

Tab Three

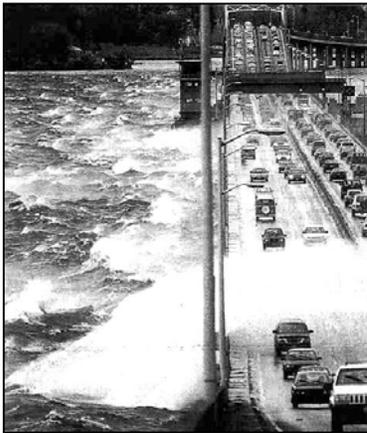
SR 520 Bridge Replacement and HOV Project

DRAFT: Finance Plan

What is the purpose of the finance plan for the SR 520 Project?

Why was this plan developed?

On March 8, 2006, the Washington Legislature passed regional transportation governance legislation that requires the Washington State Department of Transportation (WSDOT) to prepare a project finance plan for the Alaskan Way Viaduct and Seawall Replacement (Viaduct Project) and the SR 520 Bridge Replacement and HOV Project (SR 520 Project).¹ It specifies that each plan “clearly identifies secured and anticipated fund sources, cash flow timing requirements, and project staging and phasing plans, if applicable...” The legislation also specifies that an Expert Review Panel (Panel) be appointed to provide independent review of the finance plans, and upon completion of the review, report their findings and recommendations to the Joint Transportation Committee (JTC), the Office of Financial Management (OFM), and the Governor by September 1, 2006.



Waves crash into the SR 520 floating bridge.

Upon receipt of the Panel’s findings and recommendations, the Governor must determine whether the finance plans, based on current available information, are reasonable and sufficient to complete the projects as described in their Draft Environmental Impact Statements (EIS).

What information does this finance plan provide?

A finance plan for an infrastructure investment such as the SR 520 Project can take many forms, all with at least one common element — the matching of project funding sources with project expenditures (uses of funds). This document describes what is currently known about the sources and uses of funds for the SR 520 Project.

The terms “finance” and “financial” generally refer to obtaining funds or capital, typically through the use of borrowing or credit, to make an

¹ Engrossed Substitute House Bill 2871 (HB 2871), 2006

investment. A typical mega-project finance plan matches unique project sources with project-specific uses. Because most of this project's financing elements are being handled at programmatic rather than project-specific levels, this plan is not a typical finance plan.

WSDOT's release of a plan prior to completing the EIS is the second key difference between this plan and a typical finance plan. At the current stage of the EIS process (with the preferred alternative yet to be adopted), there are unknowns about the project details, several of which will affect available funding. From this perspective, the SR 520 finance plan may be best thought of as a *funding plan* focused on matching the secured and anticipated sources of funds with the identified project uses, based on current knowledge.

This document thus represents an early, conceptual stage of the financial planning process. It also serves as a precursor to a more formal financial plan required by the Federal Highway Administration (FHWA) that will be developed as the project approaches its environmental record of decision (ROD).

What is the purpose of the Expert Review Panel's assessment of this finance plan?

The Panel is being asked to review and assess the finance plan, confirming that:

- Appropriate financial assumptions have been made
- The plan — essentially the match between secured and anticipated funding sources, and accompanying cost estimates/uses of funds over time — is reasonable and sufficient
- The projects have identified critical actions or commitments needed from other parties for success
- The approach/processes/methods are sound, given the early stage of project financial planning and certain unknowns at this stage
- The plan has some flexibility to respond to/remains feasible should there be unexpected changes
- There is acknowledgement that regional funding from a successful ballot measure in 2007 is key to the feasibility of the project's finance plan

What is being submitted for review?

The following financial plan elements have been incorporated in the review document:

- General assumptions regarding the replacement alternatives for the SR 520 Project
- Estimated construction costs and the process by which they were derived
- Capital funding sources including underlying financial and uncertainty assumptions
- Estimated operations and maintenance (O&M) costs and potential O&M funding sources
- Sources of risk and contingency strategies

How does this finance plan differ from the one required by the Federal Highway Administration?

FHWA requires that a finance plan be developed for projects of \$100 million or larger that receive federal funding assistance. For projects of \$500 million or larger, the plan must also be approved by FHWA before construction commences, and updated annually throughout the duration of construction.

Given the stage of the SR 520 Project in which a preferred alternative has not yet been selected, many of the variables that would typically be included in a detailed financial plan are either unavailable or very uncertain at this time. Such variables include:

- Finalized capital cost estimates (since the project scope remains under discussion)
- A complete list of secured funding sources to cover the estimated costs
- Estimated operations and maintenance costs over the term of the project debt (since this depends on the final project scope)
- A finalized construction schedule

Exhibit 1 summarizes similarities and differences between this finance plan and an FHWA financial plan.²

² US Federal Highway Administration. Accessed 21 April 2005. "Financial Plans." <<http://www.fhwa.dot.gov/programadmin/mega/fplans.htm>>

Exhibit 1: Comparison between FHWA Financial Plan and Expert Review Panel Financial Plan

FHWA Financial Plan	Finance Plan for Panel’s Review
Differences	
Finance plan is a very detailed document, with relatively concrete cost and scheduling estimates.	Finance plan is general and intended to illustrate methods and processes to be used to develop a more detailed plan as cost, schedule and funding estimates become more certain.
Finance plan approval based on “likelihood” of realizing non-federal funding sources. Generally, non-federal sources are not acceptable if a public vote or state legislative action is required.	Finance plan considers feasibility of realizing non-federal funding sources, including those that may require a public ballot measure or additional legislative approval.
FHWA requires an Initial Finance Plan and requires annual updates during construction.	State legislature requires this preliminary finance plan for review by the Expert Review Panel.
An implementation plan is included.	Implementation plan details as known today are presented in a separate section of this notebook.
Plan addresses potential for unanticipated changes in expected revenue and the impact on the project.	The potential impact for unanticipated changes in expected revenue is discussed generally.
Cash flows of sources and uses of funds must be balanced	Plan considers and discusses options for closing the gap between sources and uses of funds.
Plan describes major responsibilities of various parties involved in the project and contains evidence of agreements or commitments.	Plan includes overview of parties involved and related agreements and commitments.
Plan describes how, specifically, the project fits into statewide plans.	Plan briefly describes how project fits into regional context and state funding program.
Similarities	
Plan reflects cost and revenue structure of the project and provides reasonable assurance that there will be sufficient financial resources available to implement and complete the project as planned.	Plan reflects cost and revenue structure of the project and provides all currently available information to support the sufficiency of financial resources available to implement and complete the project as currently anticipated.
Identified funding shortfalls are highlighted along with proposed resource solutions.	Identified funding shortfalls are highlighted with discussion of possible solutions.
Costs are in year of expenditure (YOE) dollars.	Costs are in YOE dollars.
Plan describes all funding sources for the project and clearly describes these funds as committed or anticipated amounts, with an evaluation of the likelihood of anticipated amounts being realized.	Plan describes all funding sources for the project and clearly describes these funds as committed or anticipated amounts, with an evaluation of the likelihood of anticipated amounts being realized.
Plan describes special agreements, laws, rules, or regulations to which the project is subject.	Plan describes special agreements, laws, rules, or regulations, which must adopted for funding to be allocated.

How does the SR 520 Project fit within the federal, state and regional picture?

Within the state of Washington, there are a number of federal, state, regional, and local programs that oversee transportation infrastructure planning and investment, including:

- WSDOT
- Regional Transportation Investment District (RTID)
- Central Puget Sound Transit Authority (Sound Transit)
- Puget Sound Regional Council's (PSRC) *Destination 2030*

These entities will affect the levels of support for projects such as SR 520. The following sections discuss how each entity relates to the project.

SR 520 Project and the State of Washington

Overall State Support

Since planning began in 1997, WSDOT has invested over \$37 million in the SR 520 Project for alternatives analysis, preliminary engineering and environmental studies. The state has acknowledged the priority for replacing this bridge by providing over \$0.5 billion in funding from tax packages passed in 2003 and 2005.

Political Support for Replacing the SR 520 Bridge

Government officials throughout the state of Washington have publicly expressed the pressing need to rebuild the Alaskan Way Viaduct and the SR 520 Bridge:

“These are our levees. And the earthquake is our hurricane.”

— Governor Christine Gregoire
*on the Alaskan Way Viaduct and the SR 520 Bridge*³

³ Associated Press. 21 October 2005. “Floating Bridge or Sinking Deathtrap?” <<http://www.discovery.org/scripts/viewDB/index.php?command=view&program=Cascadia-News&id=2964>>.



A barge runs into SR 520 in 2000 and leaves damage to the west approach hollow columns.

“Let’s face it, the main thing driving this [2005 gas tax package] is the viaduct and (520) bridge...two major thoroughfares that could fall down. It’s not a matter of if, but when.”

— *Senator Mary Margaret Haugen, Chair, Senate Transportation Committee*⁴

“[The 520 Bridge and the Alaskan Way Viaduct] are both in danger of collapsing, and if they did it would absolutely paralyze the central Puget Sound area....”

— *Senator Ken Jacobsen, Vice-Chair of the Senate Transportation Committee*⁵

“The first thing we addressed in the Legislature was the failing structures in the Seattle metro area, the Alaskan Way Viaduct and 520 Bridge. If either of those were to fail it would have a devastating effect on the economy.”

— *Senator Dan Swecker, District Representative*⁶

The Washington Transportation Plan

The Washington State Transportation Commission, in coordination with WSDOT, is currently updating the Washington Transportation Plan (WTP), expected this summer. The WTP will guide future decisions and investments in transportation policy and planning. Key issues will be discussed, including: safety, preservation, system efficiency, relieving bottlenecks, freight movement, supporting a healthy economy, and maintaining the environment.

For example, the plan states: “There is no more fundamental transportation capital investment than system preservation—keeping the physical infrastructure in good condition.”⁷ The WTP specifically addresses the need to replace the Alaskan Way Viaduct and the SR 520 floating bridge, and discusses the funding necessary for these projects.

⁴ *Seattle Times*. 31 March 2005. “Senate looks to higher gas tax to replace viaduct, 520 bridge.”

⁵ 6 April 2005.

⁶ *The Olympian*. 7 April 2005.

⁷ WSDOT. 2006. “Transportation Plan Update.”

<<http://www.wsdot.wa.gov/planning/wtp/>>.

SR 520 and the Regional Agenda

The Washington Legislature knew that major Puget Sound projects could not be funded solely from state contributions. As a result, in 2002, a regional transportation governance bill was passed, which authorized the creation of a Regional Transportation Investment District (RTID).

What is the Regional Transportation Investment District?

RTID is responsible for identifying and funding regionally significant road and transportation improvement projects within three counties — Snohomish, Pierce, and King (see Exhibit 2). RTID has the authority to propose local taxes and fees to fund these projects, which must be approved by voters from all three counties prior to implementation.⁸

The seven-member RTID Executive Board develops the investment plans, and the separate 26-member Planning Committee presents the plans to voters. The Planning Committee is comprised of all 25 County Council members within the investment district, and the Secretary of Transportation (a non-voting member), serves as Chair.

