FINAL ENVIRONMENTAL IMPACT STATEMENT
AND FINAL SECTION 4(f) AND 6(f) EVALUATIONS
SR 520 BRIDGE REPLACEMENT AND HOV PROGRAM

MAY 2011

SR 520, I-5 to Medina: Bridge Replacement and HOV Project

Environmental Justice Discipline Report Addendum and Errata

Washington State Department of Transportation

U.S. Department of Transportation Federal Highway Administration

SR 520, I-5 to Medina:
Bridge Replacement and HOV Project
Final Environmental Impact Statement
and Final Section 4(f) and 6(f) Evaluations

Environmental Justice Discipline Report Addendum and Errata

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Washington State Department of Transportation
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Acronyms and Abbreviations

BMP	best management practice
CFR	*Code of Federal Regulations*
EBT	Electronic Benefits Transfer
EIS	environmental impact statement
ESSB	Engrossed Substitute Senate Bill
FHWA	Federal Highway Administration
GIS	geographic information system
HOV	high-occupancy vehicle
I-5	Interstate 5
LEP	limited-English-proficient
mph	miles per hour
NAC	noise abatement criteria
SDEIS	Supplemental Draft Environmental Impact Statement
SR	State Route
TCP	traditional cultural property
UPA	(Lake Washington) Urban Partnership Agreement
VIP	Vanpool Investment Program
WSDOT	Washington State Department of Transportation

Introduction

What is the purpose of this addendum?

This addendum to the 2009 Environmental Justice Discipline Report (Washington State Department of Transportation [WSDOT] 2009) was prepared in support of the *SR 520, I-5 to Medina: Bridge Replacement and High-Occupancy Vehicle (HOV) Project Supplemental Draft Environmental Impact Statement and Section 4(f)/6(f) Evaluation* (SDEIS) (WSDOT 2010). It presents the environmental consequences of the Preferred Alternative; compares its effects to the SDEIS design Options A, K, and L; and reflects additional analyses that resulted from the public and agency comments received on the SDEIS. These analyses are shown in the context of the Preferred Alternative.

The information contained in the Environmental Justice Discipline Report is still pertinent to the Preferred Alternative and its effects, except where this addendum specifically updates it. This addendum supplements the Environmental Justice Discipline Report and provides comparisons using new text, and new or updated exhibits, where appropriate. The new text and updated exhibits that reflect the Preferred Alternative have been cross-referenced by page numbers and exhibit numbers to related text and exhibits in the Environmental Justice Discipline Report. Where an exhibit in this addendum updates or adds new data or potential effects of the Preferred Alternative to an exhibit in the Environmental Justice Discipline Report, the exhibit name is followed by "Update to Exhibit ## of the 2009 Discipline Report" in parentheses.

New information used in the description of the affected environment includes outcomes from the Tribal Working Group, as well as the 6392 Working Group authorized by the Washington State legislature. This legislative authorization directs WSDOT to work with regional agencies, including the City of Seattle, King County, the University of Washington, and Sound Transit to refine components of the State Route (SR) 520, Interstate 5 (I-5) to Medina Preferred Alternative, including design refinements and transit connections, transit planning, and financing. The bill also directs WSDOT to develop a mitigation plan for the Washington Park Arboretum. This document also clarifies the scope of the treaty rights guaranteed to the Muckleshoot Indian Tribe.

What is the 6392 Working Group?

During the 2010 session, the Washington State legislature passed ESSB 6392. ESSB 6392 directed WSDOT to work with regional agencies to refine components of the SR 520, I-5 to Medina Preferred Alternative, including design refinements and transit connections, and high capacity transit planning and financing.

The bill also directed WSDOT to develop a mitigation plan for the Washington Park Arboretum.

In response to this direction from the legislature, WSDOT led collaboration with the City of Seattle, King County, the University of Washington, Sound Transit, and the Arboretum and Botanical Garden Committee.

New information used in the analysis of potential effects includes the Description of Alternatives Discipline Report Addendum (WSDOT 2011a), Construction Techniques and Activities Discipline Report Addendum and Errata (WSDOT 2011b), Ecosystems Discipline Report Addendum and Errata (WSDOT 2011c), Air Quality Discipline Report Addendum and Errata (WSDOT 2011d), Final Transportation Discipline Report (WSDOT 2011e), and Final Cultural Resources Assessment

and Discipline Report (WSDOT 2011f). New information used in determining mitigation measures includes outcomes from the Tribal Working Group and 6392 Working Group.

What key issues were identified in the public and agency comments on the SDEIS?

