

# SR 167 HOT Lanes

## Social, Economic and Environmental Justice Report



Washington State  
Department of Transportation

January 2007







# SR 167 HOT Lanes Pilot Project

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## Environmental Justice Report

Prepared For Compliance With:

- Presidential Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-income Populations
- Title VI of the Civil Rights Act of 1964
- WSDOT Environmental Procedures Manual, March 2006

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# Executive Summary

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*In January 2003, the Washington State Transportation Commission considered the effectiveness of High Occupancy Vehicle (HOV) lanes on state highways. The commission felt strongly that optimizing the use of the carpool lanes would improve traffic flow in all lanes during certain hours. After extensive evaluation, the commission directed the Washington State Department of Transportation (WSDOT) to assess the feasibility and potential benefits of converting one or more HOV Lanes to High Occupancy Toll (HOT) Lanes.*

*WSDOT selected SR 167 as a pilot project for converting HOV lanes to HOT Lanes because of the heavy traffic congestion in its general travel lanes and unused capacity in its carpool lane. On May 16, 2005, Governor Christine Gregoire signed the SR 167 HOT Lanes Pilot Project into law (SHB 1179). This 4-year demonstration project will convert the freeway's HOV Lanes to HOT Lanes.*

## **What did this report review?**

This report reviews how people use SR 167 and the effects the project may have on the corridor's communities. It also evaluates the fairness and equity of the project, and describes the project's monitoring program. This analysis includes data collected from the US Census Bureau 2000 Census, public opinion surveys, open houses, and public outreach events.

**Who may be affected by the HOT Lane Project?**

To determine who the project would affect in the surrounding communities, WSDOT conducted several surveys and a demographic study. These studies showed that:

- There will be no displacements or relocations due to the SR 167 HOT Lanes Pilot Project. There will be no partial property acquisitions.
- Minority and low-income populations within the travelshed are lower than those in the Central Puget Sound region.
- WSDOT does not anticipate that there will be any elimination or deterioration of access or services as a result of the HOT Lanes project.
- In analyzing effects on low-income populations, the experience in California on both SR 91 and I-15 demonstrates that a slightly lower percentage of low-income people chose to pay for HOT Lanes than higher income people.
- Studies suggest that some low-income families choose to pay for HOT Lanes to get to work on time, to keep childcare costs down, and to make appointments on time without taking as much leave from work.

In summary, the study has found that there do not appear to be any effects on minorities. However, the study did show that there are potential effects on low-income drivers. This is mainly to lack of access to bank accounts, credit or debit cards, all of which are commonly used to bill for HOT Lane use. To alleviate this potential obstacle WSDOT has proposed a program that will allow drivers to pay cash for HOT Lane use.

**What are the potential project benefits?**

When completed, the project is anticipated to benefit individual drivers, the adjacent communities, and the Puget Sound region as a whole. Potential benefits include:

- Providing the option for solo drivers to buy into the HOT Lanes to save travel time and provide better trip reliability.
- Moving more people and vehicles through the SR 167 corridor.
- Improving travel time and reliability for people trying to get to work and other appointments.
- Improving freight mobility.
- Improving roadway efficiency and making better use of existing capacity.
- Providing a transportation alternative that will manage congestion and facilitate mobility.
- Constructing the project entirely within the existing WSDOT right-of-way.
- Avoiding relocations or property acquisitions to implement the HOT Lanes project.
- Improving air quality,

**What if any disproportionate burdens would result from the project?**

Research done nationally suggests that low-income drivers may be excluded from HOT lanes. However, this study has shown that both low-income and higher income drivers will most likely use the HOT Lanes. For example, it can be difficult for low-income persons to secure credit or debit cards, both of which commonly are used to bill for HOT Lane use.

Moreover, many low-income people do not have bank accounts. To alleviate this potential obstacle WSDOT has proposed:

- Drivers will be provided a choice of using credit cards, debit cards, or cash payments to pay for the transponder access necessary to use the HOT Lanes.
- Following the opening of the SR 167 HOT Lanes Pilot Project, a four-year monitoring and evaluation period will begin. Monitoring will include data collection, surveys, and assessments to evaluate the public's

acceptance of the project, to monitor effects to low-income populations, and to evaluate the overall success of the project.

### **Has WSDOT conducted any public outreach?**

In the fall and winter of 2005 WSDOT conducted a variety of public outreach to ensure that people from all facets of the community had access to information about the SR 167 HOT Lanes Project. These outreach events included:

- *Origin-Destination Survey (OD Survey)*. An Origin-Destination Survey was conducted that identified the geographic travel shed of SR 167 users. The follow up questionnaire asked drivers about their driving habits and demographic information, and for their opinions about HOV Lanes and the HOT Lane concept.
- *Focus Groups*. Focus Group meetings were held to gather community comments on their attitudes, beliefs, and opinions about HOT Lanes in order to determine whether they felt the project would be perceived as unfair to minority or low-income commuters.
- *Neighborhood and Community Meetings*. WSDOT's additional outreach activities included traveling information display boards at local libraries and community centers, booths at local malls, and open houses.
- *Corridor Work Group*. WSDOT held monthly meetings with Cities, State, local agencies, Federal Highway Administration and the tribes to keep them involved and informed about the project.
- *Web Site*. WSDOT established a Web site with current information, recent activities, and a schedule of the HOT Lanes project.

The intent of this public process was to provide the community with an opportunity to learn more about the project and to share their concerns with WSDOT.

**What is the conclusion of this report?**

As a result of the HOT Lanes Project, WSDOT anticipates the following:

- The project will provide SOVs, regardless of minority status or income, with the option of a faster trip and reliable travel times.
- Traffic volumes or congestion will not increase in the area due to the project.
- Conversion of the HOV Lane to HOT Lanes will not hinder access, parking, or use of the adjacent properties.
- A cash payment program for toll accounts will help alleviate potential effects on low-income drivers.

Success of the HOT Lanes Pilot Project will be measured by the following:

- A transportation alternative that helps to alleviate congestion and facilitate mobility.
- Reduction, in general, of the time that all people spend in traffic.
- Traffic improvement on vital alternative routes such as I-5.

In conclusion, this report finds that the proposal does not result in high or disproportionate adverse effects on low-income or minority populations. This report finds that the proposed project is consistent with the US Department of Transportation's DOT Order to Address Environmental Justice in Minority Populations and Low-Income Populations, and Executive Orders 12898 and 13166.



# Chapter 1 Introduction

*In January 2003, the Washington State Transportation Commission considered the effectiveness of High Occupancy Vehicle (HOV) lanes on state highways. The commission felt strongly that optimizing the use of the carpool lanes would improve traffic flow in all lanes during certain hours. After extensive evaluation, the commission directed the Washington State Department of Transportation (WSDOT) to assess the feasibility and potential benefits of converting one or more HOV Lanes to High Occupancy Toll (HOT) Lanes.*

*On May 16, 2005, Governor Christine Gregoire signed the SR 167 HOT Lanes Pilot Project into law (SHB 1179). This 4-year demonstration project will convert the freeway's HOV Lanes to HOT Lanes.*

*SR 167 between Renton and Auburn has heavy traffic congestion in its general travel lanes and unused capacity in its carpool lanes. This makes it an ideal candidate for the HOT Lanes Pilot Project. This report studies how people use SR 167, studies the effects the project may have on surrounding communities, evaluates the fairness and equity of the project, and describes the project's monitoring program. WSDOT will evaluate the equity of HOT Lanes in the context of this project by evaluating tolling effects on income levels, public participation, opportunity to use the HOT Lanes, and transportation modes.*

**Exhibit 1-1  
SR 167 HOT Lanes Demonstration Project**



## What is the proposed project?

The SR 167 HOT Lane Pilot project proposes to convert nine miles of existing HOV Lanes in both directions of SR 167 to

HOT Lanes. The HOT Lanes will extend along SR 167 between 15th Avenue southwest in Auburn and the I-405 interchange in Renton.

Similar to HOV Lanes, HOT Lanes can be used by carpools, vanpools, transit buses, and motorcycles without paying a toll or having a transponder. However, unlike HOV Lanes, HOT Lanes give solo drivers the opportunity to pay a toll to use the HOV lane. HOT Lanes will continue to provide a reliable travel time for transit, carpools and vanpools. However, with HOT Lanes, solo drivers will also have the option for a faster travel time through the corridor.

WSDOT will manage traffic flows with an electronic system by adjusting the price for single drivers entering the HOT Lane to maintain the performance of the Lane. The toll price will go up as traffic volumes increase. This allows WSDOT to maintain speeds in the HOT Lane to keep it moving, even if the general purpose lanes are congested. Higher tolls will discourage solo drivers from entering the lane when the HOT Lanes are congested, which in turn helps keep the flow of traffic in HOT Lanes around 45 to 60 miles per hour.

### **How did this project evolve?**

In January 2003, as a result of WSDOT's extensive study of HOV Lanes, the Washington State Transportation Commission felt that traffic flow along the corridor could improve by optimizing how carpool lanes are used. The commission directed WSDOT to evaluate the feasibility and potential benefit of converting one or more HOV Lanes to HOT Lanes.

WSDOT proposed that SR 167 between Renton and Auburn was the best candidate for a HOT Lane pilot project because of the heavy traffic congestion in the general travel lanes and the available capacity in the HOV Lanes.