As of May 2006, potential revenue sources and financing tools for funding RTID investments within a regional investment plan may include:⁹

- A regional sales and use tax of up to 0.1 percent
- A vehicle license fee of up to \$100 per year
- A motor vehicle excise tax of up to 0.8 percent
- A motor vehicle use tax of 0.1 percent
- A local option motor fuel tax equal to 10 percent of the state fuel tax, but only if RTID's taxing boundaries encompass entire counties
- Network value-pricing charges based upon vehicle miles traveled and possibly other factors
- Tolls on local or regional arterials or state or federal highways within the boundaries of the district, if such tolls are approved by the Washington Transportation Commission or its successor, identified in the Plan, and administered by WSDOT
- Revenue sources authorized under the regional transit authority provisions (Sound Transit retains its revenue authority)
- Bonding authority: The District may issue secured general obligation bonds without voter approval and unsecured general

⁸ Regional Transportation Investment District. Accessed 3 April 2006. "Welcome to RTID." <<http://www.rtid.dst.wa.us/>>.

⁹ State of Washington House Committee on Transportation. 8 March 2006. "Engrossed Substitute House Bill 2871." 59th Legislature 2006 Regular Session.

obligation bonds up to five percent of the value of taxable property within the District, if approved by three-fifths of voters voting at an election. Secured revenue bonds may be issued at any time without voter approval.

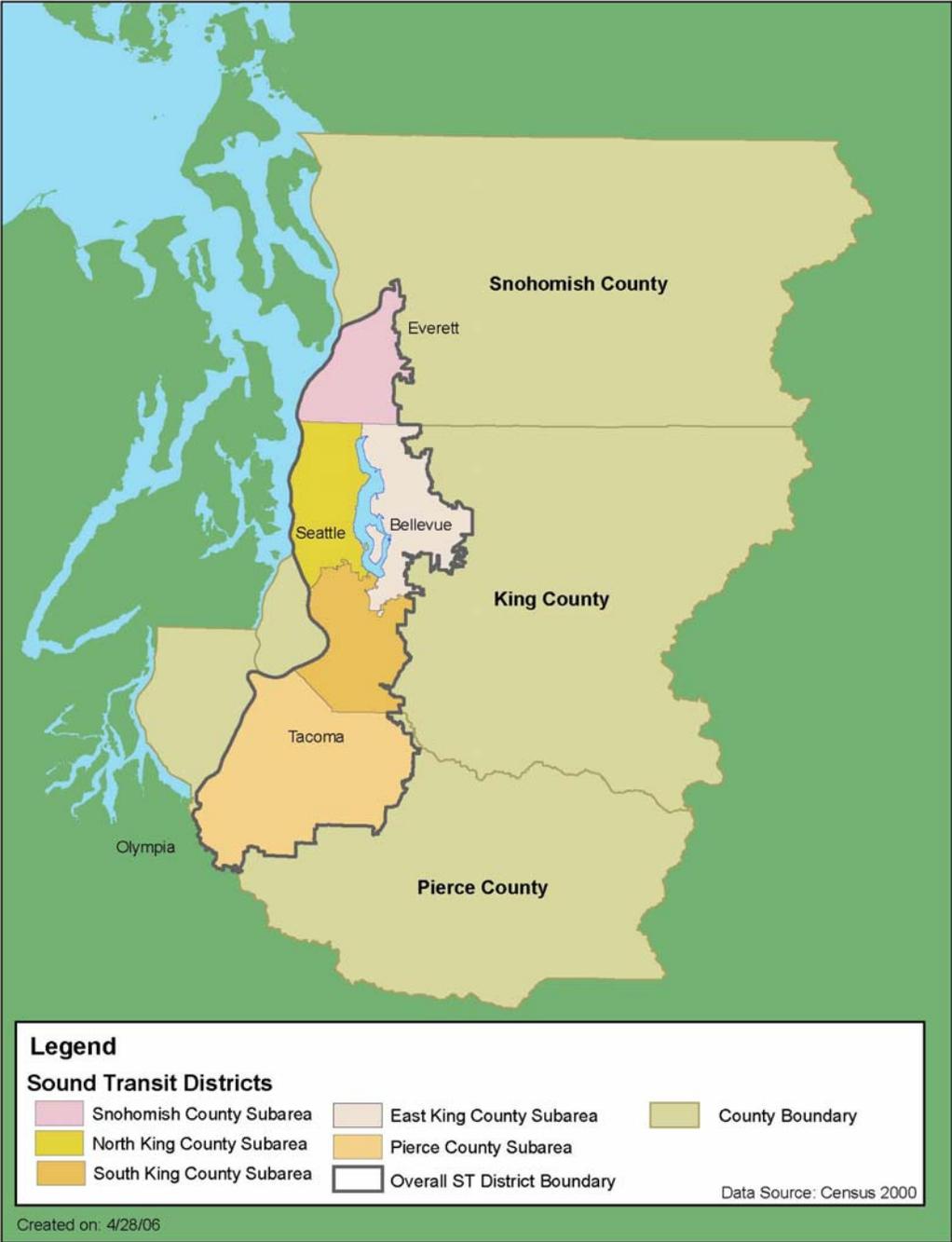
Revenue will remain in the county it was raised in to fund the projects considered most valuable to that county's residents.

How has the RTID recently evolved?

Initial RTID planning focused on the entire three-county area. However, in January 2006, the RTID board made a proposal to Sound Transit, the regional transit authority for King, Pierce and Snohomish counties, to more closely coordinate Sound Transit's Phase 2 investment plan with the RTID investment plan. The Washington Legislature subsequently formalized this proposed coordination by requiring the two investment plans to work together toward a joint ballot measure in 2007 (ESHB 2871).¹⁰ This could have the effect of reducing the size of the RTID boundaries to match the Sound Transit district boundaries within which Sound Transit already collects local option taxes. Exhibit 2 illustrates the existing Sound Transit district boundaries within the three-county region.

¹⁰ State of Washington House Committee on Transportation. 8 March 2006. "Engrossed Substitute House Bill 2871." 59th Legislature 2006 Regular Session.

Exhibit 2: Sound Transit District Boundaries



Sound Transit and RTID Joint Ballot Measure

What is Sound Transit?

The Central Puget Sound Transit Authority (Sound Transit), officially formed in 1993, is authorized by state law to plan, build and operate high-capacity transit networks in a district that comprises the most heavily populated parts of Snohomish, King, and Pierce counties (see Exhibit 2).

Sound Transit's first phase investment program, known as Sound Move, currently includes investments in commuter rail service, regional express buses, and light rail, with much of the initial light rail system under construction. Sound Transit is currently planning for a second phase of investments, Sound Transit 2.

Of note is the fact that in Sound Transit projects, local tax revenues must be used to benefit five sub-areas within the Sound Transit district boundaries, based on the share of revenues that each sub-area generates. A similar concept is included in recent legislation (ESHB 2871), which requires RTID's investments to be proportional to the revenues generated by a county.

As of March 2006, Sound Transit revenue sources include¹¹:

- Retail sales and use tax of up to 0.4 percent
- Motor vehicle excise tax of up to 0.3 percent (until bonds to which this revenue source is pledge are retired)
- Rental car tax of 0.8 percent
- Federal grant funding program
- Fare box revenues
- Interest earnings
- Other miscellaneous sources

How does new legislation impact funding sources for Sound Transit and RTID?

ESHB 2871, passed on March 8, 2006, posed new opportunities for RTID and Sound Transit to collaborate on next year's transportation ballot. For example, changes in regional boundaries and new rates for motor vehicle and sales tax revenues will require some discussion and agreement between the two agencies. Sound Transit and RTID began meeting in May

¹¹ Central Puget Sound Transit Authority. 2006. "2006 Adopted Budget." <http://www.soundtransit.org/pdf/about/financial/2006/Adopted_2006_budget.pdf>

2006 to discuss how to interpret the new legislation, and these discussions are expected to continue through the year.

How will the joint Sound Transit / RTID ballot measure work?

Until ESHB 2871 was passed into law, Sound Transit had been preparing a package of Phase 2 transit investments to take to voters in November 2006. The new legislative requirement delays this ballot measure one year in order to give Sound Transit and RTID time to coordinate and optimize their transit and highway investment plans within the three-county region for the joint ballot. Although the RTID and Sound Transit proposals will each receive a separate vote, both proposals must pass for either to be implemented.

Puget Sound Regional Council's *Destination 2030*

What is Destination 2030?

The Puget Sound Regional Council (PSRC) is designated under state law as the Regional Transportation Planning Organization (RTPO), and under federal law as the Metropolitan Planning Organization (MPO) for the central Puget Sound region. PSRC adopted *Destination 2030* in March 2001. *Destination 2030* is a plan that sets regional transportation policies, lists regional transportation needs in the form of programs and projects, describes a financial strategy to meet those needs, and discusses implementation and monitoring strategies.

How does the SR 520 Project fit into *Destination 2030*?

The investment strategy for *Destination 2030* focuses on the transportation systems that operate at a regionally significant scale and can influence the region's long-term growth, development, and quality of life. Investment principles that coincide with those of the SR 520 Project include:¹²

- The first priority should be to maintain, preserve, make safe, and optimize existing transportation infrastructure and services.
- Investments should emphasize continuity and complete discrete elements of the transportation system.
- Appropriate investments in all modes should be emphasized to provide travel choices.

¹² Puget Sound Regional Council. 22 April 2004. "Destination 2030: 2004 Review and Progress Report." Submitted to the Federal Highway Administration and the Federal Transit Administration.

< <http://www.psrc.org/projects/mtp/2004progress/2004progrep.pdf>>.

- Transportation investments should be directly linked with measurable transportation, environmental and land use outcomes, and should support the achievement of regional and state benchmarks.
- Cost effective transportation options that address identified problems should be demonstrated and implemented.
- Compact development of designated urban centers, high capacity transit station areas, and other communities should be supported through direct investment.

Destination 2030 financial principles that coincide with those of the SR 520 Project include:¹³

- Additional revenues must address local, regional and state transportation plan needs.
- New revenue sources must bear a relationship to system cost and system use.
- The financial structure should support multi-modal mobility.
- System financing must be sustainable.
- New financing tools or changes to the financing structure should strive to simplify and add flexibility to the overall structure.
- A reasonable rate of return on revenues raised within a region should be ensured for investments within the region.

¹³ Puget Sound Regional Council. 22 April 2004. "Destination 2030: 2004 Review and Progress Report." Submitted to the Federal Highway Administration and the Federal Transit Administration.
< <http://www.psrc.org/projects/mtp/2004progress/2004progrep.pdf>>.

Uses of Funds — What are the funding needs?

What assumptions are we making for the purpose of this finance plan?

The preferred alternative for the SR 520 Project has not been officially selected. WSDOT is evaluating two replacement alternatives, generally referred to as the 4-Lane and 6-Lane Alternatives. Design options for the 6-Lane Alternative are also being evaluated. Each of these alternatives and options will be described in detail in SR 520 Bridge Replacement and HOV Project Draft EIS, which will be published in August. For the purposes of the financial plan, sources and uses are discussed for the 4- and 6-Lane alternatives.

What is the 4-Lane Alternative?

