Washington State Transportation Commission

Washington State Comprehensive Tolling Study
Volume 1

Final

Report

prepared for

Washington State Transportation Commission

by

Cambridge Systematics, Inc.

CAMBRIDGE SYSTEMATICS
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September 20, 2006

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STATE OF WASHINGTON

TRANSPORTATION COMMISSION

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September 20, 2006

The Honorable Christine Gregoire
Office of the Governor
PO Box 40002
Olympia, WA 98504-0002

The Honorable Members
Washington State Senate
PO Box 40482
Olympia, WA 98504-0482

The Honorable Members
Washington State House of Representatives
PO Box 40600
Olympia, WA 98504-0600

Dear Governor Gregoire, Senators, and Representatives:

The Washington State Transportation Commission respectfully submits the enclosed Washington State Comprehensive Tolling Study, which was approved by the Commission at its meeting on September 20, 2006. The Commission appreciates your interest in and attention to the need for infrastructure investment in the state. You will notice among the eight broad recommendations in the study, it is recommended that legislative action be taken with regard to establishing a broad policy framework for tolling in the State of Washington.

Throughout our state's history we have used tolling as a tool to fund new construction of large and expensive transportation projects, with the tolls eventually going away when the debt is paid off. Today, however, we are faced with increasing traffic congestion, an aging transportation infrastructure and a significant shortfall in funding available for major new transportation projects.

In fact, this dilemma was brought home by the findings of the Expert Review Panel in its examination of the 520 Bridge project during the 2006 legislative interim. We agree with the Expert Review Panel's recommendation to give immediate consideration to the use of tolling on the 520 Bridge project. The use of tolling could expedite construction of a new facility like the 520 bridge much sooner than might otherwise be possible due to the significant amount of

revenue tolls could generate. In fact, while tolling may cost more than collecting taxes our public outreach and survey efforts across the state confirmed that people prefer a "user pays" scenario where people using the facility (the ones who derive the most benefit) are the ones who pay for it.

Through this tolling study we have learned that ideas like value pricing and HOT lanes have proven effective in not only raising funds, but in alleviating traffic congestion. As with the SR 167 HOT-Lanes Pilot Project, congestion management tolling offers a proven method for increasing the capacity of roadways where physical and reasonable fiscal constraints prevent widening or similar improvements to enhance mobility.

Another key recommendation of this study is the need to implement non-stop, highway-speed electronic toll collection on any new or enhanced facility. Electronic toll collection systems are easy to use and provide a simple, interoperable solution for a statewide approach to tolling. Because these systems eliminate the need for toll booths and allow traffic to flow at highway speeds, they have shown to be quite acceptable to motorists.

In addition to the Tacoma Narrows Bridge and State Route 167 HOT Lanes Pilot Project already in development, the study identifies the 520 bridge, Snoqualmie Pass and the Columbia River Crossing in Vancouver as other possible toll projects statewide.

We believe that the study reveals a fair and sensible approach to tolling in the State of Washington. We appreciate your support for transportation improvements statewide, and hope that these recommendations will help to expedite projects that will keep Washington moving and keep Washington's economy thriving.

Sincerely,

Richard Ford
Chairman
Washington State Transportation Commission

Enclosure

prepared for

Washington State Transportation Commission

September 20, 2006

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Final Report
Volume 1

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1.0 Proposed Washington State Tolling Policies

The culmination of the Comprehensive Tolling Study is a set of recommended policies intended to guide Washington as it develops toll facilities in the State. These policies emerged from the background research and technical analysis that is described in the remainder of this report.

Proposed Policies

1. **Overall Direction.** Washington should use tolling to encourage effective use of the transportation system and provide a supplementary source of transportation funding. That policy should evolve over time.

Short Term (within 10 years)	• Accelerate implementation of high-cost/ high-need projects, examples being SR 520, Columbia River Crossing at Vancouver, and Snoqualmie Pass. • Use price differentials as appropriate to make most effective use of the system. • Convert high-occupancy vehicle (HOV) lanes to HOV/tolled express lanes to optimize performance and maintain free-flowing service for transit, vanpools, and carpools.
Medium Term (within 20 years)	Consider potential for building additional capacity as tolled express lanes through more extensive study of long-term costs and benefits. Consider broader use of tolling to optimize system performance.
Long Term (beyond 20 years)	Consider more extensive use of tolls as the ability to build more capacity is constrained, traditional revenue sources decline, and technology advances.

2. **When to use Tolling.** Tolling should be used when it can be demonstrated to:

   - Contribute to a significant portion of the cost of a project that cannot be funded solely with existing sources; and/or
   - Optimize system performance, such as with an HOV/ Tolled Express lane.

   Such tolling should in all cases:

   - Be fairly and equitably applied in the context of the statewide transportation system; and
   - Not have significant adverse impacts through diversion of traffic to other routes.

3. **Use of Toll Revenue.** Toll revenue should be used only to improve, preserve, or operate the transportation system.

4. **Setting Toll Rates.** Toll rates, which may include variable pricing, should be set to optimize system performance, recognizing necessary tradeoffs to generate revenue.

5. **Duration of Toll Collection.** Since transportation infrastructure projects have costs and benefits that extend well beyond those paid for by initial construction funding, tolls should remain in place to fund additional capacity, capital rehabilitation, maintenance, operations, and to optimize performance of the system.

6. **State Toll Authority to Set Toll Policy.** Following broad statutory direction, the Washington State Transportation Commission, as the currently designated State Tolling Authority, should develop policies and criteria for selecting the parts of the transportation system to be tolled; propose the study of potential toll facilities; recommend toll deployments to the Governor and Legislature; and set toll rates. The Authority should engage in robust and continuous coordination with state-authorized regional or multistate entities that may propose toll facilities to the Authority.

7. **WSDOT to Implement Policy.** The Washington State Department of Transportation should be responsible for planning, development, operations and administration of toll projects and toll operations within the State.

8. **Toll Collection Systems.** Toll collection systems in the State of Washington should be simple, unified, and interoperable, and avoid attended tollbooths, wherever possible.

2.0 Introduction and Background

Purpose

The purpose of the study is to help the State make policy-level decisions on if, where, when, and how to toll by providing a practical step-by-step tolling strategy for Washington State. Although the State has had numerous toll facilities in the past, with the exception of the Washington State Ferries, there are none currently in operation. Two facilities, the Tacoma Narrows Bridge and the SR 167 High-Occupancy Toll (HOT) Lanes Pilot Project, are authorized as toll facilities and currently are under construction. There also are numerous tolling proposals in various stages of study.

Why Toll?

From the ancient turnpikes (where the gatekeeper turned the pike to allow travelers to pass after paying their toll) to the 18th century United States, and into the early days of automotive travel, tolling has been used to fund expensive highway projects.

Fast-forward to the early years of the 21st century, where traffic congestion plagues our urban areas, infrastructure built a generation or two ago is deteriorating, and we are faced with enormous gaps between transportation needs and available funds. Our instincts tell us to turn to tolling as a way to pay for new infrastructure. But the world has changed. More funding is not the whole answer. Even if we had enough money, we would likely not build our way out of congestion, particularly given the environmental and social issues.

Tolling or Pricing?
We use these similar words in subtly different ways.