On May 16, 2005, Governor Christine Gregoire signed legislation authorizing the SR 167 HOT Lanes Pilot Project into law (SHB 1179). In April 2005, the Washington State Legislature approved the SR 167 HOT Lanes Project. The

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### **Why was SR 167 chosen for the HOT Lanes pilot project?**

- Morning back-ups typically begin between 5:30 and 6 a.m.
- Traffic speeds can be as low as 20 mph in the non-HOV Lanes.
- The SR 167 HOV Lane can accommodate as many as 450 more vehicles before it reaches capacity.
- The entire SR 167 corridor has room for as much as 13 percent more people and vehicles.
- HOT Lanes will give as much as 40 percent more vehicles access to the HOT/HOV Lanes.
- HOT Lanes preserve priority status for transit and carpools.
- All improvements can be located within the existing right-of-way.

*SR 167 HOT Lanes  
Pilot Project Traffic  
Analysis – January  
2006*

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Federal Highway's Administration value pricing program and the Washington State Legislature provided \$15.3 million in funding for project. The SR 167 HOT Lanes Pilot Project is scheduled to open by 2008.

### **What was the guiding philosophy behind the SR 167 HOT Lanes Project?**

The general purpose of the SR 167 HOT Lanes Project is to provide a transportation alternative that alleviates congestion and facilitates mobility through the corridor. An initial analysis of SR 167 found that up to thirteen percent more vehicles can move through the corridor with HOT lanes than currently does while maintaining travel speeds between 45-60 miles per hour while maintaining reliability for buses, carpools and vanpools that use the HOV lanes.

### **Who are WSDOT's partners for the proposed project?**

As the lead agency on the HOT Lanes project, WSDOT is coordinating the planning and design of the project with the SR 167 Corridor Working Group (CWG). The group is made up of representatives from cities and counties along the SR 167 corridor as well as transit agencies, tribes, the Puget Sound Regional Council (PSRC), and the Federal Highway Administration. In 2005, WSDOT met with each of these agencies and jurisdictions to ensure the local and regional communities were aware of the project and have had the opportunity to actively participate in the planning process.

The Corridor Working Group plays an important role in the planning of this project by advising WSDOT on local issues and providing necessary technical assistance. The Corridor Working Group:

- Reviews technical data;
- Develops evaluation criteria for potential projects;
- Provides specific local expertise when requested;
- Identifies emerging local issues; and

- Briefs local decision makers about corridor activities.

### **Are HOT Lanes a new transportation management concept?**

No, successful HOT Lane projects are currently operating across the country.

Minnesota, California, Texas, Florida, and Georgia currently have operating HOT Lanes. In addition, Colorado opened I-25 to HOT Lanes in June 2006. On all but one of the highways, the HOT Lanes were conversions of existing HOV Lanes. In addition to these HOT Lanes, HOT Lane projects are being studied in Oregon, New Jersey, North Virginia, North Carolina and Florida.

### **Who are the general users of SR 167?**

SR 167 serves as a critical regional link connecting south King and north Pierce counties to I-405 and the Seattle/Bellevue metropolitan area. The majority of those who travel on SR 167 are from the Puget Sound Region. However, the origin-destination study data showed that people drove through SR 167 from as far away as California and Canada. This study found that roughly 40 percent of non-commercial traffic uses SR 167 as a through route between SR 410 in the south and I-405 in the north for the primary purpose of commuting to and from the workplace. Most of these commuters drive north to work in the morning toward Renton, Seattle, and Bellevue and then south in the evening. According to the South County Economic Engine – Survey of Findings Report, 2004 Kent Chamber of Commerce, on a typical weekday, SR 167 carries about 120,000 to 125,000 vehicles between SR 18 and I-405. Maintaining traffic flow along SR 167 in this vital industrial and rapidly growing residential valley is essential to the State's economy.

The other major user of SR 167 is commercial truck traffic. The Kent Valley is the second largest distribution center on the west coast of the United States, and SR 167 is heavily used by large distribution trucks. Ninety-two percent of manufacturing

goods and 62 percent of other industries located in the Kent valley use SR 167 to move their goods and commodities. This same South County Economic Study found that more than 12,000 trucks operate on SR 167 every day. This represents about ten percent of the total traffic on SR 167. About 6,800 of these trucks are small local delivery trucks, about 4,700 are single tractor-trailer trucks, and about 700 are large semi-trucks and trailers.

This commercial traffic will continue to increase with the growth and expansion of freight/trucking facilities in the Auburn, Sumner, and Puyallup areas, and with the increased use of the Port of Tacoma.

### **What do HOT Lanes look like?**

The HOT Lanes Pilot Project will take place on nine miles of existing HOV Lanes on SR 167 between Renton and Auburn Washington. Converting the existing HOV Lanes to HOT Lanes will involve restriping the HOV Lanes with double white lines to create a two foot buffer space between the HOT Lane and the adjacent general purpose lane.

#### **Exhibit 1-2**

### **Existing SR 167 Facility with HOV Lanes**



**Exhibit 1-3**  
**Proposed SR 167 with HOV Lanes Converted to HOT Lanes**



Access points will display a single dashed white line with the appropriate signage. In the state of Washington it is illegal to change lanes across a double white or double yellow line. Signs reminding the public of this law will be placed throughout the HOT Lanes corridor.

Access points to the HOT Lanes will be limited. Limiting the number of access points will increase vehicle throughput along this section of SR 167, improve enforcement, and simplify the electronic tolling system.

**How do we assure safe operations?**

Traffic safety features will be built into the HOT Lanes project, including:

- Continuous separation between each;
- HOT Lane and the adjacent general purpose lane;
- Strategic locations of HOT Lane mid-point access locations to support safe operations performance – with minimum 1,500-foot openings; and
- Increase law enforcement to ensure the safe and legal use of the HOT Lanes

**How will toll collection work?**

No toll booths will be required. The SR 167 HOT Lanes Pilot Project will use an electronic toll collection system which will not require a solo driver to slow down to pay a toll. The electronic toll collection system will include vehicle-mounted transponders, roadway transponder readers over the road, and electronic toll rate signs. Solo drivers will pay a single entry fee for the trip regardless of where they enter and exit the HOT Lane.

For solo drivers to use HOT Lanes, a driver will obtain a transponder card and open a toll account with WSDOT. Following examples in other communities, WSDOT will implement a flexible account and payment plan making it easy for people to have access to the HOT Lanes system. Opening an account for use of the HOT Lanes may be done through the mail, on the Internet, or at a government agency and potentially at local grocery stores and large retail centers.

Drivers will be provided a choice of using credit cards, debit cards, or cash payments. The cash payment system is an alternative used in other places with HOT Lanes such as in Minnesota. After registering, the

**Exhibit 1-4  
Example of a Transponder Card**



This transponder card is the same that is used on the Tacoma Narrows Bridge toll system.



Picture of driver with transponder card on their vehicle.

transponder card would be sent in the mail or handed to the driver at the place of registration. The transponder reader will record the transponder card number and automatically deduct the toll for the HOT Lanes from their account.

### How much will the toll cost?

Transit, vanpools, carpools, and motorcycles will continue to be able to use the HOT Lanes without paying a toll or obtaining a transponder. Opening year peak period toll rates are expected to average between 50 cents and \$1.75 per trip, but could be higher. Toll rates will change throughout the day based on traffic flow and available space in the lane.

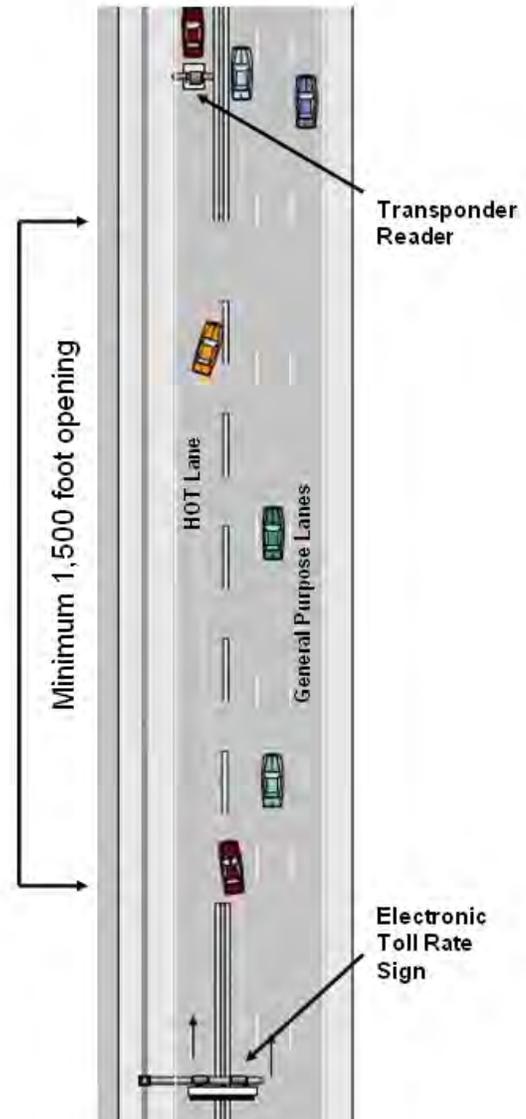
### How will people get in and out of HOT Lanes?

