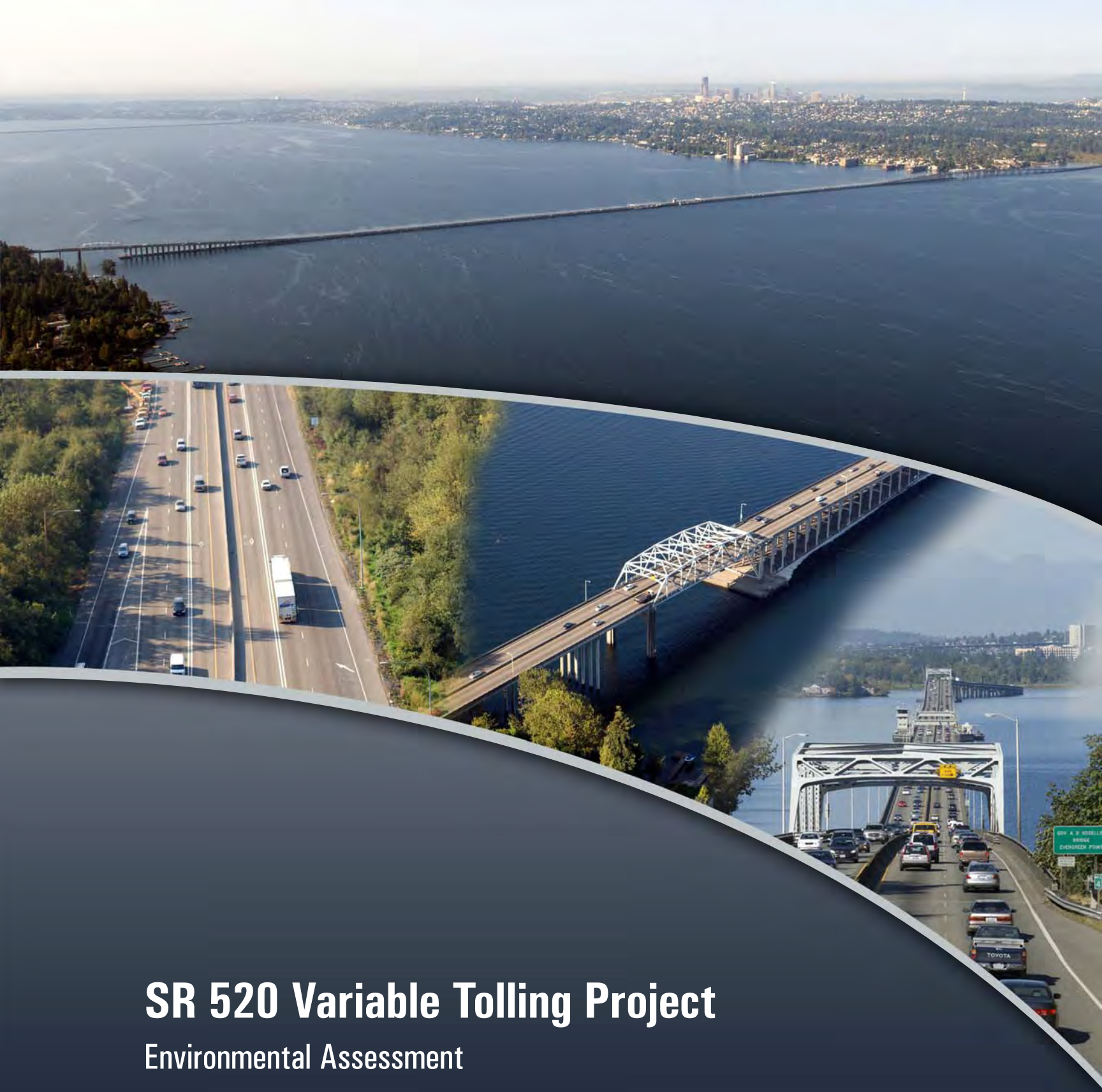

SR 520 Variable Tolling Project

Environmental Assessment

March 2009

U.S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

SR 520 Variable Tolling Project

King County, Washington

Environmental Assessment

Submitted Pursuant To:
National Environmental Policy Act (Section 42 U.S. Code 4332 (2)(c) and 23 CFR Part 771)
State Environmental Policy Act (Chapter 43.21C, Revised Code of Washington)