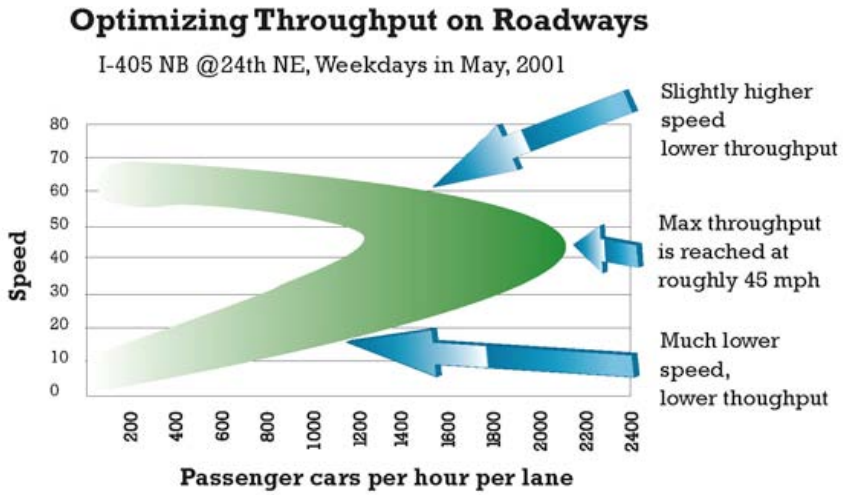
Tolling ***is a more general word, referring to any form of collecting a direct user fee on a road.***

Pricing ***refers to the practice of using price to manage traffic.***

Technology now lets us price highways to make more effective use of limited resources, just like electric companies charge more during the day than at night to save on expensive infrastructure. Just like airlines and hotels that use pricing to fill seats and rooms during slow periods.

Pricing is not just about generating funds. When applied to highways, pricing has three distinct, yet interrelated benefits.

Pricing can manage traffic to make the system flow more efficiently and reliably. When we jam too many cars onto a highway at one time, lanes that should be able to handle 2,000 vehicles per hour break down, and handle only 500 or 600. If we can manage the amount and flow of traffic that uses a highway during peak times, we can achieve the reliable movement of people and goods. If we can manage traffic effectively, it may mean that we can serve more commuters and business during the peak and the "need" for more and bigger facilities can be reduced – just like the electric utilities can avoid building new power plants if they manage peak demand. This cuts down on the cost of building our infrastructure.



Pricing saves people time, and time is money. Congestion in the Puget Sound is estimated to cost us $1.23 billion a year.[1] By pricing the system to operate more efficiently and reliably, the resulting time savings are a bonus to the economy and to society. Business people and trucks can cover more territory and waste less time, improving productivity. Parents spend less time commuting and more time with their children.

Pricing generates revenue. This revenue can contribute to the construction and operation of the transportation system.

Using tolling to fund projects in the traditional way – one by one, yields some revenue, but only a portion of the time savings is possible through pricing concepts.

A common reaction to the idea of tolling is that it represents double taxation – "I paid for this road with the gas tax." Charging a price to cross a bridge is reasonable, and is a common means of

[1] Texas Transportation Institute, *2005 Urban Mobility Study*, reflects data for 2003.

funding. Today's lack of tolls in Washington State is an anomaly – virtually all of the major bridges in Washington State were built with tolls, at toll rates ranging from $1.33 to over $23.00 when adjusted for inflation. Pricing can be seen as an extension of the current gas tax system and enhances our current roadway investment by ensuring that it operates efficiently and reliably.

We can extend this argument from traditional tolling to modern road pricing. Some parts of the system are more valuable when space is limited. Charging a premium for highway use during those periods is reasonable. The story below illustrates this point.

In his recent book, "Mobility – America's Transportation Mess and How to Fix It," Joseph M. Giglio, Executive Professor at the Graduate School of Business at Northeastern University tells an apt parable that makes the case for highway pricing.

One of the nation's most unusual movie theaters is the Bijou, in an otherwise typical Northern California town that we will call Santa Rosita to avoid embarrassing anyone.

Until four years ago, it was no different from any other small-town American movie theater trying to survive on modest ticket sales as the town's last outpost of a vaguely Art Deco Hollywood culture that had largely disappeared elsewhere. But things changed when the elderly owner died of lung cancer and his widow announced that she was going to sell out to a local real estate developer who planned to convert the Bijou into a combination private gym and sports medicine office building (with each use presumably complementing the other).

For reasons that have never been fully explained but may be obvious, this announcement created a groundswell of dismay throughout the town at the prospect of losing its only traditional movie theater. This dismay reached such proportions that the town's government found itself pressured into buying the Bijou from the owner's widow to keep it open showing movies.

And in a burst of civic enthusiasm […] the government proceeded to abolish all admissions charges. Henceforth, the Bijou would be open to everyone at no cost "just like a city park or swimming pool," the mayor proclaimed with great pride. Ever since, the Bijou's operating costs have been funded entirely by Santa Rosita's taxpayers through the municipal budget.

Needless to say, this free-movie policy has led to a considerable change in the Bijou's attendance patterns. Virtually no one goes to the movies on weekday afternoons anymore. Even on weekday evenings, the Bijou rarely has more than a handful of moviegoers.

But on weekends when the local schools and most businesses are closed, the picture changes dramatically. The Bijou is full of people eager to enjoy its free movies, with many more waiting patiently in long lines outside for seats to become available. And when the Bijou is playing an especially popular film, those waiting lines begin forming early in the morning well in advance of the noontime opening, reaching such length that Santa Rosita's police department has to assign several of its all-too-few police officers to control the crowds outside the Bijou.

On its face, this seems like a ridiculous way to operate a movie theater. Everywhere else, movie theaters charge admission for access to their seats. They even charge higher ticket prices on weekend evenings when moviegoer demand is at its peak in order to maximize their box-office revenues (which, not so incidentally, tends to spread out demand by encouraging some moviegoers to attend on weekdays when ticket prices are lower).

But the Bijou has no tickets. Access to its seats is free to everyone. That is, free in the sense of not charging any money for seat access. Considerably less than free when you consider the hours moviegoers have to wait in line for seats to become available on high-demand weekends when everyone wants to see free movies.

As ridiculous as this sounds as a system for operating movie theaters, it is exactly the way the United States operates most of its highways. Access to highway lanes is free to all motorists, regardless of the time of day or day of the week, and despite the fact that we must pay for access to every other transportation mode.

Free, that is, in the sense of not charging motorists a dollar price for each mile they travel. But scarcely free when we consider the time these motorists have to spend traveling that mile during periods of high demand when bumper-to-bumper traffic reduces average speeds to about 10 miles per hour.

Until fairly recently, we could offer the excuse that the logistical problems of directly charging motorists for highway use made the whole idea impractical. Charging for highway use meant toll booths where motorists had to stop and pay out cash from their pockets.

[…]

In a world where goods and services aren't available in unlimited quantities, some kind of quantity rationing is inevitable. In the former Leninist nations of Easter Europe, TIME RATIONING was the standard method. The prices of consumer goods were kept low enough for everyone to afford. But consumers had to spend inordinate amounts of time standing in lines to make purchases.

The alternative is PRICE RATIONING. In effect, consumers bid up the price for immediate purchase of a particular good or service until the limited quantity available balances the quantity demanded. This is how the United States rations the supply of most goods and services – with two notable exceptions. One is access to movie seats in Santa Rosita's Bijou Theater. The other is access to virtually all of the nation's roadways. These exceptions use the Leninist concept of time rationing. This favors those who value their time the least and penalizes those who value their time the most (which is not quite the same as saying that the rich and the poor are equally free to sleep under highway overpasses).

[…]

The "pay-as-you-travel" concept for funding highways has a built-in sense of "fairness" that fuel taxes can never enjoy. Now technology lets us carry the fairness concept even further by providing discounts to certain population groups such as the elderly, the disabled, and the working poor (who are often highly auto-dependent and least able to change their commuting times). By explicitly dedicating the revenue from highway charges to transportation purposes only, we avoid the negative perception dogging all government budgets that "too many of my tax dollars are used to support services that only benefit other people." Pay-as-you-travel means that motorists support the highways they use according to how much they use them.

Joseph M. Giglio, *Mobility – America's Transportation Mess and How to Fix It*, The Hudson Institute, 2005. *This excerpt is used by permission.*

Our goal is to have a transportation system that provides for the safe, reliable, timely, and effective movement of people, goods, services, and information to support Washington's economy, communities, and environment. The traditional approach has been to build – new and wider highways, more and faster transit systems. Beginning in the 1970s, we realized that there is a limit

to how much we can build, and that building has side effects. We sought ways to manage demand – saving construction dollars and reducing environmental impact.