Drivers can access the HOT Lanes at the point of their beginning or at several mid-point access locations. Each mid-point access location's buffer opening will be a minimum of 1,500 feet long – providing ample access both into and out of the HOT Lane. WSDOT is planning a total of 4 mid-point access openings in the northbound lane, and 3 mid-point access points in the southbound lane.

### How will HOT Lanes improve traffic?

Converting the HOV Lanes to HOT Lanes is expected to improve traffic flow by moving as much as ten percent more vehicles and people through the corridor during the peak period while maintaining travel speeds and reliability for buses, carpools and vanpools in the HOT Lanes.

**Exhibit 1-5**  
**Example of HOT Lanes Mid-Point Access**



**How much faster will it be to use HOT Lanes?**

Despite the increase in the number of vehicles traveling through the corridor with HOT Lanes, speeds in the general purpose lanes should stay the same or possibly increase by as much as 10 mph depending on the location and time of day. Speeds in the HOT Lanes will be comparable to the existing HOV Lanes.

**What are the potential benefits of HOT Lanes?**

The primary benefits anticipated are:

- Improve traffic flow for motorists;
- Provide SOVs with the option of a faster trip and reliable travel times;
- Provide a transportation alternative that will alleviate congestion and facilitate mobility;
- Reduce, in general, the time that people and freight spend in traffic;
- Accommodate future population and employment growth in the region; and
- Improve traffic on vital alternative routes such as I-5 as people choose different travel options and/or patterns.

**What physical improvements are needed to implement HOT Lanes?**

The actual construction activity is limited and will occur within the roadway's existing footprint. No roadway widening or additional right-of-way is needed to complete the pilot project. Physical improvements will include striping the HOT Lanes, and installing electronic reader boards, transponder reader gantries, and signage.

In addition to roadway improvement signs, electronic toll rate signs, transponder reader gantries, and controller/communication cabinets, WSDOT would need to install conduit and electrical services.

**Should equity be considered when considering HOT Lanes?**

Yes. For SR 167 HOT Lanes to succeed, the project must provide opportunities for full and fair participation by all those who are potentially affected. Since inception of the pilot project, WSDOT has been listening to the issues and concerns raised by SR 167 users and nearby local communities.

Responding to these concerns is an important part of addressing equity issues.

The basis for examining equity in traditional transportation projects is found in several laws, policies and directives including, (but not limited to) the *Title VI of the Civil Rights Act of 1964*, *National Environmental Policy Act of 1969*, Executive Order 12898 and the *Federal Aid Highway Act of 1970*.

Equity concerns need to be addressed beginning in the conceptual stage of project development to comply with these laws and directives as well as WSDOT policies. These policies and directives require that agencies:

1. Ensure that projects are designed to avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
2. Provide opportunities for full and fair participation by all potentially affected communities in the transportation decision-making process.
3. Prevent the denial of, reduction in or significant delay in the receipt of benefits by minority and low-income populations.

### **How is the SR 167 HOT Lanes analysis different than traditional social impact assessments and environmental justice reports?**

Traditional social economic analyses primarily evaluate potential effects on communities and properties adjacent to the project. In addition, the analyses sometimes address indirect impacts that may occur up to a mile away. Typical roadway improvement projects physically expand the footprint of a facility; the social and economic impact assessments done for these projects focus on potential effects to neighboring communities. Unlike traditional roadway improvement projects, the SR 167 HOT Lane Pilot Project will largely require only operational changes to the existing facility and will not require roadway widening or improvements outside of the facility's existing footprint. Therefore the Pilot Project is expected to primarily affect users of the facility.

As described earlier in this chapter, the project will not result in any new travel lanes, additional impervious surface, land acquisitions, or relocations. However, because of the unique operational changes needed to convert the HOV Lanes to HOT Lanes there are potential effects on facility users, making it necessary to study the operational effects of HOT Lanes.

As the HOT Lanes project may have indirect effects on the community, this report will examine those indirect effects by looking at how HOT Lanes affect and benefit users as well as the community. WSDOT has identified five general types of equity: participation, modal, opportunity, income and geographic.

- ***Participation:*** How will users accept and use HOT lanes?
- ***Modal:*** How will the implementation of HOT Lanes affect people's choice of transportation options such as driving solo, carpooling, or using transit facilities?
- ***Opportunity:*** Can transponder cards be easily obtained by HOT Lane users, including low income groups?

- ***Income:*** How will HOT Lanes affect users of the facility including low-income populations?
- ***Geographic:*** Will there be differences in benefits based on where users live and work?

## Chapter 2 Methodology Used to Evaluate Tolling's Effects on Equity

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*WSDOT will analyze the equity of the SR 167 HOT Lanes Project by examining the benefits and effects of HOT Lanes on facility users and the affected communities. The project will also assess the public's perception of the project's fairness. This chapter summarizes the legal framework behind environmental justice laws, and how those laws will be applied to the project and its public involvement strategy.*

### **How did WSDOT evaluate the equity of the SR 167 HOT Lanes Project?**

Transportation decision makers must consider the unique needs of any community that may be affected by a transportation project. In this particular case, it is important to understand who uses SR 167, and how they may be affected by the HOT Lanes project. When considering the HOT Lanes project, WSDOT used the guidance in Chapter 458 of the Environmental Procedures Manual to help determine whether HOT Lanes will disproportionately affect the communities near SR 167 or the users of SR 167, including minorities and those with low-incomes.

WSDOT sought out group representatives of populations most likely to be affected by SR 167 HOT Lanes and directly involved them in the project's early planning stages. WSDOT held focus groups with low-income and minority communities, as well as with business leaders. In addition to the focus

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### **What will WSDOT be assessing during the pilot period?**

- Assess effects on users and affected community.
  - Socio-economic effects of the facility on the public.
  - Public interest and support for HOT lanes.
  - The HOT Lane concept's ability to maintain the speed and reliability of the HOV system.
  - Ability of a HOT Lane to generate a stream of revenue that can be used to pay for the operations, and maintenance.
  - Evaluate HOT lanes to determine if they should be used in other locations and what modifications would be necessary to help ensure their successful implementation.
-

groups, WSDOT sent surveys to SR 167 users, held community open houses and interviewed transit agencies.

Information from these public outreach events is being used to:

- Learn what criteria commuters might use in deciding whether to use the SR 167 HOT Lanes;
- Determine any difficulties people may have using the HOT Lanes;
- Learn how people would be affected by the change in SR 167's operation; and
- Determine if there are any inequities between who uses SR 167, such as low-income highway users, minorities, or any other general users.

Using this feedback, WSDOT will evaluate the project's effects and benefits to users of SR 167 and the surrounding communities. This analysis will include a focused evaluation of the potential effects on low-income and minority populations. WSDOT's goal is to avoid, minimize, and mitigate any disproportionate adverse effects on the communities and the environment.

### **What studies did WSDOT do to evaluate potential equity issues?**

In the spring of 2005, WSDOT conducted several technical studies and public opinion research surveys to understand who currently uses SR 167, how the HOT Lanes may affect travel behaviors, and the public's perception of HOT Lanes. These studies included:

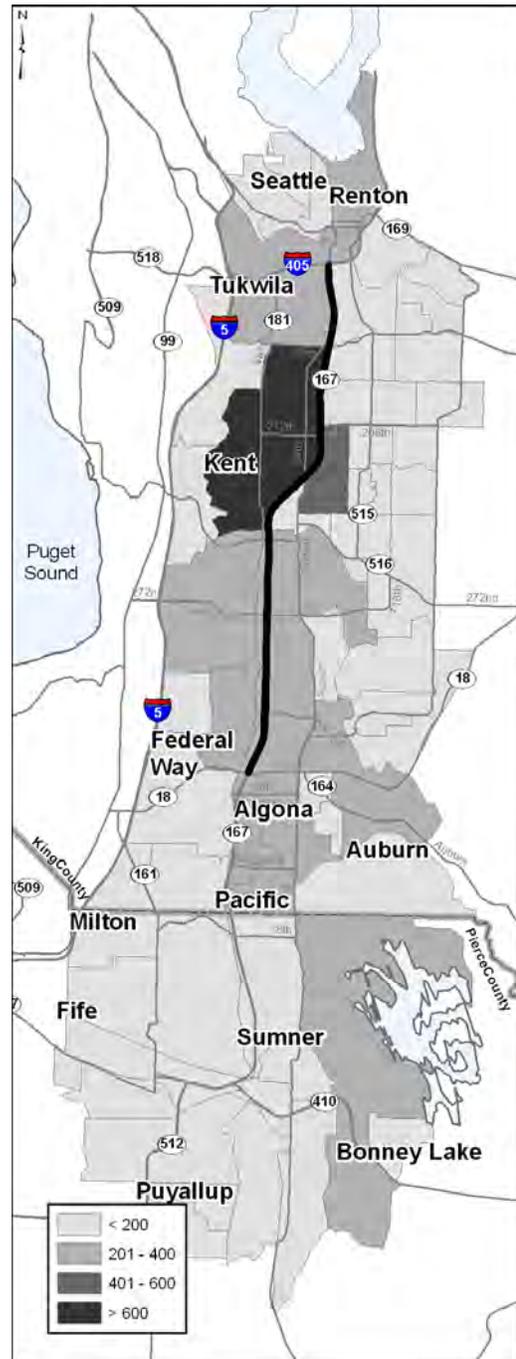
Origin-Destination of Transit Users. Sound Transit conducted a “Fare Reconciliation Survey” between February and July of 2004 to identify how people used bus routes in the corridor. This survey identified where riders got on and off of buses. WSDOT used this information to identify the general geographic distribution of people who use transit on SR 167.

