aviation Under the Preferred Alternative. The Aviation component is expected to accommodate the projected growth in aviation demand.

Non-Motorized Transportation Network. The Preferred Alternative would emphasize providing opportunities to walk and bike within and through communities as a substitute for auto trips under five miles; would establish opportunities to walk and bike between communities and urban centers, and in the vicinity of transit stops and stations; and would make biking and walking more comfortable and convenient. As a result, non-motorized transportation would play an integral role in the transportation system.

Air Quality

Impacts: Since the time the analysis was done for the DEIS alternatives, the Regional Council has been in extensive consultation with our air quality partners – Environmental Protection Agency, Department of Ecology, Puget Sound Clean Air Agency, Washington State Department of Transportation, Federal Highway Administration, and Federal Transit Administration. These discussions produced updated information and methodologies regarding inputs and emission factor models that have been used in the analysis of the preferred alternative contained in the FEIS. Table 2 provides updated DEIS analysis, final *Destination 2030* analysis, and MTP emissions estimates vs. motor vehicle emissions budgets. As shown in Table 2, the Preferred Alternative is below the pollutant budgets for CO, VOCs, and NOx.

Table 2. Air Quality Analysis
— Destination 2030 Emissions Estimates vs. Motor Vehicle Emissions Budget

	CO (Grams)	VOC (Grams)	NOx (Grams)	Kent PM10 (Grams)	Duwamish PM10 (Grams)	Tacoma PM10 (Grams)
Motor Vehicle Emissions Budgets*						
	1,358,056,000	**225,163,300**	**238,598,700**	**105,000**	**383,000**	**209,000**
2030 analysis: Tier II adjustment factors; current vehicle registrations; current I/M settings; mtp30fas						
	666,420,928	183,024,512	196,899,728	68,328	236,179	165,310
Percent over budget						
	-50.93%	-18.71%	-17.48%	-34.93%	-38.33%	-20.90%
2020 analysis: Tier II adjustment factors; current vehicle registrations; current I/M settings; mtp20fas						
	651,830,528	155,356,864	180,861,040	63,529	221,651	145,466
Percent over budget						
	-52.00%	-31.00%	-24.20%	-39.50%	-42.13%	-30.40%
2010 analysis: Tier II adjustment factors; current vehicle registrations; current I/M settings; mtp10fas						
	780,560,128	148,468,048	187,234,304	63,000	231,211	140,067
Percent over budget						
	-42.52%	-34.06%	-21.53%	-40.00%	-39.63%	-32.98%
2000 analysis: current vehicle registrations; current I/M settings; e2_2000						
	1,444,997,184	179,749,968	221,018,448	**124,813**	342,624	208,330
Percent over budget						
	6.18%	-20.17%	-7.37%	**18.87%**	-10.54%	-0.32%
1998 analysis: current vehicle registrations; current I/M settings; mtp98b						
	1,454,155,136	182,938,912	222,980,544	**137,999**	359,236	194,088
Percent over budget						
	7.08%	-18.75%	-6.55%	**31.43%**	-6.20%	-7.13%

* PM10 budgets based on the PM10 maintenance plans

Mitigation Measures: The Preferred Alternative will meet federal air quality conformity requirements.

Global Warming

Impacts: Over 60 percent of Washington's CO is from transportation sources. As described in the Draft EIS, CO is a greenhouse gas that gets trapped in the atmosphere resulting in global warming. Therefore, increased burning of fossil fuels and related increases in CO will have an adverse impact on global warming. Total daily vehicle miles traveled (VMT) is an indicator for burning of fossil fuels for transportation.

The Preferred Alternative would result in about 93.5 million total daily VMT (see Table 3). Cumulatively over time this total VMT could adversely impact global warming. However, compared to the other DEIS alternatives, the Preferred Alternative would result in reduced impacts on global warming.

Impacts under the Preferred Alternative would be less since it incorporates a significant investment in transportation modes that would reduce VMT. These other transportation modes include transit, HOV, and non-motorized.

Table 3. Transportation System Performance — Destination 2030

Indicator	1998 Baseline	2010 Action Strategy	2030 Plan
Total Daily Vehicle Miles Traveled	64,522,329	77,016,816	93,501,250
Daily Hours of Delay	130,480	238,895	242,896
AM-Peak – Congestion	4.51%	5.97%	4.87%
PM-Peak – Congestion	8.93%	11.68%	11.09%
Off-Peak – Congestion	3.64%	4.65%	6.79%

Daily VMT = Vehicle miles traveled during an average 24-hour day
PM Peak = Weekday 3 PM to 6 PM
v/c = Modeled volume divided by the modeled capacity. Here the percentage of the facilities that exceed 0.9 in a volume to capacity ratio are displayed
GP = General Purpose (all vehicle lanes)
HOV = High Occupancy Vehicle lanes (restricted to occupancy requirements of 3+ persons per vehicle in 2030 model runs)

Mitigation Measures: Measures that reduce VMT are incorporated into *Destination 2030*, minimizing impacts on global warming. Transportation investments and programs that support transit use, transportation demand management, pricing strategies, HOV use, and non-motorized travel will reduce VMT and related fossil fuel burning impacts, i.e., global warming.

Land and Shoreline Use

This analysis of the Preferred Alternative identifies how the alternative would support, enhance or retard the growth pattern established by regional and local plans. The analysis is not intended to evaluate the impacts associated with urban growth generally, or those associated with the region's or any county's particular growth pattern. These and similar impacts have been addressed previously in environmental documents prepared for regional plans, such as VISION 2020 and the Multicounty Planning Policies, countywide planning policies for the four counties in the region, and for each county's and city's comprehensive plan.

Destination 2030 is a non-project action and will not directly cause significant impacts or changes to land use. The plan is intended to support and enhance implementation of local comprehensive plans and achievement of the regional land use pattern envisioned by the Growth Management Act, Multicounty Planning Policies and VISION 2020. Individual project actions are subject to review and assessment of impacts to the environment. *Destination 2030* will however, provide an important piece of the framework within which local land use and infrastructure planning and decision-making will occur. It will help guide future investments in the region's transportation system and generate discussion about potential strategies that can effectively coordinate transportation with land use over the long term. The plan's impacts will be indirect and cumulative, therefore, and will be manifested primarily through the actions of local jurisdictions and private property owners.

Indirect impacts discussed below are concerned primarily with the general location of future growth and the incremental change in relative concentration or dispersal of the regional land use pattern. These impacts are described broadly; it is not possible to be site specific. In general, indirect impacts result from the actions of multiple parties and involve interplay of policy, regulatory, economic, social and other considerations, all of which may be influenced by national and local forces. The "growth" that is addressed in the analysis includes forecast increases in population, housing and employment.

It is also worth noting that land use and transportation present many intricately linked questions; it is not always clear which is a cause and which an effect, and this relationship may change over time. The analysis that follows describes effects that may occur 30 years in the future. Given the inherent fallibility of long-range predictions, many of these impacts should be considered possible rather than probable.

The presence or absence of transportation facilities can have an indirect effect on the location of growth. The GMA, and local plans implementing its policies, typically require that transportation facilities be adequate to serve planned development at adopted levels of service. Local permitting agencies are required to deny development that cannot meet level of service and concurrency requirements for transportation and other facilities. The presence of adequate facilities within a sub-area or corridor, therefore, can attract growth to some extent, at least relative to other sub-areas or corridors lacking adequate facilities. The strength of this attraction should not be overstated, however, particularly in the context of the central Puget Sound region. For several decades prior to enactment of the Growth Management Act, growth occurred without adequate transportation improvements. The region is trying to catch up with its past growth and plan for the future simultaneously. The attraction exerted by new facilities should be viewed in this context.

For purposes of analysis, the region's Urban Growth Area (UGA) is assumed to be comprised of the presently adopted UGAs in King, Kitsap, Pierce and Snohomish counties. It is acknowledged, however, that state law, regional policy and local plans provide the ability to revise these UGAs if certain criteria are met. The relationship between projected 2030 population and jobs and land capacity within the currently adopted UGAs has not been evaluated in detail. It is assumed that locating growth anywhere within the UGA while emphasizing centers and "compact communities" is, in general, consistent with state law and local plans and regulations.

Impacts: Increased transportation capacity and system expansion would tend to support the region's planned land use pattern. It would enhance the centers concept by encouraging a greater portion of planned population and employment growth in urban centers, and supporting higher densities through transit-oriented development (TOD) to make areas of concentrated development more conducive to transit and non-motorized transportation. Focused transit and non-motorized transportation improvements would further enhance the functioning of centers. As centers become more intensively developed, there could be greater potential for land use conflicts with adjacent neighborhoods. Depending on achieved densities, and market and economic conditions, there could be pressure to

expand the current boundaries of centers and/or to identify additional centers. The corridors between centers may also experience greater infill and redevelopment.

More focused growth in centers could result from phasing the development of transportation infrastructure. Ensuring transportation adequacy in centers (either first or overall relative to other portions of the urban area) would tend to attract growth to these locations. Growth would be reduced in other locations for some interim period, which would be determined by the sequence of improvements. Growth within the urban area would tend to follow a more radial pattern, growing out from designated centers; these centers are generally the largest cities in the region.

Phasing is a commonly used growth management technique. It employs the location, adequacy and timing of specified services and facilities to attract growth in a desired sequence. While it is being used in the central Puget Sound region, it varies from jurisdiction to jurisdiction and is based on a range of facilities (e.g., water, sewer, roads). Phasing based on transportation has not been used deliberately and in a coordinated manner in the central Puget Sound region. An effective phasing program would require the cooperation and coordination of the region's jurisdictions, since it would ultimately be implemented through local comprehensive plans and development regulations.

Mitigation Measures: The Preferred Alterative is intended to implement regional policy and to mitigate potential impacts associated with urban growth from a regional perspective. At the local level, jurisdictions with land use planning responsibilities will identify discrete actions to mitigate the direct impacts of urbanization.

General strategies that could be pursued to address land use issues associated with coordinating regional land use with transportation are identified below. These and similar measures could be encouraged through the Regional Council's ongoing coordination with local agencies, educational efforts and, in some cases, by providing further guidance in *Destination 2030* policies.

- Work with member jurisdictions to discuss the desirability and feasibility of deliberately phasing growth within the region's UGAs, using centers and transportation improvements to determine the location and timing of growth.
- Pursue additional funding sources, authorization and flexibility through legislative amendment where appropriate. Help educate citizens about the linkages between state and local taxation policy, the ability to fund infrastructure, and resulting effects on land use and economic growth.
- Support county work on transfer of development rights and other programs to reduce development pressure in rural areas.
- Support efforts to evaluate market, economic and other factors that influence the dynamics of growth in urban centers. Help identify existing barriers and incentives to center development and redevelopment.

- Compile and disseminate information – including "model" planning policies, regulations and guidelines – to facilitate station area planning.
- Continue support for transit-oriented development through guidebooks, presentations and model projects
- Continue to support monitoring and report on land use, transportation, housing, economic, environmental and other indicators that measure how well the region is achieving its goals. Support ongoing monitoring of land supply and demand to ensure that the UGA is appropriate in size to realistically accommodate forecast growth.
- Evaluate the effects of Endangered Species Act listings, and resulting changes in development regulations, on the regional land use pattern and transportation improvements.

Water Quantity

Impacts: Implementation of the *Destination 2030* Preferred Alternative would not directly affect the availability of water within the region, because the components of the alternatives do not include diversion of water for consumptive use.

The Preferred Alternative would likely affect water quantity characteristics through the extent of land clearing, urban development and impervious surface area associated with each transportation project. Future development of new or expanded roadways, rail facilities and other components of the transportation infrastructure would produce a corresponding increase in the extent of impervious surface area. This would result in increased stormwater runoff from the area affected by the projects and, depending upon the stormwater management provisions incorporated into specific transportation projects, potential long-term changes in the volume and timing of runoff to streams within the region. The Preferred Alternative also would influence the amount and distribution of undeveloped land converted to urban uses and existing urbanized uses developed to a higher intensity. Both types of land use changes would result in additional changes in impervious surface area and runoff patterns.

Direct Effects of Transportation Facilities. The model assumptions for roadway lane miles provide an indicator of the potential magnitude of impacts on water quantity resulting from the physical development of additional transportation facilities (see Table 4). The regional transportation system includes limited access, HOV and arterial roadways. Additional roadway miles under the Preferred Alternative are summarized as follows in absolute and percentage terms:

Table 4. Roadway Miles

2001 — 2010 Action Strategy

10 Year Roadway Improvements	2000 Base	New Roadway Miles	2010 Total (2000 — 2010)	Percent Increase
Arterial General Purpose Lane Miles	9,249	661	9,910	7%
Arterial HOV Lane Miles	1	82	83	8,200%
Freeway General Purpose Lane Miles	2,034	125	2,159	6%
Freeway HOV Lane Miles	162	167	329	103%
Total Lane Miles	11,446	1035	12,481	9%

2011 — 2030 Plan

Long-Range Roadway Improvements	2010 System	New Roadway Miles	2030 Total (2011 — 2030)	Percent Increase
Arterial General Purpose Lane Miles	9,910	560	10,470	6%
Arterial HOV Lane Miles	83	11	94	13%
Freeway General Purpose Lane Miles	2,159	254	2,413	12%
Freeway HOV Lane Miles	329	176	505	53%
Total Lane Miles	12,481	1,001	13,482	8%

Lane Mile = the measure of lane distance that a single lane of a road completes in 1 mile.
A four-lane road, for example, would be equivalent to four lane miles for every mile of roadway length.
GP = General Purpose lanes.
HOV = High Occupancy Vehicle lanes (occupancy requirement is 2+ per vehicle for 2010, and 3+ per vehicle for 2030).

Table 4 indicates that planned additions to the regional transportation system through 2030 would create a relatively modest increase in roadway lane miles compared to the 2000 base road network. When placed in the context of the impervious surface area created by other roadways (e.g., collectors and local streets) and by non-transportation urban uses, it is apparent that the Preferred Alternative would result in a small incremental increase in the total extent of impervious surfaces within the region during the analysis period. The new roadway miles would be geographically distributed throughout the region rather than concentrated in several limited areas. Therefore, it is unlikely that the direct physical changes (new roadway miles and other types of transportation facilities) would result in significant impacts to water quantity characteristics on a regional basis or for individual watersheds within the region. New transportation infrastructure projects would contribute to the continuing overall trends of increased total stormwater runoff/decreased infiltration, elevated short-term discharge peaks and reduced groundwater contributions to seasonal low stream flows. Within the context of other development-related changes, however, these water quantity effects might not be measurable.

Indirect Effects from Changes in Land Use Patterns. The Preferred Alternative would have indirect effects on water quantity characteristics through their influence on land use patterns and the future rate of conversion of undeveloped land to urban uses. The location, character, capacity and efficiency

of the transportation system are important factors in determining the spread of urban development into currently undeveloped areas and the density of the new urban development. These development variables, in turn, relate to the location and extent of impervious surfaces within a given area. The Preferred Alternative follows a strategy of increasing density and concentrating new development in existing urban centers, thereby relieving pressure for land use conversion near the edge of the urban growth area. Existing urban development has already significantly altered hydrologic conditions throughout the urbanized portion of the region, and these effects will persist during the analysis period.