The 4-Lane Alternative would rebuild SR 520 from I-5 to Bellevue Way with two 12-foot general purpose lanes in each direction, the same number of lanes as today. The existing westbound HOV lane on the Eastside, between Bellevue Way and the Evergreen Point Bridge would also be rebuilt under this alternative. The HOV lane would not be carried across the bridge, so its western end would continue to create a bottleneck for westbound traffic, as it does today. WSDOT would replace both the Evergreen Point and Portage Bay bridges and rebuild all the bridges that carry local streets over SR 520. pontoons to support the Evergreen Point Bridge would be sized to carry future high-capacity transit. Roadway shoulders would be constructed to current design standards, which for a four-lane roadway require a 4-foot wide inside shoulder and a 10-foot wide outside shoulder. Freeway transit stops would be reconstructed on the outside of the highway at Montlake Boulevard, Evergreen Point Road and 92nd Avenue Northeast

What is the 6-Lane Alternative?

As with the 4-Lane Alternative, the 6-Lane Alternative would increase safety and reliability for the corridor. It would also increase mobility for people and goods by completing the regional HOV connection across SR 520. In addition to two general-purpose lanes in each direction, it would also include one inside HOV lane in each direction. The new lanes, combined with the toll, would provide an incentive to use transit and HOV, and would meet more of the person and vehicular travel demand than the 4-Lane Alternative. SR 520 and its bridges would be rebuilt from I-5 to 108th Avenue Northeast in Bellevue, with an auxiliary lane added

on SR 520 eastbound from east of I-405 to 124th Avenue Northeast. Roadway shoulders would meet the current design standards, with 10-foot-wide inside shoulders and 10-foot-wide outside shoulders. The freeway transit stops will be reconstructed on the inside of the highway.

Seven design options are being evaluated with the 6-Lane Alternative, which if selected, will affect the cost of the project. The design options were developed to reduce the width of the 6-Lane Alternative, provide more direct transit opportunities in the corridor, and/or address community concerns. It is important to note that not all of the options are compatible with each other. For the purposes of this finance plan, the upper cost estimate for the 6-Lane Alternative with options is used.

How do we know what the 4- and 6-Lane Alternatives will cost, given this early stage in project development?

Cost Estimate Validation Process (CEVP)

As with all major transportation projects in Washington State, SR 520 Project costs were estimated using a system called the Cost Estimate Validation Process (CEVP). The CEVP process is described in detail in Tab One of this notebook.

Briefly, there are at least three elements that set CEVP apart from more traditional cost estimation:

- CEVP explicitly incorporates a workshop that brings together a wide range of expertise from different professionals involved in the project to identify and quantify risk factors.
- It includes a Monte Carlo risk-factor simulation that collectively accounts for the elements of uncertainty in project costs.
- Costs are presented as ranges rather than single figures.

After the project team discusses cost element risk factors and assigns weights to them, these weights are translated into probability distributions that are used in a Monte Carlo simulation to assess the collective variability in overall project costs. An outcome of the process is a probability that the project cost will be less than or equal to a given amount.

WSDOT believes CEVP makes the costs and risks associated with a project much more readily understood by the general public. The method helps practitioners communicate the limits and assumptions behind estimates, as well as what people will actually see as the project proceeds. Further, since the method inherently depends on close collaboration

between people working on different aspects of the project, better communication within the project team is facilitated.

All CEVP figures presented in this report are 2005 estimates and are subject to change as the project progresses through preliminary engineering.

What are the capital costs for the SR 520 4- and 6-Lane Alternatives?

Using the WSDOT CEVP methodology, all project costs have been estimated in, or otherwise escalated to YOE dollars to account for price inflation impacts.

Total project costs over the construction period can be considered equivalent to an overall cost that is expressed in constant dollars from the year of the midpoint of construction. The SR 520 Project cost estimates from the 2005 CEVP identify a midpoint of construction year of 2013.

CEVP outputs include cost estimates associated with different percentiles. These percentiles correspond to probabilities that the true cost will be less than or equal to the estimate. For example, the 90th percentile cost means that there is a 90 percent chance that the final cost will be at or below that figure. WSDOT's policy for large projects like SR 520 is to plan for the 90th percentile cost while striving to achieve a lower target.

For the 4-Lane Alternative, the 10th and 90th percentile CEVP cost estimates are as follows:

- 10th percentile estimate: \$1,674 million
- 90th percentile estimate: \$2,020 million

For the 6-Lane Alternative, the 10th and 90th percentile CEVP cost estimates are as follows:

- 10th percentile estimate: \$2,569 million
- 90th percentile estimate: \$3,137 million

The 90th percentile cost estimate may be interpreted as follows:

There is a 90 percent chance that the actual cost will be less than or equal \$3.137 billion, and a 10 percent chance that actual cost will be greater than \$3.137 billion."

What were the scheduling assumptions used when performing the CEVP for the SR520 alternatives?

The 2005 CEVP analysis for the SR 520 4- and 6-Lane Alternatives assumed a 12-year duration from the start of preliminary engineering to the completion of construction. Exhibit 3 summarizes the cost and schedule assumptions for the 4-Lane Alternative; a similar schedule applies to the 6-Lane Alternative, presented in Exhibit 4.¹⁴

Exhibit 3: 2005 CEVP Cost and Schedule Assumptions for 4-Lane Alternative

Activity	Assumed Start	Assumed Finish	90 % CEVP Costs (millions of YOE \$'s)
Previous Planning and EIS Efforts	1997	Jun-06	\$37
Preliminary Engineering (EIS and Design)	Jul-06	Jul-06	\$150
Right of Way	Apr-08	Jul-06	\$85
Construction - Pontoon Construction Site	Apr-08	May-09	\$37
Construction - Evergreen Point Bridge Phase	Mar-10	Jul-16	\$1,241
Construction - West Phase	Jan-12	Dec-17	\$313
Construction - East Phase	Mar-11	Oct-14	\$157
Total SR 520 4-Lane Alternative			\$2,020

Exhibit 4: 2005 CEVP Cost and Schedule Assumptions for 6-Lane Alternative

Activity	Assumed Start	Assumed Finish	90 % CEVP Costs (millions of YOE \$'s)
Previous Planning and EIS Efforts	1997	Jun-05	\$31
Preliminary Engineering (EIS and Design)	Jul-05	Jul-11	\$205
Right-of-way	Jul-05	Jul-11	\$115
Construction - Pontoon Construction Site	Jan-08	Jan-09	\$37
Construction - Evergreen Point Bridge Phase	Nov-09	Nov-15	\$1,758
Construction - West Phase	Aug-11	Mar-17	\$628
Construction - East Phase			\$363
Total SR 520 6-Lane Alternative			\$3,137

¹⁴ 2005. WSDOT

What are the risk factors considered in the cost and scheduling assumptions?

Key risk factors considered in the CEVP cost and scheduling estimates for both alternatives include:

- Implications of the possibility that there may be a limited number of qualified and available contractors
- Impact of changes in local street improvement requirements
- Uncertainties in lid design and aesthetic treatments, right-of-way costs, bridge structure costs, and geo-technical findings
- Possibility of legal challenges to the EIS
- Possibility of delays in construction permitting
- Chance of delays in funding

What did we learn from the CEVP analysis?

According to WSDOT's 2005 CEVP for the SR 520 Project, there is a 90 percent chance that the total project cost will be less than or equal to \$2.0 billion for the 4-Lane Alternative. In the case of the 6-Lane Alternative (which includes the additional design options described above), the 90 percent value is \$3.1 billion.

A later section on funding presents the secured and anticipated sources of funds for the project and discusses how uncertainty has been taken into account. Anticipated sources of funding are compared to the 90 percent CEVP cost estimates. The results of this comparison give a clearer understanding of the magnitude and timing of funding surpluses and gaps, given current assumptions,

What about ongoing operating and maintenance costs?

Operating and maintenance (O&M) costs for the SR 520 Project alternatives are assumed to commence with project completion and include:

- Toll collection and customer service operations and equipment maintenance
- Toll violation enforcement and processing
- Routine bridge, structure and roadway maintenance and periodic rehabilitation

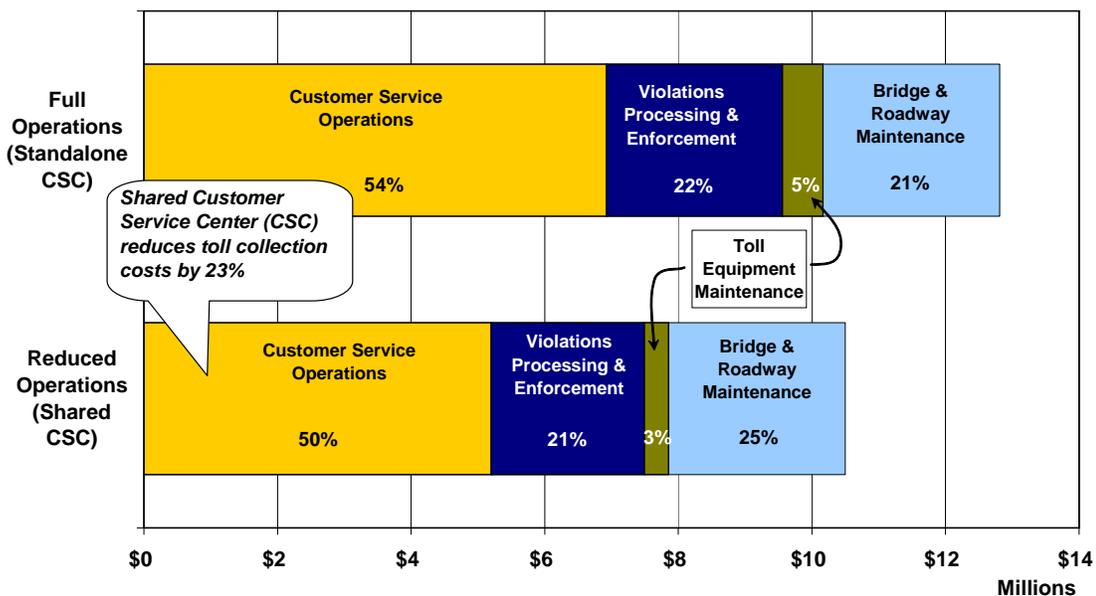
Until project completion, any O&M costs on the new facility would be capitalized as part of the construction costs. After project completion,

because this is expected to be a tolled facility, ongoing O&M costs would be paid with toll revenues as a condition of the bonds issued. The interest rate and other terms and conditions of the financing reflect an expectation by bondholders that the SR 520 bridge asset will be properly maintained and appropriately operated. As a result, O&M costs are expected to be paid first, and the net revenues remaining and available to pay back principal and interest dictate what portion of the capital costs can be supported by toll revenues.

Preliminary estimates for project O&M costs were developed in the SR-520 Toll Feasibility Study (see Appendix).¹⁵

Exhibit 5 summarizes the distribution of O&M costs by function, illustrating the relative distribution of costs among categories. While the study considered two cases — one where SR 520 is a stand-alone toll facility, and one where it shares certain toll collection, customer service and administrative functions with other toll facilities — it is likely that the latter condition would prevail. Both the Tacoma Narrows Bridge and the SR 167 HOT Lane projects are expected to open in 2007, and assuming a common public agency as the tolling authority, with shared operations for toll-related functions, is a reasonable expectation.