Origin-Destination User Study (OD Data Study). In an effort to determine who drives the SR 167 corridor, WSDOT videotaped the license plates of drivers at key points along the corridor during peak morning and afternoon commuting periods. WSDOT videotaped license plates at 227th Street, 208th Street, and 24th Street from 6 a.m. to 9 a.m. and from 3 p.m. to 7 p.m. on May 17, 2005. The Department of Licensing then matched 27,200 registered owners to the videotaped license plate numbers. From there, vehicle registration addresses were converted to symbols and placed on a map and census tract boundaries were superimposed over the map. By incorporating census information, the map illustrated where each vehicle originated. Drivers came from 86 different census tracts in the region.

The Origin-Destination Study provided a “roadmap” for WSDOT to know where the majority of users entered and exited the corridor. The area where the majority of the SR 167 drivers originated from then became known as the “travelshed,” an area WSDOT could use to evaluate the project’s effects.

Traffic Analysis. WSDOT conducted two traffic studies to help understand how SR 167 is currently being used:

**Exhibit 2-1**  
**Step 1: Identified where people came from on SR 167 through the license plate survey**



Shades Represent the Number of Vehicles Surveyed that Day Per Census Tract

- The 2003 HOT Lanes Pilot Project Analysis (Wilbur Smith)
- The January 2006 SR 167 HOT Lanes Pilot Project Task 2.3 Traffic Analysis (Wilbur Smith)

Findings showed that a majority of SR 167 traffic heads north in the morning and south in the afternoon. Traffic generally feeds out of the residential neighborhoods and exits at the major employment centers along the corridor. This information is consistent with the Origin-Destination Study, and confirms the travelshed's boundaries.

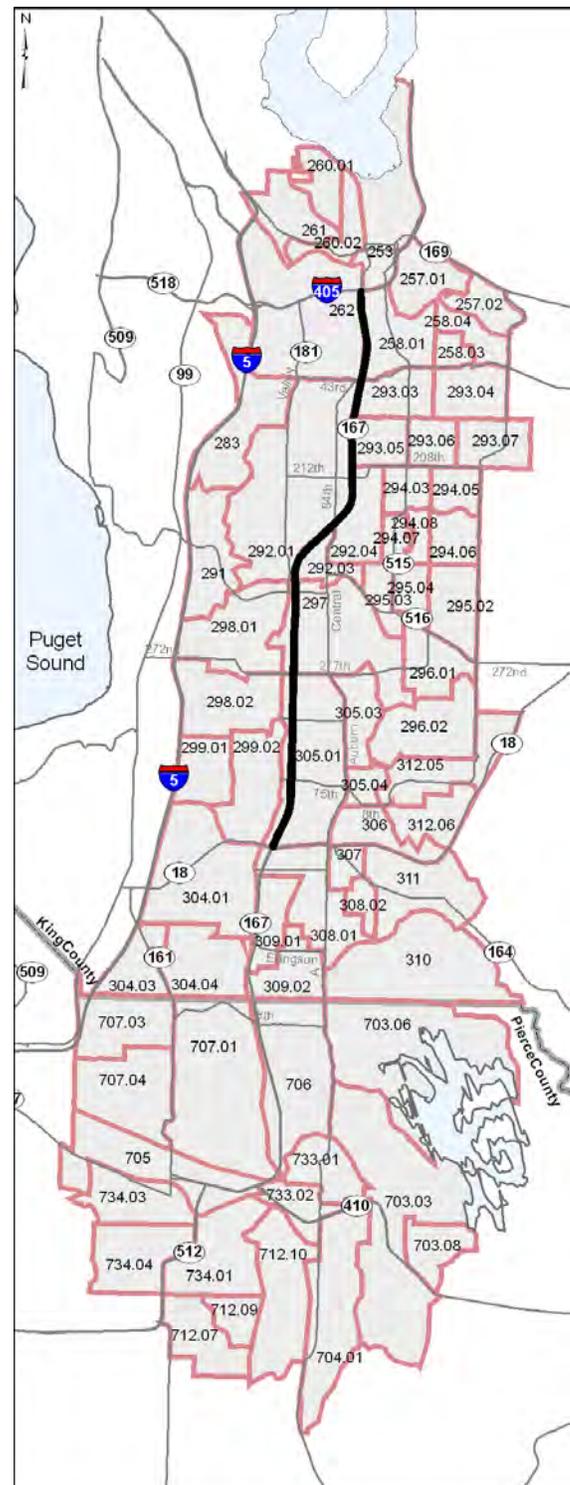
***Other Studies.*** WSDOT used HOT Lane monitoring studies from across the country to understand the potential effects that HOT Lanes can have on environmental justice populations. WSDOT evaluated HOT Lane projects from Minnesota, California, Texas, Florida, and Georgia.

***US Census Data.*** After defining the areas that contribute to the majority of traffic on SR 167, US Census data was used to determine the percentage of low-income, minority, and non-English speaking populations along SR 167. This information was used to help develop a public participation plan. The data also formed the basis for an environmental justice analysis.

***School District Data.*** FHWA asks that an environmental justice analysis uses at least two independent sources of demographic data for a project area. In addition to the US Census data, WSDOT obtained school district demographic information. With the travelshed defined, WSDOT identified the school districts where at least one-quarter of the district's territory is located in the travelshed.

**Exhibit 2-2**

**Step 2: Identified the census tracts where the cars were registered**



WSDOT compared the school district information to that of the US Census. The two sets of data were consistent in suggesting that the US Census demographic data accurately portrays minority and low-income populations in the SR 167 travelshed.

**How will these studies be used by WSDOT?**

It is important to understand who uses SR 167 and how they may be affected by the HOV lane conversion to HOT Lanes. As discussed in Chapter 1, WSDOT will evaluate equity in the context of this project by evaluating the effect of tolling on participation, modal, opportunity, income, and geographic. WSDOT will evaluate:

**Participation:** Targeted user and community outreach to:

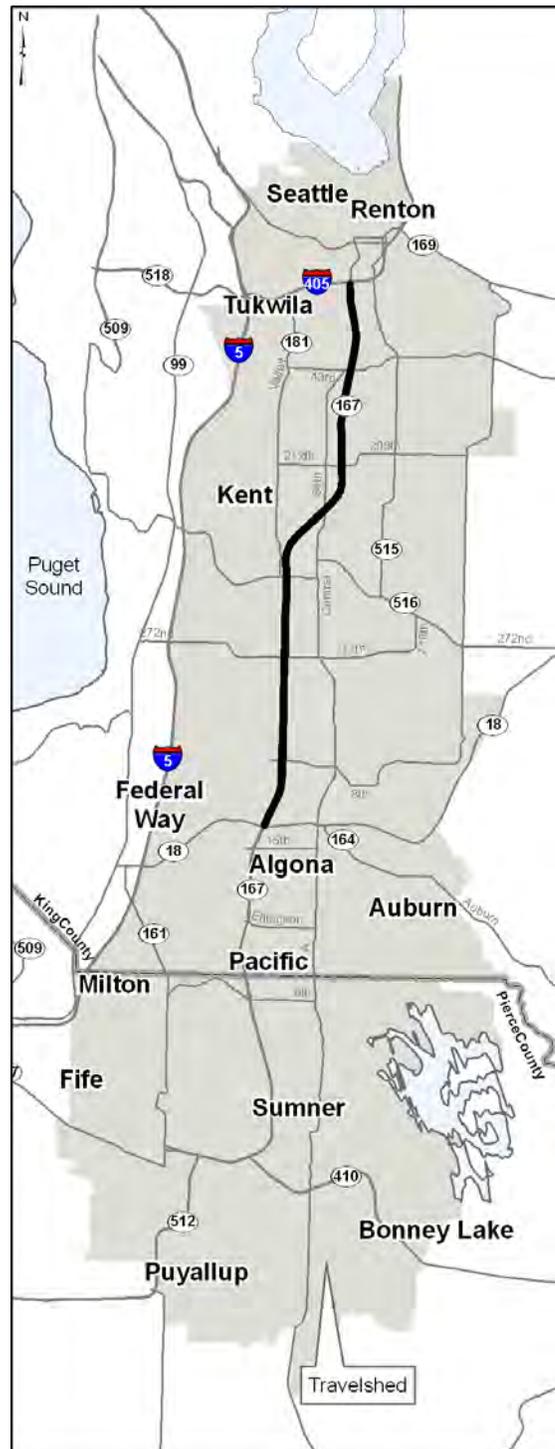
- Determine if users understand the HOT Lane concept,
- Obtain their issues and concerns on the concept,
- Potential obstacles to using HOT Lanes, and
- Identify how they think the project would benefit and/or adversely affect them.

**Modal:** Direct and indirect effects to solo drivers, carpoolers, and transit users.

**Opportunity:** If all user groups have access to the HOT Lanes facility and what benefits would be provided to users of the facility:

- Identify how and where transponder cards will be made available to the public

**Exhibit 2-3**  
**Step 3: SR 167 HOT Lanes travelshed based on census tracts and vehicle registration**



- Identify any limitations to the use of HOT Lanes by low income users

***Income:*** Affordability and usability of HOT Lanes by low-income populations.

***Geographic:*** How HOT Lane users may be affected based on where they live and work.

### **How did WSDOT involve the public in the SR 167 HOT Lane planning process?**

WSDOT reached out in a variety of ways in the fall and winter of 2005 to make sure that people from all facets of the community had access to information about the SR 167 HOT Lanes Project.