Submitted By:
U.S. Department of Transportation, Federal Highway Administration, Washington Division, and the Washington State Department of Transportation

Pete Jilek, P.E.
Federal Highway Administration
Urban Area Engineer

3/31/2009
Date of Approval

Megan White, P.E.
Washington State Department of Transportation
Director, Environmental Services

3/30/09
Date of Approval

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SR 520 Variable Tolling Project
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Washington State Department of Transportation
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Seattle, WA 98104
(206) 716-1135

In compliance with the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA), this Environmental Assessment (EA) describes the environmental consequences of implementing a toll on all lanes of State Route (SR) 520 at the Evergreen Point Bridge across Lake Washington. This analysis concludes that the project will not have a significant effect on the environment.

Comments must be postmarked or received by May 11, 2009, and should be returned to:

Paul Krueger, SR 520 Variable Tolling Project Environmental Manager
Urban Corridors Office
Washington State Department of Transportation
401 2nd Avenue S, Suite 300
Seattle, WA 98104
or email SR520VariableTolling@wsdot.wa.gov

Information about how to obtain a copy of this document, as well as the date and location of the public hearing are found on the next page.

The Environmental Assessment is available for review at the Seattle Public Library and King County Library System libraries listed below.

Seattle Public Library

- Central Library
- Montlake Branch
- Northeast Branch
- Queen Anne Branch
- University Branch

King County Library System

- Bellevue Regional Library
- Bothell Regional Library
- Mercer Island Library
- Kirkland Library
- Library Connection at Crossroads
- Redmond Regional Library

Printed copies of this document may be purchased for $14.60, which does not exceed the cost of reproduction. This document is also available online at: http://www.wsdot.wa.gov/Projects/LkWaMgt/

Two public hearings on this Environmental Assessment will be held. The first will be on Tuesday, April 28, 2009, from 5:30 p.m. to 7:00 p.m. at:

Bellevue Regional Library

1111 110th Ave. NE

Bellevue, WA 98004

The second public hearing will be held on Thursday, April 30, 2009, from 4:00 p.m. to 7:00 p.m. at:

Seattle Library/University Branch

5009 Roosevelt Way N.E.

Seattle, WA 98105

SR 520 Variable Tolling Project

Environmental Assessment

Submitted Pursuant To:

National Environmental Policy Act Section (42 U.S. Code 4332 (2)(c) and 23 CFR Part 771) and State Environmental Policy Act (Chapter 43.21C, Revised Code of Washington)

Submitted By:

U. S. Department of Transportation
Federal Highway Administration

Washington State Department of Transportation

Abstract:

The U.S. Department of Transportation (USDOT) initiated a program, *National Strategy to Reduce Congestion on America's Transportation Network*, for federal, state, and local officials to consider as they work together to reverse current trends of congestion. The Urban Partnership Program is a major component of this initiative. The selected applicants will adopt the Four "Ts": tolling, transit, telecommuting and technology. These strategies have been found to effectively reduce traffic congestion. In 2007, Seattle was selected to join the Urban Partnership Program. This SR 520 Variable Tolling Project is included in the Lake Washington Urban Partnership Agreement (UPA).

State Route (SR) 520 is one of the main transportation corridors to cross Lake Washington. It connects Seattle with major population and employment centers on the Eastside. Congestion is a problem along the SR 520 corridor and will continue to worsen unless strategies are implemented to reduce it. Therefore, this Environmental Assessment (EA), in compliance with the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA), describes the environmental consequences of implementing tolling along SR 520.

Title VI

WSDOT ensures full compliance with Title VI of the Civil Rights Act of 1964 by prohibiting discrimination against any person on the basis of race, color, national origin or sex in the provision of benefits and services resulting from its federally assisted programs and activities. For questions regarding WSDOT's Title VI Program, you may contact the Department's Title VI Coordinator at (360) 705 7098.

Americans with Disabilities Act Information

If you would like copies of this document in an alternative format—large print, Braille, cassette tape, or on computer disk, please call (360) 705-7097. Persons who are deaf or hard of hearing, please call the Washington State Telecommunications Relay Service, or Tele-Braille at 7-1-1, Voice 1 800 833 6384, and ask to be connected to (360) 705-7097.