Exhibit 5: Distribution of Operating and Maintenance Costs by Function



¹⁵ WSDOT. 2004. SR-520 Toll Feasibility Study.

What are the sources of funding for the project?

How have identified funding sources been categorized?

Several federal, state, regional and local funding sources have been identified for the SR 520 Project. For purposes of this funding plan, these sources have been categorized according to their certainty and other characteristics at the time of writing as follows:

- **Expended** — funds that are currently in-hand and/or have already been expended.
- **Secured** — funds that are committed to the project with a specific disbursement schedule and expected to be realized in full.
- **Anticipated** — funds that are anticipated, but not yet secured. Funding may depend on legal, institutional or political actions, and/or the amount may be uncertain.
- **Other** — potential sources of funds that currently have a low probability of contributing to capital needs. (Due to high degree of uncertainty, these sources are not quantified in the finance plan.)

Within this finance plan, “expended” and “secured” funding sources are assumed to be fixed in terms of amount and disbursement schedule. “Anticipated” funding sources are accompanied by assumptions for the range of possible values they may take and general notions of their likelihood. “Other” potential funding sources are described qualitatively, with no values assigned. As such, they are not included among the sources of funds that are compared to project needs.

Exhibit 6 summarizes the information we have to date regarding funding sources for the SR 520 Project. The following sections discuss in greater detail the risks and opportunities associated with each source.

Exhibit 6: SR 520 Project Funding Plan

	Sources of Funds (\$ millions)			
	Secured / Expended		Anticipated	
			Minimum	Maximum
Federal	<ul style="list-style-type: none"> TEA-21 Formula Funding 6.08 		<ul style="list-style-type: none"> Future Federal Funding (SAFETEA-LU & Reauthorization) 10.00 	40.00
State	<ul style="list-style-type: none"> Pre-2003 Funding 12.48 2003 Nickel Package 52.25 2005 Transportation Partnership Account 500.00 		<ul style="list-style-type: none"> 6.5% Washington State Sales Tax Transfer 0.00 	152.90
Regional	<ul style="list-style-type: none"> RTA Sound Transit 1.54 Puget Sound Regional Council STP Grant 1.00 		<ul style="list-style-type: none"> RTID Ballot Measure (January 2006 RTID Plan Proposed Allocation) 0.00 RTID Ballot Measure (ESHB 2871 Funding Proposal) 0.00 SR 520 Tolling 700.00 	800.00 1,400.00 700.00
Local	<ul style="list-style-type: none"> City of Seattle 0.25 			
Total		\$573.60	\$710.00	\$3,092.90

What funding sources have already been received and expended?

Of the total \$573.6 million in expended and secured funding, \$21.4 million in funding from federal, state, regional, and local sources has been received and expended. In addition, a portion of the 2003 Nickel Package and 2005 Transportation Partnership Account (TPA) funding has been expended; however, these latter state sources have been classified as “secured” because the majority of them have not yet been expended.

What funding sources have been secured?

The reader should note that although the sources of funding discussed in this section are described as “secured,” there is always some risk that total funding amounts will not meet expectations. Such risk factors are described below, where appropriate.

Secured - Federal

At this time, no federal sources of funding have been secured.

2003 Nickel Funding Package

The 2003 Washington Legislature voted to fund a program of 158 specifically named transportation projects over a 10-year period, drawing upon such sources as:

- A 5 cents per gallon gas tax increase
- A 15 percent increase in gross weight fees on heavy trucks
- A 0.3 percent increase in sales tax on motor vehicles¹⁶

The total investment is \$3.9 billion. When the projects are built, and the accompanying bonds are paid off, the five-cent per-gallon tax increase will expire.

Nearly 82 percent of Nickel Package funding has been devoted to highway improvements, including the SR 520 Project (\$52 million).¹⁷ The SR 520 Project receives 1.3 percent of the Nickel Package funding.

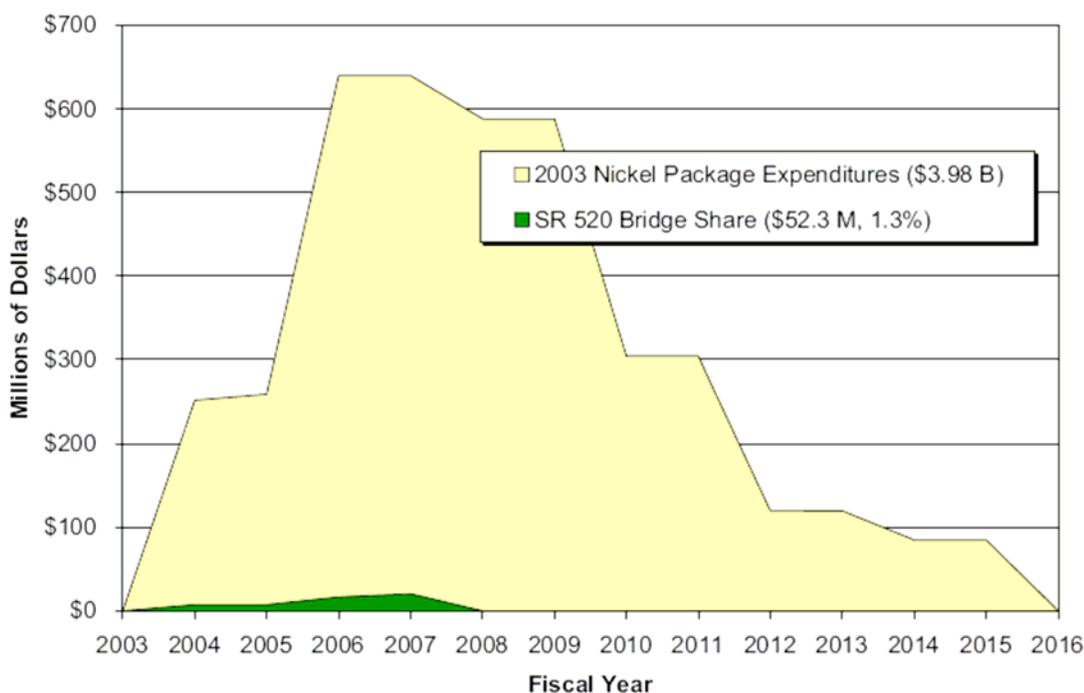
Exhibit 7 illustrates the SR 520 Project's share of Nickel Package total expenditures over time. Because the project's share is small, for the purposes of this plan we assume SR 520 will be "held harmless" if the total Nickel revenue were to be less than forecasted.

¹⁶ WSDOT. Accessed 25 April 2006. "Project Funding: 2003 'Nickel' Package Funding."

<<http://www.wsdot.wa.gov/Projects/Funding/Nickel/>>.

¹⁷ \$250,000 of the transportation 2003 (nickel) account appropriation within the SR 520 project funding for project design is provided solely for the city of Seattle to prepare a plan for addressing the impacts of the SR 520 bridge replacement and HOV project on Seattle neighborhoods, parks, and institutions of higher education (State of Washington House Committee on Transportation. 8 March 2006. "Engrossed Substitute House Bill 2871." 59th Legislature 2006 Regular Session)

Exhibit 7: SR 520 Share of 2003 Nickel Package Funding (2003 — 2018)



2005 Transportation Partnership Account (TPA)¹⁸

In 2005, the Washington Legislature passed a \$7.1 billion transportation revenue package to fund 274 specific projects across the state over 16 years. The package includes:

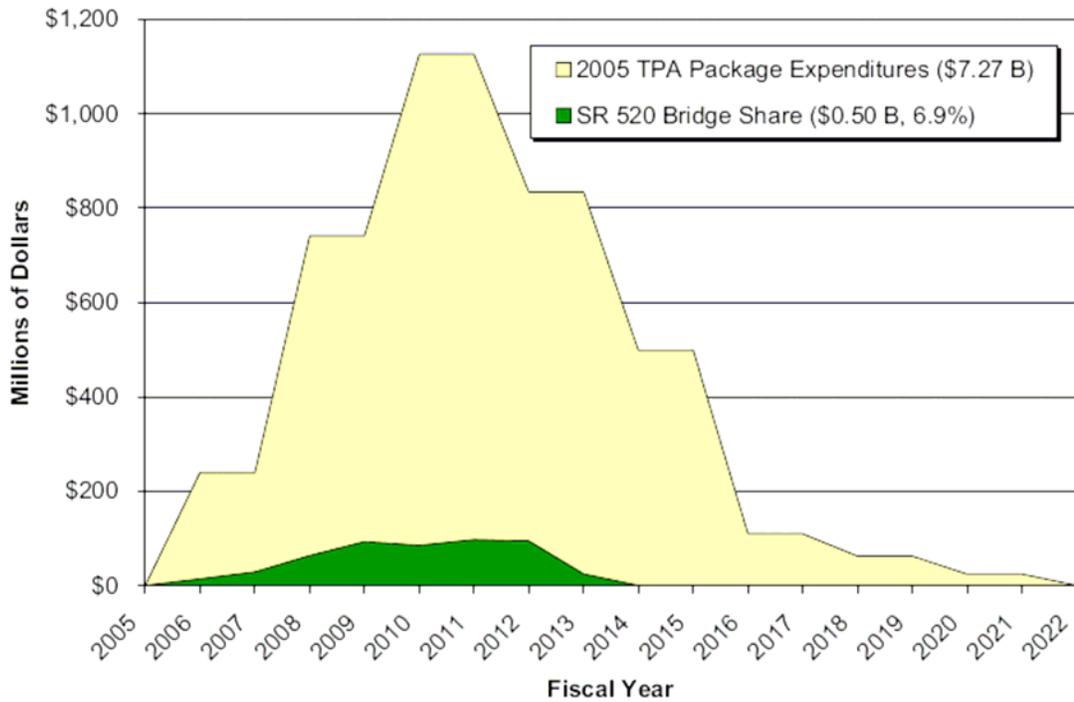
- A 9.5 cents gas tax increase, phased in over four years
- A vehicle weight fee on passenger cars
- A light truck weight fee increase
- An annual motor home fee of \$75

Thirty at-risk structures are covered in the act, comprising 42 percent of total funding, or \$2.98 billion. The work will extend the longevity of structures to be able to better withstand heavy use, severe weather, and earthquakes. The SR 520 Project will receive \$500 million toward the cost of replacement.

Exhibit 8 illustrates the share of SR 520 Project funding in the TPA Package over time.

¹⁸ WSDOT. Accessed 25 April 2006. "Project Funding: 2005 Transportation Tax Package." < <http://www.wsdot.wa.gov/Projects/Funding/2005/> >

Exhibit 8: SR 520 Share of TPA Funding (2003 — 2018)



In the state of Washington, local initiatives can repeal major taxes. In November 2005, voters were asked to consider repealing the gas tax increase included in TPA. That initiative was defeated, with 55 percent voting against repeal. In November 2006, voters may have the opportunity to consider repealing the weight fees and other transportation taxes also included in TPA. The deadline for filing such an initiative is July 2006.