National Trends in Tolling and Pricing

States and regions around the United States are turning to tolling. In addition to the traditional use of tolling to fund expensive bridges, tunnels and highways, there is experimentation with HOT lanes, express toll lanes, truck only lanes, cordon tolling, and mileage-based pricing.

New Types of Tolling:

HOT (High-Occupancy Toll) lanes *let lone drivers pay a toll to use a carpool lane. Prices are set to ensure that the lane remains free-flowing.*

Cordon Tolling *tolls all vehicles entering a congested downtown area during peak times to reduce congestion and improve circulation for buses. London recently implemented such a system in its congested central business district and is planning to expand the cordon.*

Mileage-based Pricing *is where all vehicles pay a per-mile fee to drive. Prices could vary by time of day, type of facility, or location. Such systems are being discussed, but none have ever been implemented.*

It was not until the popularization of automobiles in the early to mid-20th century that toll-backed financing gained renewed popularity. Starting with the Pennsylvania Turnpike in the 1930s, state after state embarked on building intercity highways using toll revenue bonds. For the most part, these new highways were developed by special purpose authorities and were financed with bonds backed by the anticipated toll collections. This era of turnpike building extended into the 1950s and early 1960s, but was mostly extinguished by the advent of the Interstate Highway System begun in 1956. Though some of these early turnpikes paid off their debt and removed their tolls, most still operate as tolled facilities, since the need to maintain, upgrade, and expand could be funded through continuing toll collection on the original facilities.

The late 1970s and 1980s saw another revival of the toll financing concept, this time focusing on urban expressways in a few fast-growing areas, where traditional revenue sources were inadequate to meet growing traffic demands.

In the 1990s and continuing into the early part of the 21st century, toll facility development continued, this time enhanced by the promise of electronic toll collection to reduce or eliminate the delays commonly associated with traditional toll roads. Electronic toll collection also opened the opportunity for new concepts in tolling, such as HOT lanes, express toll lanes, truck only lanes, cordon tolling, and mileage-based pricing. Innovations are proceeding at such a pace, whereby, it soon may be technically feasible to toll a broad spectrum of other roads, using global positioning satellites (GPS) or roadside short-range radio methods. Though the more recent activity has been more widespread than that in the 1970s and 1980s, tolling continues to be a solution primarily being done by a few states with intense traffic needs.

The advent of electronic toll collection has broadened the potential policy rationale for tolling. Whereas, the historical use of tolling has been to fund high-cost projects, it can now be used to manage congestion on a network with limited capacity. Economists have long argued that using flat user charges (the gas tax) does not reflect the true value of highway travel under congested conditions. Using price to manage demand is used in the airline, hotel, and telecommunications industries, to name a few. With electronic tolling, it can now be used for highway transportation, and many regions are starting to move in that direction.

The other growing trend is the willingness of governments to use tolls as one of several funding source, rather than requiring that a toll project be 100 percent financed from toll revenue. Government assistance has come in the form of grants, impact fees, and credit enhancements, and some regions have developed tolling policies aimed at using the revenue stream from mature toll facilities to help new toll facilities get a start.

New Types of Tolling:

FAIR (Fast and Intertwined Regular Lanes) *is a special type of tolled express lane. Drivers in the express lane would pay a toll, but drivers in the regular lanes would receive toll credits (electronically). The toll credits could be used on future days, when the driver really needed to be somewhere on time. This idea addresses the concern that HOT lanes are only affordable for the wealthy – people can save up credits to use when needed.*

Since some of the money collected from the express lane is re distributed to drivers of the regular lanes, FAIR lanes are not expected to contribute much money to construction. However, a FAIR lane does provide a priced lane that can be managed to be congestion-free.

Growing Interest in Public Private Partnerships

With a few exceptions, tolling in the United States has historically been carried out by public and quasi-public agencies, since such agencies could take advantage of the lower finance costs offered by the tax-exempt municipal bond market. Recently, governments responsible for delivering and maintaining the transportation system have been increasingly open to private sector proposals to operate, finance, construct, and maintain toll highways. The Dulles Greenway (Virginia), SR 91 Express Lanes (California), and Greenville Southern Connector (South Carolina) are all examples of privately developed toll roads. What started as a few public private partnerships (PPP) a decade ago has grown into a national trend, with Texas, Georgia, and Virginia actively pursuing and fielding proposals from the private sector to develop transportation infrastructure.

There are many lessons to be learned from the experiences, both good and bad from PPP initiatives around the country. One of the most challenging aspects is aligning the interest of the public and private sector such that they can achieve a win-win outcome. At the direction of the Legislature, the Commission is actively considering through a separate effort how public private partnerships might be most effectively used to improve the Washington transportation system, including tolling. For this tolling study, we have made the assumption that any tolling undertaken through public private partnerships would be consistent with both tolling and public private partnership policies of the State.

Tolling in Washington State Is Not New

Virtually all of the major bridges in Washington State were built with tolls. Even with the fuel tax as the primary engine to fund the transportation system, it is reasonable to charge people more for facilities that cost more to build than a typical stretch of highway. Two bridges between Oregon and Washington are still tolled: Bridge of the Gods (owned by the Port of Cascade Locks in Oregon), and Hood River Bridge (owned by the Port of Hood River in Oregon).

Historical Use of Tolling in Washington (Selected Toll Bridges)

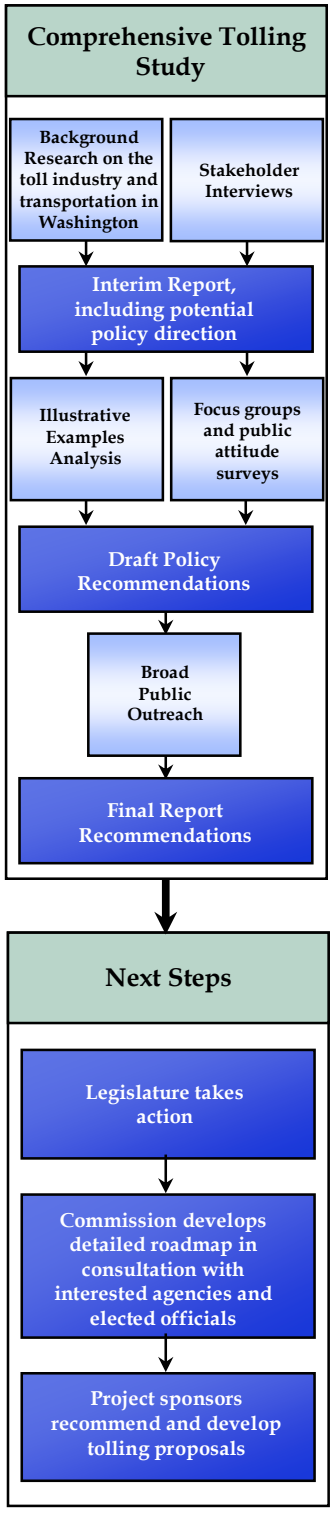
Bridge	Toll Collected	Toll[a]	Initial Toll Converted to 2005 Inflation-Adjusted Dollars
Longview (SR 433) *(Built in 1930, Purchased in 1947)*	1930-1965	$1.00	$23.02
Lacey V. Murrow Memorial Bridge (I-90) *(First Lake Washington Bridge)*	1940-1949	$0.50	$6.86
Tacoma Narrows Bridge (SR 16) *(First Bridge)*	1940-collapsed	$1.10	$15.10
Agate Pass Toll Bridge (SR 305)	1950-1951	$0.50	$3.99
Tacoma Narrows Bridge (SR 16) *(Second Bridge)*	1950-1965	$1.00	$8.77
Fox Island Bridge (SR 303)	1954-1965	$0.75	$5.36
Port Washington Narrows Bridge (SR 303)	1958-1972	$0.20	$1.33
Maple Street Bridge – Spokane	1958-1990	$0.10	$0.67
Vancouver/Portland Bridge (I-5)	1960-1966	$0.40	$2.60
Hood Canal Bridge (SR 104)	1961-1979	$2.60	$16.71
Biggs Rapids Bridge (U.S. 97) *(Sam Hill Memorial Bridge)*	1962-1975	$2.00	$12.73
Evergreen Point Bridge (SR 520) *(Second Lake Washington Bridge)*	1963-1979	$0.70	$4.40
Vernita Toll Bridge (SR 24)	1965-1976	$1.50	$9.15
Hood Canal Bridge (SR 104) *(Rebuilt)*	1982-1985	$4.00	$9.96
New Tacoma Narrows Bridge (SR 16)	*Planned for 2007*	*NA*	*$3.00[b]*

Source: Washington State Department of Transportation.