Mitigation Measures: Potential water quantity impacts identified for the Preferred Alternative are based on the changes that transportation facilities and other urban development create in stormwater runoff patterns. Consequently, mitigation measures intended to address those impacts involve stormwater management actions, primarily those designed to control peak flows under post-development conditions.

The current technical standards for stormwater management measures in the central Puget Sound region are established in the *Stormwater Management Manual for the Puget Sound Basin*, issued by the Washington Department of Ecology in 1992. In 1999, WDOE released a draft version of a revised stormwater manual that incorporated, among other features, a revised approach to modeling stormwater runoff, a modified design storm basis intended to provide water quantity and quality management for a higher proportion of the annual runoff, and application of new and/or improved *Best Management Practices for Water Quality Treatment.* WDOE has continued to work on refining the 1999 draft manual. In conjunction with recovery planning efforts for Puget Sound Chinook salmon, a final updated manual will presumably be issued by WDOE and approved by National Marine Fisheries Service (NMFS) as sufficiently protective of salmon and their habitat.

The Tri-County Endangered Species Act Response organization (serving King, Pierce and Snohomish counties*) has submitted to NMFS a draft stormwater management proposal that includes 14 mandatory elements, one of which involves technical standards for stormwater management. The proposal commits Tri-County jurisdictions to adopt and implement technical standards that are equivalent to or more protective than the current WDOE manual, as amended. Key concepts of the Tri-County stormwater management proposal, which is largely based on the 1999 WDOE draft manual, include:

- Calculating the effects of new impervious surface area based on pre-settlement environmental conditions;
- Addressing all new stormwater/impervious surface impacts, rather than only those above a pre-specified threshold;
- Infiltrating additional runoff from new development as much as possible; and
- Providing management treatment for all runoff from new development, rather than some specified fraction of the runoff.

* Kitsap County is also working on this issue as part of their ESA response.

Agencies implementing future regional transportation system projects included in *Destination 2030* will be subject to mitigation provisions that include stormwater management standards similar to those documented in the 1999 WDOE draft manual. These types of mitigation provisions will apply to the direct impacts to water quantity identified in the previous impacts discussion. Mitigation for the indirect impacts associated with changes in land use patterns will not occur through requirements for the regional transportation projects. Based on the Tri-County stormwater management proposal, however, jurisdictions within the region will presumably be required to consider the stormwater impacts of their future land use decisions and to apply the updated WDOE (or substitute) technical standards to all future development that they approve.

Water Quality

Impacts: The processes through which the Preferred Alternative could affect water quality are similar to those described previously for water quantity. Potential direct effects on water quality would be linked to the extent and use of the regional transportation system; they would result from construction of new facilities and from increased traffic-related pollutants conveyed by stormwater runoff to water bodies. Motor vehicles and other transportation equipment deposit a variety of pollutants, primarily hydrocarbons and certain types of metals, on roadway surfaces (and along other transportation facilities) where they can be picked up by runoff. Similarly, they produce a variety of airborne pollutants that can be washed out of the atmosphere and thereby be carried in stormwater runoff. Consequently, the Preferred Alternative can affect water quality by increasing the extent of roadway surfaces and by increasing vehicle miles traveled and the corresponding airborne emissions. The Preferred Alternative can also create indirect water quality impacts through their influence on land use patterns and the rate of conversion of undeveloped land.

Runoff from Transportation Facilities. Construction of new or expanded regional transportation facilities will create the potential for short-term impacts to water quality as a result of stormwater runoff from disturbed areas and possible spills of fuels or other toxins. Many of the individual transportation projects that would be implemented under the *Destination 2030* would involve waterbody crossings and/or be located adjacent to streams, lakes or marine waters, where impacts associates with erosion/sedimentation and spills would be particular concerns. With proper application of best management practices (BMPs) for construction, including temporary erosion and sedimentation control plans and spill prevention, containment and control plans, the short-term water quality impacts from transportation construction projects can be limited to acceptable levels. In addition, the specific projects that would be included with the Preferred Alternative would be distributed in space throughout the urbanized area and over time through a 30-year period, thereby localizing the impacts and reducing the potential for significant impacts during any part of the planning horizon. Nevertheless, each project will need site-specific analysis of potential water quality impacts and application of mitigation measures prior to approval of construction.

Once the new roadways, rail lines and other transportation facilities are completed and in operation, the new surface areas will represent long-term sources of additional pollutants that will be carried by runoff

into waterbodies. Motor vehicle traffic, for example, produces contaminants from wear of brakes and other vehicle parts, tire friction, fluid drippings and exhaust particulates. Specific contaminants such as mercury, copper, lead, zinc, chromium, cadmium, iron, total suspended solids (TSS), oil and grease, and various petroleum- and combustion-based compounds are deposited on roadway (and parking lot) surfaces where they can be entrained in surface runoff and conveyed to streams and lakes. Water quality treatment facilities, such as oil/water separators, are typically included in stormwater management systems for new development to remove contaminants before they reach natural water bodies or groundwater. Because 100-percent treatment effectiveness has not been achieved, however, the new transportation facilities contemplated will represent an incremental addition to the existing volume of water pollutants generated by urban development with the region.

As discussed above under Water Quantity, the model assumptions for new roadway lane miles provide an indicator of the potential for both short-term and long-term water quality impacts directly associated with expansion of the regional transportation infrastructure under *Destination 2030*. Implementation of the improvements contained within Preferred Alternative would result in a 20-percent expansion of the regional highway system by 2030; this would represent a moderate increase in the potential for construction and operation impacts on water quality from the key highways within the region during the analysis period. Relative to the pollutants produced from all roadways and parking lots within the region, the Preferred Alternative would be unlikely to result in a significant increase to the existing level of metals and hydrocarbon pollution in the region's waters. That conclusion notwithstanding, there will be an ongoing need for project-specific environmental review and incorporation of state-of-the-art mitigation measures to limit pollutant contributions to stormwater from the new transportation facilities.

Dispersed Vehicle Emissions. In addition to the pollutants deposited along roadways and other facilities, transportation equipment generates airborne pollutants that can precipitate out of the atmosphere and be carried by stormwater runoff into natural waterbodies. Over a given period of time, and controlling for variations in technology and vehicle mix, the volume of this pollution will generally be a function of the amount of vehicle miles traveled within a give area. The Preferred Alternative can contribute to this type of water quality impact through their influence on the extent of the regional transportation system and the level of vehicle miles that its users will generate.

The model output for the Preferred Alternative provides several quantitative measures that are indicative of the level of potential change in vehicle emissions. By 2030, total VMT would be about 93.5 million (see Table 3). Although total VMT within the region will increase substantially under the Preferred Alternative, airborne emissions from vehicles are not among the major sources of water quality impacts. This source of pollutants is likely to be a minor contributor to long-term water quality impacts in the region.

Indirect Effects Through Land Use Influences. The Preferred Alternative would have indirect effects on water quality characteristics through influence on land use patterns and the future rate of conversion of undeveloped land to urban uses. The variable and processes through which these impacts would occur follow directly from the previous discussion for water quantity, as does the limited specific information of the land use patterns and land consumption ratio.

Stormwater runoff would again be the primary impact pathway through which promotion of low-density development and conversion of undeveloped land would lead to increased water quality impacts. In addition to the pollutants typically associated with runoff from streets and other paved areas (primarily hydrocarbons and some metals), low-density urban development contributes fertilizers, pesticides and other chemical constituents from lawns and gardens. Because much of the low-density development would likely be served by septic systems rather than sewers, effluent from failing septic tanks would be an additional indirect water quality consideration. The specific pollutants associated with the latter sources primarily include nutrients and fecal coliform bacteria, which are already identified as impairment sources for many of the waterbodies on the current 303(d) list.

The Preferred Alternative follows a strategy of increasing density and concentrating new development in existing urban centers, thereby relieving pressure for land use conversion near the edge of the urban growth area. If most of the expanded highway capacity were located between existing or planned concentrations or urban development higher-intensity development would be promoted along these corridors.

The indirect (land-use related) water quality effects would likely result in additional degradation of many of the creeks, rivers and lakes in the urbanized area that are already impaired. However, existing urban development has already significantly altered hydrologic conditions throughout the urbanized portion of the region. There will be substantial new development from the present to 2030. For example, the Puget Sound Regional Council forecast indicates that the population of the region will increase by nearly 1.6 million new residents during that time, a relative increase of nearly 50 percent of the 1998 base level.

Mitigation Measures: The potential water quality impacts identified for the Preferred Alternative all relate to increased stormwater runoff from transportation facilities and other urban development, and the pollutants carried in that runoff. Consequently, mitigation measures intended to address the identified water quality impacts involve stormwater management actions, particularly those designed to provide source control of runoff pollution and water quality treatment of stormwater.

Primarily as a result of the recent listing of Puget Sound chinook salmon as a threatened species under the federal Endangered Species Act, stringent mitigation measures intended to address potential water quality impacts will no doubt be required for construction and operation of all transportation infrastructure projects implemented under *Destination 2030*. As discussed previously, an update of the 1999 WDOE draft stormwater manual is expected to provide the basis for technical standards for stormwater management applicable to both transportation projects (direct water quality impacts) and future land use and development actions (indirect impacts). Water quality provisions in the 1999 WDOE draft manual include application of BMPs such as grass-lined swales; ponds, wetlands and vaults that remove pollutants through settling action. Other provisions apply equipment that can skim floating pollutants from the runoff. Based on the design standards and performance efficiencies, the water quality treatment BMPs would likely capture about 75 percent of the total suspended solids, less than 50 percent of the nutrients and metals in particulate form, and less than 33 percent of the dissolved

nutrients and metals. Consequently, the water quality impacts of the alternatives can be limited through updated stormwater management measures, but there will be some unavoidable residual impacts even with mitigation.

In addition to the updated technical standards discussed above, the 14-point Tri-County stormwater management proposal includes elements addressing the stormwater impacts of local land use decisions, inspection and enforcement of the stormwater requirements, improved maintenance standards and programs for both public and private stormwater facilities, source control standards to reduce the amount of pollutants contained in urban runoff, programs for preventing and removing illicit discharges of pollutants to runoff, monitoring, and public education and outreach. Implementation of these program elements will provide additional mitigation, beyond the contributions of the updated stormwater technical standards, for the direct and indirect water quality impacts.

Vegetation and Wetlands

Impacts: Implementation of the Preferred Alternative would have a variety of direct and indirect potential impacts on vegetation and wetlands within the central Puget Sound region. These potential impacts can be summarized as follows:

- Direct impacts through removal of existing vegetation for construction of transportation system projects, including new or expanded road, rail and air transportation facilities;
- Corresponding direct impacts on wetlands;
- Indirect loss of vegetation and wetland areas through promotion of additional low-density urban development and conversion of undeveloped land to urban uses; and
- Indirect impacts on remaining wetland areas through water quantity and quality changes resulting from transportation system projects and promotion of additional urban development.

Based on the information on existing conditions, some general conclusions about potential vegetation and wetland impacts are possible. For example, most of the individual transportation projects are likely to be expansions of existing facilities, such as constructing new lanes on highways. Consequently, clearing and removal of vegetation for these projects is likely to occur primarily in areas that have already been disturbed through construction of transportation facilities and adjacent urban development, rather than in areas of remaining natural vegetation. In addition, following the reasoning presented in the previous discussion of water quantity impacts, there would likely be a relatively small incremental increase in the development-related loss of vegetation within the region. Direct impacts on existing vegetation from expansion of the regional transportation system will be evaluated on a project-specific basis as individual actions are implemented in the future.

Similarly, direct impacts to wetlands would primarily occur within the urbanized portion of the region, where transportation facilities and other urban development have already displaced some wetland area and disrupted wetland functions. Mandatory wetland mitigation provisions, including replacement

ratios for lost wetland area, would also reduce the significance of wetland impacts from these projects and could even result in a new numerical increase in wetland area. Nevertheless, a number of individual transportation projects would no doubt occur within drainages where significant wetland concentrations still remain, and where careful evaluation of project-specific impacts would be required.

For a variety of reasons, the indirect impacts to vegetation and wetlands are likely to be of greater concern than the direct impacts. To the extent that the Preferred Alternative would promote additional land conversion and urban development within the region, the extent of that vegetation and wetland loss (measured in acres) would likely exceed the direct effects of specific transportation projects. Furthermore, the induced development would contribute to the potential for hydrologic and water quality impacts to remaining wetland areas not displaced by the development.

Since the Preferred Alternative promotes concentration of urban development and minimizes consumption of rural and open space, it minimizes indirect impacts.

Mitigation Measures: To a considerable extent, the impacts of regional transportation projects on vegetation will be unavoidable, as some clearing of existing vegetation is necessary to construct new facilities and is usually required to expand right-of-way areas to accommodate additional capacity. Applicable mitigation typically includes measures such as limiting the extent of right-of-way expansion, leaving existing vegetation within the right-of-way where possible, and salvage of native vegetation that must be removed for transplanting to other sites. In some cases it can be feasible to relocate facility alignments to avoid existing vegetative communities that are relatively rare or considered to be of high value. Certain types of properties that can include publicly-owned open space or refuge areas, for example, are given a degree of protection under Section 4(f) of the federal Department of Transportation Act (49 USC 303); implementing federal agencies must show that there are no feasible alternatives to disruption of such properties, and that mitigation has been identified where design alternatives would not avoid impacts.

The wetland impacts identified above would be subject to mitigation through existing government programs. Federal, state and local laws and regulations provide an extensive, formal framework for mitigation of impacts to wetlands. Under Section 404 of the federal Clean Water Act (32 USC 1344), a practicable project alternative that would create less wetland impact must be implemented unless that alternative would create other significant impacts. In addition, it must be demonstrated that all practicable steps to minimize potential impacts to wetlands and aquatic systems have been taken. Where wetland impacts area unavoidable, requirements for compensatory mitigation based on wetland value and area are employed. Consequently, any regional transportation projects implemented under the Preferred Alternative will be subject to mitigation requirements involving avoidance, reduction and/or compensation of wetland impacts. Indirect impacts to wetlands associated with changes in land use patterns will be subject to similar mitigation provisions administered by the respective local land use jurisdictions.

Wildlife

Impacts: The potential direct and indirect impacts on wildlife would generally parallel the vegetation and wetland impacts discussed previously. Removal of vegetation and loss of wetland area through construction of transportation system projects would also result in loss of existing wildlife habitat. Expanded road, rail and air transportation capacity would also increase the extent of the disturbance effects from human development on wildlife populations and their habitats. The Preferred Alternative's influence on land use patterns and the promotion of land conversion to urban uses would also result in indirect impacts on wildlife, through additional loss of habitat and disturbance of animals using the remaining habitat.