The February 2006 forecast for gas tax receipts over the 16-year period has decreased slightly; however, forecasted revenues are still closely aligned with the legislative baseline projection. Revenue forecasts are updated quarterly. If there is a revenue shortfall, the state can adjust in a number of ways including covering expenditures with un-programmed motor vehicle account dollars or lowering expenditures. As WSDOT moves into budget development, revenue forecasts, bond sale assumptions, project cost inflation and expenditure patterns will be updated.

Secured - Regional

At this time, WSDOT has not secured funding from regional sources.

Secured - Local

At this time, WSDOT has not secured funding from local sources.

What funding sources are anticipated?

“Anticipated” funding sources are not secured. Nevertheless, project stakeholders are confident that funding within identified ranges will be received, so long as favorable political and economic conditions prevail. There are factors that could contribute to reduced or no funding for some of the anticipated sources, including but not limited to:

- Election and ballot measure outcomes
- Voter initiatives
- Contingent approvals
- Turnover of key politicians or project champions
- Economic shocks
- Errors in revenue/funding projections;
- Competing project needs, especially those of the Alaskan Way Viaduct and Seawall Replacement Project

Anticipated - Federal

Future Federal Funding (SAFETEA-LU & Reauthorization)

The SR 520 Project is expected to receive some modest federal funding from the latter years of SAFETEA-LU as well as from its successor legislation. Current expectations are for \$10 to \$40 million in funding spread over eight years, beginning in fiscal year 2008.

To obtain federal funding, WSDOT will compete for annual appropriations that generally raise \$1-3 million per project per year and an earmark in the reauthorization process that could be in the \$10 to \$40 million range. During SAFETEA-LU, \$231 million earmark funding was given to the Viaduct Project. Given the visibility and seismic vulnerability of the SR 520 Project, it is not unreasonable to believe the federal government will contribute some amount of funding during reauthorization.

Anticipated - State

SR 520 Tolling

If the regional ballot put forth by RTID does not pass, then the State would likely impose tolls (see the SR 520 tolling discussion in the Anticipated Regional Section below).

Anticipated Regional

RTID Ballot Measure

A January 2006 RTID plan presented to the Sound Transit Board allocated \$800 million for the SR 520 Project. The plan is called “The Blueprint for Progress.” The proposed projects and funding allocations (which are subject to change) are presented in Exhibit 9.¹⁹

Exhibit 9: Summary of RTID Proposed Projects by County

County	Project / Investment	Funding (millions)
King	SR 99: Alaskan Way Viaduct	800
	I-405	1330
	SR 520 Project	800
	I-5 Improvements & SR 509 Extension	870
	SR 167	420
	I-5 Improvements at SR 18	50
	Additional Investments & Contingency	237
	<i>Sub-Total</i>	<i>\$ 4,507</i>
Pierce	SR 167	1,000
	SR 162	180
	SR 704	210
	Additional Investments & Contingency	104
	<i>Sub-Total</i>	<i>\$ 1,494</i>
Snohomish	Highways of Statewide Significance (HSS) and related Approaches	934
	Non-HSS projects	107
	HOV and transit	168
	<i>Sub-Total</i>	<i>\$ 1,209</i>
Total		\$ 7,210

¹⁹ RTID. 26 January 2006. “Blueprint for Progress: Moving Forward Together.” Proposal Presented to the Sound Transit Board of Directors.

For the purpose of this plan, and based on informal discussion with RTID members, WSDOT believes the SR 520 Project would receive at least \$800 million in the final RTID proposal, subject to voter approval.

Depending on how ESHB 2871 is interpreted, RTID may allocate substantially more than \$800 million to this project. In order to provide a funding plan “that assures full project funding for seismic safety and corridor connectivity” on SR 520 between I-5 and I-405, RTID or other entities might be required to invest an additional \$1.4 billion. Because of competing demands for RTID allocations, the additional \$1.4 billion is less certain than the \$800 million. In any case, an RTID contribution is subject to successful passage of a ballot measure in fall 2007.

Washington State Sales Tax Transfer

RCW 82.32.470 created RTID and also amended existing law to allow the 6.5 percent Washington state sales tax paid on the construction of RTID’s transportation projects to be returned to the project.²⁰ Specifically, the law states that the sales tax collected “on initial construction for a transportation project to be constructed under [RTID], 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.”

For the SR 520 Project, WSDOT assumes that this provision would prevail for the share of construction subject to the state sales tax and included within the cost estimate. A preliminary assumption is that 75 percent of the CEVP 90 percent cost estimate reflect taxable expenditures. The sales tax paid on construction in any given year is assumed to be transferred back to the project in the following year.

For the 6-Lane Alternative, 75 percent of the estimated \$3.14 billion cost is \$2.35 billion, of which \$152.9 million represents the 6.5 percent state sales tax. It is unclear whether the Washington Legislature fully contemplated the potential impact to the general fund of providing a sales tax rebate to the RTID projects. Should this RTID provision be maintained, it will still be subject to voters approving the joint regional ballot in November 2007.

SR 520 Tolling

While the state has a history of tolling major bridge investments, RTID legislation gives this regional body the authority to toll the SR 520 bridge

²⁰ Revised code of Washington 82.32.470, with reference to 36.120 and 82.14.

to help fund regional highway investments. Should the RTID funding ballot measure be unsuccessful, the state would likely step in and impose tolls on the new facility to fund some level of improvements in this corridor.

The proportion of project investment that can be financed by issuing bonds against future toll revenues is described in a detailed toll feasibility study prepared for WSDOT in 2004.²¹ While the *SR-520 Toll Feasibility Study* is not an “investment grade” traffic and revenue study — such an in-depth analysis would take place closer to the time that bonds would be issued — it did include traffic and revenue projections, O&M cost estimates, and a detailed financial capacity analysis. For the purpose of this finance plan, both toll revenues and the relative share of capital funds that could be raised to pay for the project are summarized below.

What toll rate structures were considered?

The toll feasibility study examined two toll structures that would vary by time of day according to a set schedule:

- Traffic management tolls — low level set just high enough to manage traffic demand within available roadway capacity; and
- Maximum funding tolls — tolls set to higher levels intended to maximize revenue collections.

It is unlikely that either of these two toll schedules would be selected and/or maintained over time for the SR 520 bridge; rather, these two objectives represent the “bookends” between which the actual toll policy would likely emerge.

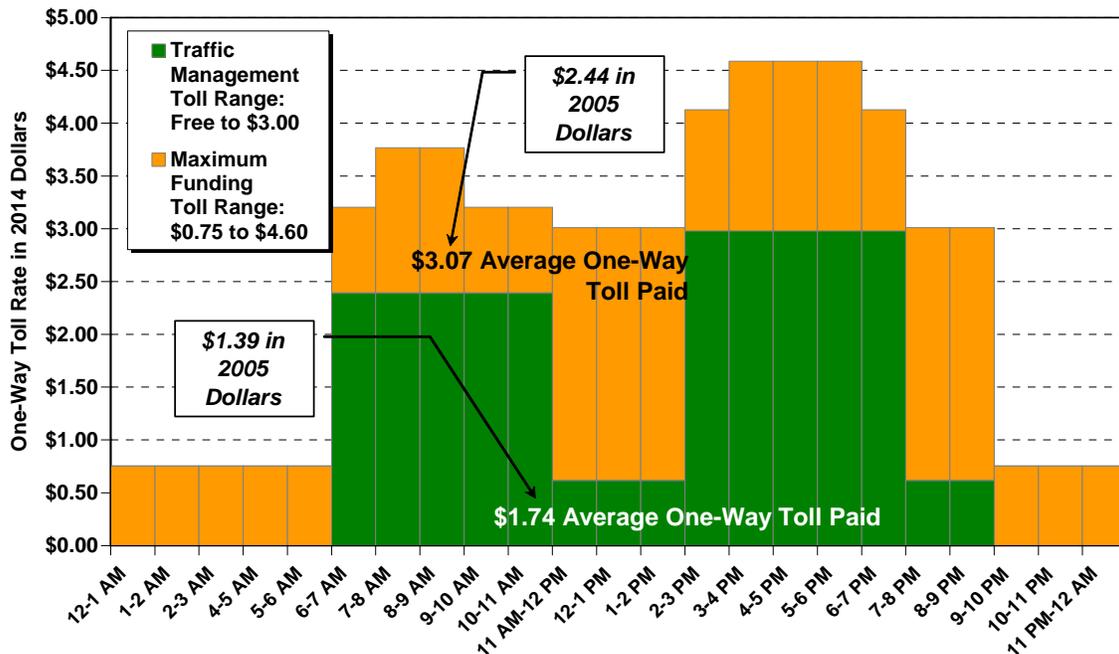
Exhibit 10 illustrates the two bookend toll schedules or profiles by time of day for the 6-Lane Alternative, expressed in year 2014 dollars for 2014 demand conditions.²² Under the traffic management toll objective, the toll rate ranges from zero to \$3.00 each way over the course of the day, with a weighted-average toll of \$1.74. For the maximum funding toll objective, tolls would range from \$0.75 to \$4.60 each way, with weighted-average toll paid of \$3.07 in 2014 dollars.

²¹ *SR-520 Toll Feasibility Study*, WSDOT, 2004 (see the Appendix).

²² 2014 was the assumed year of opening at the time of the *SR-520 Toll Feasibility Study*.

Exhibit 10: Opening Year Toll Schedules Analyzed by Objective — 6-Lane Alternative

Tolls are one-way, expressed in 2014 dollars



The two bookend toll structures derived in the analysis of a 4-Lane Alternative were almost identical to the 6-Lane case. Under the traffic management toll objective, the weighted-average one-way toll was \$1.70, and for the maximum funding toll objective, \$3.03.

What revenues are available to generate project funding?

Two different gross revenue streams were estimated for both alternatives by using the pair of demand projections corresponding to the traffic management and revenue-maximizing toll schedules.²³ To arrive at the net revenues available for debt service (principal and interest payments on the bonds sold), the gross revenue streams were reduced by four factors:

1. A 5 percent deduction for electronic toll collection (ETC) inefficiencies, revenue losses net of violation fees, errors and/or free-rides
2. Adjustments to allow for “ramp-up” of demand during the first two years while the traveling public gets used to the idea of tolls
3. Adjustments to constrain revenue growth after “ramp-up” to three percent per year reflecting a combination of periodic (less than annual) toll rate increases (overall less than inflation) and underlying travel demand growth

²³ For additional information, please see the SR-520 Toll Feasibility Study in the Appendix.

4. A deduction for toll collection and facility operating and maintenance costs

The third item above effectively caps annual revenue growth at three percent, which is an important point. Whereas the toll travel demand modeling implicitly assumes that optimal toll increases — those accounting for both inflation and growing demand — are made every year, the study’s financial capacity analysis chose to take a more conservative stance. Recognizing that politics, established policies and precedents could constrain toll increases, yet acknowledging that some periodic toll increases would be necessary to meet the projected revenue and funding levels, the study concluded that there were likely several combinations of “sub-optimal” toll escalation policies and associated demand levels that would yield three percent annual revenue growth.