[a]Toll fees shown are round-trip charges for a vehicle and driver only.

[b]Toll to be set by Transportation Commission in 2007.

How Does the *Comprehensive Tolling Study* Address the Issues Facing Washington?



When it opens in 2007, Tacoma Narrows Bridge will be the first nonferry tolling project in Washington since tolls were removed from the Hood Canal Bridge in 1985. Washington also is developing a nine-mile HOT lane project on SR 167 from I-405 in Renton to 15th Street SW in Auburn set to open in 2007 to 2008 for a four-year experimental period. These projects have not been without their controversies, and if Washington wants to move forward with the tolling concept on other parts of its system, it needs to develop a consistent decision-making framework to ensure equitable treatment around the State. To this end, the Legislature directed the Washington State Transportation Commission (the Commission) to carry out this study.

The study began with a two-pronged effort. The first prong was designed to orient the Commission to trends and issues surrounding tolling in the United States and around the world, from the perspective of the kinds of issues Washington is facing. The second prong involved interviews with stakeholders around the State to gain their perspectives on tolling issues.

This first phase of the work culminated in an Interim Report published in January 2006, which included a policy analysis and eight background papers. The policy analysis represented the Commission's interim recommendations on tolling policy. The Commission and consultants presented this interim material to the Transportation Committees of the House and Senate.

The second phase of the project involved evaluating several illustrative examples of potential tolling deployments in Washington, as well as statistically valid attitude research with Washington voters surrounding the issue of tolling. The results of this work were documented in two additional background reports, and formed the basis of continuing discussion with the Commission about the implications for toll policy in Washington.

These discussions led to a set of proposed tolling policies for Washington, contained in this report.

Background Materials

More detailed background papers are contained in Volume 2 of this report addressing these issues:

1. National Perspective: Uses of Tolling and Related Issues;
2. Ascertainment Interviews: Opinions of Selected Washington Community Leaders;
3. Organizational and Administrative Structures for Tolling;
4. Equity, Fairness and Uniformity and Tolling;
5. National Perspective Public Attitudes and Perceptions;
6. Limitations of Studies Used to Advance Toll Projects;
7. Tacoma Narrows Bridge Toll Policy;
8. Toll Technology and Operations Considerations;
9. Illustrative Examples Report;
10. Legal and Regulatory Issues; and
11. Public and Stakeholder Outreach.

Appendix A – *A Two-Phase Study of Attitudes of Washington State Voters Toward Transportation Issues*, prepared by Gary C. Lawrence, Lawrence Research, April 11, 2006.

3.0 Policy Questions

As the consultant team worked with the Commissioners to explore tolling issues in Washington, we found it helpful to organize the analysis into a series of policy questions:

1. What role can tolling play in developing and managing Washington's transportation system?

2. How should Washington determine which parts of the system to toll or price?

3. What rules should govern the use of toll revenue?

4. What rules should govern setting toll rates?

5. What is the most appropriate governance and organizational structure?

6. How do technology and toll operations influence toll policy?

7. How do equity, fairness, and uniformity issues influence toll policy?

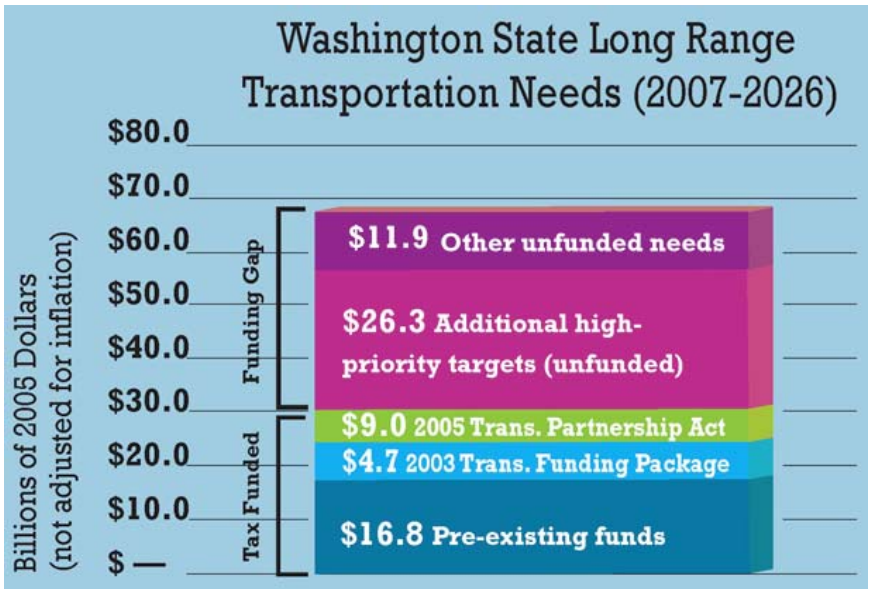
8. What are the implications of alternative toll policies at the Tacoma Narrows Bridge?

The answers to these questions formed the basis of the Interim Report published in January 2006, and was used to test some of the key ideas in the focus groups and attitudinal research conducted in the spring of 2006. These policy questions also were the basis for selecting the illustrative examples of potential toll projects.

The rest of this section explores the eight policy questions again, from the perspective of the additional investigation and discussion since the Interim Report, and points the way to the policy recommendations shown in Section 1.0.

Question 1
What role can tolling play in developing and managing Washington's transportation system?

The Commission recommends that Washington adopt a statewide pricing policy that encourages effective system management. Tolling should also be used to provide a supplementary source of funding for appropriate projects. In all cases, diversion and system efficiency objectives should be recognized.

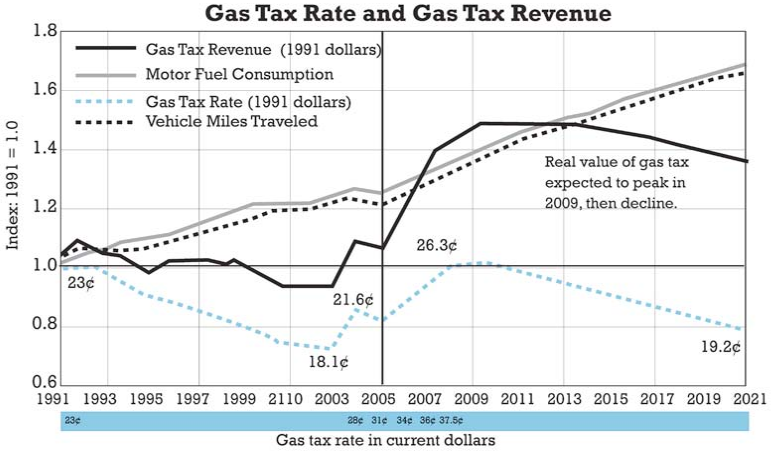


In preparing the current 20-year Washington Transportation Plan, the Commission has estimated that there is a $38.2 billion gap between Washington's transportation needs and expected funding. Raising these funds with the gas tax alone would mean an increase of about 50 cents per gallon starting in 2009, with subsequent increases to track inflation.[2] When faced with the need to fund expensive infrastructure such as bridges, tolling has the potential to supplement the funding plan to enable projects to be built before they could with a limited gas tax funding pool. When asked, we found that people prefer a "user pays" scenario to a tax increase.