Habitat loss and disturbance effects would likely be concentrated within the urbanized portion of the region. Consequently, it is expected that relatively low-value habitat, typically used by generalist species adapted to urbanized settings and more tolerant of human disturbance, would be primarily affected. Nevertheless, there is some potential for individual projects to threaten or disturb some of the remaining pockets of high-quality habitat in the urban area. Furthermore, projects that would direct transportation system improvements to the less-developed portions of the region would have a greater potential to affect natural vegetation and higher-quality wildlife habitat. Careful project review would be required to address these site-specific issues, and habitat replacement measures might be appropriate for projects that would affect habitat valued by native species.

As with the other natural resource topic areas, the potential indirect impacts on wildlife are likely to be of greater concern than the direct effects. Habitat loss and disturbance effects from the spread of urban development are likely to be more widely distributed and more extensive in area than the corresponding effects from regional transportation projects. However, the Preferred Alternative follows a strategy of increasing density and concentrating new development in existing urban centers, thereby relieving pressure for land use conversion near the edge of the Urban Growth Area. As a result, direct impacts on vegetation and native wildlife species related to land use would be minimized..

Mitigation Measures: Mitigation of wildlife impacts represents a close parallel to the previous discussion of vegetation. To the extent that clearing of existing vegetation will be necessary to accommodate regional transportation projects, some loss of wildlife habitat associated with that vegetation would be unavoidable. Typical mitigation for vegetation impacts, such as limiting the extent of right-of-way expansion and leaving existing vegetation within the right-of-way where possible, would also serve to minimize impacts on wildlife habitat. It may be feasible to relocate facility alignments to avoid high quality or relatively rare wildlife habitats, particularly in site-specific cases such as bald eagle nests or great blue heron rookeries. Properties protected under Section 4(f) of the federal Department of Transportation (Act 49 USC 303), for which feasible alternatives and mitigation must be identified, can include wildlife refuges or publicly-owned open space that provides valuable wildlife habitat. Transportation projects can also incorporate design features such as berms, walls and vegetative screening that reduce the disturbance effects on remaining habitat and the wildlife populations that use them.

Other types of mitigation in addition to these standard measures based on avoidance and minimization of impacts could, and likely will, be used to address direct impacts on wildlife. Recovery planning efforts for protected species now typically include habitat acquisition and enhancement measures to compensate for past impacts and/or unavoidable future impacts. Agencies undertaking future transportation projects could allocate mitigation funding to acquire off-site lands that provide quality wildlife habitat, and to enhance the habitat on those lands or existing protected lands, as compensatory mitigation for the wildlife impacts of the projects. Local governments with land use jurisdictions could adopt similar measures to help mitigate the wildlife impacts of their land use decisions.

Fish

Impacts: The sensitivity to potential adverse impacts to fish from any development action within the region has been heightened by the recent listing of Puget Sound Chinook salmon as a threatened species under the federal Endangered Species Act. Consequently, environmental review for regional transportation system projects will include careful scrutiny of project impacts on listed fish, and stringent design and mitigation standards will be applied to these projects.

The assessment of the potential impacts of the Preferred Alternative on fish and fish habitat follows a very close parallel to the discussions of water resource, vegetation and wetlands, and wildlife impacts. In general, the direct impacts on fish are likely to consist of many diffuse, small incremental impacts in the form of water quantity and quality changes and the loss or physical degradation of fish habitat. These impacts would likely be exceeded in significance by indirect impacts of the same types occurring on a more widespread basis through expanded urban development, particularly into the rural areas of the region. Overall, the combined effects on fish can be summarized as a combination of worsening habitat conditions in some areas that have already been degraded by transportation and other urban development, plus new threats to some aquatic systems that are currently in relatively good condition.

The Preferred Alternative follows a strategy of increasing density and concentrating new development in existing urban centers, thereby relieving pressure for land use conversion near the edge of the Urban Growth Area. As a result, indirect impacts on fish related to land use would be minimized.

Mitigation Measures: All construction projects for transportation system improvements will be subject to careful review for compliance with the "4(d) rule" issued by the NMFS in July 2000 to protect listed fish and their habitats. [Endangered and threatened species; salmon and steelhead; final rules, 65 Fed. Reg. 132 42422 (2000) (to be codified at 50 CFR 3223)]. Measures to mitigate fisheries impacts of construction activities typically include seasonal restrictions on in-channel work, requirements for temporary erosion and sedimentation control plans, spill prevention and control plans, and inspection and enforcement provisions. Many proposed projects will likely need to be modified to incorporate special design and construction features in some locations, or additional mitigation measures that are sufficiently protective of fish.

Similarly, maintenance of transportation facilities within the region will need to be modified to comply with specific requirements promulgated under ESA. The final 4(d) rule references as an acceptable

standard the road maintenance program recently adopted by the Oregon Department of Transportation (ODOT), and requires jurisdictions within the Puget Sound ESU to apply road maintenance Best Management Practices (OBMPO) equivalent to or better (more protective) than the ODOT program. The Tri-County ESA Response entity created by King, Pierce and Snohomish Counties (Kitsap County is also working on these issues as part of their ESA response) has proposed a road maintenance BMP program similar to the ODOT manual that is currently pending evaluation by NMFS. The Tri-County road maintenance proposal includes 10 specific program elements; one element addresses the actual BMPs and desired conservation outcomes from their application, while the other nine are programmatic elements addressing items such as training, program review and approval, monitoring and enforcement, and scientific research. The recommended BMPs and desired outcomes are presented in a matrix that provides direction for the following categories of maintenance activities:

- roadway surface maintenance
- maintaining drainage systems (open and closed)
- work involving watercourses, streams and stream crossings
- maintaining gravel shoulders
- street surface cleaning
- bridge maintenance
- snow and ice control
- concrete work
- sewer and water system maintenance

Examples of specific features incorporated in the ODOT manual and/or the Tri-County road maintenance proposal include measures to prevent soil from becoming water- or airborne, establish perimeter filter protection for work sites, remove and properly recycle all waste materials, use environmentally sensitive cleaning and releasing agents, carry spill kits, vacuum solids deposited in drainage systems, maintain prescribed vegetative buffers, use water spray systems in street cleaning, avoid use of de-icers near sensitive aquatic habitats, and restore disturbed areas. These types of specific mitigation measures are expected to be applied in the near future to the regional transportation projects associated with *Destination 2030*, and will thereby address the direct fisheries impacts discussed above. Other elements of the Tri-County recovery proposal, including the stormwater management, land management and habitat funding programs, are expected to incorporate mitigation measures that are responsive to the broad-based indirect fishery impacts associated with increase urban development.

Cultural Resources

The following discussion identifies issues of importance for subsequent project-level evaluation. Cultural resources would be thoroughly evaluated as individual projects that comprise the Preferred Alternative.

Impacts: Potential impacts to historic and/or cultural resources during construction of specific projects included in all alternatives may include the following:

- Physical destruction, damage, or alteration.
- Isolation from historic setting or changing the setting's character.
- Restriction of access.
- Out-of-character visual or noise disruptions.
- Deterioration of property through settlement and erosion.

Construction impacts would be evaluated on a project-by-project basis as the Preferred Alternative is implemented. Unknown archeological resources and traditional cultural properties may be disrupted during field investigations carried out during construction. In that event, construction would be suspended until appropriate mitigation decisions are made.

After construction of projects and during operation, projects and programs could intrude on historic districts or disturb the setting of individual sites. Impacts to historic or cultural properties are defined as those that would result in the following:

- Isolation of the resource or alteration of the historic setting.
- Restriction of access to the resource.
- Economic deterioration of historic commercial districts or the deterioration of livability of historic residential districts through traffic pattern changes.
- Out-of-character visual or noise disruptions.
- Deterioration of property through, settlement, erosion, etc.

The impacts listed above could occur, depending on place and type of improvement. Adverse impacts would be minimized or avoided where projects would occur within existing transportation rights-of-way. Impacts would be the greatest in urban areas where the highest concentrations of historic resources are located. However, the increased emphasis on transit may provide the opportunity for reuse of some historic transportation facilities. Increased ferry service is not expected to result in significant impacts to cultural resources.

Adverse impacts may also include diminishing the integrity of a property's location, design, setting, materials, quality, feeling, or association. Generally, preservation programs and regulations for historic and cultural resources are in place to help maintain the integrity of the characteristics that qualify a resource for historic or preservation status.

Mitigation Measures: Specific mitigation measures will depend on specific impacts to identified resources determined during project-level-planning. Mitigation measures could include the following:

- Locate facilities to avoid historic property destruction or alteration.
- Provide landscape elements to lessen noise and visual impacts.
- Assure design compatibility of facilities near historic districts sites.
- Monitor construction to identify and mitigate unforeseen adverse impacts.
- Relocate historic properties if necessary.
- Make an appropriate record of historic properties if no alternative to demolition exists.

While federal and state governments provide guidelines and incentives for preservation, local governments make the final decisions. Local governments should evaluate the following strategies to preserve historic, archeological and cultural resources:

- Local policies should be developed to identify and protect resources.
- A review board or commission should provide review and comment on proposed projects.
- Property taxes on historic properties can be assessed on their current use rather than highest and best use or market value.

Governments or public interest groups could consider purchase of historic properties to ensure against their destruction through development.

Visual Quality

The following discussion identifies issues of importance for subsequent project-level evaluation. Visual quality would be thoroughly evaluated as individual projects that comprise the Preferred Alternative.

Impacts: Temporary construction dust, signage, and heavy equipment would be visible on and near construction sites. Mature vegetation would be removed from some sites. The need to construct retaining walls or cut-and-fill slopes also would result in vegetation loss. Construction impacts could temporarily degrade or block views or vistas. Although congestion would improve in some areas, more land would be developed for transportation facilities. As a result, the potential for visual quality impacts would increase.

New transit and rail stations would affect the appearance and character of local areas. Impacts from transit stations would be minimal where stations would be located on freeways, at existing park-and-ride lots, or in urban areas. Visual impacts of new rail stations could be minimized by locating stations on arterials and designing aesthetically compatible facilities that would blend well with commercial and residential neighborhoods.

In urban centers, large commercial areas, office parks, or mixed-use areas, new transit and rail stations could strengthen visual character by providing a focal point and encouraging infill development and pedestrian circulation. However, structured parking garages could conflict with the scale and character of surrounding areas without site sensitive design. Attractive transit facilities with good pedestrian connections may enhance visual quality.

The visual impact of HOV facilities should be minor except where streets and highways are widened or views blocked. Widening arterials or highways to accommodate HOV faculties could increase the visual impact of the roadway and reduce visual buffers between roadways and adjacent uses. Other road improvements and bridge construction could affect visual quality by creating a visually dominant or contrasting form that could degrade or block views.

Mitigation Measures: Specific mitigation measures would be developed during project-level planning. Visual impacts during operation could be mitigated through proper design of facilities, including landscaping, special signage, lighting, and compatible scale and building materials. Landscaping would replace lost vegetation and reduce the scale of parking facilities and stations. Night illumination should be designed to minimize spillover into residential areas.

Park-and-ride lots should be located and designed to be compatible with adjacent land uses. Structures should complement the architectural character of the surrounding area. Proper location and design of transit and rail facilities could minimize negative aesthetic effects and enhance urban and suburban character. Alignments for all transportation facilities should avoid or minimize impact to viewpoints, parks, view corridors, and scenic routes. Support facilities such as stations and park-and-ride lots should fit into neighborhood service and retail areas adjacent to, rather than within, residential development. Height, scale, landscaping, built form, materials, paving, and street furniture should relate to preexisting architectural features. Landscaping and vegetative screening could reduce the visual impacts and enhance views.

Noise

The following discussion identifies issues of importance for subsequent project-level evaluation. Noise would be thoroughly evaluated as individual projects that comprise the Preferred Alternative are implemented.

Impacts: Construction noise impacts are likely to be significant in some areas due to the character, magnitude, and duration of construction. However, these impacts would be short-term. Local and state regulations would limit/control hours of construction. Construction equipment noise varies, depending on the types, size, and age of equipment and the types of operations. Most construction equipment produces noise levels from 72 to 94 dBA at 50 feet, with heavier equipment tending toward the high end of this range. Some operations, such as concrete breaking and pile driving, generate more noise, including peaks above 100 dBA. The levels of construction noise reaching abutting buildings or residences would be even higher than levels where construction would occur closer than 50 feet from the affected structures.

Noise impacts from operation of the regional airport system can be divided into two categories: (1) commercial airport noise impacts (Sea-Tac International Airport); and (2) general aviation airport noise impacts (all other system airports).

The noise impacts associated with operation and planned expansion at Sea-Tac Airport have been well documented, in the Port of Seattle's Final Supplemental Environmental Impact Statement for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport (May 1997) and in the Port's Part 150 Noise Compatibility Study Update that was completed in October 2000. These reports document the existing and forecast future noise environment, outline the effects of that noise on surrounding communities, and document and evaluate a range of actions that can be taken to reduce the impacts of airport noise. Many of these actions are already being taken, either as part of the Port's ongoing noise remedy program or in response to the Regional Council's 1996 MTP amendment, which included recommendations and steps seeking to mitigate noise impacts. These were adopted in 1996 as the Regional Council's Resolution A-96-02.

Additional actions to address the noise impacts at Sea-Tac Airport were adopted in October 2000 as part of the Sea-Tac Part 150 Study Update. At Sea-Tac International Airport, passenger traffic is forecast to increase from 27,705,488 annual passengers in 1999 to 44,600,000 in the year 2020. Total aircraft take-offs and landings are forecast to increase from 434,425 in 1999 to 532,000 in the year 2020. Total population affected by the 65 Ldn noise contour at Sea-Tac Airport is forecast to decrease from 31,800 in 1994 to 15,060 in 2020. This reduction in noise impact is largely due to the continued introduction of newer, quieter aircraft along with retirement of the older, noisier jet aircraft (source: *Final Supplemental EIS for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport*, May 1997).

At the region's general aviation airports total aircraft take-offs and landings are forecast to increase from 1,678,354 in 1998 to 1,872,996 in the year 2020, while total general aviation aircraft based in the region are predicted to increase from 3,620 to 4,439 in the same time frame. The potential future noise impacts at the region's smaller general aviation airports have not been studied in the same level of detail as at Sea-Tac Airport. Several larger general aviation airports, such as Boeing Field (which is currently preparing an FAR Part 150 Noise Study), Paine Field, Renton, Arlington, and Tacoma Narrows, have evaluated existing and future noise associated with airport activity as part of their periodic airport master planning process. The results of these studies show that many larger airports will see slow increases in noise impact as the number of aircraft take-offs and landings increase over time. This noise analysis is done to inform neighboring communities of the airport's future plans, and to assist local jurisdictions plan for airport compatible land uses. The overall affect of the aviation system actions envisioned will be lower aircraft-related noise, and noise-related community impacts, than those previously forecast in the 1988 Regional Air System Plan. Under the Preferred Alternative, some future changes in planned land use and local zoning adjoining system airports can be anticipated as a result of more effective planning for compatible land use.