The gross and net revenues projected for the 4-Lane Alternative are expected to be about five percent less than those for the 6-Lane Alternative. While the 4-Lane Alternative would collect tolls from HOVs (excluding transit) in the absence of a separate toll-free HOV lane, this is offset by the reduced capacity in the corridor, which is expected to attract slightly fewer toll-paying vehicles overall.

How much project funding does tolling generate?

The study’s financial capacity analysis considered 24 financing scenarios for the 6-Lane Alternative, including 12 for the case of tolls commencing at project completion. Exhibit 11 presents the level of project funds that would be generated for the 6-Lane Alternative under the 12 financial scenarios with toll collection beginning at project.

Exhibit 11: Project Funds Generated by Financial Scenario — 6-Lane Alternative

Tolling Objective	Toll Collection Begins with Project Completion in 2014					
	Stand-Alone Toll Facility / Customer Service Center Operations			Part of Regional Toll System / Shared Customer Service Center Operations		
	Stand-Alone Toll Revenue Bonds	Stand-Alone Toll Revenue Bonds + TIFIA Loan	State Backed Bonds	Stand-Alone Toll Revenue Bonds	Stand-Alone Toll Revenue Bonds + TIFIA Loan	State Backed Bonds
Traffic Management	\$321 M	\$486 M	\$521 M	\$338 M	\$513 M	\$549 M
Maximum Funding	\$554 M	\$844 M	\$899 M	\$571 M	\$871 M	\$930 M

Note: Amounts are net of capitalized interest and represent year of expenditure dollars, based upon five years of bond proceeds during construction.

A detailed financial capacity analysis was not conducted for the 4-Lane Alternative. However, because the revenue stream under the 4-Lane Alternative is expected to be about five percent less than for the 6-Lane case, we have assumed that the level of project funds generated would also be about five percent less than those figures shown in Exhibit 11.

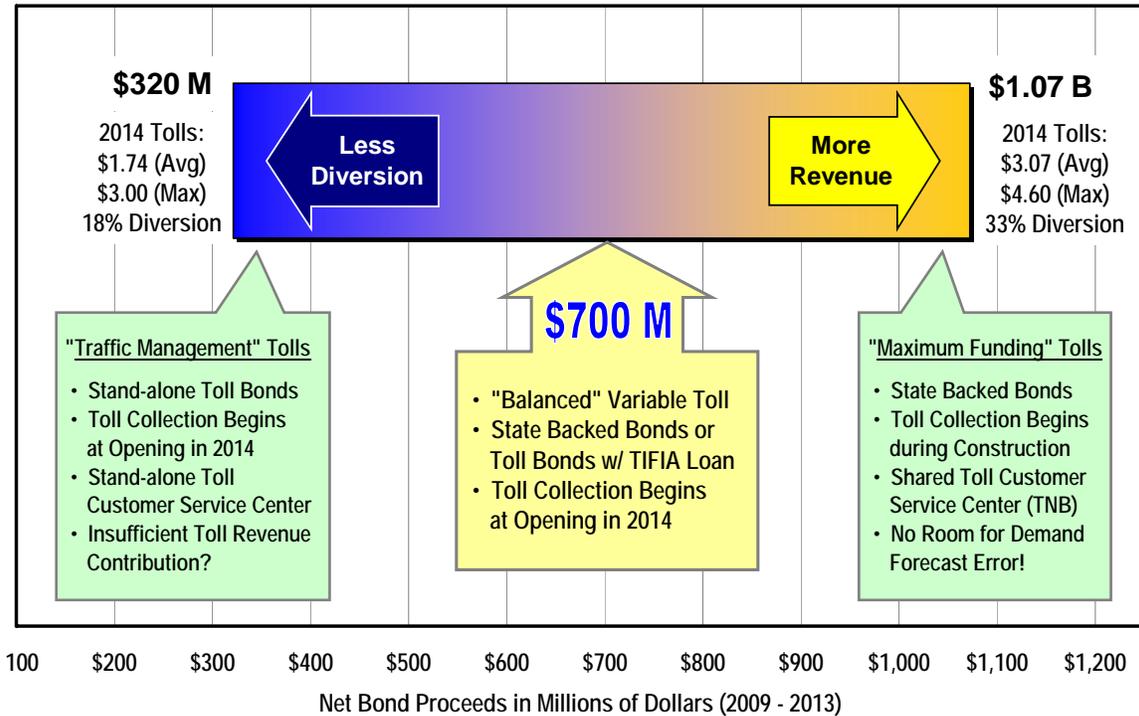
Bonds were assumed to be sold in the five years leading up to project completion in amounts sufficient to capitalize interest payments during construction. The debt was structured to take advantage of the increasing revenue stream during operations, with repayment of principal and interest growing at approximately three percent per year over time to match rising revenues. This was achieved through a mix of serial bonds — bonds issued at the same time but having different principal repayment schedules — and capital appreciation bonds, which are zero coupon bonds in which principal and interest accumulate and are due at maturity. A 30-year maximum final maturity was assumed for each bond issue.

Under all of the financial scenarios tested for the 6-Lane Alternative (including those in Exhibit 11 as well as those for scenarios with tolling beginning before project completion), bond proceeds available for project funding varied from approximately \$320 million to \$1.07 billion. The study concluded that for a range of "middle-ground" toll structures and financing assumptions, there were likely a number of different ways to achieve \$700 million in project funds.

Exhibit 12 illustrates the range of project funding and some of the determinant factors for the 6-Lane Alternative. As previously noted, the 4-Lane Alternative would generate approximately five percent less funding.

In all state planning for the project, WSDOT assumes \$700 million from tolls is available for capital construction spending.

Exhibit 12: Toll Revenue Funding Range — 6-Lane Alternative



Anticipated - Local

WSDOT does not anticipate any local funding contributions for the SR 520 Bridge Replacement and HOV Project at this time.

How and when will more information about the likelihood, range, and disbursement schedule of the anticipated sources be obtained?

On May 16, the Administrator of the WSDOT Urban Corridors Office sent a series of letters to persons within the various agencies that would be able to provide additional information on the funding sources described in this plan. Letters included a series of specific questions regarding funding amounts, risks to funding, and documentation showing commitment. Responses from these letters are expected by August 1, 2006. Exhibit 13 provides a summary of the letters that have been sent, and the Appendix contains copies of these letters.

Exhibit 13: Letters Sent by WSDOT Regarding Secured and Anticipated Funding Sources

Letter Recipient	Title	Organization	Funding Inquiries
Mayor Gregory J. Nickels	Mayor	City of Seattle	Various
Mr. Douglas B. MacDonald	Transportation Secretary	WSDOT	Future state funding
Mr. Dan Mathis	Washington Division Administrator	FHWA	SAFETEA-LU, Annual Federal Appropriations, Reauthorization
Ms. Joni Earl	CEO	Sound Transit	Sound Transit Phase II
Councilmember Shawn Bunney	Chairman	Regional Transportation Investment District	RTID

After WSDOT receives responses from these letters, the new information received will be incorporated in the project's finance plan.

What other potential funding may be available?

This category of funding includes sources that may have come up in project discussions and/or were otherwise initially identified as candidates, but have not been quantified at this time. In general, the reasons why dollar ranges have not been assigned to the "other" funding sources include low probability of funding, insufficient information available and/or limited applicability to the project.

Other - Federal

Aside from limited federal contributions described earlier, WSDOT does not expect additional federal funding due to the competition from other projects within and outside of Washington State.

Other - State

I-90 Toll Revenues

The Washington State Transportation Commission is currently engaged in a comprehensive tolling study which will help the State make policy-level decisions on if, where, when and how to use tolls. One central theme of the interim report is the use of pricing to manage traffic to make the system flow more efficiently and reliably.²⁴ While the study won't be completed until mid-summer, its policy recommendations could further

²⁴ Washington State Transportation Commission. January 2006. Washington State Comprehensive Tolling Study: Interim Report.
<<http://www.wstc.wa.gov/Tolling/default.htm>>

the discussion of tolling I-90 in tandem with SR 520. Should this eventually come about, additional toll revenues from I-90 may be available to help fund SR 520 Project improvements. However, no I-90 toll funding is assumed at this time.

Public-Private Partnerships

Public-private partnerships (PPP) are thought of as project delivery mechanisms (e.g., design-build contract) and/or tools that bring greater certainty to cost elements, as well as funding sources. This greater cost certainty is typically attributed to the transfer of design and construction risk from the public sector to the design-build contractor in the early stages of project development.

In some instances, public-private partnerships can also provide additional benefits to a public agency, where private participants could provide supplemental capital funds in the form of subordinated debt and/or equity by further leveraging a stream of project revenues. These supplemental forms of financing may not be readily accessible to the public agency, thus the private partner is providing additional capital to pay for the project, which will especially benefit the public partner if this additional capital can complete the funding necessary to implement a project.

What are Public-Private Partnerships?

The National Council of Public-Private Partnerships defines a PPP as “a contractual agreement between a public agency (federal, state or local) and a for-profit corporation. Through this agreement the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility.”²⁵

Traditionally, private sector participation in transportation infrastructure projects has been limited to separate planning, design or construction contracts on a fee-for-service basis – based on the public agency’s specifications.

Expanding the private sector role allows public agencies to tap private sector technical, management and financial resources in new ways. This may help the public agency achieve certain objectives, such as greater cost and schedule certainty, supplementing in-house staff, applying innovative technology, shifting risk, and gaining access to specialized expertise or private capital. The private partner can expand its business opportunities in return for assuming the new or expanded responsibilities and risks.

²⁵ <http://ncppp.org/howpart/index.html>

The Appendix provides additional detail regarding the different forms of PPPs.

How has recent legislation impacted PPPs?

The 2005 Transportation Innovation Partnership Program (TIPP) legislation provides the state with new authority to implement PPPs for transportation-related projects and programs.

In terms of facilitating private sector participation in a way that could bring additional project funding to the project, the TIPP legislation includes one potentially limiting constraint: it precludes private sector debt financing by requiring that project debt to be issued by the state treasurer.²⁶ While there are many examples of publicly issued debt providing project financing to private entities, this provision could reduce competitive interest from the private sector if it were to constrain the opportunities for the private sector to take on certain risks associated with a revenue stream under the private concession model. Private equity is attracted to opportunities that create an upside potential for profit from higher than expected revenues; the State's current TIPP is untested in its ability to attract private equity.

However, there are at least two ways in which this TIPP constraint may be overcome. First, legislative approval to deviate from this restriction could be obtained, ideally in combination with whatever legislation may be required to provide tolling authority.

Second, the use of the new federally authorized, tax-exempt Private Activity Bonds (PABs) could be used within the current TIPP framework. A PAB pilot program for transportation projects was included in the recent SAFETEA-LU legislation. Its objective is to serve as an additional means for attracting private investment and financing participation while retaining the advantage of low-cost tax-exempt debt financing.²⁷ To take advantage of the PAB pilot program, debt needs to be issued by a public agency even though the entity with the obligation to repay principal and interest could be a private party.

²⁶ Revised Code of Washington Section 47.29.060(3) states "For any transportation project developed under this chapter that is owned, leased, used, or operated by the state, as a public facility, if indebtedness is issued, it must be issued by the state treasurer for the transportation project." <<http://apps.leg.wa.gov/RCW/default.aspx?cite=47.29.060>>

²⁷ For details on private activity bonds, see <http://www.fhwa.dot.gov/ppp/private_activity_bonds.htm>

How might a PPP be applied to the SR 520 Project?