Over time, both inflation and improved fuel economy will take a bite out of the buying power of the gas tax. Although it costs much more to collect tolls than taxes, there is a growing concern around the country that is leading many analysts and leaders towards taxes based on vehicle miles traveled to replace the fuel tax at some point in the next 20 or 30 years.

[2] Source: WSDOT Gray Notebook and Transportation Planning Office.

Growth Comparison of Vehicle Miles Traveled, Motor Fuel Consumption, Gas Tax Rate and Gas Tax Revenue



Tolls also can be used to restore the balance between transportation system supply and demand. For example, pricing a highway with higher tolls imposed during periods of peak demand can cause travelers to consider the value of their trip and either switch to nonpeak times, carpool, switch to transit, or change their destination. Taxes cannot accomplish this.

When transportation demand better matches capacity, the entire system flows better. These time savings provide real economic value that exceeds the cost of the tolls being paid.

If we "toll" a bridge, it might generate a revenue stream, perhaps $50 million per year.

If we "price" the bridge to optimize flow we add to that the value of time savings.

If 40,000 people a day save 15 minutes the value of the time savings alone (not counting fuel and emissions) is another $30 million per year.

Pricing can be applied in a variety of ways. Express toll lanes and HOT lanes are being advanced around the country, and HOT lanes are being tried in Washington on SR 167. Variable pricing by time of day on bridges can help spread traffic demand beyond the peak travel periods. Trucks transporting freight congest traffic during peak use periods, and differential truck tolls during these times might cause the logistics supply chain to operate differently to let trucks travel at night and, therefore, make better use of overall system capacity. Truck-only toll lanes also are a possibility.

Ultimately, pricing the entire system will be technically possible, yielding the greatest travel efficiency and reliability while providing a revenue stream, giving us two ways to get the most benefit from our limited transportation budgets.

It is impossible for Washington to build its way out of congestion, yet it needs to upgrade highways that are functionally or structurally deficient. Pricing can help Washington make the most of its limited infrastructure, by managing flow – in some cases, potentially eliminating or reducing the need for expensive construction. Pricing to optimize the system also can generate

revenue that can contribute to construction or rehabilitation of the system. Where management alone is not enough to address traffic and infrastructure needs on expensive parts of the system (e.g., bridges), tolls can supplement the funding of projects, as long as they are integrated within a comprehensive performance and management strategy.

Pricing highways to the extent described is not "business as usual" – it is a significant change from the current system. It will cause people to rethink the way they do business and the way they organize their lives, and such rethinking may be uncomfortable.

Tolling is not a panacea. It will not be able to fund the $38.2 billion funding gap on its own. But it can contribute needed revenue, and some system management efforts could potentially reduce the need for future capacity expansion.

As a result of the research and analysis done as part of this study, the Commission has developed the following policy recommendation that provides the basic framework for tolling in Washington:

Policy 1: Overall Direction – *Washington should use tolling to encourage effective use of the transportation system and provide a supplementary source of transportation funding. That policy should evolve over time.*

Short Term (within 10 years)	• *Accelerate implementation of high-cost/high-need projects, examples being SR 520, Columbia River Crossing at Vancouver, and Snoqualmie Pass.* • *Use price differentials as appropriate to make most effective use of the system.* • *Convert HOV lanes to HOV/tolled express lanes to optimize performance and maintain free-flowing service for transit, vanpools, and carpools.*
Medium Term (within 20 years)	*Consider potential for building additional capacity as tolled express lanes through more extensive study of long-term costs and benefits.* *Consider broader use of tolling to optimize system performance.*
Long Term (beyond 20 years)	*Consider more extensive use of tolls as the ability to build more capacity is constrained, traditional revenue sources decline, and technology advances.*

Questions 2 through 8 below address some of the main issues surrounding these changes, and the additional policies that support this primary objective.

Question 2
How should Washington determine which parts of the system to toll or price?

While pricing all highways may be the most effective way to manage transportation system performance, the reality is that such a system may be many years off. Washington needs a decision framework to determine where, when and how road pricing or tolling should be applied. The decision framework should depend on objective criteria applied consistently around the State, and should recognize the primary motivation involved in applying price to different parts of the system.

In the Interim Report, we suggested that tolling or pricing should be considered where these primary criteria are met:

1. Pricing optimizes system performance on new capacity. Examples would be new express toll lanes (with or without special treatment for HOV), or special toll lanes for trucks.

2. Pricing optimizes system performance on existing capacity, perhaps in lieu of an eventual need for new capacity. An example would be conversion of existing HOV and/or a general purpose lane to HOT or express toll lanes. Another example could be pricing existing freeway in a congested area to manage traffic into and within a specific area.

3. The cost of a project so high as to not be affordable using only normal tax-based funding.

4. Tolls yield enough money to support a defined proportion of the system construction, operations, and maintenance expenses.

These criteria presume that the transportation system component being evaluated provides enough benefits to warrant the cost of construction. In addition to the basic criteria above, supplemental criteria should be considered to protect against unintended consequences or impacts:

- **Diversionary Impacts –** The proposed tolling action should not cause unreasonable levels of diversion to other facilities that may not be able to handle the additional demand.

- **Operational Feasibility and Safety –** The pricing policies need to be carried out in a safe and effective way. If pricing causes degraded operations or undue safety problems, projects should not move forward.

- **Economic or Social Impacts –** If a proposed pricing strategy results in undue economic hardship or social impacts to particular segments of the population, that could either be cause to not move forward with the pricing project, or to make sure that such impacts are mitigated.

The following policies regarding criteria emerged from consideration of these issues:

Policy 2: When to use Tolling – *Tolling should be used when it can be demonstrated to:*

a. *Contribute to a significant portion of the cost of a project that cannot be funded solely with existing sources; and/or*

b. *Optimize system performance, such as with an HOV/Tolled Express lane.*

Such tolling should in all cases:

a. *Be fairly and equitably applied in the context of the statewide transportation system; and*

b. *Not have significant adverse impacts through diversion of traffic to other routes.*

Question 3
What rules should govern use of toll revenue?

Traditionally, tolls were used to fund projects or systems of projects, and when the debt used to finance the projects was paid off, the tolls were removed. This was the case for the 14 toll bridges built in Washington, and is a general pattern historically around the United States. However, this approach did not provide for the eventual need for major capital repair or replacement after the tolls were removed.

The policy framework outlined in Questions 1 and 2 is one that emphasizes the importance of transportation facilities being operated as a system. This system perspective also should influence the use of toll revenues, with tolls used to:

- Pay for toll system operation and maintenance;
- Fund (in whole or in part) construction and maintenance of tolled highways, including capital rehabilitation; and
- Fund-related parts of the transportation system, potentially, including transit. Using toll revenue for transit can be helpful at addressing perceived issues of pricing benefiting only the rich.

A related question is whether toll revenues collected on specific facilities should be dedicated to a geographically constrained area. Managing tolling and pricing from a true system perspective would point towards no geographic constraints on the use of funds.

There also is a compelling reason for tolls to remain after the initial construction costs are paid off. First, the system management benefits of tolling cannot be achieved without the tolls. Second, highways and bridges are never really "paid off."

Capital rehabilitation is always needed for every transportation system, and there is evidence of this in Washington. Tacoma Narrows, Evergreen Point, Hood Canal, and Columbia River bridges were all tolled, yet it has been difficult to find funds for capital rehabilitation.

The result of deliberation on rules to govern use of toll revenue led to the following proposed policies:

Policy 3: Use of Toll Revenue – *Toll revenue should be used only to improve, preserve, or operate the transportation system.*

Policy 5: Duration of Toll Collection – *Since transportation infrastructure projects have costs and benefits that extend well beyond those paid for by initial construction funding, tolls should remain in place to fund additional capacity, capital rehabilitation, maintenance, operations, and to optimize performance of the system.*

Question 4
What rules should govern setting toll rates?

The usual practice around the United States has been to set toll rates as low as possible and still cover annual debt service payments of a construction bond. However, a toll policy that puts system management objectives first needs to reflect other considerations.