In 1996 the Growth Management Act (GMA) was amended to protect public use general aviation airports from encroachment by incompatible land uses, and to reduce the impacts of airport noise on neighboring communities. The new law requires cities and counties planning under GMA, through their local comprehensive plans and development regulations, to discourage the siting of incompatible land uses adjacent to such airports. Formal consultation with the aviation community is required, and all plans and regulations must be filed with the WSDOT Aviation Division. The Regional Council is working with the WSDOT Aviation Division and other state agencies in developing guidelines for implementing the law. Using authority under SSB-6422 (1996 session), relevant sections of the Planning Enabling Act (Chapter 36.70 RCW), the Growth Management Act (Chapter 36.70A RCW), and RTPO legislation, the Regional Council has developed new criteria for review and certification of local comprehensive plans. In late 1998 the Regional Council began implementing its mandated GMA provisions by incorporating the review of compatible land use around airports into its comprehensive plan review and certification criteria. In 1999, the Regional Council began using these criteria in its review and certification of all local comprehensive plans. The goal of this program is to improve land use compatibility around the region's airports and reduce potential impacts associated with airport operations. Specific impacts at a given airport are to be analyzed at the project-level by the lead agency for a given airport.

Many roadways would experience a modest increase in noise from increased traffic volumes and longer peak traffic periods. Many roadways may also experience periods of reduced traffic noise due to increased congestion and slower vehicle speeds as traffic volumes exceed road capacities. Local changes in traffic noise levels may also occur as drivers use alternate routes when confronted with severe congestion. Changes of this type could contribute to increased traffic noise on local and minor arterial streets.

Noise from transit operations will depend on the types of vehicles and equipment used, the character and locations of the alignments and the impacts of the new facilities and transit operations on background traffic patterns. New transit centers and increased intensity of park-and-ride lot use may contribute to local increases in traffic volumes and noise that could affect nearby residential areas or other noise sensitive land uses. Locally increased noise may occur due to changed traffic patterns, increased bus operations, rail transit or commuter rail operations, or bus or rail operations at transit stations and park-and-ride lots.

The character and level of local noise impacts will depend on their proximity to noise sensitive land uses, local noise levels, and the location and design of facilities. Most bus transit facilities would be located within existing freeway, highway, and arterial rights-of-way, where noise levels are relatively high. However, some of the facilities would be developed in outlying areas where noise levels are lower than on principal roadway corridors.

New HOV lane access points may contribute to local increases in traffic volumes and noise that could affect nearby residential areas or other noise sensitive land uses. Additional HOV lanes or access points would likely contribute to increased vehicle speeds, which could slightly increase traffic noise in some areas. New HOV facilities may also result in traffic lanes being moved closer to abutting land uses, although in most instances the change in noise levels would be slight.

Increased ferry service is not expected to result in significant noise impacts.

Mitigation Measures: Specific mitigation measures would be developed during project-level planning. Possible measures to mitigate construction noise include the following:

- Strictly enforce noise ordinance restrictions, including nighttime restrictions.
- Restrict the noisiest construction operations to the least noise sensitive periods of the day.
- Require contractors to muffle noise from equipment.
- Mandate temporary noise barriers between work zones and noise sensitive uses.
- Notify nearby landowners prior to periods of unusually loud construction noise.
- Require contractors to prepare approved noise control plans where noise impacts are likely to exceed allowable limits.
- Institute a construction "hot line" to handle noise complaints on a timely basis.
- Use construction techniques where possible (such as pile auguring instead of pile driving) to reduce noise impacts.

The most effective way to reduce operating noise impacts is to select and design sites and facilities to avoid major noise impacts. Where possible, avoiding residential areas would reduce impacts. Using major existing transportation corridors for development of new facilities also can reduce impacts.

Noise mitigation measures during operation could include:

- Compliance with federal, state, and local noise reduction policies, standards, and land use strategies.
- Adjustment to the alignment of transportation corridors to allow greater distances from noise sensitive land uses; depressed alignments are effective in reducing noise levels; elevated transportation corridors result in increased noise levels.
- Zoning or development regulations can be implemented to assure that future development is compatible with transportation facilities.
- Earth berms and sound barrier walls can be created between noise sources and sensitive receptors.

Noise can also be reduced by using the best available technology and maintenance techniques for a given program or project. Appropriate engineering and design can contribute to smoother and quieter vehicle propulsion, braking, and steering equipment for transit vehicles.

Barriers blocking the direct line of sight between a noise and sensitive receptor can reduce noise by 8 to 10 dBA. This would bring most noise levels within applicable standards for receptor 50 feet or more from a given source. The need for such measures will be determined in the project-level planning. If noise impacts would be unacceptable after mitigation, affected properties may be acquired or redeveloped with less noise-sensitive uses.

Earth and Seismic Issues

Steep slopes in the region are conducive to landslides. Unconsolidated lakebed deposits and pleats are prone to settlement. Historically, the region has had relatively frequent earthquakes of low to moderate intensities. Potential earthquake effects include ground shaking, loss of soil strength leading to ground failure (liquefaction) lateral spreading, and landslides. Liquefaction occur primarily in clean, loose, saturated sands, and can cause substantial settlement. The distribution and thickness of glacially-consolidated sediments, unconsolidated stream and lake deposits, and fill can substantially affect earthquake motions and ground failures.

Developed areas in the region are built largely on glacial deposits. Many of the industrial areas are built in river valleys or estuaries, consisting of recent stream deposits and fill materials. Many areas in the region have been modified by excavation and fill. As a result, geologic conditions include soft saturated clay to very dense till, as well as artificial fill and sedimentary rock.

Impacts: The magnitude of construction impacts would vary by project. Projects that would include excavation have a greater potential for adverse impacts. Strong lateral stresses in hard silt and clay can adversely affect construction of retaining walls and subsurface facilities. Subsurface facilities could also be adversely affected by water-bearing sand and gravel. Construction vibration may affect structures, depending on construction techniques, soil types, method of excavation, and distance to structures. Surface settlement would likely be localized. Settlement would be of particular concern near large structures and in sand and gravel, fill, and lake and stream deposits. Subsurface settlement is more likely over deposits of soft Clays and silts, peat, and fill.

Existing urban development has already significantly altered surficial geologic conditions throughout the urbanized portion of the region and these effects will persist in the future. In addition, substantial new transportation development would occur under the Preferred Alternative. Since new transportation projects would be geographically distributed throughout the region rather than concentrated in several limited areas, the Preferred Alternative would result in a relatively small incremental increase in the potential for earth impacts.

Earthquakes can affect operation of transportation facilities including transit, roadways, ferries, and airports. Most soils in the region are glacially overconsolidated and therefore are not susceptible to vibration-induced settlement. However, some areas include soils that are prone to liquefaction, particularly fill soils, tidal flats, and other unconsolidated deposits. Ground vibration could cause settlement in unconsolidated soils. Earthquakes can cause temporary road closures and/or disruption of transit service. Transit systems and vehicles can play an important role in the aftermath of an earthquake.

Although the nature of the future additions to the transportation system could influence land consumption rates in the future, the Preferred Alternative would not result in an impact on the total increase in urbanized land use or regional geologic conditions. Although direct physical changes in surficial geologic conditions would result from the Preferred Alternative, new roadways and other types of transportation facilities are not likely to result in significant adverse impacts on a regional basis.

Mitigation Measures: Geologic concerns may be avoided by adjusting the location or alignment of new transportation facilities and improvements. Where the location or alignment cannot be changed, potential problem areas should be identified and mitigated in design and construction. Facilities will need to meet applicable state and local earthquake safety codes. In addition, facilities should be designed to avoid worsening potential seismic effects on adjacent property or structures and to counteract potential liquefaction through ground densification, dewatering, or alternate means of support.

Relationship of the Preferred Alternative to Plans and Policies

The Growth Management Act [Planning requirements (RCW 36.70A.040-070) and Statutory Goals (RCW 36.70A.020)] (GMA) provides a comprehensive framework for managing growth and coordinating land use with transportation and other infrastructure. Jurisdictions subject to the Act which includes King, Kitsap, Pierce and Snohomish Counties, and all cities within these counties must prepare local comprehensive plans containing specified elements (such as land use and transportation) and embodying state-wide goals; capital facilities plans for utilities and transportation systems; and development regulations that are consistent with and implement the comprehensive plan. Each county must also prepare countywide planning policies that will guide jurisdictions in preparing their comprehensive plans.

The GMA's planning goals include directing growth to urban areas; reducing sprawl; providing efficient transportation systems; promoting a range of residential densities and housing types and encouraging affordable housing; promoting economic development throughout the state; protecting private property rights; ensuring timely and fair processing of applications; maintaining and enhancing resource-based industries; encouraging retention of open space and habitat areas; protecting the environment; involving citizens in the planning process; ensuring that public facilities are provided at adequate levels concurrent with planned development; and preserving lands with historic and archaeological significance.

Counties are required to designate urban growth areas. These areas must be appropriate in size, intensity and character to accommodate growth projected for the 20-year planning period, based on population projections prepared by Washington State Office of Financial Management (OFM). Services and facilities must be sufficient (currently or planned) to accommodate planned growth. All cities must be located within an urban growth area. Growth in rural areas is to be limited to an amount and type that is consistent with rural character. The countywide planning policies for each of the region's counties define a process for allocating the OFM countywide population projection among individual jurisdictions.

Local plans must require that adequate transportation improvements be provided concurrent with development; concurrency is defined to mean that facilities or a financial commitment must be in place at the time of, or within six years of, development. Development must be denied if facilities are not adequate. Local capital facilities and transportation plans must coordinate land use, facilities needs and financing. The land use plan (i.e., the location, type, density and/or timing of growth) must be reassessed if funding falls short of meeting identified needs. The GMA also outlines procedures for reviewing, updating and amending local comprehensive plans, development regulations and urban growth area boundaries.

Discussion. *Destination 2030* functions as the transportation element of VISION 2020, which describes a regional land use pattern that is consistent with and supports the GMA's policies. The Preferred Alternative would provide the regional transportation system to support planned growth. Local comprehensive plans are developed within the framework of VISION 2020. The Preferred Alternative would be consistent with GMA to the degree that it supports and implements the regional land use pattern.

The Preferred Alternative is intended to provide sufficient funding and transportation system capacity to support local plans consistent with GMA. *Destination 2030* forecasts population and employment to 2030, which is beyond the time horizon addressed in currently adopted Comprehensive Plans (typically 2012). As noted above, the GMA and countywide planning policies for each county establish a process for determining countywide growth and allocating population targets, based on Washington State Office of Financial Management county population forecasts, to individual jurisdictions. In general, the local allocations are negotiated among jurisdictions within the region after using information provided by the Regional Council. Local jurisdictions make land use decisions using appropriate processes. This process provides a basis for the Regional Council's decision-making regarding regional planning options and implementation strategies that are transportation supportive.

Multicounty Planning Policies. The Growth Management Act requires preparation of multicounty planning policies where contiguous urban counties satisfy a specified population threshold (RCW 36.70A.210 (7)). King, Pierce and Snohomish Counties meet the criteria of the statute. Although Kitsap County is not required to adopt Multicounty Planning Policies under the GMA, it has opted to do so by joining the other three counties of the Central Puget Sound Region.

The Regional Council's General Assembly initially adopted Multicounty Planning Policies for King, Kitsap, Pierce and Snohomish Counties in March 1993, and updated them in 1995. The Multicounty Policies articulate an integrated vision for the region that promotes diverse, economically healthy and environmentally sensitive communities that provide affordable housing for all segments of the population, and are connected by a high quality, efficient transportation system. Framework policies include:

- Concentrating development in urban areas and, within urban growth areas, promoting growth in centers connected by an efficient, transit-oriented, multi-modal transportation system (RF-1);
- Protecting critical areas and conserving resource lands (RF-2);
- Phasing development of public facilities and services (RF-3);
- Developing a transportation system that emphasizes accessibility, includes a variety of mobility options, and enables the efficient movement of people, goods and freight (RF-4);
- Provides diversity and choice in housing and employment options (RF-5);
- Maintaining economic opportunities while managing growth (RF-6); and
- Mitigating potential adverse effects of concentrating development by early action (RF-7).

Policy direction is also provided for (1) designation of urban growth areas, (2) contiguous and orderly development and the provision of services (3) transportation facilities and strategies (4) siting regional capital facilities (5) inter-jurisdictional planning (6) economic development (7) affordable housing, and (8) open space, resource protection and critical areas.

The policies are intended to provide guidance for local governments in preparing comprehensive plans and countywide planning policies complying with the GMA.

Discussion. *Destination 2030* is focused on implementation options and is intended to be consistent with the Multicounty Planning Policies. The Preferred Alternative would support the Multicounty Planning Policies and would be consistent with those policies.

Discussion of Support for Growth Management

Through the adoption of the Growth Management Act and VISION 2020, both the State of Washington and the central Puget Sound region have recognized the beneficial impacts of managing the location and phasing of growth. The DEIS analyzed and compared the alternatives for consistency with GMA and VISION 2020. Reflecting the growth vision, *Destination 2030* improves mobility and accessibility through strategic investments, and responds to growth policies by encouraging development in patterns and locations that make the most efficient use of the regional transportation system.

Supporting Regional Growth Patterns. The region will see a shift in housing types over the next thirty years. Multi-family units will increase from 33 percent of all housing in 1999 to 40 percent in 2030, reflecting changing demographics. *Destination 2030* provides a clear focus on supporting development in centers through transportation investments aimed at increasing transit ridership, focusing new transportation infrastructure in already-urbanized areas, and providing additional information and tools to help implement the growth strategy. If centers do not develop as planned, the result will be increased urban sprawl, which is costly, less efficient, and contributes to loss of habitat and resource lands. *Destination 2030* promotes tools and development approaches that may assist centers and station areas to be more attractive, thereby fostering housing growth in non-auto dependent environments, and helping the region to meet its goals for housing development in centers, and for housing afford ability.

Promoting Efficiency. *Destination 2030* calls for focused transit and non-motorized transportation improvements which will further enhance the functioning of centers and improve overall efficiency of the region's transportation system.

Supporting Regional Economy. During the early 1990s regional public and private sector leaders participated in what came to be known as the Central Puget Sound Economic Development Strategy project. The result of this effort was a two-volume report titled *Foundations For the Future: An Economic Strategy for the Central Puget Sound Region.* Volume 2 of this report, *Strategic Opportunities and Institutional Capabilities,* outlined a broad strategic framework for guiding economic policy in the region as it prepared for the 21st Century. The following three central themes emerged from this strategic planning exercise:

- Pay attention to basic strategic issues like education and training of the workforce and the quality of our infrastructure and institutions.
- Think about the region's economy as clusters of related enterprises, not bound by jurisdictional boundaries. Develop an understanding of the clusters in which the region has advantages and work to strengthen those clusters.
- When evaluating public policies, business strategies and public-private actions, ask "Will this policy, strategy, or action contribute to innovation and improvement, will it strengthen our community, and will it increase our advantage as world class competitors?"

Adequate and well-maintained transportation infrastructure was recognized as playing an important economic role, by supporting the movement of people and goods in an efficient and cost effective manner. Strategic transportation investments will realize regional economic benefits. Freight investments can improve the positioning of the region compared to major port competitors, especially if the regional economy significantly adds value to traded goods. Investments that improve mobility for a large number of high value uses will realize the greatest economic benefits for the region. Individual transportation projects can have significant economic benefits relative to costs while only having a small effect on the regional economy. These projects are investments that realize high benefit returns, even though regional analysis may not directly register their influence. *Destination 2030* makes strategic transportation investments that will realize regional economic benefits as improved travel times are capitalized in the broader economy.