The authority granted under the new legislation could be beneficial in advancing the SR 520 Project, but the advantages must be carefully weighed against the challenges and risks associated with the implementation of a PPP.

Typical PPP applications provide public agencies greater flexibility to accelerate project delivery by:

- Using design-build or other alternative contracting procedures
- Authorizing the imposition of tolls or other user fees to fund improvements
- Expediting project delivery by streamlining project approval processes (project selection and procurement, environmental reviews, preliminary engineering, etc.,)
- Creating separate legal entities to issue public debt

Many of the above PPP benefits of the TIPP are already available to WSDOT under separate statutes:

- WSDOT already has design-build authority for major projects.
- Since both the state and RTID have authority to impose tolls on the SR 520 bridge, a PPP is not required to institute a tolling regime.
- The opportunity to expedite project delivery in contracting, right-of-way acquisition, financing and environmental compliance is available under SEP-15, a new, experimental FHWA program, whether or not projects are procured through PPPs.²⁸

The one provision of Washington's TIPP that potentially provides a new PPP opportunity is the ability for a private partner to provide project financing, either in whole or in part via the long-term private concession model. Under this option, which requires a dedicated revenue stream such as tolls, the private party would deliver the project, and subsequently operate and maintain it under a long-term lease (typically 50+ years). In this case, the private party would not only have access to a longer period

²⁸ Special Experimental Project Number 15 or SEP-15 derives from section 502 of title 23, and allows the Secretary of Transportation to waive the requirements and regulations of title 23 on a case-by-case basis. Specifically, SEP-15 allows FHWA to experiment in four major areas of project delivery - contracting, right-of-way acquisition, project finance, and compliance with the National Environmental Policy Act (NEPA) and other environmental requirements. While FHWA has long encouraged increased private sector participation in Federal-aid projects, SEP-15 allows FHWA to actively explore needed changes in the way the oversight and delivery of highway projects are approached with the goals of reducing congestion and preserving our transportation infrastructure.

of revenues than would be considered in a traditional tax-exempt bond financing, but it would also receive “tax ownership” of the facility. The latter allows the private party to take advantage of depreciation benefits against the income generated, which enables them to bring more capital funding to the project, including induced equity, than would otherwise be the case.

How does the long-term private concession model work for toll roads?

The long-term concession model occurs when a public owner leases a transportation facility to a private party (“concessionaire”). The concessionaire is entitled to collect and retain toll revenues for the duration of the lease term, which can extend from 50 up to 99 years.²⁹ In return, the public owner is provided compensation either in the form of significant construction improvements or up-front cash (or a combination of both). The private party through some combination of equity and debt typically finances the compensation paid to the public owner. For the public sector, the key question is whether to relinquish the value of long-term toll revenues in exchange for an immediate infusion of cash. A key consideration in a concession-model financing is that the private partner could retain the right to collect toll revenues on the facility for the entire lease period.

What are the benefits of the long-term private concession model?

There are two significant benefits of this extended financing term to a project like SR 520. First, the private partner can increase the capital funds available to construct the facility by leveraging the additional revenues that occur outside of the typical public financing period of 30 to 40 years.³⁰ These additional funds typically take the form of a private equity stake in the project, since traditional bond markets may not necessarily provide additional debt financing for the longer-term revenue streams (beyond 40 years). Equity also takes advantage of the surplus revenue contained in the “debt coverage” layer throughout the life of the debt. Over time, the private party then pays themselves a return on their equity investment using these excess revenues and/or refinancing the debt.

A second benefit of a long-term lease is the ability of the private sector to receive “tax ownership” of the facility, which allows them to take advantage of the depreciation tax benefits. This benefit can range from lowering the private sector’s tax expense, thereby allowing them to invest

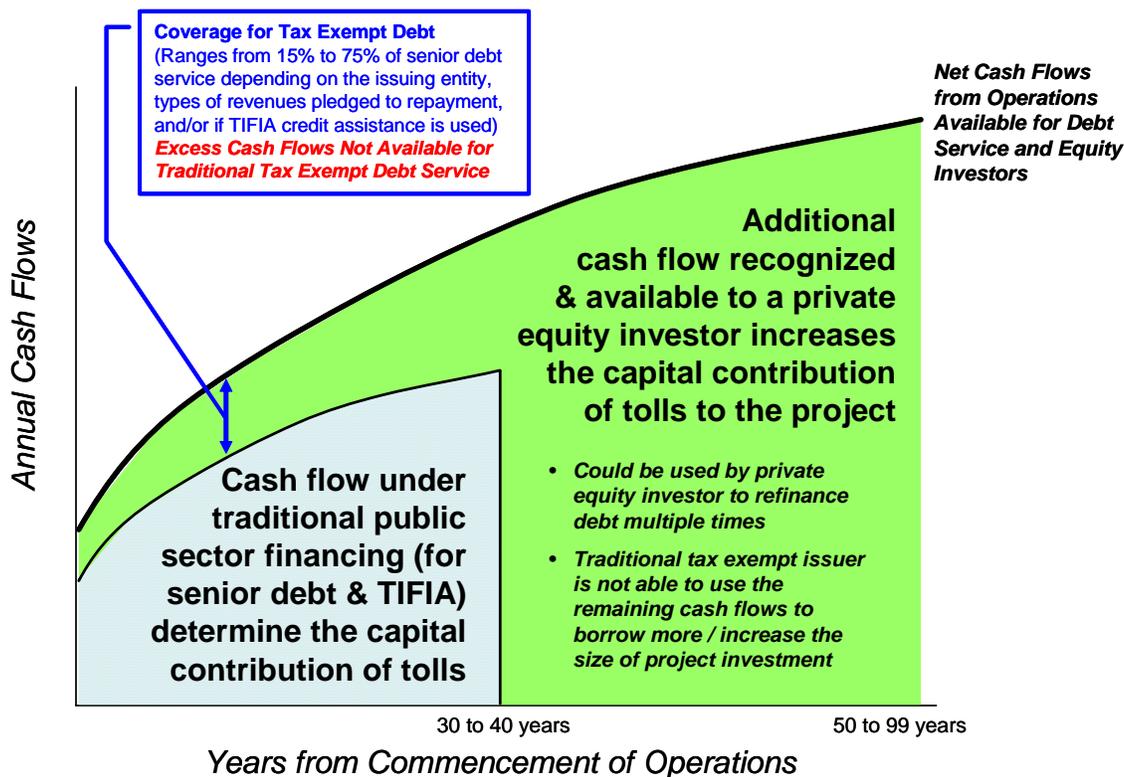
²⁹ The IRS has not yet ruled on the minimum leased duration to gain “tax ownership”.

³⁰ It is important to note that there also may be increasing opportunities for public owners to adopt similar financing structures to that of a concessionaire through the use of subordinate debt, contractor loans and longer term public tax exempt debt.

more equity in the project (for a given target rate of return on equity), to the outright sale of the depreciation benefit to a third party (depending on the type of debt issued), thereby creating a direct infusion of cash to the private party for transfer to the project.

Exhibit 14 makes a conceptual comparison of private sector concession financing of a toll road versus traditional public sector financing.

Exhibit 14: Private Concession Financing versus Traditional Public Sector Financing



Note that the net cash flow that would be available for paying debt service on traditional tax-exempt bonds over 30 to 50 years after meeting coverage requirements determines the public sector level of capital project funding. On the other hand, some private equity investors take a longer-term view of the revenue stream. These investors also consider the excess revenues after debt service (coverage) as available to provide a return on an equity investment and/or to refinance the debt multiple times. In addition, there may be some tax advantages to the private investor if the deal is structured to allow the concessionaire to take a depreciation expense as previously noted. The ability of the concessionaire to recognize and take advantage of the total net cash flow results in a higher

level of project funding than that which could be achieved under traditional public sector debt financing.

This is not to say that the public sector cannot eventually put the excess and longer-term project cash flows to future productive uses; rather, the public sector is constrained from leveraging the full net cash flows to increase present day project funding with traditional tax-exempt financing.

An additional benefit of involving a private partner is that if the concession agreement is structured properly, triggers for additional infrastructure expansion could be required of the concessionaire during the life of the concession, with potentially little or no additional cost borne by the state. In summary, under this framework, the state has the opportunity to transfer some to all of the implementation, financing and revenue risks to the private sector while satisfying the public's need for additional transportation capacity. However, the private concession model is no guarantee that the private party will price the project and its revenue risks lower than the public sector would, especially for a "brownfield" project.

What other characteristics of the private concession model should be considered?

While this form of PPP could provide immediate benefits to the state, there are offsetting longer-term costs that should be appropriately considered. First, equity investors expect a return on investment on their equity, with margins ranging from 10 to 20 percent, which may be difficult for the public to understand and accept.

An additional potential cost to the public owners of a long-term leased facility is that the public agency is foregoing the excess annual revenues available after debt service is retired, which could be used for other future capital and/or operating needs. Comparing these costs to the benefits can be further studied to determine the net benefits, which will allow decision makers to understand the implications of adopting or declining such a structure.

The public sector is also giving up some level of control of the project design, construction, and operation. In general, the more control that goes with the concession, the more valuable the concession is to the private sector.

A political consideration is that under a public "sale" (long term lease) of the concession, the most competitive buyers today are foreign companies. Control of local public infrastructure by a foreign company often is a politically sensitive issue.

What would the long-term private concession model contribute to the SR 520 Project?

A long-term lease under the toll road concession model could have application to the SR 520 Project. Under the current TIPP, debt financing would require the use of private activity bonds issued by the State Treasurer. Additional analysis would need to be undertaken to estimate how much additional funding this could contribute to the project.

Other - Regional

Sound Transit 2

The Sound Transit 2 investment plan and project list has not yet been finalized. At this time, the plan does not acknowledge any contribution to the SR 520 Project. However, as the Sound Transit and RTID joint ballot is discussed over the coming months, Sound Transit 2 may choose to include a modest investment in SR 520 Project elements that benefit transit or high-capacity transit (HCT). Any such contribution would be subject to passage of the 2007 ballot.