Washington already has a statewide toll policy on the Washington State Ferries system. The ferry toll policy establishes tolls for vehicles, which vary by vehicle size, and for passengers, with a variety of special rates for particular groups such as seniors, youth, and frequent users. Ferry tolls also vary by the length of the route and include seasonal surcharges. However, the fares have no relationship to the specific capital or operating costs of particular routes – they are priced as a system. A system of highway toll facilities also could be operated and financed as a system with toll rates set on a system rather than a facility by facility basis.

When pricing purely for system management the objective is to manage traffic congestion. The prices, therefore, should be those that best achieve that result. In the case of a managed lane where the objective is to maximize flow and reliability in that lane, tolls will need to rise to the level required to maintain the desired traffic flow.

When the revenue potential of a toll project is important, the issue becomes a little more complicated. The toll rates that maximize revenue might not be the same as those that maximize system efficiency.

In considering the practical issues of setting precise guidelines, the Commission thought that case-by-case considerations might have more influence in actual decision-making, leading the following policy:

Policy 4: Setting Toll Rates – *Toll rates should be set to optimize system performance, recognizing necessary tradeoffs to generate revenue.*

Question 5
What is the most appropriate governance and organizational structure?

There are numerous issues to consider when structuring governance and organization of tolling functions in Washington, and these are covered in detail in Background Paper No. 3 contained in Volume 2. At the top level, however, are three key concerns: 1) managing the customer's experience; 2) determining who decides when, where and how to toll; and 3) developing the most effective way to operate multiple facilities.

Virtually everyone involved in discussions of this topic (Commissioners, WSDOT, consultants) agreed that the toll customer experience should be consistent and simple across all

toll facilities. This requires that there be a common means of toll collection using one "gizmo," one customer service number, and one invoice, implying that these functions should be centralized, and probably handled somewhere within the WSDOT organization.

The Commission's internal debate on governance issues found some favoring a strong state role in advancing parts of a tolled system, while others felt that the impetus should come from the regions. Regardless, there was consensus that the structure should allow for a way for regions or localities to initiate proposals for tolling within the framework of their normal transportation planning process. It is preferable for tolling to be "invited in" by a region, rather than having tolls be imposed by the State. Regional entities should have the option of placing funding packages before the public in referendum form that include both new funding sources and tolling.

Earlier in Question 2, we asked, "*How should Washington determine which parts of the system to toll or price*?" Part of our recommendation was to have objective criteria applied consistently around the State. The benefits and costs of solutions to manage congestion are most directly felt at the regional level, so a high level of regional involvement in these decisions is appropriate. The balance between local or regional initiative and consistent policy at the statewide level should account for these concerns:

- A way to combine funds from regional or local entities with state or Federal funds.

- A set of specific, consistent criteria, potentially administered through WSDOT, that should be met before tolling or pricing are implemented.

- A means of advancing projects that meet the policy criteria without Legislature action. The authority to approve such projects should rest with the Commission or some other statewide tolling authority, working with information provided by WSDOT.

Our discussions led to two similar, yet subtly different approaches to governance.

- **Centralized Statewide**, whereby all project selection and configuration decisions are made centrally. Within this state-level function, however, localities or regions could initiate projects and work with the central administration to advance them

through the planning, design, construction, and operation process. Ultimate decision authority, however, would reside within this central body.

The advantages of this governance structure are that there is a single tolling agency for all levels of project and system development with the potential for close coordination with overall WSDOT project programming. This allows all tolling expertise to be assembled in a single organization, and is the most direct way to achieve statewide consistency in policy. A Statewide Tolling Oversight Committee, which could be the existing Transportation Commission would provide policy direction. Regional representation on this committee would provide some level of regional voice, although not as direct or as strong as under the second option.

The disadvantage of a centralized governance structure is that it may be less effective at generating local or regional support for tolling solutions than a structure with more direct regional initiative.

- **Regional plus Statewide**, which allows local or regional tolling authorities to be created to advance projects or systems, with the State leading decision-making in rural areas or areas that cross regional boundaries. These regional authorities would collaborate with other regional entities on where or how to toll different parts of the system to advance regional goals. This builds upon the ideas that have led to the creation of Regional Transportation Improvement Districts, or similar regional entities. To avoid duplication of specialized functions and expertise, detailed project development, operations, and maintenance activities would always be carried out by WSDOT.

  The chief advantage of this approach is that it allows regional champions to move projects and systems into the forefront rather than waiting for a state-level champion. The closer connection to the regional support base is viewed by many experts in the toll industry as critical to the success of urban toll facilities. As with the centralized statewide concept, the tolling expertise can be kept centralized.

  The disadvantage of this approach is that it requires commitment to continual organizational and operational communication between the regional- and state-level toll agencies. There also is the potential for some redundancy in skills between the state and regional level.

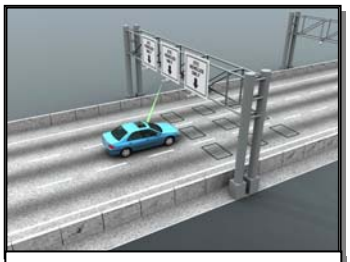
The commission weighed the desire for regional initiative with the importance of consistency of policy setting around the State. It recommends that governance of tolling be carried out through a centralized authority with robust and continuous regional input that includes the right to propose projects. In practice, this would mean that the centralized authority would set forth overall policy and criteria for determining which parts of the system could be tolled. Regions could initiate and pursue studies in accord with those criteria, and ultimately apply to the centralized authority for permission to toll. The centralized authority would be responsible for determining consistency with the criteria, and for setting toll rates.

The day-to-day administration of tolling operations, including system development functions (i.e., studies, design, system architecture, technology) would be by WSDOT.

The following two policies emerged from this discussion:

Policy 6: State Toll Authority to Set Toll Policy – *Following broad statutory direction, the Washington State Transportation Commission, as the currently designated State Tolling Authority, should develop policies and criteria for selecting the parts of the transportation system to be tolled; propose the study of potential toll facilities; recommend toll deployments to the Governor and Legislature; and set toll rates. The Authority should engage in robust and continuous coordination with state-authorized regional or multistate entities that may propose toll facilities to the Authority.*

Policy 7: WSDOT to Implement Policy – *The Washington State Department of Transportation should be responsible for planning, development, operations, and administration of toll projects and toll operations within the State.*



Open road tolling allows vehicles to pay tolls without stopping at toll booth.

Question 6
How do technology and toll operations influence statewide toll policy?

The most obvious technology consideration related to tolling is that customers expect a simple, interoperable toll system with a minimum of hassles. Delivering on these customer expectations is not trivial. Currently, WSDOT is working toward a system with a centralized customer service center and one point of contact for all operations. And, if private companies are invited to develop toll facilities, there is an additional layer of complexity to insuring that private tolls facilities are operated under the specifications identified by the State.

With recent advances in toll collection technology, it is reasonable to ask whether there is still a role for manual toll collection. In the immediate term, toll collection at highway speeds without toll attendants (called "open road tolling") is appropriate for high volume, urban settings with limited right-of-way, including all express toll and HOT lanes. Open road tolling should be combined with manual toll collection at lower volume locations with a lower percentage of repeat customers. Over time, technology and national standards are likely to develop to the point that manual toll collection would not be required anywhere.

Moving to open road tolling brings up privacy issues. To date, participation in electronic toll collection programs has been voluntary. Any toll system that requires the use of electronic toll collection will require unique identifiers of individual vehicles be used to record time and location of a toll transaction. At least some segment of the population will oppose any new technology that may enable the government to monitor their movements beyond the toll collection purposes.

Current Washington State law prohibits the release of individual toll collection records to third parties, but does allow media access to transit smart card information. Once open road tolling, which will enable toll collection without transponders, is deployed the same protection should be extended to the patrons without transponders.