A Federal agency may publish a notice in the Federal Register, pursuant to 23 USC §139(I), indicating that one or more Federal agencies have taken final action on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those Federal actions will be barred unless such claims are filed within 180 days after the date of publication of the notice, or within such shorter time period as is specified in the Federal laws pursuant to which judicial review of the Federal agency action is allowed. If no notice is published, then the periods of time that otherwise are provided by the Federal laws governing such claims will apply.

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LIST OF APPENDICES:

LIST OF EXHIBITS

Acronyms

ATM	active traffic management
B5	five percent biodiesel
B10	10 percent biodiesel
B20	20 percent biodiesel
BMPs	best management practices
CAA	Clean Air Act of 1970
CEQ	Council of Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CSC	Customer Service Center
dBA	decibel (A-weighted)
EA	Environmental Assessment
EBT	Electronic Benefit Transfer
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ETC	electronic toll collection
FAZ	forecast analysis zone
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
GHGs	greenhouse gases
HAC	high-accident corridors
HAL	high-accident locations
HSS	highway of statewide significance
HOV	high-occupancy vehicle
HOT	high occupancy toll
I	Interstate

Acronyms

mph	miles per hour
MSATs	Mobile Source Air Toxics
NAAQS	national ambient air quality standards
NAC	Noise Abatement Criteria
NCES	National Center for Education Statistics
NEPA	National Environmental Policy Act
NO2	Nitrogen Dioxide
NRHP	National Register of Historic Places
O3	Ozone
PAL	pedestrian accident locations
PM	Particulate Matter
PSCAA	Puget Sound Clean Air Agency
PSRC	Puget Sound Regional Council
SEPA	State Environmental Policy Act
SIP	State Implementation Plan
SO2	Sulfur Dioxide
SOV	single-occupancy vehicle
SR	State Route
TESC	temporary erosion and sediment control
UPA	Urban Partnership Agreement
USDOT	U.S. Department of Transportation
VMT	vehicle miles traveled
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation

Chapter 1 Executive Summary

Chapter 1 summarizes the project background, the effects of the project, how this document is organized, and the next steps in the process.

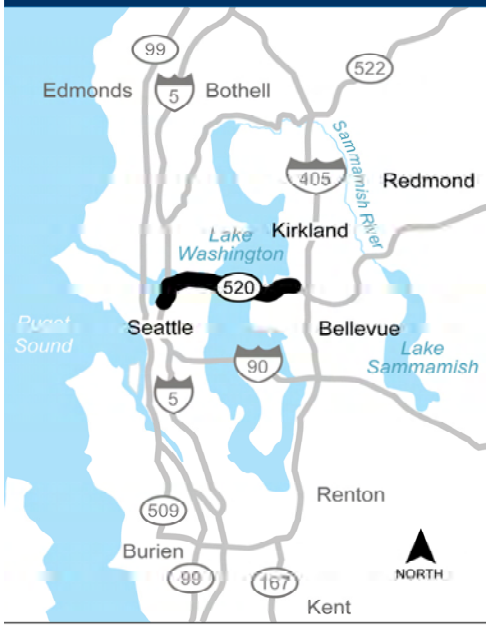
What is the SR 520 Variable Tolling Project?

The SR 520 Variable Tolling Project will implement variable pricing (tolls) on all through-lanes of SR 520 between Interstate 5 (I-5) and Interstate 405 (I-405). All tolls will be collected electronically. The project will reduce traffic congestion and generate revenue. Revenue generated will be invested in the SR 520 corridor, subject to legislative appropriation, as required by state law (RCW 47.56.820).

Where is the SR 520 Variable Tolling Project located?

The study area for the SR 520 Variable Tolling Project is bounded by SR 522 to the north, I-405 to the east, I-90 to the south, and I-5 to the west. As shown in Exhibit 1-1, the project corridor itself is along SR 520, bounded by I-5 on the west and I-405 on the east. SR 520 is one of only two east-west roadways that cross Lake Washington. The other is I-90.

Exhibit 1-1
Project Corridor



Who is leading the project?