Implementation of Destination 2030: Consistency of the Preferred Alternative with Federal and Regional Transportation Policies

Technical and policy analysis performed during the development of *Destination 2030* indicate that successful implementation of the plan will place the region well on its way to achieving its long-term growth vision. *Destination 2030* builds upon the 1995 Metropolitan Transportation Plan by advancing more complete and effective strategies to implement adopted multi-county policies. *Destination 2030* contains strategies and programs to help implement regional policies relating to maintenance, preservation, and operation of existing transportation infrastructure and services, transportation accessibility and mobility, growth management, and the regional economy. These are key regional policy areas that were utilized to select plan alternatives for environmental analysis and ultimately guided the development of *Destination 2030*. In addition, the policy areas consider the planning factors set forth in the federal transportation legislation, the Transportation Equity Act for the 21st Century (TEA-21), as well as Regional Transportation Planning Organization guidelines spelled out in state growth management legislation. The following sections evaluate how *Destination 2030* addresses these key plan policy areas.

Maintaining and Preserving. *Destination 2030* identifies an investment strategy and funding options. If secured, the result will be more stable funding to ensure adequate levels of maintenance

and preservation for transportation facilities and services. However, a shortfall to meet all currently identified needs remains. If, on the other hand, the revenues assumed by the investment strategy are not secured, the result will be an increased deficit in meeting local and regional transportation needs.

Managing Transportation Systems. *Destination 2030*'s call for application of the latest available technologies and programs designed to optimize use of transportation systems. That represents a financially prudent course in light of the high cost of adding additional capacity through infrastructure investment. *Destination 2030* calls for aggressive implementation of a coordinated regional Intelligent Transportation System (ITS) system architecture which will result in using existing and planned new infrastructure as efficiently as possible.

By supporting and expanding vehicle trip reduction services and incentives to influence travel, implementing *Destination 2030* will result in significant vehicle-travel reductions for the region over the thirty year planning horizon (as compared to the trend), allowing transportation systems to function more efficiently. For example, the state's Commute Trip Reduction law has proven that trip reduction programs can have a significant impact on the populations they serve. Between 1993 and 1999, the region reduced its single-occupant vehicle rate for work commutes of CTR-covered employees by 5.5 percent. However, only 22 percent of the region's jobs are covered by the law, and only 20 percent of the region's trips are work trips. Expanding CTR, and other trip reduction services and incentives, to other work commutes and to non-work trips could potentially result in significant vehicle-travel reductions for the region but would require significantly greater investment in these services and incentives to provide viable alternatives for more dispersed trip-making patterns.

Promoting Enhanced Transportation Accessibility and Mobility. Transportation plans often focus on the issue of mobility, and improving mobility through investment in transportation infrastructure. Measures of mobility, such as facility levels-of-service, travel time and measures of travel delay provide information about how well transportation systems are functioning. These measures are included in *Appendix 8* of *Destination 2030*. It is also important to understand the degree to which residents of the region have access to vital activities through a broad array of travel options. This is especially important for populations who are unable to rely upon the flexibility of the personal automobile. Accessibility and mobility are also important considerations for freight movement.

Investing in Increased Transportation Capacity. New capacity in *Destination 2030* comes balanced in the form of new roads, expanded local transit service, and better bicycle and pedestrian facilities connecting and within urban centers, transit stations and activity areas. This multi-modal, strategic approach will help achieve the regional goal of creating more multi-modal, mixed-use environments. While the 1995 Metropolitan Transportation Plan included major increases in transportation capacity, *Destination 2030* significantly adds to what was previously called for. In addition, *Destination 2030* embraces a strategic investment program which will result in new capacity being focused in areas where the need is greatest.

While addressing regional transportation needs, the plan will also address specific problems and bottlenecks within major travel corridors. The preferred plan will improve travel (in real terms) in several corridors by 2010, increasing travel speeds on the following facilities:

- SR 16 HOV and transit lanes from I-5 to Bremerton (Tacoma Narrows Bridge)
- I-405 general purpose lanes from Tukwila to I-90
- SR 167 general purpose and HOV lanes from I-5 to I-405
- SR 520 HOV and transit lanes from Redmond to I-5
- SR 522 general purpose, HOV, and transit lanes from I-405 to SR 2
- SR 18 general purpose, HOV, and transit lanes from I-5 to I-90
- SR 525 general purpose, HOV, and transit lanes from I-405 to Mukilteo
- I-5 HOV lanes from Thurston County to SR 16

Improving Overall Accessibility and Mobility. *Destination 2030* promotes further development of a comprehensive region-wide multi-modal transportation system to provide more transportation options, improved mobility and accessibility, and greater transit utilization.

- *Destination 2030* includes improvements for general purpose travel, car pools, transit, bicyclists and pedestrians. Of the over 2,000 new freeway and arterial lane miles included in the plan, 79 percent will be for general purpose travel and 21 percent will serve car pools and transit. If the region were constrained by current revenues, we could build only 10 percent of the new lane miles shown in *Destination 2030*.
- If the region is limited to current revenue sources, by 2030 average daily vehicle delay will have increased fourfold, to nearly 30 minutes of delay per household. With the investments identified in *Destination 2030*, however, average daily vehicle delay per household will only increase slightly from 6.4 to 7.2 minutes.
- If planned improvements are not made, average afternoon peak freeway travel speeds will decline to approximately 20 mph. If *Destination 2030* is implemented, however, average PM peak travel speeds on the roadway network within the region will nearly hold constant, decreasing slightly from 34 mph in 1998 to 32 mph in 2030.

Providing Transportation Choices. Increasing transit use resulting from implementation of *Destination 2030* demonstrates the plan's ability to be responsive to the basic mobility needs of many of the region's citizens as well as transit-dependent populations. Implementation of *Destination 2030*'s investment strategy and programs would result in greater non-motorized travel opportunities than would otherwise be possible. *Destination 2030* recognizes that different parts of the region require different types of transportation improvements.

- Although very few general purpose roadway capacity improvements are planned in the Northwest King County subregion (which includes the city of Seattle), *Destination 2030* will provide significant HOV and transit facility and service improvements. This part of the region is forecast to double its current transit mode share, from 9 percent in 1998 to 18 percent in 2030. In the same time period this part of the region will reduce per capita VMT by 16 percent and average vehicle delay per household by 27 percent between 1998 and 2030.

- *Destination 2030* calls for 80 percent more local transit service and significant investment in regional high capacity transit services, over the next thirty years. Under *Destination 2030*, transit would increase its mode share from 3 percent in 1998 to 5 percent, and would carry triple the current number of daily riders, from 285,000 in 1998 to 840,000 in 2030.

- *Destination 2030* identifies and makes significant investment in a range of regional non-motorized systems, including multi-use off-road trails, designated on-road bicycle facilities and pedestrian infrastructure. These investments will provide residents of the region with greater opportunities to make non-motorized transportation choices and provide greater access to transit services.

- *Destination 2030* guarantees continued investment in both auto and passenger ferry services. Ferry service provides an important alternative to using congested roadways to move between communities otherwise divided by Puget Sound. For example, if ferry service is discontinued and no improvements are made to the Narrows Bridge, delays in Pierce County would become intolerable, reaching over 95 minutes per day per household by 2030. Completion of the bridge and continuing ferry service avoids these significant negative impacts.

APPENDICES

Appendix I-A: Final Environmental Impact Statement Distribution List

Regional Council Boards and Committees

Executive Board
Growth Management Policy Board
Transportation Policy Board
Regional Staff Committee
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Introduction

Voters in the central Puget Sound region are being asked to make a major financial investment in transportation improvements proposed in the Sound Transit 2 Plan. This report provides the region's citizens with an assessment of various benefits the region can expect from the fully implemented ST2 plan.

Transportation improvements are clearly linked to the growth, development, quality of life and economic vitality of a region. ST2 proposes a range of transit improvements building on the investments Sound Transit has already made, with major extensions of Link light rail to serve more of the central Puget Sound region's urban centers, along with improvements in Sounder commuter rail and enhancements of ST Express bus. These improvements add major new capacity in the region's most congested corridors, to help serve the transportation demands of the people and businesses already here, as well as anticipated growth.

Since improved transportation is such an important part of maintaining the livability and vitality of the region – and because the ST2 plan provides such a major extension of rail services throughout the region – this analysis goes a step beyond an ordinary approach to analyzing benefits.

In addition to looking at the travel benefits that can be thoroughly documented or conservatively projected, this report provides a broader discussion of the community and regional benefits that can be expected from the ST2 investment.

As with road and highway construction, transit investments create value within a community that goes beyond where projects are built and how much concrete is poured. Personal mobility, regional connections, the availability of transportation alternatives, and impacts on growth patterns, quality of life and the economic well-being of the region are all tangible outcomes that must be considered in deciding on transit investments, as they typically are in decisions on road investments.

Table 1 shows a set of broad performance measures, some of which can be projected and measured, and others that are more difficult to quantify but which are important benefits of investing in transit infrastructure.

When the citizens of our region total both the direct and quantifiable benefits of transit investments, along with the indirect and qualitative benefits, and compare them to the costs of the plan, they will have the information necessary to make an informed decision. Already, the region is reaping the early benefits of the transit investments made as a part of *Sound Move*, Sound Transit's initial plan. Many benefits, however, such as the region's ability to achieve its land use vision, and the shifting travel patterns that support dense, mixed-use development in walkable regional centers, will only be fully realized over the decades to come. Meanwhile the direct and quantifiable benefits, such as more riders on transit, savings in travel time and travel costs, will continue to grow as more investments come on line and more people arrange where they live, work and shop, and how they travel, to take advantage of greatly expanded high-capacity transit options.

Data and methodology used to analyze direct benefits of the transportation improvements in ST2 have been prepared in accordance with nationally accepted standards and procedures, and have been subject to review by an independent Expert Review Panel appointed by and accountable to the state of Washington.

Table 1: Measures of Performance by Type

Transit Measures	Other Measures	
Transit ridership	Achievement of Vision 2020, the region's land-use plan	Vehicle miles reduced
Additional transit passenger trips	Development of dense, walkable urban centers	Vehicle ownership and operating cost savings
Time savings to transit riders in hours	New businesses attracted to the region	Reduced parking demand and cost savings
Value of travel time savings to transit riders in dollars	Increased economic activity	Improved connections between regional centers
Subsidy per passenger trip and per passenger mile	Reduction in highway delay for private and commercial vehicles	Avoiding sprawl outside the urban growth boundary
Farebox recovery ratios (operating revenue/ operating expense)	Construction and related employment	Preserving rural and natural land
Transit system productivity	Permanent employment in operations and maintenance	Improved human health from increased walking and cycling
Transit system reliability	Increased rail freight mobility	Transportation benefits during special events (sports, fairs, etc.)
	Attaining Commute Trip Reduction Act Goals	Tourist spending

Benefits of ST2 investments in the regional transit system

Background

According to the Puget Sound Regional Council, between 1999 and 2005, transit ridership in the region grew over one and a half times as fast as daily vehicle miles traveled. These numbers cap a slow reversal of trends that started in the 1980s, when transit ridership could not keep pace with the explosive growth of travel by personal vehicle.

For a few years in the 1980s, as women entered the workforce in unprecedented numbers, employment in the region grew about twice as fast as population. At the same time, rising family incomes, the travel demands of two-worker families, and the continued patterns of suburban sprawl in the region, fueled a growth in travel by personal vehicle that outpaced by four times the growth in population.

This imbalance, though somewhat less pronounced as the years passed, continued through the 1990s and became deeply embedded in people's expectations about traffic and gridlock, present and future. At the same time, even though transit ridership continued to grow, it did not keep pace with the overall increase in traffic.

Looking at the new century, transit ridership grew slightly in 2000 and 2001 but then, during the worst of the economic slowdown, actually declined in 2002 and 2003. As the economy picked up, however, people chose transit in increasing numbers and ridership rebounded sharply. At the same time, the trends of the previous decades reversed as more people decided to ride transit instead of drive.

In 1996, the year Sound Transit's *Sound Move* plan was approved by the voters, about 75 million individual trips were made on buses and trains in the Sound Transit service area. By 2006 that number had grown to 98 million trips.

By 2030, the completed projects in *Sound Move* and ST2, along with continued growth in people riding local buses, means that public transit in the Sound Transit district will be carrying about 167 million trips a year, more than twice as many as in 1996. Over 100 million of these trips will be on Sound Transit. Most importantly, these new transit trips will be concentrated in the region's most congested corridors on bus routes and rail lines serving the region's densest downtowns and urban centers, adding critical capacity where it is most needed to support the region's economy and preserve its quality of life.

This section details the benefits to transit riders of ST2's major expansion in high-capacity transit throughout the region.

Transit passenger trips

The most important measure of any transit investment is whether it attracts riders and serves them well. The most direct way to measure this factor is the numbers of people riding transit. With the ST2 plan, transit ridership in the region is projected to grow by 70% over today.

Table 2 compares regional transit ridership today with ridership projections for 2030, with and without the ST2 investments.

Highlight

If the region's daily transit trips were all made by car, the line of cars would extend about 800 miles. The 2030 daily ridership represents a line of cars nearly 1,500 miles long.

Table 2: Regional Transit Ridership and Transfer Rate

	Existing in 2006	2030 without ST2	2030 with ST2
Daily			
Transit Trips	329,000	482,000	556,000
Transit Boardings	424,000	661,000	818,000
Annual			
Transit Trips	98 million	145 million	167 million
Transit Boardings	127 million	199 million	247 million
Percent Using ST	**12%**	**40%**	**65%**
Transfer Rate	1.29	1.37	1.47

Definitions

Transit passenger trips are counted with regards to *boardings*, *trips*, *transfers* and *passenger miles*. These terms are defined here.

- Boardings: Transit *boardings* are the number of times a passenger steps into any transit vehicle.
- Passenger trips (or transit trips) – *Trips* represent a completed journey made by a person from an origin to a destination (such as home to work). Because people may transfer from one route to another to complete such a journey, *trips* can consist of more than one transit *boarding*.
- Transfer – A *transfer* is when a passenger changes from one transit

vehicle to another (bus-to-bus, or bus-to-train for example) to complete their trip. *Transfers* explain why the average transit trip consists of more than one *boarding*, and are a good measure of the effective integration of the individual routes that make up the overall transit system.

Transfer rates are an indication of how the individual elements of a transit system complement each other, that is how complete the coverage is, and the range of trips that can be made on the network. Nationwide and worldwide, higher *transfer rates* are strongly and positively correlated with higher transit ridership.

- Passenger miles – *Passenger miles* are a measure of service that a transit line, route or system is providing to its riders. For example, 100 passengers traveling ten miles each, results in 1,000 *passenger miles* of travel.

Highlight

In 2030, with the ST2 plan, the region's residents and visitors will travel over a billion miles a year on Link light rail, Sounder commuter rail, and ST Express bus.