Policy 8 addresses technology considerations:

Policy 8: Toll Collection Systems – *Toll collection systems in the State of Washington should be simple, unified, and interoperable, and avoid attended tollbooths wherever possible.*

Geographic ***equity refers to issues surrounding how one part of the State is treated compared to another.***

Income equity ***refers to concerns about the ability of low-income people to access tolled facilities.***

Question 7
How do equity, fairness, and uniformity issues influence toll policy?

Proposed projects in numerous states have failed due to the perceived inequity associated with tolls and pricing. Even in areas with existing toll facilities, new toll proposals are not immune from fairness criticisms. Common criticisms include: "We've already paid for this road," or, "It's not fair I must pay a toll, when XYZ community across town does not," or "tolling my project frees up funds to be used elsewhere in the State" or, "Toll roads only benefit the rich." Left unanswered, these issues of geographic and income equity may overwhelm public opinion and potentially elicit legal concerns.

There are no easy answers to what is fair from a geographic perspective. Selecting any project (tolled or not) in an environment of resource shortfall relative to needs involves a political choice. Political choices, by their nature, involve winners and losers for any given snapshot of time. Therefore, the framework for choosing toll policies and projects over an extended period of time must be consistent and the process must be fair. What this means is that any toll policies that might emerge from this study should be carried out statewide, and incorporated into the larger project development and selection process.

Sometimes, economically disadvantaged populations cannot take advantage of the benefits of tolled projects. For example, if using a toll project requires a transponder, and you need a credit card or bank account to get one, then some people are denied access to the project. Such a concern can be addressed by allowing cash accounts or other ways of using the system. In other cases there may be concerns about people's ability to pay the tolls, especially if there are no alternatives. In these cases, the use toll revenue to subsidize transit services, or toll payment assistance could be appropriate.

It is important to remember that toll projects are intended to bring benefits to the communities that they serve – benefits that might not occur if the project did not happen. Policies 2, 3, and 9 address the equity issues:

Policy 2: When to use Tolling – *Tolling should be used when it can be demonstrated to:*

a. *Contribute to a significant portion of the cost of a project that cannot be funded solely with existing sources; and/or*
b. *Optimize system performance, such as with an HOV/Tolled Express lane.*

Such tolling should in all cases:

a. *Be fairly and equitably applied in the context of the statewide transportation system; and*
b. *Not have significant adverse impacts through diversion of traffic to other routes.*

Policy 3: Use of Toll Revenue – *Toll revenue should be used only to improve, preserve, or operate the transportation system.*

Question 8
What are the implications of alternative toll policies at the Tacoma Narrows Bridge?

The legislation mandating this study[3] directed "the development of more uniform and equitable policies regarding the distribution of financial obligations imposed on those paying the tolls on the Tacoma Narrows Bridge." The implication of these words is that the Legislature may consider the current policies to be *less* uniform and equitable than desired. We understand the concerns of Tacoma Narrows Bridge users to be as follows:

- With the exception of ferries, the Tacoma Narrows Bridge will be the only toll facility in Washington, and tolls pay for almost 100 percent of the new span.[4]
- There are other high-value/high-cost facilities in the State that are not tolled.
- Although there are tolls on the ferries, tolls pay none of the capital costs, and only part of the operating cost.
- Therefore, users of the Tacoma Narrows Bridge feel they have been singled out for special treatment, in that they will have to pay tolls, while users of other facilities do not. This is the source of the characterization of the tolls on the Tacoma Narrows Bridge as less uniform and equitable.

About Tacoma Narrows Bridge Tolls

The toll structure proposed for the Tacoma Narrows Bridge (TNB) involves a $3.00 eastbound toll for all vehicles once the new bridge opens in 2007, with toll increases every three years in $1.00 increments until a maximum auto toll of $6.00 is reached in 2016. Starting in 2008, vehicles with more than two axles would be charged a higher toll in proportion to the number of axles (capped at a six-axle maximum toll). These were the toll rates that WSDOT used in developing its financial plan for the bridge project in 2002, and are subject to change based on the Commission's toll-setting authority.

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[3] *ESSB 6091, Section 206, (1)(a).*

[4] WSDOT indicates that there are significant portions of the SR 16/ Tacoma Narrows Bridge projects that are paid for by tax revenues; therefore, the project is not 100 percent paid for from tolls. However, this does not change the fact that Tacoma Narrows currently is the only nonferry toll project in the State.

WSDOT has studies underway looking at alternative toll rates that would achieve the goals of rapid market penetration of electronic transponders, effectively managing traffic, and motorist and user satisfaction. Some of these toll schedules might involve differential rates by user category and/or time of day.

The bonds for the Tacoma Narrows Bridge are obligations of the motor vehicle fuel tax fund. State law says:

- TNB toll collections **must** be adequate to semi-annually fully reimburse the motor vehicle fund;
- Tolls **must** remain on until bonds are repaid;
- Tolls **must** be removed when bonds are repaid; and
- Tolls **may** be used to fund operations and maintenance, but unless legislature provides these funds, tolls must cover these expenses.

In practice, any transfers to the TNB fund will lessen the toll levels required to fully reimburse the motor vehicle fund – a "buy-down." The bottom line is that the Commission does not have the authority to take action to reduce expected toll revenue needed to meet state law. Therefore, the only action that the Commission may take to reduce the amount of money paid by direct users of the Tacoma Narrows Bridge is to recommend to the Legislature that additional budget be provided to make up any shortfall. However, revenue-neutral changes in toll structure are allowed.

Alternative Tolling Approaches

We looked at three general approaches to changing the toll structure on the Tacoma Narrows Bridge.

The first approach involved allowing frequent users to have reduced toll rates (**Scenario 1**). There are numerous ways to do this, but a typical plan might involve letting frequent users pay a $9.00 monthly fee to allow them half-price tolls, with increases in the fee and toll amounts as regular toll rates increase. Anyone making more than two trips across the TNB per week would benefit from this program, meaning that almost 55 percent of trips would receive a frequent user discount. This is projected to result in 4.7 million more vehicle trips (+1.18 percent) and a $358.3 million loss in revenue (-16.14 percent) over the 2007 to 2030 forecast period. There will also be some additional operations costs associated with administration of the TNB Discount Program. The revenue shortfall would need to be made

up from other sources or from increases in the toll for those who are not frequent users.

Someone using the bridge twice per week would save 13 percent, and someone using the bridge five times per week would save 36 percent on tolls. Higher frequencies would see higher savings. Discounts for frequent users do shift the financial burden of paying for the bridge from those users. This discount plan, however, does potentially work at cross-purposes to other potential objectives of tolling on Tacoma Narrows Bridge, i.e., to manage traffic flow.

WSDOT is in the process of conducting studies of alternative toll schedules to these goals of the Tacoma Narrows Bridge "Good To Go" tolling program: 1) rapid market penetration of toll transponders; 2) reduce and manage backups at the toll plaza during the morning commute, especially during the first week of operation and during rehabilitation of the existing span; and 3) maintain a high level of "Good to Go" user satisfaction. Those studies are expected to be complete in spring 2006, and will be used to inform the Commission's deliberations on toll setting on the Tacoma Narrows Bridge.

The second approach involves reducing the amount of tolls paid by all bridge users, i.e., a buy down of the toll amount. In Scenario 2, the opening year toll would be reduced to $2.00 for passenger cars (instead of $3.00), with scheduled toll increases topping out at $5.00 in 2016 (instead of $6.00). This would result in a shortfall of $391 million over the life of the bonds (through 2030), or 18 percent of total toll collections. Under Scenario 3, passenger car tolls would be kept constant at the opening year rate of $3.00, and would not increase with inflation. The impact of this would be even more significant, with a $942 million (42 percent) shortfall that would need to be made up from other sources.

Any of Scenarios 1 through 3 would require that the Legislature find substitute funding to cover the lost toll revenue. The geographic equity issue at TNB could be addressed in a different way, as in Scenario 4.