The Federal Highway Administration (FHWA) and the Washington State Department of Transportation (WSDOT) are joint lead agencies for this project. FHWA is the lead federal agency complying with the

National Environmental Policy Act (NEPA). WSDOT is the lead state agency complying with the State Environmental Policy Act (SEPA).

What are the benefits of the project?

Reduced Congestion: Variable pricing will encourage drivers to choose alternate routes, times, and travel modes, or to eliminate trips altogether. This will result in reduced congestion, providing a more reliable trip for users of SR 520 as described in the *Transportation Discipline Report* in Appendix E.

Funding Improvements: Revenue generated will be invested in the SR 520 corridor, subject to legislative appropriation. The toll revenue could be used for replacing bridges, adding HOV lanes, and other types of transportation improvements.

How will the project affect the future environment?

The SR 520 Variable Tolling Project is an interim project that will be built and operated only until the existing Evergreen Point Bridge is replaced by a new bridge. The new bridge will have a different configuration and likely have different toll rates, so the conditions we analyzed for this document will no longer exist after the new bridge opens. WSDOT plans to open the replacement of the Evergreen Point Bridge in 2016. Therefore, we used 2016 as the horizon year for our analysis of how the project would affect the environment in the future. Our analysis does not extend beyond 2016.

Transportation: SR 520 connects Seattle on the west side of Lake Washington with Medina, Hunts Point, Yarrow Point, Clyde Hill, Kirkland, Bellevue, and Redmond on the east side of the lake. It serves as a critical connection for people and goods crossing Lake Washington.

The primary transportation effects of the tolling project are:

- Congestion relief on SR 520 in peak periods.
- Less traffic in general on all cross-lake routes during peak periods.

Peak period traffic volumes will be 11 percent to 18 percent lower on SR 520 after a toll is implemented than if a toll is not implemented. However, with a toll on SR 520, volumes on I-90 and SR 522 would increase only zero percent to four percent and volumes on I-405 and I-5 would not noticeably change.

The tolling project will result in minimal to no noticeable diversion of traffic to SR 522, I-90, I-405, and I-5 during peak periods because many people will be making other choices. They will change the time-of-day for their trip, use transit instead of driving, or choose a different destination that doesn't require crossing Lake Washington.

As a result of the changes in traffic volumes, we expect to see higher average travel speeds, lower travel times, and reduced vehicle miles traveled on SR 520 during peak periods and minimal changes on alternate routes.

Social Resources: The project will reduce traffic congestion during peak hours, thus improving travel reliability and reducing travel times. Increased mobility and reliability will benefit emergency service providers, and community cohesion will not be affected as a result of the project. There will be no effect on any park or recreation resource.

Environmental Justice: There are three principal ways in which project operation will adversely affect low-income or minority populations if not mitigated:

- The cost of the tolls will present a burden to low-income bridge users.

- The cost of the tolls will present a burden to social service agencies that depend on the Evergreen Point Bridge to serve their low-income or minority clients.
- Bridge users will be required to purchase a transponder and set up an account with the Washington State Department of Transportation (WSDOT) to pay the toll, which may present a burden to low-income Evergreen Point Bridge users who are less likely than the general population to have a credit or debit card.

If the SR 520 Variable Tolling Project is undertaken, WSDOT and its partners have already decided to employ the following strategies to help minimize adverse effects on low-income or minority populations:

1. WSDOT will establish permanent customer service center storefronts on both sides of Lake Washington.
2. WSDOT is exploring the possibility of establishing permanent *Good To Go!*™ retail outlets at convenient locations, such as grocery stores, convenience stores, or pharmacies throughout the travelshed.
3. Low-income users will be able to establish and replenish their prepaid accounts using their Electronic Benefit Transfer (EBT) card. An EBT card functions like a debit card and allows recipients who receive federal benefits to pay for products and services, such as groceries and health care.
4. WSDOT will conduct outreach in multiple languages to provide information about how to purchase a transponder, establish an account, and use the system.
5. WSDOT will provide social service agencies with information about tolling and options to avoid the tolls.