Transit ridership on ST by service type

Table 3 summarizes the annual boardings and passenger miles projected for Link light rail, Sounder commuter rail and ST Express bus in 2030 with the ST2 Plan.

Table 3: Summary of Projected Sound Transit Ridership by Mode in 2030

	Annual Riders	Annual Passenger miles
Link light rail	95 million	856 million
Sounder commuter rail	4 million	99 million
ST Express bus	9 million	70 million
Total	**108 million**	**1,025 million**

Forecast Methods

Sound Transit's ridership forecasts that form the basis for this report were prepared for the year 2030. The forecasts are based on:

- The Puget Sound Regional Council's adopted population and employment forecasts.
- A well-documented modeling/ forecasting methodology reviewed by local and national experts and approved by the Federal Transit Administration, specifically designed to avoid over-forecasts of transit ridership.

Sound Transit wants to ensure that its forecasts are appropriate and do not overstate system benefits. Accordingly, Sound Transit's forecasts do *not* consider other factors that have been shown to affect rail and overall transit ridership positively but which are not easily quantified. These include:

- Rail bias: *Rail bias* is the demonstrated willingness of people to make urban transit trips on trains that they would not make on equally fast buses. Researchers have documented this preference, and link it to passengers' perceptions of rail's speed and reliability, as well as a confidence factor related to the ease of understanding inherent in rail routes – passengers know trains can take them only where the tracks are laid and that if they go in the wrong direction backtracking is easy. Sound Transit's modeling, does *not* take rail bias into account, and assumes buses and trains with the same service characteristics would have the same ridership.
- Land use changes resulting from transit investments: Sound Transit's modeling also does not assume that land use will change because of improvements in high-capacity transit. However, the experience of other cities confirms that rail, in particular, has the potential to shape land use both because of its ability to bring large numbers of people into dense urban centers without taking up the space required for freeways, streets and parking lots, and because developers have confidence in rail's permanence and so are willing to build their projects around rail stations.

The 2030 transit ridership forecast includes the effects of population and employment growth, and the transportation and transit projects included in the Puget Sound Regional Council's Metropolitan Transportation Plan. The ST2 projects assumed to be implemented by 2030 include:

- Light rail north from the University of Washington to 164th/Ash Way, south from SeaTac to Tacoma, and east to Overlake Transit Center on the Microsoft campus.
- Expanded parking and improved Sounder stations at Puyallup, Sumner, Auburn, Tukwila, Edmonds and Mukilteo.
- Redeployment of ST Express bus service as the rail system expands, new ST Express facilities in Bothell and Renton, and an ST Express service enhancement fund to add service on the most heavily used routes.

Travel Time Savings

Table 4 and Table 5 illustrate the expected travel time savings for the region's drivers and transit riders, achieved by the investments included in the ST2 plan.

Looking ahead to 2030, after ST2 investments are completed, the region's transit riders are projected to save over 20 million hours a year. For the regular transit rider, this means a travel time savings of about 72 hours a year.

This analysis is based on two scenarios for traffic in 2030: one with ST2 projects and one without ST2 projects. Accordingly, the numbers are estimates based on best practices. In the simplest terms, every car not driven because the driver chooses to travel by transit either reduces congestion or leaves space for another vehicle.

Highlight

The estimated combined annual travel time savings for drivers and transit riders is approximately 62 million hours.

Table 4:

Projected Travel Time Savings for Drivers and Freight

	Drivers & Freight 2030 with ST2
Reduction in Annual Vehicle Miles Traveled (Switched to Transit)	339 million
Annual highway delay reduced	40 million hours

Table 5:

Projected Travel Time Savings for Transit Riders

	Transit Riders 2030 with ST2
Daily Hours Saved	71,000
Total Annual Hours Saved	22 million

Travel times and number of transfers between selected centers

Looking at specific trips between the region's centers is one way to understand how ST2 will benefit riders who are taking the bus today, as well as future riders who will be attracted to transit because of the improved speed and reliability they will experience on ST2 services.

Buses get slower every year: Within the Sound Transit district, bus travel times slow by about 1% per year, mostly due to more congestion on roads and increased pedestrian activity in centers (vehicles making right and left turns at intersections block other traffic while they wait for people crossing the street). Without improvements in transit, therefore, existing bus travel times would be expected to be about 23% slower by 2030.

For example, the Bellevue-to-Airport existing bus travel time is 53 minutes for ST Express route 560 via I-405 and I-5. Without the light rail investment the bus travel time using Route 560 would be expected to increase from 53 minutes today to about 65 minutes by 2030. After light rail is extended across Lake Washington, however, the same trip is expected to take 55 minutes, with a transfer in Seattle. While that's two minutes longer than it takes today, it's a savings of ten minutes over the time it would otherwise take to make the trip by bus in 2030.

Table 6 compares existing transit travel times to future transit travel times after implementation of ST2. The existing times are actual measured travel times, not the travel times shown on the bus schedules, which cannot be relied on from hour to hour and day to day because of traffic congestion on the roads.

Shorter wait times are not included in travel time estimates. These travel times *do not include* the effect of higher frequencies for rail systems. Typical train frequencies on all branches in 2030 will be at least every 10 minutes. Shorter wait times and transfer times also reduce total trip times for riders.

Table 6 : Projected Transit Travel Times & Transfers Between Selected Centers

	Existing Transit Time	Expected 2030 time w/out ST2*	2030 ST2 Plan Time	Expected Time Savings
Lynnwood - UW	39 min	49 min	21 min	**28 min**
Lynnwood - Seattle	42 min	45 min	28 min	**17 min**
Bellevue - Airport	53 min	65 min	55 min (1)	**10 min**
Bellevue – Seattle	31 min	34 min	20 min	**14 min**
UW - Bellevue	32 min	37 min	31 min	**6 min**
Overlake - Airport	80 min (1)	96 min (1)	66 min. (1)	**30 min**
Capitol Hill - Overlake	55 min (1)	63 min (1)	38 min	**25 min**
Tacoma - Airport	55 min	66 min	37 min	**29 min**

( ) = number of transfers

**Bus travel times can vary greatly. The times shown for 2030 are expected averages, after accounting for continuation of historic trends in bus speed degradation, as reflected in PSRC 2030 traffic forecasts.*

Transit trips to selected centers

Table 7 presents the percentage of work and college trips made by transit riders to a selected set of regional centers.

The existing transit share data is from the 2000 U.S. Census Journey-to-Work survey as compiled by the Puget Sound Regional Council (PSRC).

Percentages include ridership on fixed route, fixed schedule transit service. Excluded are paratransit, dial-a-ride, carpools and vanpools, etc.

Table 7: Projected Activity Center Mode Splits

	Existing Transit Share of Work & College Trips	ST2 2030 Share of Work & College Trips	Percent Change from Existing to ST2 2030
Lynnwood	3 %	4 %	+ 33%
Northgate	6 %	9 %	+ 50 %
University District	20 %	33 %	+ 65 %
Bellevue CBD	8 %	12 %	+50 %
Seattle CBD	40 %	50 %	+ 25%
Federal Way	2 %	4 %	+ 100 %
Tacoma CBD	4 %	5 %	+ 25 %
Average	15 %	21 %	+ 40%

Other benefits of ST2

Cost savings for transit riders

According to the U.S. Census Bureau, in 2003 the average family in our region spent 18% of its disposable income on transportation, more than any other expenditure except housing. The average household has 2.3 people, owns 2.4 cars, and spends $9,350 a year on transportation.

The most expensive cost of driving is the cost of owning and insuring a vehicle. A family that can own one less car because of better transit service can save thousands of dollars a year on transportation. Even a family that owns the same number of cars, but drives less, stands to save on vehicle operating costs – gas, oil, parking, tires and maintenance.

For those commuting by transit to places with high parking costs, the savings in parking alone are substantial. For example, a monthly Puget Pass good for unlimited $2.00 rides (the two-zone peak hour fare on King County Metro) costs $72. According to the PSRC, the average cost of parking in the region's downtowns in 2006 was $138 a month -- $66 more than bus fare. For the average transit commuter to downtown Seattle, savings in parking alone would be approximately $800 a year, on top of the savings on gas and other vehicle operating costs.

O&M costs, fare revenue and operating subsidies

Operating Revenue / Operating Expense Ratio (OR/OE)

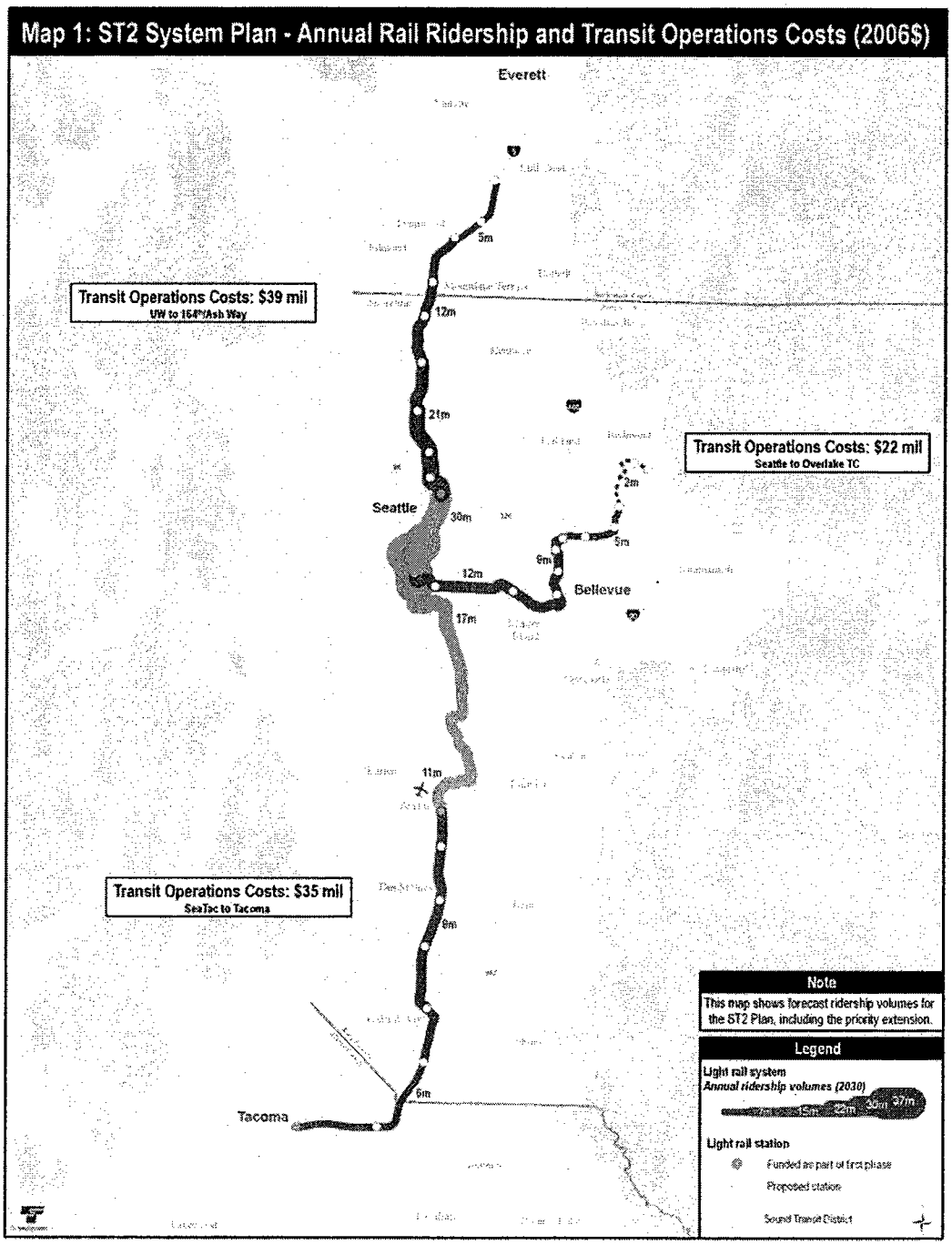
Table 8 shows the forecast ratio of operating revenue to operating expense by service in 2030. This ratio is the operating revenue (primarily fares) divided by the costs of operating Sound Transit's services.

Table 8: Sound Transit's Total Forecasted Operating Revenue/Operating Expense Ratio in 2030

	Annual Riders (millions)	Transit Operations Cost (2006 $millions)	Operating Revenue (2006 $millions)	Farebox Recovery (OR/OE)
Link light rail	95	$183	$ 87	47%
Sounder commuter rail	4	$ 39	$ 9	23%
ST express bus	9	$ 67	$ 11	16%
Sound Transit Total	**108**	**$289**	**$106**	**37%**

Operating Costs and Ridership on each ST2 Light Rail Extension

Map 1 illustrates the annual transit ridership volumes in 2030 on each of the three light rail extensions proposed in ST2. The annual system operating costs allocated to each of these ST2 extensions is also shown.


Map 1: ST2 System Plan - Annual Rail Ridership and Transit Operations Costs (2006$)
Everett
5m
12m
21m
Seattle
30m
Transit Operations Costs: $39 mil
UW to 164th/Ash Way
Transit Operations Costs: $22 mil
Seattle to Overlake TC
2m
5m
9m
12m
Bellevue
17m
11m
Transit Operations Costs: $35 mil
SeaTac to Tacoma
8m
6m
Tacoma
Note
This map shows forecast ridership volumes for the ST2 Plan, including the priority extension.
Legend
Light rail system
Annual ridership volumes (2030)
Light rail station
Funded as part of first phase
Proposed station
Sound Transit District

Cost effectiveness

Table 9 reflects the annual O&M cost of the ST2 plan per additional rider over the cost of the existing system.

Table 9: Annual Projected Cost Per ST2 System Rider & New Rider (all in 2006$)

	With ST2 in 2030
ST2 transit operations cost (millions)	$96
ST2 capital cost (millions)*	$468
ST2 riders (millions)	51.0
New transit riders (millions)	22.2
ST2 transit operations cost per ST2 system rider	$1.88
ST2 capital cost per ST2 system rider	$9.18
ST2 transit operations cost per new transit rider	$4.32
ST2 capital cost per new transit rider	$21.08

* Note for Table 9: Annualized ST2 capital cost is the $10.84 billion total capital cost discounted at 3 percent over 40 years.

Possible Extension to Downtown Redmond

Table 9 costs do not include a possible extension from Overlake to Redmond. If an extension into downtown Redmond were to be completed within the time frame of this plan, the annual ridership in Tables 2 and 3 would increase by about one million and annual transit operations costs would increase by about $7 million. The measures shown in the remaining Tables 4 through 9 would not significantly change.

Comparing the capacity of rail systems and highways

Highway capacity

The capacity of a single highway lane is defined as the highest number of vehicles that can pass a single point in an hour in a lane experiencing a stable flow of traffic.

The Washington State Department of Transportation calculates that maximum freeway capacity – about 2,000 vehicles per hour per lane – is achieved at speeds of about 40-45 mph. When the speed falls to 30 mph, capacity can be reduced to as few as 700 vehicles per lane per hour.