***Origin-Destination Survey (OD Survey).*** Following the OD User Study, WSDOT mailed surveys to all registered vehicle owners who were videotaped in the OD Data Study. The surveys asked drivers about their driving habits and demographic information, and for their opinions about HOV Lanes and the HOT Lane concept. The demographic information included income level and minority status.

***Focus Groups.*** After WSDOT defined the SR 167 travelshed, it held focus groups to gather community comments. WSDOT asked people to explore their attitudes, beliefs, and opinions about HOT Lanes in order to determine whether they felt the project would be perceived as unfair to minority and low-income commuters. WSDOT held six focus group sessions between December 2005 and January 2006. These focus group sessions were held with people who commute on SR 167, people who were identified as low-income, minorities, and local businesses owners.

***Neighborhood and Community Meetings.*** WSDOT's additional outreach activities included traveling information display boards at local libraries and community centers, booths at local malls, and open houses. All of these outreach activities included opportunities for people to comment on the project by

either mailing in their comments, phoning the contact person, or by directly emailing WSDOT.

*Corridor Work Group.* As referenced in Chapter 1, WSDOT held monthly meetings with the SR 167 Corridor Working Group to keep Cities, State, local agencies and the tribes involved and informed about the project.

*Web Site.* WSDOT continues to maintain an up-to-date Web site with current information, recent activities, and a schedule of the HOT Lanes project. In addition, the Web site contains an email page that allows people to contact WSDOT directly with their questions or concerns. That Web site is located at ([www.wsdot.wa.gov/projects/sr167/hotlanes](http://www.wsdot.wa.gov/projects/sr167/hotlanes)).

#### **What did WSDOT do with the studies and public outreach information collected?**

WSDOT reviewed and analyzed the data and study results to assess potential effects to corridor users and the surrounding communities, including minorities and low-income users. Chapter 4 describes the findings of this evaluation.



## Chapter 3 Evaluation of HOT Lanes on Equity

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*One frequent criticism of the HOT Lanes concept is that it may be inequitable to low-income users who are less able to afford tolls than higher-income users. This chapter addresses real and perceived equity issues by evaluating if the HOV Lane conversion to HOT Lanes will unfairly affect minorities or low-income populations.*

*Using the criteria established in Chapter 1, this Chapter evaluates potential effects on all users including low-income and minority populations using five equity factors: participation, opportunity, modal, income, and geographic.*

### **Are there minority populations along SR 167?**

Typical environmental justice, social, and economic evaluations include a demographic analysis of the project area and adjacent neighborhoods. However, due to the regional nature of this project, the locations of minority populations in the travelshed were reviewed along with the demographic profile of the Central Puget Sound region of Western Washington. The Puget Sound Regional Council has defined the Central Puget Sound region as King, Kitsap, Pierce and Snohomish counties.

### ***Minority Populations:***

Data collected from the U.S. Census shows that all minority populations within the SR 167 travelshed are lower than that of the Central Puget Sound average. However, geographically, north King County and the SR 410 corridor have a higher minority rate as compared to the general population.

**Exhibit 3-1  
Minority Populations Greater than the Central Puget Sound Average**

Minority Populations within the SR 167 HOT Lane Travelshed  
Greater than the Central Puget Sound Average

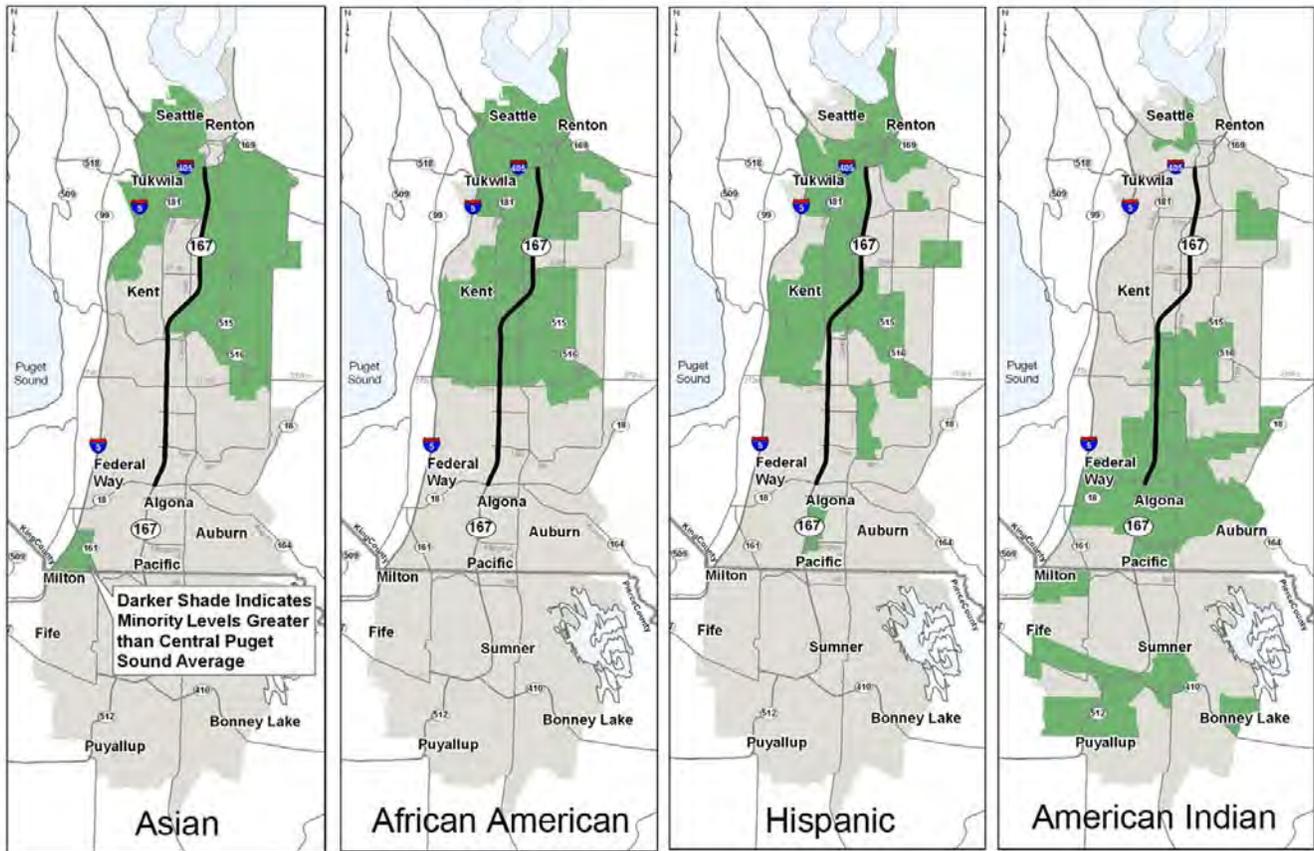
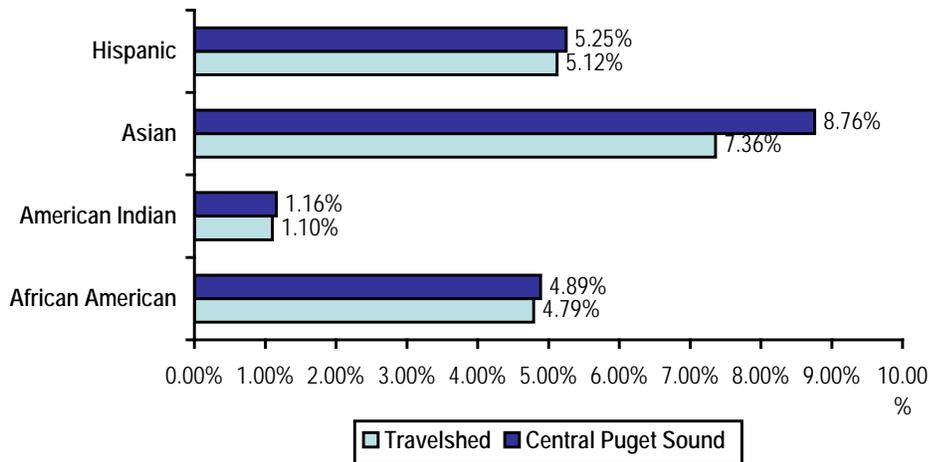


Exhibit 3-2

**Travelshed Minority Population Average Versus Central Puget Sound Average**

On average, the minority population within the travelshed is lower than the overall minority population within the Central Puget Sound Region.

**Will HOT Lanes pose a disproportionate impact to minority users?**

No, the HOT Lanes project will not pose a disproportionate impact to minority users. However, if minority users are also low-income, they may possibly be affected. Any effects would be due to their low-income status not their minority status.

**Do people live or work within 300-feet of the corridor where they would be susceptible to noise from the roadway project?**

Many residential neighborhoods are located along SR 167 between Renton and Puyallup. WSDOT requires projects to evaluate noise effects on sensitive receptors such as residential houses. There are three main triggers for noise evaluations:

- Construction of a new roadway;
- Significant changes to the horizontal and vertical alignment of an existing roadway; and
- Increases in the number of through traffic lanes on an existing highway.