The above strategies will minimize barriers that otherwise would limit access to the SR 520 by low-

income populations. In addition, the following strategies could also be considered by the Washington State Legislature to further minimize adverse effects:

1. Allocating additional funding to increase transit service along SR 520 routes that are used by low-income populations.
2. Allocating funding to provide refunds to social service agencies that broker transportation for low-income and disabled populations that meet certain thresholds.

Economic Resources: The project will have little economic effect overall and no direct effects to businesses. Businesses located near the Evergreen Point Bridge are not expected to see any noticeable change in revenues as a result of the project.

Water Resources: The project will have minimal construction disturbance and will add a very small amount of impervious surface for mounting equipment cabinets. WSDOT will adhere to all existing state and federal laws pertaining to water quality by ensuring that the contractor implements best management practices (BMPs). As a result the project will have no perceptible or appreciable effect on water quality.

Geology and Soils: Because this project will have very minimal construction disturbance, geology and soils are not discussed in detail within this document. Potential effects related to soil erosion are described in the water resources section.

Ecosystems: The project will have no permanent effects to the natural environment. WSDOT will ensure that the contractor implements erosion control BMPs and timing restrictions to minimize temporary effects from soil disturbance and construction noise.

Visual: The project will cause very little change to visual resources in the project area. To minimize visual effects,

we will place the tolling equipment either on the existing truss structure or on a new gantry structure as close to the truss structure as possible. Structural elements will be painted the same color as the truss structure. The additional lighting at the tolling location will be designed to have negligible effect on existing ambient light levels and glare.

Example of gantry structure that could be used on the Evergreen Point Bridge

Cultural Resources: The Evergreen Point Bridge was completed and placed in service in 1963. It is eligible for listing on the National Register of Historic Places (NRHP). We determined that installing of the tolling equipment on the east highrise truss structure will have no adverse effect on the NRHP-eligible Evergreen Point Bridge.

Public Utilities: The project will not have an adverse effect on utilities. Some electricity will be required to operate the tolling equipment; however, the amount needed will be negligible.

Land Use: The duration of this project is too short to result in long-term land use changes.

Hazardous Materials: We do not anticipate any hazardous materials effects. The project will be constructed completely within WSDOT right-of-way and will be remote from any potential hazardous materials site.

Energy: We expect the project to improve traffic flow, reduce peak period traffic congestion along SR 520, and allow more cars to travel at more energy-efficient speeds. In addition, because little construction is involved with the SR 520 Variable Tolling Project, little energy will be spent in reducing congestion along the route. Overall, the project will reduce energy use compared to the amount of energy that would be used if the project was not implemented.

Noise: The project will not noticeably change noise levels on SR 520 or alternate routes. While peak period traffic

volumes on SR 520 would be lower, the reduction would not be enough to result in a perceptible difference in noise levels compared to existing noise levels. Similarly, the minimal diversion of traffic from SR 520 on to alternate routes (I-90, SR 522, I-405, and I-5) will not result in a substantial difference in future noise levels compared to existing noise levels. Construction activities will temporarily increase noise levels. Recommended construction noise mitigation measures are included in Chapter 5.

Air Quality: The project will not have an adverse effect on air pollutant emissions. Construction activities will temporarily generate air pollutants within the project area. BMPs to control air pollutants during construction are described in Chapter 5.

Cumulative Effects: In conjunction with other transportation and development projects planned in or near the project area, the SR 520 Variable Tolling Project could contribute to cumulative effects on transportation, Environmental Justice (low-income) populations, air quality, and climate change (greenhouse gas emissions).

A number of highway construction projects are planned on SR 520 and alternate routes between 2010 and 2016. The SR 520 Variable Tolling Project will not have any noticeable cumulative effect on travel patterns in combination with the construction of these projects. Existing capacity constraints on the highway system and planned construction on both of the direct routes across Lake Washington will limit diversion related to construction.

The SR 520 Variable Tolling Project, along with other planned highway and transit improvements, will cumulatively improve regional mobility. Transit users crossing Lake Washington will especially see benefits. They will experience a noticeable cumulative improvement as HOV lane projects are completed on both SR 520 and I-90, along with transit service increases by both King County Metro and Sound Transit. The use of transit use across Lake

What major transportation projects are planned for construction in the study area between 2010 and 2016?