Because the number of people per car is generally lower during commute hours than at other times, averaging about 1.1 people, the theoretical capacity of a single lane in the peak hour is 2,200 people. However this assumes traffic moves at about 40-45 mph with perfect free flow conditions. At higher speeds the longer distances between vehicles reduce the capacity of the freeway, and at slower speeds the conflicts between vehicles – that is stop-and-go traffic – also reduce capacity.

Other factors affecting capacity include collisions, disabled vehicles, spills and other events that impede the normal flow of traffic, as well as poor weather conditions that reduce visibility.

WSDOT tracks peak period highway performance in central Puget Sound for 35 different city-to-city commutes. Between 2003 and 2005 travel times worsened for 33 of these 35 commutes. Ironically, the slower the travel speeds due to congestion the lower the capacity of the freeway links on which the congestion occurs; that is, the greater the demand for travel, the more likely it is that fewer vehicles will be able to use the roadway. According to WSDOT annual system performance reports, particularly bad locations include:

- I-5 at I-90 which operates at less than 40% capacity for over 10 hours a day
- I-5 near Northgate which operates at about 70% capacity for almost 10 hours a day
- I-405 at SR 169 in Renton which operates between about 50% to 60% capacity for 14 hours a day

Bellevue-based commutes are the worst

The worst congestion problems in 2005 were for people commuting to and from Bellevue for work. During the average evening, the Bellevue to Tukwila commute experienced congestion and loss of capacity for five hours and 35 minutes, and the Bellevue to Seattle SR-520 commute experienced congestion and loss of capacity for four hours and 50 minutes.

Highlight

For the first time, between 2003 and 2005, WSDOT found that on several freeways in the central Puget Sound region, peak period vehicle volumes are dropping because the freeways are so congested and travel speeds are so slow that peak freeway capacity is declining.

Link Light Rail Capacity

The capacity of rail transit is a combination of the size of the vehicles, how frequently they run, and a practical consideration of how many people choose to ride.

As with highway capacity, when speaking of rail capacity the important measure is the number of passengers that can be carried during the peak period, when the service is most in demand. This is usually referred to as "peak passengers per hour in the peak direction." Looking at projected ridership for Link light rail in 2030, three years after ST2 system build-out, we see that it will have the capacity to continue to meet growing demand well into the future.

The per-hour and all-day passenger moving capacity of the ST2 light rail system is quite large, especially in comparison to a roadway of similar width with mixed traffic. While no rail transit system runs fully loaded 24-hours a day, the difference between the ultimate system capacity and the ridership forecast shortly after opening represents the a reserve of capacity for accommodating a large amount of future ridership demand in the decades after the system is built. Table 10 below presents the hourly passenger capacity of the ST2 light rail system at points in the system with varying frequencies of train service, at three different loading standards: all passengers seated, a comfortable level of standing passengers and a "crowded" load that might only be accommodated during peak times for short segments such as a major event situation.

Table 10: Light Rail System Capacity (passengers per hour per direction)

Peak Frequency (Minutes)	4-Car Trains per Hour	Seated Capacity (74 per car)	Comfortable Capacity, (150 per car)	Crowded Capacity (200 per car)
2	60	8,880	18,000	24,000
4	30	4,440	9,000	12,000
6	20	2,960	6,000	8,000
8	15	2,220	4,500	6,000

As Link is extended to Northgate, and then to 164th/Ash Way, the number of riders adding to peak ridership will increase with each additional station served.

Leaving downtown Seattle going south, half the trains will be routed east across Lake Washington to Bellevue and Redmond, and half the trains will be routed south to SeaTac, Federal Way and Tacoma. The downtown tunnel can support train headways as low as two minutes, but the 2030 ridership would only require headways in the 3 to 4 minute range. Table 10 shows the capacity of the system, but ridership is not expected to reach that level until well beyond 2030.

System reliability

Reliability means arriving at the same time every time, regardless of gridlock on the roads or snow on the ground. Reliability is a critical factor in how people plan their travel and budget their time. Transportation system reliability has continued to decline in the Puget Sound Region for several decades, both for car drivers and for transit riders. This is primarily related to increases in the severity of traffic congestion, and in the greater likelihood of congestion occurring at any time of day or on any day of the week.

When a person needs to arrive somewhere by a specified time, whether to be on time for work, or to catch a plane or to watch a child's soccer game, they know that if the trip involves one of the region's most congested corridors at peak hours they should allow a great deal of extra time to get there.

Increasingly, the problem of congested peak hours has spread to all hours of the day and even to the weekends. Buses are caught in the same traffic as cars and trucks. Freeway HOV facilities speed buses, but even these ramps and lanes often break down in the crush of peak period traffic and bad weather. Sounder commuter rail and Link light rail, however, although they share some grade crossings with vehicles, operate on their own rights-of-way free from conflicts with other traffic.

Highway reliability

Reliability on streets and highways is affected by many things including crashes, stalled vehicles and weather conditions, but the most important factor in the central Puget Sound region is the volume of traffic and delays caused by congestion.

WSDOT tracks reliability on the freeways for major commutes between pairs of cities, and calculates "95% reliable travel times," that is the amount of time a driver needs to plan for to be sure of arriving on time 19 times out of 20.

WSDOT data, compiled annually in major corridors, shows reliability on the regions highways to be steadily declining.

Highlight

Between 2003 and 2005, the duration of afternoon peak period congestion stretched from 2 hours to 3 hours and 15 minutes between Seattle and Redmond. Between Bellevue and Redmond it grew from 1 hour and 45 minutes to 3 and half hours.

Transit reliability

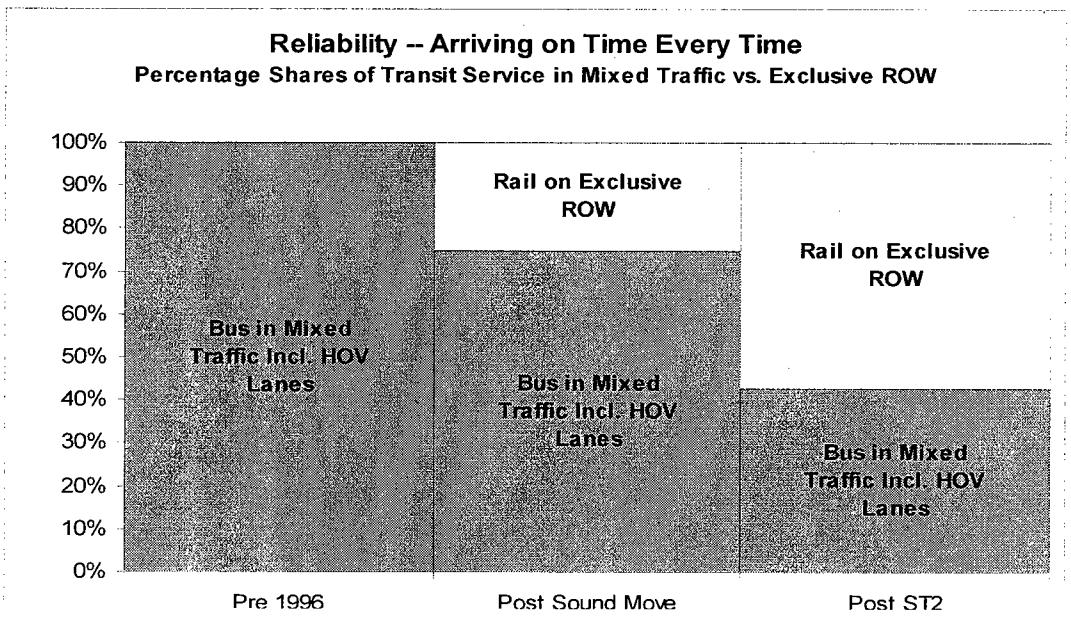
Transit reliability is related to a number of factors, but most significantly to the portion of the transit trip that occurs on a transit-only facility, that is rail or bus operating in its own right-of-way, away from interference with other traffic. **Chart 1** illustrates the change in reliability that will be experienced by the region's transit riders with ST2.

Sound Transit's Link light rail operates entirely on exclusive right-of-way. In addition, most of the right-of-way is grade separated with no interference from traffic. Even where there is no grade separation, Link light rail operates in exclusive right-of-way with signal preemption. This allows the service to maintain a very high level of reliability, at all times of the day.

Prior to *Sound Move*, 100 percent of the region's transit travel occurred on buses operating in mixed traffic. When the Sound Move investments are completed, 25 percent of the region's transit travel will occur on high reliability rail lines.

Looking ahead to the completion of ST2, the share of all transit riders in the region who are on Sound Transit services grows from 12 percent today to 65 percent in 2030. This means that over five times as many of the riders will travel on vehicles that don't get stuck in traffic, regardless of the time of day, day of the week, weather conditions, or other factors.

Chart 1: ST2 Transit Reliability



Sound Transit 2

The Regional Transit System Plan
For the Central Puget Sound Region

Appendix D: Social, Economic and Environmental Impacts; Performance Characteristics by Mode; and Integration with Regional Land Use

Sound Transit 2 The Regional Transit System Plan

Sound Transit 2

Contents

Environmental, social and economic impacts

Environmental Impacts

In June 2005 Sound Transit issued a supplemental final environmental impact statement (SEIS) on the Regional Transit Long-Range Plan. The 2005 SEIS builds on and supplements the 1993 EIS prepared for the Regional Transit System Plan. It addresses newly available information on existing environmental conditions, and it evaluates the environmental impacts of and potential mitigation measures for adopting and implementing an updated Regional Transit Long-Range Plan, including specifically the development of the ST2 Plan investments.

The ST2 Plan investments will have a positive impact on the region's environment, including reduced energy consumption and air pollution and improved water quality. Sound Transit's Supplemental Environmental Impact Statement (SEIS) for the Long-Range Plan details these impacts for different ranges of long-term investments; the ST2 Plan represents the aggressive end of these investment ranges. An overview of the impacts for air quality, water quality and energy use are presented here. In addition, the SEIS details impacts in the areas of transportation (see Appendix C of this plan), environmental health, ecosystem, aesthetic quality, parks and recreation, historic and cultural resources, and other areas.

The transportation sector represents over 50% of the regional carbon footprint, significantly more than the national average. Overall, the ST2 Plan represents an important step towards addressing the challenge of global warming by offering a reliable alternative to motor vehicle travel. The ST2 Plan will reduce vehicle miles traveled on our region's roadways which in turn reduces greenhouse gas emissions such as carbon dioxide. Internal estimates predict that implementation of the Sound Transit System Plan will result in a 1.0% reduction in Vehicle Miles Traveled (VMT) in 2030, or about 330 million vehicle miles per year from baseline,[1] by providing an alternative to single occupancy vehicle use.

In addition, the ST2 plan fosters transit-oriented development around stations, helping provide for compact, urban, sustainable communities that have relatively smaller carbon footprints.

Furthermore, the Sound Transit Board is committed to exploring ways to reduce to the maximum extent practicable the greenhouse gas emissions during construction and operation of the ST2 Plan.

[1] This is not the total savings due to all transit, just the net difference between the 2030 Plan and the 2030 Baseline (where Baseline = Sound Move with the UW-Airport line and the 2 Sounder lines).

Air Quality

Forecasts for increased 2030 ridership and resulting changes in travel by all modes indicate that ST2 Plan improvements would reduce total regional vehicle miles traveled and vehicle hours traveled in 2030 with a corresponding reduction of motor vehicle emissions. With the ST2 Plan, both the number of vehicle miles traveled and the level of congestion, as measured by hours of vehicle delay, would be reduced. As a result, overall mobile source pollutant emissions, including carbon monoxide, nitrogen oxides, volatile organic compounds, hazardous air pollutants, and greenhouse gases, within the plan area are expected to be lower compared to the No Action Alternative that was evaluated.

Sound Transit's light rail is electric powered and the use of electric vehicles will reduce transit vehicle emissions.

Sound Transit's regional transit providers are retrofitting their older bus fleets with particulate filters that remove approximately 90 percent of the diesel particulate that the buses previously released.

Sound Transit uses modern diesel commuter rail locomotives that produce substantially less air pollution than the majority of locomotives in use today. Sounder trains would produce approximately 30 percent less aggregate air pollutants per rider than three person carpools.

When compared to taking no action to improve the transit system, the ST2 Plan will result in reductions of carbon monoxide, volatile organic compounds, and nitrogen oxides compared to the no action alternative that was evaluated.

Water Quality

Potential water quality impacts include: (1) new impervious surfaces, (2) new pollutant-generating impervious surfaces, (3) flood plain fill, and (4) culvert extensions. The overall impact of ST2 projects on increasing the amount of pollutant-generating impervious surfaces will be relatively minor compared to the current amount of pollutant-generating impervious surfaces in the region, as well as compared to possible alternate investments in road capacity to carry the same number of trips.

Energy Use

When compared to taking no action to improve the transit system, the ST2 Plan will result in a reduction in regional energy use for transportation.

Mitigating Local Impacts

In developing the projects for the ST2 Plan, the costs of environmental impact mitigation were included in the cost estimates for each project. For example, the Link extension from Seattle to Bellevue cites potential parkland, historic and wetland impacts and the need for environmental mitigation. For those projects in the early stages of development, detailed analysis of impacts and potential mitigation measures will be finalized in project environmental documents.

In addition to mitigating specific project impacts, ST2 projects also have the potential to mitigate some of the major impacts of other anticipated regional transportation projects. In the

North Link corridor, for example, there is a major resurfacing (and possibly lane reconfiguration) project planned for I-5. Depending on the schedules of the two projects, Link to Northgate could provide an alternate route for travelers who might otherwise be caught in the additional congestion associated with this construction.

Environmental Management System

Sound Transit adopted a comprehensive Environmental Management System (EMS) in April, 2004. The EMS consists of proactive management processes and procedures to document, assess and improve environmental compliance and performance. It incorporates environmental ethics into business operations and identifies environmental stewardship as a responsibility of all employees. Sound Transit's Environmental Policy, which serves as the foundation of the EMS, commits the agency to being an environmental leader in the State of Washington and to "the protection of the environment for present and future generations as we provide high-capacity transit to the Puget Sound region."

Social Impacts

The ST2 Plan will reduce our reliance on automobiles by improving average citizen's ability to use mass transit to travel through the most congested corridors during rush hours.

Mobility and Accessibility

Mobility and accessibility is a challenge for everyone, and particularly so for people who do not own cars or for whom the daily costs of driving are a financial hardship. The addition of 49 miles of light rail, plus enhanced Sounder and ST Express systems, will expand opportunities for low income workers to commute to their jobs, and for those who are unable or who prefer not to drive to travel to and from a variety of destinations throughout the region. Workers living along or near Link, Sounder, or ST Express routes and stations and traveling to jobs in the off-peak direction, for example at SeaTac Airport, Northgate Mall, or other locations, will have the same frequent reliable service as travelers to downtown Seattle or downtown Bellevue.