The SR 167 HOT Lanes Project only involves the conversion of the existing HOV lanes to HOT lanes; widening, expansion, or change of the existing roadway alignment is not proposed.

Since the project does not add additional capacity to the existing infrastructure – it only frees up existing capacity, there will not be additional direct noise effects than what currently exists along the corridor.

**Will any homes, businesses or community facilities be displaced by the project?**

No houses, businesses, or farmlands will be displaced by the project. During the short-term, houses in the project area may experience increased construction noise from the installation of the gantries. However, once the project is completed the SR 167 Corridor will function better with less traffic congestion that will result in reduced commute times. The more efficient use of the SR 167 roadway will benefit the adjacent neighborhoods, community and the region as a whole.

As relocations are not anticipated, a search has not been conducted for available and affordable relocation sites.

## **Income Equity Evaluation**

*Similarly to the analysis of minority populations, this report includes an evaluation of low-income populations in the travelshed compared against the demographic profile of the Central Puget Sound region of Western Washington.*

*Low-income households are dispersed throughout the travelshed, with the highest concentration of low-income populations north of the King County line. The poverty rate in the SR 167 travelshed is approximately 6.92 percent, whereas*

*the Central Puget Sound average poverty rate is 8.56 percent. The poverty rate in the travel shed is approximately 1.64 percent lower than that of the Central Puget Sound region.*

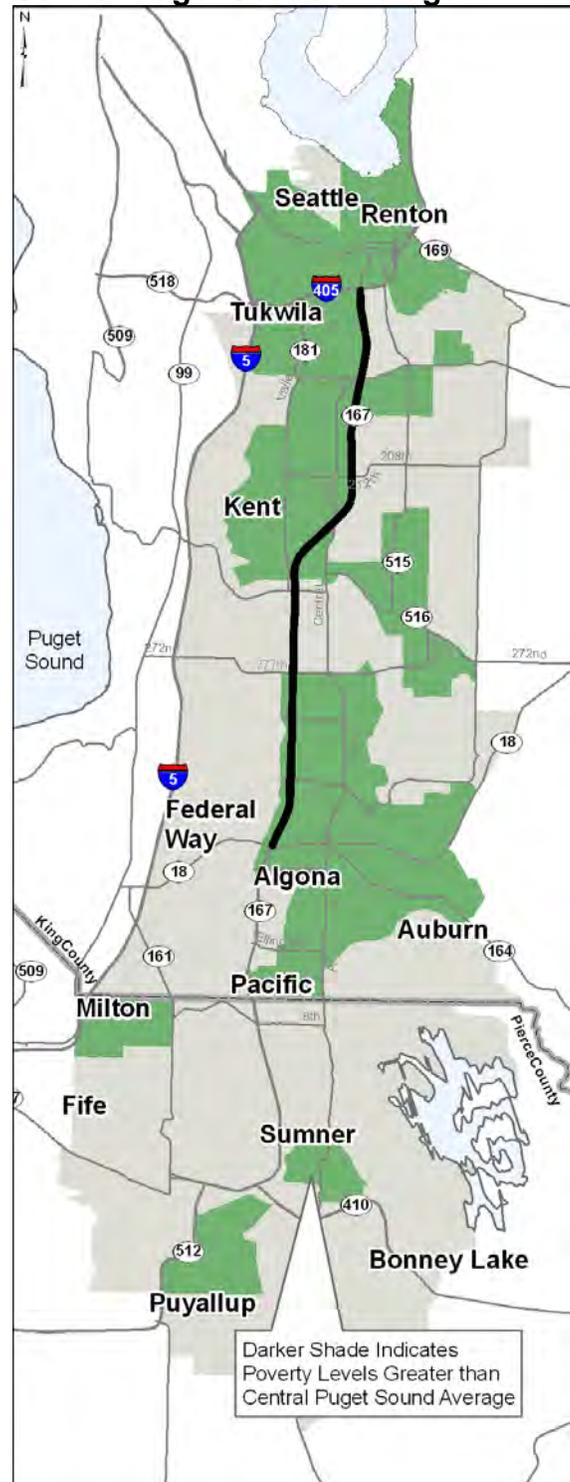
### **Will HOT Lanes pose a disproportionate impact to low-income users?**

#### ***Effects on Low-income Populations:***

Monitoring programs on existing HOT Lane facilities have not demonstrated that low-income populations experience “disproportionately high and adverse effects”, as defined by Executive Order 12898 of 1994. The primary reason for a lack of an adverse effect on low-income populations is that low-income drivers can still make it to their destination without having to take another route. Even if a low-income driver chooses not to use the HOT Lane, the driver still has the ability use the free, general-purpose lanes that are parallel and adjacent to the HOT Lane. This result is different than other forms of tolling, most of which would establish a toll for the entire road, thus adversely affecting low-income people by forcing them to pay a toll or use parallel, often circuitous routes to get to their destinations.

In focusing on low-income populations, the experience in California demonstrates that a slightly lower percentage of low-income people choose to pay for HOT Lanes as higher income people. This demonstrates that HOT Lanes are not entirely out of the reach of low-income families. In fact, studies suggest that some low-income families choose to pay for HOT Lanes to get to work on time, to keep childcare costs down, and to make appointments on time without taking as much leave from work. These benefits help both low-income and higher income population groups to be more productive at work and keep other costs down that might be higher than the

**Exhibit 3-3  
Poverty Levels Higher Than the  
Central Puget Sound Average**



cost of a HOT Lane trip.

Historical patterns of low-income users in other cities were confirmed by the SR 167 HOT Lane focus group discussions and the origin-destination survey respondents. People attending these meetings and those responding to the survey showed no major concerns of using the HOT Lanes based on income levels or the ability pay the toll. Several participants said they would try the HOT Lanes if it guaranteed them a short travel time, a fair pricing system, and the lanes are enforced.

The data suggests that concerns with the SR 167 HOT lanes having impacts on disadvantaged groups may be less of a concern than once thought. None the less, many still tend to think HOT lanes are unfair to those with lower incomes. The SR 167 focus groups were more concerned about fairness and enforcement of the lanes than cost.

### **How will WSDOT alleviate any potential obstacles to low-income populations?**

As referenced in Chapter 2, to ensure that low-income populations can easily set up toll accounts, WSDOT is proposing several payment methods that can be used by low-income drivers to pay for use of the HOT Lanes. Drivers will be given a choice of paying with credit cards, debit cards, or cash. The cash payment system being considered by WSDOT would allow low-income people to open a toll account without a credit or debit card.

WSDOT does not expect the HOT Lanes to disproportionately impact low-income populations since drivers have a choice of using the HOT Lanes. People can still make it to their destination within the same time period by using the general purpose lanes or HOV Lanes without having to take other routes. Even if a low-income driver chooses not to drive in the HOT Lane, that driver still has the ability to drive in the general-purpose lanes that are parallel and adjacent to the HOT Lane.

## Participation Equity Evaluation

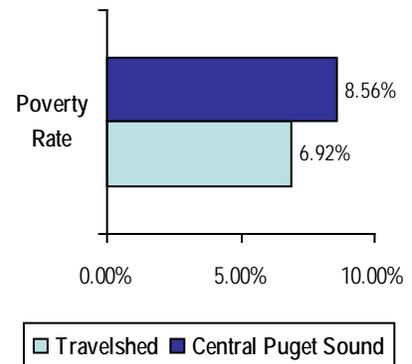
*In evaluating the potential benefits and effects of converting the SR 167 HOV Lanes to HOT Lanes, this chapter has found that as designed the SR 167 HOT Lanes Project is not expected to unfairly affect minorities or low-income populations. This study did however provide some valuable insights into the opinions and concerns of the general public about how HOT Lanes could affect people’s lives. This section summarizes those findings and provides guidance for the future monitoring program.*

### How did focus groups respond to the HOT Lanes concept?

HOT Lanes have been received skeptically by some and enthusiastically by others because they distribute transportation costs and benefits in new ways. Focus group participants expressed concerns about how HOT Lanes actually work and the fairness of tolling the public.

Historical patterns of low-income users in other cities were confirmed by the SR 167 HOT Lane focus group discussions and the Origin-Destination Survey respondents. People attending these meetings and those responding to the survey showed no major concerns of using the HOT Lanes based on income levels or the ability pay the toll. Several participants said they would try the HOT Lanes if it guaranteed

**Exhibit 3-4  
Travelshed Poverty Rate Average  
Versus Central Puget Sound  
Average**



**Exhibit 3-5  
Public Information Displays at  
Local Malls**



them a shorter travel time, a fair pricing system, and if the lanes are enforced. The SR 167 focus groups were more concerned about fairness and enforcement of the lanes than cost.