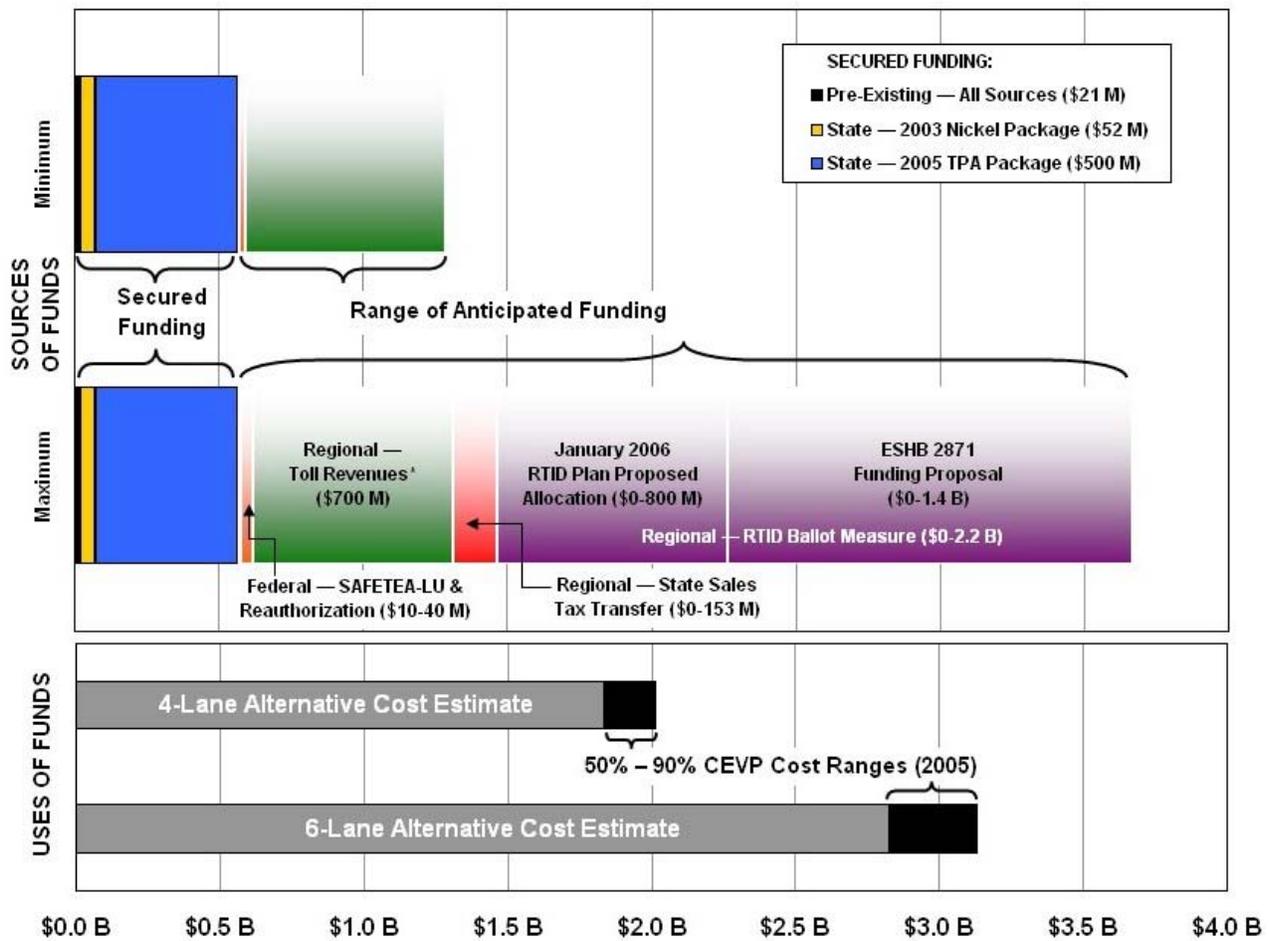
Other - Local

No other local funding sources are being considered at this time.

Is there a gap between the sources and uses of funds?

Building on the funding plan information presented in Exhibit 6, Exhibit 15 presents the current status of secured and anticipated funding sources and the corresponding cost estimates for the project alternatives. In the exhibit, the bar labeled “maximum” shows the range of funding that would be available if the highest level of funding expected for all of the anticipated sources were received. Note that three of the five anticipated sources — the RTID plan funding, the ESHB 2871 funding proposal and the receipt of sales tax transfer on regional expenditures — are contingent on the passage of the joint RTID/Sound Transit regional ballot measure. Combined, these three sources are expected to contribute between \$800 million and \$2.3 billion if the ballot measure passes. RTID funding is clearly the most important question to be answered in the coming months.

Exhibit 15: Sources and Uses of Funds



Although tolling could contribute a range of capital from \$320 million to just over one billion, WSDOT believes that there are several different scenarios under which tolls could contribute \$700 million in project funding. As such, the level of funding has been held fixed at \$700 million in both the minimum and maximum funding cases. Tolling is assumed to be part of the RTID funding proposal should the regional ballot measure pass; otherwise, it is likely that the State would pursue tolling with the same project funding result of \$700 million.

If both RTID and toll funding are available, and if the RTID contribution is at the high end, then both the 4-Lane and 6-Lane alternatives would be fully funded.

The bar labeled “minimum” represents the range of funding available to the project should the RTID regional ballot measure fail, future federal funding comes in at the low end of \$10 million, and the state continues to pursue tolling. Under this scenario, the full project under either alternative is not fully funded.

If all of the anticipated funding sources come in at their minimum expected levels, funding will be insufficient to cover even the full 90 percent CEVP cost of the 4-Lane Alternative. Although it appears that the 4-Lane Alternative would be financially feasible if the RTID regional ballot passed and the project received \$700 million from tolling and the \$800 million indicated in the January 2006 plan, the 4-Lane Alternative may not meet the “corridor connectivity” requirement of ESHB 2871 without a contiguous HOV lane. If the 6-Lane Alternative is ultimately selected as the preferred alternative for the project (or is otherwise implied by ESHB 2871), then likelihood of achieving sufficient funding is dependent on receiving a substantial share of the overall RTID funding package.

Other Funding Questions

If other projects overrun their budgets, what would be the risk to the funding of this project?

Typically, when a project overruns its budget, the scope of other projects may be cut, or funds from other projects may be “donated,” depending on projects’ relative priorities. WSDOT does not assume that the SR 520 Project would be forced to reduce scope or budget to cover other projects’ overruns.

The SR 520 and Viaduct projects are considered to be priority projects. While revenue generated from the Nickel and TPA packages may fluctuate in total and other projects may have budget problems, it is assumed that program funds committed to these two projects will remain a priority for safety objectives, and will not be reduced for any reason.

RTID has not addressed the issue of the SR 520 Project overrunning its budget specifically. However, one of the requirements for all RTID projects is that they keep any cost “growth” to less than 20 percent. Failure to do so would require that project must go back before the voters to decide whether the project may continue.

Can “creative financing” fill in funding gaps?

Would bonding close funding gaps?

Bonding is sometimes offered as a strategy for closing a funding gap. Selling bonds is borrowing money to pay for construction sooner, and paying that money back — with interest — over time. Bonds do not create “new money.”

Bonds have already been used as a financing tool at the programmatic level. Part of the revenue generated by the 2003 Nickel Package and 2005 Transportation Partnership Account funding packages has been leveraged to sell bonds, and if the regional ballot measure passes, RTID is expected to sell bonds. A share of the funding to be received by the projects in these programs — including the SR 520 Project — already represent bond proceeds. Because funding streams have already been bonded, they cannot be bonded a second time.

In addition, the contribution of net toll revenues also represents bond proceeds.

Could one of the federal innovative finance programs, such as TIFIA or GARVEEs, help to close the funding gap?

The Transportation Infrastructure Finance Innovation Act (TIFIA) is a federal program that provides credit assistance to nationally or regionally significant surface transportation projects, including highway, transit and rail. Any type of project eligible for federal assistance through surface transportation programs under Title 23 or chapter 53 of Title 49, USC (highway projects and transit capital projects) is eligible for the TIFIA credit program. The TIFIA credit program consists of three types of financial assistance: secured loans, loan guarantees and lines of credit.³¹

In general, TIFIA provides a project with either an opportunity to bolster the credit-worthiness of revenues to be pledged to repayment of debt in order to seek better terms, or it provides an additional loan, thereby resulting in a higher level of borrowing for a given revenue stream. TIFIA is not an additional source of funding; rather, it is a tool intended to “strengthen” a dedicated project revenue stream that might otherwise be too variable or uncertain to fully leverage for bond sales.

Strengthening the revenue stream reduces the cost of a project by lowering borrowing costs. In the case of the taxes and fees pledged to repay the bonds to be sold under the Nickel and TPA packages, these program revenues tend to be very stable and predictable. Because the State already has an excellent credit rating (Exhibit 16), the State is able to obtain favorable borrowing terms without TIFIA. If RTID were to separately bond their revenue streams without the State providing a backstop, it is possible that TIFIA could improve their credit rating and thus lower borrowing costs.

Exhibit 16: Washington State Long Term Bond Ratings (2006)³²

Rating Service	Rating
Fitch Investors Service, Inc.	AA
Moody’s Investors Service	Aa1
Standard & Poor’s Ratings Services	AA

Another federal program involves a Grant Anticipation Revenue Vehicle (GARVEE), which is a specific type of debt financing instrument

³¹ American Public Works Association. 2005-2006. SAFETEA-LU: A Guide to Provisions Related to Local Governments.

<<http://www.apwa.net/Documents/Advocacy/SAFETEA/APWA-SAFTEA-LU.pdf>>

³² Washington State Treasurer. Accessed 9 May 2006. “Bond Ratings.”

<<http://tre.wa.gov/BondDebt/bondrate.htm>>

authorized to receive federal reimbursement of debt service and related financing costs. GARVEEs can be issued by a state, a political subdivision of a state, or a public authority. GARVEEs are a tool for accessing future federal formula grant funding earlier than would otherwise be the case to advance the timeline for financing a project. They do not represent a source of new funding, and the state has not indicated a willingness to pursue this funding option.

Does the finance plan clearly identify secured and anticipated funding sources?

For each funding source that is secured or anticipated, this plan discusses potential investment in this project and contingent factors associated with each. Secured funding sources are those for which:

- We know how much funding is available and when
- Political issues have been addressed
- Unless there are unusual and unforeseen circumstances, the funding for this project will be available as committed

Anticipated sources, by contrast, have some element of uncertainty. Perhaps an organization or agency has agreed that they will propose committing money to the project but the funding is contingent upon formal board action or upon passage of a vote of the public. Or perhaps the contribution is sufficiently distant in the future that a firm commitment in the present is not possible. Nevertheless, we can be relatively certain that the potential funding organization or agency will ultimately contribute to this project.

Exhibit 6 lists the various funding sources and categorizes them based on preliminary information available to the project in the Spring of 2006. WSDOT expects confirmation from each source, including more detailed information about commitment, funding level and timing, to be provided in August 2006.

Given the information we have today, is the finance plan feasible and sufficient to support project implementation?

WSDOT has prepared this preliminary project finance plan for the SR 520 Project. The Panel is tasked with reviewing the plan and related materials to provide recommendations to the Governor, who, in turn, must determine whether the finance plans, based on current available information, are reasonable and sufficient to complete the two projects as described in their Draft EISs.

The plan presented herein should be sufficient to help the Panel fulfill its role, as it provides the following key information:

- The most current state transportation budget and regional funding bills
- Current state, regional, and local plans that incorporate this project in their long-term view of regional transportation

- An overview of the CEVP process for estimating project costs and scheduling
- Current capital cost estimates in YOE dollars as well as available preliminary O&M estimates
- A description of each possible funding source, including indication as to whether funds are “secured” or “anticipated”, as well as a discussion of the likelihood of these funds being realized

The finance plan for the SR520 Bridge Project will be refined in the coming months, as additional information regarding anticipated funding sources becomes available, including informed predictions regarding timing, risk factors and uncertainty.