SR 520
SR 520 Eastside Transit and HOV Project (2010-2013)

SR 520 Bridge Replacement and HOV Project (2012-2016)

I-90
I-90 Two-Way Transit and HOV Operations Project (2010-2014)

Sound Transit East Link Light Rail Project (2013-2020)

I-405
I-405 NE 195th to SR 527 Northbound Widening Project (2009-2010)

I-405 NE 8th Street to SR 520 Improvement Project (2009-2012)

Washington will also likely see a cumulative increase as more trips are added and people look for ways to avoid the toll on SR 520.

Construction planned for the un-tolled routes around or across Lake Washington may make it more time-consuming for low-income SR 520 users to take an alternate route to avoid paying the toll. A potential positive cumulative effect is the transit service improvements described above will make it easier for some low-income users to use transit to avoid the toll on SR 520.

This project, with other transportation projects planned to be completed between 2010 and 2016, will provide some cumulative reduction in congestion. This will likely reduce the amount of emissions emitted from autos. However, even if these projects are not built, vehicle emissions are likely to be lower in 2016 than present levels due to EPA programs to reduce emissions by 2020. Overall, we expect there will be little cumulative effect on regional air quality as a result of this project.

The project will contribute to the cumulative reduction of greenhouse gas emissions, along with other regional projects that reduce single-occupancy vehicle use and improve traffic flow. Quantitative modeling tools to evaluate greenhouse gas emissions for linear transportation projects are limited at this time. At the project level, WSDOT is currently unable to show the effect of improved traffic flow on emissions. However, since about half of the State of Washington's greenhouse gas emissions are from transportation (automobiles and trucks), reducing single-occupancy vehicle trips likely reduces greenhouse gases.

How is this Environmental Assessment organized?

This environmental assessment presents information about the project to inform the public about the potential effects of project choices and assist decision-makers in considering how the project should be accomplished.

Chapter 2 provides a background and discusses the purpose for the project. Chapter 3 describes the development of the alternatives, explains how the Preferred Alternative was chosen, and summarizes public involvement. Chapter 4 gives a project description and describes the construction of the project. Chapter 5 includes a summary of the affected environment, potential effects, and proposed mitigation measures to avoid or minimize effects, if necessary. Chapter 6 describes the cumulative effects of the project. Chapter 7 is a list of preparers of the document and Chapter 8 is a list of references. Additional information has been provided within the appendices. The appendices include agency and public correspondence, a list of commitments, and other technical reports.

What are the next steps in this process?

Once this EA is published, a 30-day public and agency comment period will begin, during which a public hearing will be held.

After the 30-day public comment period has ended, we anticipate that FHWA will complete the NEPA process by issuing a Finding of No Significant Impact (FONSI). FHWA will consider the analysis of environmental effects in this document and public comments when they decide if a FONSI is appropriate. WSDOT plans to complete the SEPA process by using this EA as the documentation for a SEPA Determination of Non-significance.

In addition to completing the NEPA and SEPA processes, the Washington State Legislature will need to authorize

What is the Environmental Assessment Process?

The SR 520 Project

Technical Analysis
The technical analysis for the environmental resources, including two discipline reports and two technical memos, studies existing conditions, the proposed actions, and how effects to environmental resources will be avoided, minimized, or mitigated.

Environmental Assessment (EA)
The draft EA, prepared in compliance with the National/State Environmental Policy Act, discusses the purpose and need for the project, summarizes development of the alternatives, and includes an analysis of effects to determine if an Environmental Impact Statement (EIS) or Finding of No Significant Impact (FONSI) would be required.

FONSI or EIS
The FONSI is prepared only when the Preferred Alternative has no significant effect on the environment, and therefore, an EIS is not required. If any significant effect is discovered, an EIS would then need to be prepared and a FONSI would not be issued.

tolling SR 520 before final design and construction can proceed. In order to implement tolling in 2010, this will need to occur during the 2009 legislative session. The Washington State House of Representatives is currently considering two bills that would authorize tolling on the SR 520 corridor (HB 2211 and HB 2319).

Our proposed construction schedule includes several elements. The first is to develop documents that request proposals from companies to build the project. We plan to complete this in early to mid-2009. Next, we expect to give the notice to proceed for construction in mid- to late 2009. The project should be complete and opened in mid- to late 2010.