Scenario 4 does not involve any changes to the toll rate on the Tacoma Narrows Bridge. Rather, it relies on future policy decisions that might be made by the Legislature. If significant use of tolls is advanced to fund major projects in Washington, then customers of the Tacoma Narrows Bridge will no longer be a special case. This is not to say that there might not be details to be worked out related to equitable toll amounts on future toll

projects, but that issue is being addressed in the remainder of the tolling study.

Commission Recommendation

The main issue at the Tacoma Narrows Bridge is that users of that facility will be the only highway users (with the exception of those using ferries) that have to pay a toll. This Comprehensive Tolling Study outlines a broad strategy for advancing tolling in Washington in numerous ways. If the Legislature accepts these recommendations, Tacoma Narrows Bridge users will no longer be the only toll payers in the State, thereby accomplishing the directive to develop a more uniform and equitable policy regarding the distribution of financial obligations.

4.0 Legal Issues and Proposed Implementation Plan

This Comprehensive Tolling Study presents a set of proposed policies designed to guide development of tolling projects in Washington State. Additional actions will be needed to implement these policies. This section provides an overview of the legal issues related to tolling, including potential legislative action that may be needed to carry out the proposed policies, as well as recommendations for near term action items to advance the recommendations.

Legal Issues Related to Tolling

Once the proposed policies were developed, Foster Pepper PLLC analyzed the legal issues that might be involved in implementing the policies. These issues are detailed in Background Paper #10, and summarized below.

High-Level Direction

In 2005, the legislature repealed many restrictions on tolling specific facilities that had previously borne tolls until related bond issues were paid off. At the same time, lawmakers required that no new tolls could be imposed on state highways or bridges without express statutory authorization. This raises the basic policy question of whether future decisions to impose tolls should be made by elected lawmakers on a case-by-case basis, or whether tolls should be imposed by the Transportation Commission or WSDOT pursuant to basic policies and a process established by the legislature.

To implement Proposed Tolling Policies 1, 2, 6, and 7, it would be appropriate to enact legislation by which the legislature would establish the basic policies and criteria governing the imposition of tolls in Washington State. These policies would provide "high-level" direction to the Transportation Commission and WSDOT, and they might be similar to the Study's Proposed Tolling

Policies. The legislation should also specify the responsibilities of the legislature, the Transportation Commission, WSDOT, local, and multistate entities, respectively, in proposing and selecting facilities for tolling, in rate-setting, and in implementing tolls.

Tolling Authority and Other Units of Government

Under existing law, the Transportation Commission is the basic tolling authority in the State. There is, however, authorization for special purpose subunits of government to establish tolls. These include a Regional Transportation Improvement District in the central Puget Sound area, local Transportation Benefit Districts, and cities and port districts. Tolls established by some of these local districts must also be approved by the Commission and by the voters within the jurisdiction establishing the tolls.

To implement Proposed Tolling Policies 7 and 8, various statutes would need to be amended to clarify the scope of the state tolling authority's role and responsibilities with respect to local tolls. For example, in order to ensure operational coordination and consistency, legislation should delineate the procedures for approving new local toll projects. Statewide polices (perhaps refined by WSDOT and the Transportation Commission) should delineate specific practices related to toll collection activities. It may be appropriate to require that prior to imposing tolls on any streets, highways or bridges, all local governments would be required to obtain approval from the Transportation Commission, as tolling authority. Where voter approval is required before new tolls can be imposed, perhaps Commission approval should be obtained before submitting a measure to the electorate.

Tolls on Federally Funded Facilities

Tolls on Federally funded facilities (e.g., interstate highways) are generally prohibited by Federal law, although there are some exceptions, such as for "HOT lanes" and "reconstruction" of existing bridges. Also, Congress has established various programs (including specific demonstration programs) that enable tolling of certain types of projects proposed by states and selected by the Federal Highway Administration (FHWA).

To implement Tolling Policies 1 and 2 with respect to Federally funded highways, Washington State will need to act swiftly and decisively to identify those facilities, to implement the basic policy and legal framework for tolling, and to apply to the FHWA for clearance to impose tolls (including being included in

demonstration programs). To the extent necessary, Washington should work with its Congressional Delegation to support amendments to Federal law, including the continuation of pilot programs, so that the FHWA approval may be obtained where necessary the State's tolling policies and program.

Use of Toll Revenue

Apart from statutes providing for State Ferry tolls (RCW 47.60.150 and .326), for SR 167 HOT lanes (RCW 47.56.403), and for the use of Tacoma Narrows Bridge tolls to reimburse the Motor Vehicle Fund for debt service on bonds issued to construct that facility (RCW 47.56.165), State law does not currently address the disposition of revenue from tolled facilities. To implement Proposed Tolling Policies 3 and 4, legislation, and more detailed policies, should address the accounting and disposition of toll revenues to pay for toll system operation and maintenance, to fund construction and maintenance of highways and to pay for other parts of the transportation system.

Privacy Issues

The legislature recently strengthened privacy protections for persons who use transponders or other technology to facilitate payment of tolls. However, lawmakers may wish to continue to evaluate whether sufficient protections exist for citizens who want to reduce their vulnerability to tracking by government agencies or others. The Transportation Commission and WSDOT will obtain important experience and information from the implementation of an automated tolling system on the Tacoma Narrows Bridge, including data on the anonymous purchase of prepaid cards and feedback from users about whether they feel the character and level of privacy protections are adequate. The Transportation Commission and WSDOT may then be in a position to determine whether to recommend additional legislation that would require or strengthen anonymous purchases or other approaches to ensure consumer privacy.

Environmental Regulations

Environmental regulations will continue to play a key role in the process of selecting specific facilities for tolling. Attention must be paid to complying with applicable requirements of the State Environmental Policy Act (SEPA), the National Environmental

Policy Act (NEPA) and Washington's Growth Management Act (GMA).

■ Proposed Near-Term Action Items

In addition to the legislative and legal actions described above, carrying out the proposed tolling policies will need action by the Legislature, the Commission, and the WSDOT.

Funding

The Commission is charged with carrying out the activities as Washington's tolling authority, but neither the Commission nor WSDOT has the resources with which to carry out that mission. An important early action item will be for the Commission to work with WSDOT, the Legislature, and the Governor's office to identify the activities and resources that will be needed to advance the tolling policies. Some of the potential activities include:

- Planning and development of specific projects;
- Review and coordination activities with local or regional bodies advancing toll projects;
- Develop specific procedures and to develop, approve, and coordinate toll projects; and
- Address issues related to the integration of the Transportation Innovative Partnerships Program (TIPP) with potential tolling activities.

Develop Specific Procedures to Develop and Approve Toll Projects

Proposed Policy #6 broadly suggests how the Commission will carry out its role as the State's tolling authority. There are numerous options relating to how this broad policy might be carried out. *Background Paper #3, Organizational and Administrative Structures*, provides a discussion of potential ways to organize and carry out tolling functions in Washington, and can provide a starting point for discussion about specifics. Both the Commission and WSDOT are key players in implementing the tolling policy, and they should collaborate to develop the specific procedures needed to develop and approve toll projects in Washington. A

key issue will be how the Commission, WSDOT, and regional entities that might want to develop toll projects should interact as projects are developed.

Develop Specific Practices Related to Toll Collection Activities

On the surface, toll collection is a straightforward activity – collect money for use of a highway. However, even when toll collection was done strictly with toll takers and coin boxes, there was a considerable organization needed to make sure the toll revenue was adequately accounted for. With increasing use of electronic toll collection the level of complexity has multiplied several-fold. Many of the issues surrounding toll collection are explored in *Background Paper #8: Toll Technology Considerations, Opportunities, and Risks*.

Among the many issues to be addressed are:

- Expandability of the toll collection operation beyond that being developed for the Tacoma Narrows Bridge and SR 167 HOT Lanes Pilot Project;
- Ability of customers to have anonymous accounts;
- Ability of customers to pay cash, or replenish electronic accounts with cash;
- Arrangements for interjurisdictional transfer of violation enforcement data;
- Disposition of revenue generation from fines due to violations; and
- Allocation of toll collection costs to different accounts.