### **What did WSDOT learn about the use and operation of HOT Lanes from this evaluation?**

Based on the focus group meetings, surveys, community meetings, other HOT Lane studies, and the environmental justice analysis for this report the following conclusions were drawn:

- ***HOT Lanes are not expected to pose a disproportionate impact on low-income commuters.*** Based on public outreach it was found that the choice to use HOT Lanes is not based on income levels or ability to pay the toll. People in the low-income groups specifically said they would use the HOT Lane if it provided them a shorter travel time, a reliable travel time, and was fairly priced and enforced.
- ***HOT Lanes are not expected to pose a disproportionate impact on minorities.*** As for those who use SR 167, minority status is not a factor in determining who can use HOT Lanes; therefore minorities will not be disproportionately affected by the HOT Lanes project.
- ***Trip time reliability and time savings are major priorities.*** Trip time reliability was ranked as the top priority and knowing they could get somewhere on time ranked as the second-highest priority.
- ***Account options should be flexible.*** Easy and convenient payment options should be available to access and replenish accounts, especially for those who do not have Internet access, bank accounts or credit cards.
- ***Enforcement is a significant concern.*** Focus groups and survey responders wanted assurances that all single-occupancy vehicles using the HOT Lanes are

paying the toll, and that enforcement is a priority.

- ***More communication and project education is needed.*** A continued and ongoing public information campaign is needed that provides information about management, enforcement, pricing, travel reliability, and how HOT Lanes have worked in other parts of the country. The demographic profiles obtained from the Census data and the School District's bilingual program reflect that people in the project area may need project materials translated into Tagalog, Korean, Vietnamese, and Spanish. As WSDOT will be scheduling several outreach activities throughout 2006 and 2007, future notices are expected to be provided to the community in Asian and Hispanic languages. These notices should be sent to community centers, services agencies such as food banks and medical clinics, and churches.

**Are the lessons learned on this project consistent with other HOT Lane studies across the Country?**

Yes. Extensive survey efforts demonstrate that the existing HOT Lane facilities across the country are popular with local motorists. Moreover it appears that this support is consistent among motorists of all income levels, including both those who use existing HOT Lanes on a regular basis and those who seldom do. Experience in other parts of the country also shows that regardless of income most motorists use HOT Lanes on a selective basis, mostly when the trip purpose justifies the expense.

Effective public outreach is essential in garnering support for the HOT Lanes, and must continue throughout project planning, implementation, and operation. The concept of HOT Lanes is heavily dependent on the support of public figures who are willing to act as vocal champions for this type of project. They may include elected officials, community advocates, or private sector leaders who are recognized consensus builders.

There are a number of other lessons that can be drawn from the nation's collective experience to date, including several key conceptual and institutional findings:

- The HOT Lane concept provides a cost-effective opportunity to allow the nation's extensive HOV and express lane networks to be managed and operated more efficiently.
- HOT Lanes provide an opportunity for paying motorists to avoid congested highway lanes while at the same time easing congestion on parallel general purpose lanes.
- HOT Lanes enhance mobility at the corridor level.

## Modal Equity Evaluation

*Transit, vanpools and carpools would continue to have priority for use of HOT lanes. General-purpose traffic would only be allowed to use the lanes when they can do so without causing congestion in the HOT lanes. Experience in California, Texas, and Maryland demonstrates that HOT Lanes provide a transportation alternative that benefits all segments of the population without conflicting with other public transportation systems such as buses or light rail facilities. This section summarizes the public's general opinion of HOT Lanes and under what circumstances people would use HOT Lanes.*

### **What criteria will commuters most likely use in deciding to use the HOT Lanes?**

Those most likely to use HOT Lanes include those people who need to be at their jobs at a specific time to respond to customers as well as other internal staff members. These positions require less technical skills so these people can be easily replaced if they cannot get to work on time. Time savings, consistency, and trip reliabilities were viewed as

important benefits to low-income populations that have specific time constraints due to jobs, daycare limitations, or other commitments. These people responded that the cost of the toll on a periodic basis, or even for a few days a week, would be less than the financial penalty incurred by sitting in congestion and being late.

These survey results are consistent with other HOT Lane monitoring studies across the country which shows all segments of the population use HOT Lanes, regardless of income levels. Experience in California, Texas, and Maryland demonstrates how HOT Lanes benefit all segments of their population, including low-income populations. Based on WSDOT's studies and other HOT Lane studies across the country, it does not appear that high and disproportionate adverse effects on low-income populations due to the HOT Lanes project would exist.

### **What are the overall effects to the traveling public?**

Experience in California, Texas, and Maryland alone, demonstrates that HOT Lanes benefit all segments of our population.

- The general purpose lanes benefit from added capacity and improved safety as people choose to pay to use the HOT lanes.
- People who do not have readily available access to mass transit, vanpools, or qualifying carpools benefit from having a quicker or more reliable way to get to work, to appointments, or to get home.
- The HOT lanes will be managed to ensure that traffic continues to flow for individuals choosing ride in a high occupancy vehicle.

### **Would HOT Lanes have an impact on carpools or transit services?**

Transit, vanpools and carpools would continue to have priority for use of HOT lanes. General-purpose traffic would only be allowed to use the lanes when they can do so without causing congestion in the HOT lanes. Typically, HOT lane tolls are set to control the number of vehicles using the lane in order to maintain reliable travel times. In the SR 167 HOT Lane Pilot Project, buses, carpools and vanpools could use the HOT lanes free of charge.

## **Opportunity Equity Evaluation**

*WSDOT has found, through the use of existing studies and by conducting their extensive outreach program, that minorities and low-income populations are not disproportionately affected by the project.*

*To verify these findings, a four-year monitoring and evaluation period will begin following the opening of the SR 167 HOT Lanes Pilot Project. Monitoring will include data collection and assessments to evaluate the overall success of the project. This section also summarizes the recommended monitoring program and how the information could be used to either modify the SR 167 HOT Lane facility or potentially expand HOT Lanes to other regional roadways in Washington.*

### **What are the potential benefits or obstacles to using HOT Lanes?**

As the SR 167 corridor becomes congested, people will move to the HOT Lanes, thereby improving traffic flow in all lanes, while maintaining fast, reliable trips throughout the corridor. When the pricing system was discussed in the focus group meetings, the majority of the people were more concerned about trip time reliability and time savings. People were inclined to use the HOT Lane system regardless of where they entered the freeway if it helped them get to their jobs on time,

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#### **Monitoring Components:**

- Operation and efficiency of the access points will be analyzed and documented
  - Use of the HOT Lanes by solo drivers will be documented
  - Evaluation of the transponder card program to determine if people have easy and convenient access to the transponder card system
  - Safety conditions
  - Before and after traffic volumes, speeds, and congestion levels
  - Market surveys, public comments, focus group responses, and interviews with transit agencies, local and regional government will be evaluated during the monitoring period
-

reduced their travel times, or provided additional time to see more clients in a day.

***Project Benefits:***

As a result of the WSDOT's analysis and past HOT Lane studies, it does not appear that the pilot project will adversely affect users based on their general location. People understand that the project is only nine miles in total length, but they appear to believe that the overall time savings is more valuable than a proportional fee based on miles driven.

When completed, the project is anticipated to benefit individual drivers, the adjacent communities, and the Puget Sound region as a whole. Potential benefits include:

- The improvement of efficiency and maximizing the use of the roadway's existing capacity.
- A transportation alternative that will manage congestion and facilitate mobility.
- The option for solo drivers to buy into the HOT Lanes to save travel time and provide better trip reliability.
- Moving more people and vehicles through the SR 167 corridor.
- Generally reducing the time that people spend in traffic.
- Improving travel time reliability for people trying to get to work and other appointments.

***Potential Obstacles to Use of the HOT Lanes:***

In analyzing effects on low-income populations, the experience in California on both SR 91 and I-15 demonstrates that a slightly lower percentage of low-income people chose to pay for HOT Lanes as higher income people. This demonstrates that HOT Lanes are probably not expected to be out of the financial reach of low-income families. In fact, studies suggest that some low-income families choose to pay for HOT Lanes to get to work on time, to keep childcare costs down, and to make appointments on time without taking as much leave from work.

Although these studies show that low-income and non-low-income drivers have nearly equal use of HOT lanes, research does suggest that some low-income drivers may be excluded from using HOT Lanes because of their low-income status. When income is low, it can be difficult to secure credit or debit cards, both of which commonly are used to bill for HOT Lane use.

## Geography Equity Evaluation

*WSDOT's proposed tolling system has been designed so that all drivers using the HOT Lanes will pay the same rate regardless of where they enter the lanes. For example, a person entering the HOT Lanes in Auburn and traveling to Renton will pay the same toll as the person entering the lanes in Kent and driving to Renton. Geographic equity was used by WSDOT to evaluate if people at the north end of the project would pay a toll to use the HOT Lane as much or similarly to those in the southern reaches of SR 167.*

### **Are geographic equity issues a concern for HOT Lane users?**

When the pricing system was discussed in the focus group meetings, the majority of the people were more concerned about trip reliability and time savings. People were inclined to use the HOT Lane system regardless of where they entered the freeway if it helped them get to their jobs on time and reduced their travel times enough to add more clients in a day.

As a result of the survey, and past studies, it does not appear that the Pilot project will negatively affect users based on their general location. People understand that the project is only nine miles in total length; but they feel the overall time savings is more valuable than the toll.

### **How will WSDOT monitor the Pilot Project?**

WSDOT has prepared a conceptual Performance Monitoring and Evaluation plan that outlines a strategy to monitor the SR

167 HOT Lanes Pilot Project and report annually to the State Transportation Commission and Legislature on the performance of the SR 167 HOT Lanes. This conceptual Performance Monitoring and Evaluation plan is being developed to support the WSDOT monitoring requirements for the facility. At a minimum, this Performance Monitoring and Evaluation will identify baseline conditions and an approach for providing pertinent operational data on an annual basis. The process used to develop the Performance Monitoring and Evaluation is presented in the SR 167 HOT Lanes Pilot Project—Phase I, Conceptual Performance Monitoring & Evaluation Plan, prepared by Carter Burgess Inc., May 2006.