For low income households, ST2 investments may make it possible to reduce the number of cars per household, and/or to reduce the annual miles driven and costs of operations and maintenance. For those who are unable to drive or cannot afford an automobile, ST2 investments will greatly expand their ability to travel quickly and reliably throughout the region, whether they live along a Sound Transit route, or connect via local transit or demand-response services.[2] Mobility and accessibility can be a particular challenge for elderly people and people with physical disabilities or limitations. For many senior citizens and persons with disabilities, transit often offers the only

[2] About 9 percent of the region's households are classified as low income, and of these households 26 percent do not have access to a car. (Of all households in the region only 7 percent do not own or have access to a car.) About 17 percent of the population is disabled, and by 2040 almost 17 percent will be seniors. Compared to others, all of these individuals tend to have lower auto ownership rates, lower incomes, and be less likely to have a car available to them for their trips.

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option for getting around. Increasing the extent of the light rail system can significantly improve mobility for these citizens.

Other social impacts of ST2 include support for the urban centers developed in Vision 2020 and now contained in county and local government comprehensive land use plans and policies in the region. While the urban centers concept was developed primarily to reduce traffic congestion and air pollution growth, it also has potentially beneficial social impacts in promoting pedestrian-oriented neighborhoods throughout the region, which in turn will increase social contacts within communities and strengthen community spirit.

Economic Impacts

The central Puget Sound region is not unique in its dependence on transportation to fuel its economic engine. What sets the central Puget Sound region apart from many other urbanized areas, however, are the extreme constraints that geography and topography place on the development of transportation corridors. For example, about a quarter of a million people cross Lake Washington every day using the only two routes available, I-90 and SR-520. Here, as elsewhere, the most congested sections of the freeway system experience gridlock for hours every day.

The investments planned as part of ST2 will not end congestion on the freeways. However, they will provide an alternative for drivers caught in traffic, free up road space for those with no other alternatives (including freight), and provide new high capacity alternatives for those who are unable, unwilling or who can't afford to drive.

ST2 will provide major new rush hour capacity to and from the region's most congested destinations, as well as all-day, two-way reliable connections for commuters, shoppers, and other travelers.

The economic benefits of the ST2 plan will be realized in many ways, some of which can be quantified and others of which are more difficult to measure. Taking into account the full costs of the ST2 Plan, Sound Transit estimates that the readily quantifiable benefits will be about 2.7 times the costs.

Quantifiable benefits

ST2 Plan quantifiable economic benefits include:

- Travel time savings for transit riders;
- Mobility benefits for non-transit users including commercial vehicles;
- Reductions in vehicle operating costs, including parking costs; and
- Reductions in accident costs and in pollution, noise and energy use.

Highlight

A benefit-cost analysis prepared for the light rail element of the Plan shows an expected rate of return of about 9% with cumulative benefits likely to exceed costs by over $16 billion.

Travel time savings

Travel time savings are shown in Appendix C (see page C-9) for both transit riders and non-transit users. These benefits constitute the largest share of the benefits of the ST2 Plan.

Vehicle cost savings

In addition to saving time, the region will save in vehicle ownership, operating, and parking costs.

Savings in environmental costs

The ST2 investments can create environmental benefits by reducing air, noise, and water pollution associated with auto travel. In addition, transit travel is more energy efficient than auto travel, creating economic benefits associated with energy conservation.

Benefits Difficult to Quantify

Job Creation and Retention

Improving the capacity and reliability of the transportation system directly supports the region's economy. It gives employers access to a broader base of workers, and gives individuals greater choice in where to live, work, recreate, shop and conduct personal business. It gives businesses better access to goods and services, and increases the ability of people to connect with each other and conduct business.

A 1999 study done for the American Public Transit Association concluded that business gains in sales are 3 times the investment in transit capital – a $10 million investment yields $30 million in sales.

In Portland, Oregon, Tri-Met estimates that over $6 billion in development has occurred within walking distance of the MAX light rail stations since 1980.

In Dallas, property values near light rail stations are 13% higher than elsewhere, and in San Diego they are 17% higher.

While these types of calculations are difficult to replicate for a project that is not yet built, in city after city across the United States, the economic benefits of past investments in transit infrastructure are clear.

ST2 projects will create thousands of jobs in project management, design and construction, as well as ongoing jobs in operations and maintenance. If the dollars invested in ST2 were spent elsewhere it would also create jobs, but the portion of the project costs that will be covered by federal grants would not otherwise come to the region. In 2006, USDOT estimated that 47,500 jobs are created for every one billion dollars invested in transportation.

Sound Transit's Guiding Principles provide for: workforce diversity reflective of the region; maximum use of

local businesses; maximum use of small businesses; and maximum use of minority, women and disadvantaged businesses. There is also a requirement that a minimum percentage of labor on Sound Transit projects to be performed by apprentices, with requirements for minority and female workers.

Transportation System Reliability

Recent research on travel reliability shows an increased awareness of the importance of the reliability of transportation systems in large metropolitan areas. That awareness is heightened as existing transportation systems suffer increasing frequency of breakdowns when operating at capacity. As the importance of reliability grows, so does transit ridership, yielding even greater travel time savings to even more people.

Added capacity for travel

Whether going to work, school or shopping, or simply to visit friends, the ability to travel has economic benefits. ST2 adds major new travel capacity in some of the region's most congested corridors in all three counties. The added capacity for trips throughout the region will benefit individual travelers and the region as a whole. Additional information on transit capacity is shown in Appendix C.

Mobility for all

Improvements in transit provide broad benefits to those who cannot afford to own and operate a car, or who cannot or do not wish to drive, expanding opportunities for work, education, medical care, shopping, and other opportunities that require travel. These benefits also accrue to other taxpayers.

Performance characteristics by mode

System and service philosophy and impacts

Sound Transit's role is to provide the central Puget Sound with a regional network of high-capacity transit services. As defined by Sound Transit's enabling legislation, high-capacity transit means service operating principally on exclusive rights-of-way and providing a substantially higher level of passenger capacity, speed and service frequency than public transit operating on highways and city streets in mixed traffic.

This role is further defined by the Puget Sound Regional Council's land use plan, Vision 2020, and the Metropolitan Transportation Plan, which together define a goal to establish a region-wide transit system that connects regional growth centers, provides seamless connections with local transit and ferries, and supports concentrated development at and around stations.

Within this framework, the ST2 Plan proposes to continue and expand the regional high-capacity network established in Sound Move. The Link light rail will add 49.5 miles extending to Snohomish and Pierce counties and across Lake Washington to King County's eastside. The ST2 plan will add new or improved Sounder commuter rail stations and parking facilities. The ST2 plan also includes new or expanded ST Express bus facilities in Bothell, Renton and Burien. Consistent with the major expansion in rail services, some existing express bus routes will be replaced with rail.

Service characteristics for Sound Transit's three modes are consistent with the mandate to operate high-capacity transit with frequent, fast service.

ST Express Bus

ST Express operates frequent, all-day bus service on major corridors between centers, with half-hour headways or better, from about 6:00 in the morning or earlier until about 10:00 at night. ST Express buses operate on freeway HOV facilities where they are available, including a series of freeway direct access ramps built as part of Sound Move, which improve speed and help ensure reliability.

ST Express buses serve major urban centers as well as outlying park-and-ride lots and transit centers, and they connect to Sounder and existing and future Link stations. All buses carry bicycles; some serve mixed-use transit centers with commercial and residential development integrated into the center.

Sounder Commuter Rail

Sounder commuter rail currently operates between Everett and Tacoma and, when the Sound Move investments are completed, will extend to South Tacoma and Lakewood.

By the end of 2007, Sounder commuter rail will operate six daily round trips between Tacoma and Seattle and three daily round trips between Seattle and Everett. Eventually, trains will operate approximately every half

hour during the morning and afternoon weekday peaks. Special service also serves Mariners baseball and Seahawks football Sunday home games.

Fifty-eight bi-level passenger cars seat 140 passengers each, with room for bikes and wheelchairs. Amenities include work tables, power outlets, cup holders and overhead storage. Maximum speed is 79 mph, and the travel time from Everett to Seattle or Seattle to Tacoma is about an hour. There are currently 9 stations in service; when Sound Move is completed there will be 12 stations in service. ST2 investments will improve some stations and add parking.

Link Light Rail

Tacoma Link currently operates electrically-powered single-car trains between the Tacoma Dome station and downtown Tacoma. At the Tacoma Dome station it connects with Sounder, ST Express, Greyhound and Amtrak, and in downtown it connects with Pierce Transit's local bus service. Tacoma Link serves the University of Washington, the Washington State History Museum, the Museum of Glass, the Convention Center, the downtown business district and the Broadway Theater District. Trains operate every ten minutes.

Central Link, now under construction between downtown Seattle and Sea-Tac International Airport, is a 15-mile electric light-rail line with 13 stations, predominantly on exclusive right-of-way. Initial service will be with two-car trains, but the station platforms can accommodate up to 4-car trains for future service expansion as demand grows.

When service begins operating in 2009 it is expected that trains will run approximately every 6 minutes during peak hours and every 10 to 15 minutes off-peak and at night. The trip between downtown Seattle and Tukwila will take about 30 minutes. A planned extension to the University of Washington is expected to begin operating in 2016. By 2030 the ridership on Central Link is expected to exceed 110,000 riders a day.

As part of ST2, Link will be extended north to Snohomish County, south to Pierce County, and east across Lake Washington into East King County. The technology will be the same as Central Link, with exclusive and largely grade-separated rights-of-way.

Integration with regional land use planning and transit oriented development

Regional Land Use Planning

ST2 investments are consistent with the vision and goals in the region's land use, growth management, and transportation plans. Light rail, commuter rail and express bus services will carry thousands of people in the region's most dense, most highly congested corridors, and these transit services will deliver people to and from the hearts of the region's downtowns and other activity centers.

Achieving Vision 2020

VISION 2020, adopted by the PSRC in 1990 and updated in 1995 to meet the requirements of the State's Growth Management Act, establishes a regional growth management strategy for central Puget Sound based on defining urban growth boundaries, containing growth within those boundaries, and concentrating new development in multiple centers linked by a high quality transportation network, including high-capacity transit in major corridors.

ST2 will provide an important piece of the transportation components necessary to implement Vision 2020. ST2 supports the Vision's strategy of concentrating growth within urban growth boundaries and supporting that growth with robust mass transportation alternatives such as light-rail, express bus, and commuter rail services. For example, the urbanized portions of Pierce, King, and Snohomish Counties are within a defined urban growth boundary whose population is expected to increase by one million people by 2030. The employment within that boundary is expected to increase by about 600,000 jobs. ST2 includes high-capacity transit service that will serve over 75 percent of the employment in PSRC designated urban centers in 2030.

Looking ahead to 2030, by which time the region will need to accommodate more than one million new residents, successfully confining growth within urban growth boundaries will depend on the region's ability to develop adequate infrastructure to support more dense development. High-Capacity Transit (HCT) is central to this effort.

Since the initial adoption of Vision 2020, the region has repeatedly affirmed its growth management strategy in adopted regional, county, and city comprehensive plans. The most recent Metropolitan Transportation Plan, Destination 2030 (PSRC 2001), calls for the region's HCT system to continue to develop and expand to help meet growing demand, together with the expansion of all forms of transportation—local transit, carpools and vanpools, ferries, airplanes, automobiles, freight, bicycling, and walking.

Sound Move, Sound Transit's initial phase of regional HCT investments, is already addressing many regional mobility needs. The investments of

Sound Move will continue to provide benefits for decades to come. However, Sound Move was intended to be the first phase of a more extensive regional high-capacity transit investment. Growth has worsened the region's transportation problems and there is a continued need to address HCT planning and investment.

Between now and 2030, population is expected to grow approximately 30 percent, with a projected 35 percent growth in employment and a 30 percent increase in vehicle miles traveled. In recent decades, miles traveled has grown twice as fast as population and four times as fast as employment. Fortunately, future projections show the relative growth in travel moderating compared to the recent past, largely because of the leveling off of certain demographic trends such as the increase in numbers of workers per household.

The region's transportation capacity for all modes has not kept pace with growth, and new growth means that transportation conditions will worsen even further. Many of the region's roads and freeways are already operating at capacity for many hours during the day. With more vehicles on the road, congestion and delay will be more severe and trips will be slower and more unpredictable.

The expanded HCT system in the ST2 Plan will provide an effective and reliable alternative to driving and an efficient way for people to move throughout the region. The expanded HCT system implements an integral transportation component of Vision 2020 and Destination 2030.

Reducing Land Area Devoted to Parking

Extending the regional mass transit system to more of the region's employment centers will enable many more employees to travel to jobs in those centers by high quality transit instead of by car. This will, in turn, reduce the demand for parking in those employment centers. Parking cars in structures requires 300 to 400 square feet per car, which means that a single worker with a car requires about twice as much space as a worker without a car. By reducing demand for parking in urban centers, more land can be devoted to productive economic activity and less to storing vehicles.

Transit Oriented Development

During Sound Move implementation Sound Transit has had a transit-oriented development program. The purpose of this program has been to encourage easy access to high-capacity transit and easy transfers between commute modes, including walking, bicycling, other transit service and, where appropriate, driving. Sound Transit has worked with public and private partners to promote such connections. Sound Transit expects to continue its transit-oriented development program in the ST2 Plan.

Sound Transit and its partners have effectively located transit stations to support and generate transit-oriented development during Sound Move implementation. Notable examples are the Sumner Town Center, the Tacoma Dome District, the Newberry Square Project at the Ash Way Park and Ride

lot, the Othello Station development in Seattle, and new development and redevelopment around Sounder stations in Kent and Auburn. Virtually every city with Sound Transit projects worked with Sound Transit to develop station area plans. These plans intend that development in and around stations maximize the value of the transit investment to the communities it is designed to serve.

The purpose of Sound Transit's Transit Oriented Development (TOD) program is to promote pedestrian-friendly development around transit stations in order to increase transit ridership, enhance communities, and facilitate complementary development.

The ST2 plan includes 25 new light rail stations and six new or improved Sounder stations. Sound Transit will work with local jurisdictions, partner agencies and private interests to encourage mixed-used, pedestrian oriented development around stations.

Sound Transit will prioritize efforts in communities that are already encouraging increased density through locally-developed zoning and comprehensive plans.

Sound Transit will encourage public-private partnerships on a voluntary basis. Where a partnership cannot be achieved, Sound Transit will, to the extent practicable, incorporate TOD into station planning.

Properly implemented, TOD can reduce auto use, traffic congestion, energy consumption and pollution and reduces the emission of greenhouse gases. TOD can help promote a sustainable environment while diversifying a community's economic base.

Sound Transit TOD program goals are intended to calm traffic, manage parking demand, and include streets designed to promote a sense of community within the station area. Project design emphasis will be focused on facilitating station access for pedestrians, bus riders, bicyclists, station drop-offs, and where appropriate, parking.

Sound Transit typically begins the TOD process early in the project development process, usually during the planning and environmental phases.

Sound Transit has a variety of tools it can use to encourage TOD. One is facility design and location. Another is through real estate transactions. A third is through service planning. All of these tools necessitate active cooperation with stakeholders and partner agencies.

In the case of real estate transactions, it is important to note that Sound Transit does not have authority to purchase property and engage in speculative development. All property transactions involving Sound Transit must follow a rigid set of procedures designed to protect the rights of property owners.

Where a willing seller is present, Sound Transit may acquire additional property in order to facilitate TOD opportunities consistent with local land use plans and regulations.