### **How will WSDOT evaluate if the project meets the projected goals?**

It is important to emphasize that this is a pilot project. The State of Washington plans on conducting a four-year monitoring program. As referenced in Chapter 2, the monitoring program should continue to evaluate if HOT Lanes pose a disproportionate impact on minorities and low-income populations. To do this WSDOT will attempt to:

- Learn what criteria commuters might use in deciding to use the HOT Lanes;
- Determine any obstacles to using the HOT Lanes;
- Learn how people would be affected by the change in SR 167's operation;
- Determine if there is a disproportionate impact on any specific user group such as low-income, minorities.

As part of the pilot project, WSDOT will survey and hold focus group discussions with communities and people who use HOT Lanes. Surveying will help to determine whether HOT Lanes pose a disproportionate impact on minority and low-income populations. Monitoring, evaluation and ongoing public involvement will help ensure equity effects are addressed. Some of the questions that should be asked include:

- How has the community accepted the concept of HOT Lanes?
- Who uses the HOT Lanes?
- Do HOT Lanes ensure time savings and trip reliability as originally perceived?
- Under what conditions are people using the HOT Lanes?
- Should the toll rate be altered?
- Do the HOT Lane operations or access points need alteration?
- Are minorities or low-income populations affected by HOT Lanes? If so, how?
- Is the process to register a vehicle and obtain a toll account easily accessible to the general public, including low-income individuals?
- Have transit and carpool lane speed and reliability been maintained 90 percent of the time?
- Have HOT Lanes improved the efficiency of the corridor?

With the monitoring data, WSDOT should be able to annually assess the facility's ability to meet its intended goal. The results of this pilot project could then be used in the design of future HOT Lane facilities in the state of Washington and potentially across the county if the project is successful.

#### **What will be monitored for the pilot project?**

WSDOT's Washington Transportation Research Center (TRAC) is collecting data about current use of the SR 167 carpool lanes, including the numbers of carpools, vanpools and buses using the lanes. Travel times for carpool users will be recorded to use as a baseline for comparison for when HOT Lanes are in use. The monitoring program will then use this information as well as data collected during the four years to evaluate the overall performance of HOT Lanes.

**Will community outreach continue throughout the life of the pilot project?**

Yes. Public outreach activities are expected to be held throughout the HOT Lanes Pilot Project. Outreach activities should include community meetings, focus groups, and briefings to any organization that is interested in learning more about this project.

**What will WSDOT do with the monitoring information?**

Currently, freeways east of Lake Washington, I-405, SR 167, SR 520 and I-90 could easily accommodate future HOT Lane projects. This means that HOV Lanes on these routes have space to accommodate more vehicles during the morning or evening rush hours when the general purpose lanes are crowded.

The SR 167 HOT Lanes Pilot Project should provide WSDOT with more information to help determine if HOT Lanes work in Washington State. The study could be used to evaluate existing and forecast future highway conditions and assess the potential for implementing HOT Lanes on other road networks in the Puget Sound region.

## Conclusion

As a result of the HOT Lanes Project, WSDOT anticipates the following to be true:

- The project will provide SOVs, regardless of minority status or income, with the option of a faster trip and reliable travel times;
- Traffic volumes or congestion will not increase in the area due to the project;
- Conversion of the HOV Lane to HOT Lanes will not hinder access, parking, or use of the adjacent properties.

Success of the HOT Lanes Pilot Project will be measured by the following.

- A transportation alternative that helps to alleviate congestion and facilitate mobility;
- Reduction, in general, of the time that all people spend in traffic;
- Traffic improvement of vital alternative routes such as I-5.

In conclusion, it does not appear at this time that high and disproportionate adverse effects on low-income or minority populations would exist. This report concludes that the proposed project is consistent with the US Department of Transportation's DOT Order to Address Environmental Justice in Minority Populations and Low-Income Populations, and Executive Orders 12898 and 13166. However, the pilot project will continue to gather and analyze data for any potential disproportionate adverse effects on Environmental Justice populations.

## References

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The primary source of demographic data for this report included:

- 2000 US Census Block level statistics from eighty-five tracts encompassing individual cities and unincorporated Pierce and King Counties were collected to describe communities in the project area. Census data was used to determine housing characteristic, racial/ethnic composition, income and poverty levels, disability, and non-English speaking populations were obtained for the project area and areas to the north and south of the project.
- Comprehensive Plans were used to provide the most comprehensive, complete, and detailed data source currently available.
- School district data was collected from school districts in the travelshed. These school districts include: Renton, Auburn, Federal Way, and Kent. Nearly all of the Auburn and Kent school districts are within the study area, however, only small portions of the Federal Way School District are included. Statistics for each school district are for the entire school district.
- Origin / Destination data from transit agencies.
- Origin / Destination data from the Washington State Department of Transportation (05/17/2005).
- Washington State Department of Transportation user study and focus groups.

- Reconnaissance of the affected neighborhoods was used to confirm the locations of any important community facilities, such as churches, schools, and emergency facilities.

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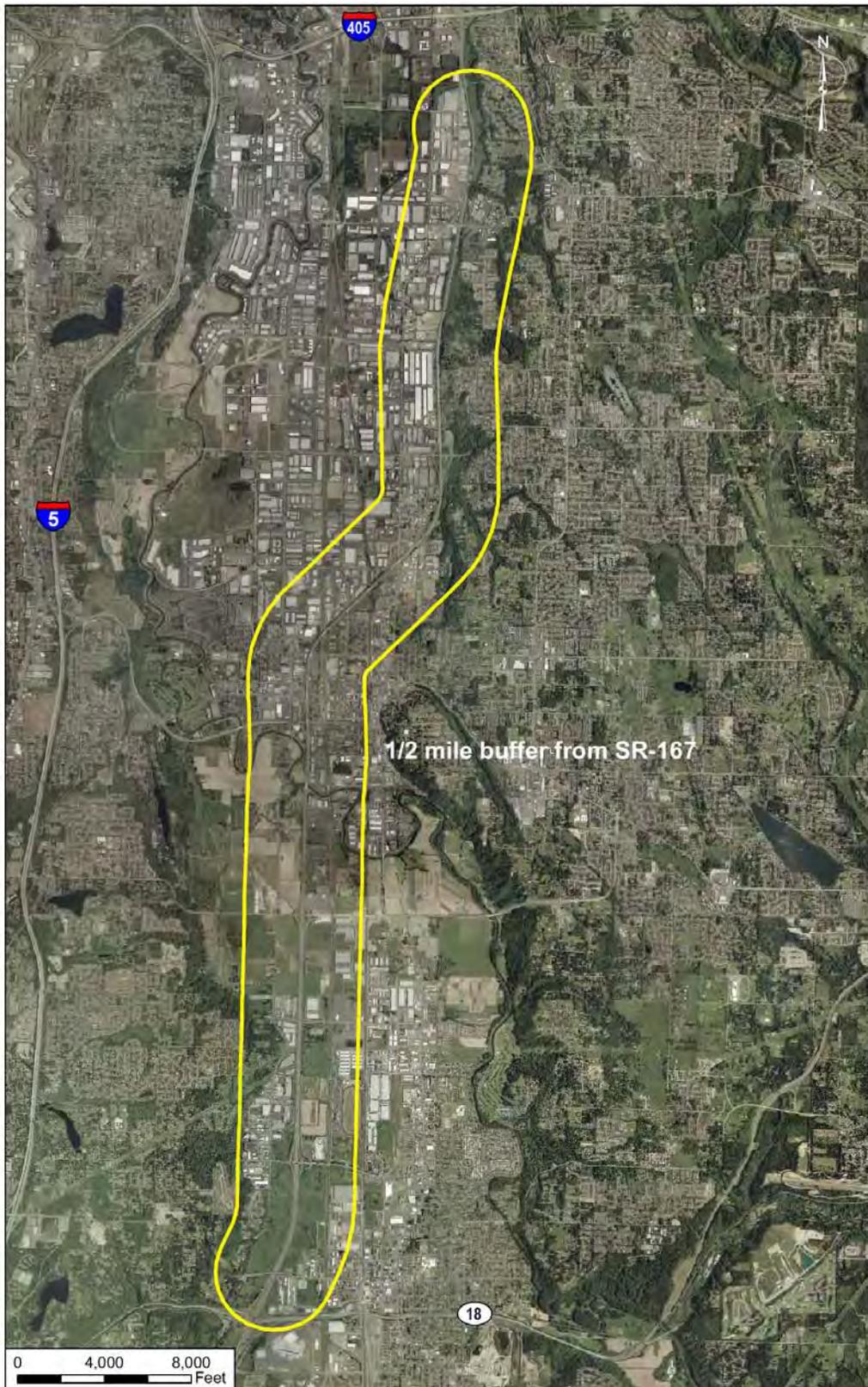
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# **Attachments**

## **SR 167 HOT Lanes Pilot Project**

# Attachment 1 – Aerial Photo of Project Area



# Attachment 2 – SR 167 Travelshed Census Tracts