The following key issues, identified in public comments on the SDEIS, are addressed in this addendum:

- Effects of project construction and operation on access to treaty usual and accustomed tribal fishing areas
- Effects of project construction and operation on fish and fish habitat in treaty usual and accustomed tribal fishing areas
- Mitigation to minimize or avoid adverse effects to fish and fish habitat in treaty usual and accustomed tribal fishing areas
- Potential effects of pontoon storage and transport on the Muckleshoot Indian Tribe's fishing and fisheries resources
- Protection of treaty rights including but not limited to fishing, hunting, and gathering
- Mitigation to minimize the financial effects of tolling on low-income bridge users and social service agencies

Corrections and clarifications to the Environmental Justice Discipline Report (WSDOT 2009) that do not constitute new findings or analysis are listed in an Errata sheet attached to this addendum.

What are the key points of this addendum?

Since publication of the SDEIS, new information is available that provides a basis for changing the conclusion that tolling would have a disproportionately high and adverse effect on low-income populations. First, there have been substantial improvements to alternatives to paying the toll, including new investments in transit services across SR 520 and rideshare and vanpool options. As a result of these improvements, fewer low-income populations would be adversely affected by the toll than previously assumed, because there are now more affordable alternatives to paying the toll. According to guidance that WSDOT received from FWHA, this minimizes the effect of the toll on low-income populations. Second, FHWA has provided WSDOT with guidance that overall project benefits – including those that apply broadly to all users – should be considered in determining whether there is a disproportionately high and

Disproportionately high and adverse effects have one of the following characteristics, under U.S. Department of Transportation Order 5610.2 and Federal Highway Administration (FHWA) Order 6640.23:

- Predominantly borne by a minority population and/or low-income population.
- Will be suffered by the minority population and/or low-income population and are appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or non-low-income population.

adverse effect on low-income or minority populations. All SR 520 users – including low-income users – would benefit from a safer bridge that is less vulnerable to catastrophic failure. In addition, all SR 520 users – including low-income users – would benefit from a faster, more reliable trip across SR 520. Coupled with the new actions taken to provide more affordable alternatives to paying the toll, along with the targeted outreach to environmental justice populations and other SR 520 Variable Tolling project's mitigation measures (Environmental Justice Discipline Report, WSDOT 2009) analysts believe that the overall project benefits offset the adverse effects of the toll on low-income populations. Therefore, analysts conclude that there would be no disproportionately high and adverse effect as a result of the toll.

As mentioned in the previous paragraph, there have been substantial new improvements to transit and rideshare services across SR 520. In addition, WSDOT is continuing its extensive outreach to community-based social service agencies that serve low-income and limited-English proficient (LEP) populations, to provide them and their clients with information about the electronic toll system, how to purchase a transponder and open and account, and affordable alternatives to paying the toll. Coupled with mitigation for WSDOT's variable tolling project on SR 520 (described in the 2009 Environmental Justice Discipline Report), analysts conclude that the effects of the toll on low-income populations have been greatly minimized. Therefore, this report does not recommend mitigation measures to further avoid or minimize adverse effects.

Because of concerns about environmental justice and potential effects to historic properties and the Arboretum, WSDOT made a number of design refinements to minimize effects to Foster Island, which is a traditional cultural property (TCP) for area Native American tribes. The Preferred Alternative would provide a taller bridge across Foster Island than Option A, with approximately 16 to 20 feet of clearance above ground. This would open views at ground level for Arboretum Waterfront Trail users while still maintaining a relatively low road profile. To minimize the effects to the Foster Island TCP, the Preferred Alternative would not include a stormwater treatment facility on Foster Island and WSDOT limited the additional bridge width needed to accommodate project design refinements. WSDOT also committed to using low impact construction techniques, such as work bridges, to further reduce ground disturbance.

What is a Traditional Cultural Property (TCP)?

A TCP is an established place associated with the cultural practices or beliefs of a living community, which are rooted in the community's history, and are important in maintaining the continuing cultural identity of the community. Traditional cultural properties can be eligible for listing in the National Register of Historic Places (NRHP) if they meet the NRHP eligibility criteria for their association with the cultural practices or beliefs that maintain a community's cultural identity (National Park Service 2010).

As with Option A, construction of the Preferred Alternative would adversely affect aquatic habitat, and could affect tribal fish resources and access for Muckleshoot Indian Tribe fishers in the tribe's usual and accustomed fishing areas. However, as would have occurred with Option A, FHWA and WSDOT are actively engaged in government-to-government consultation with the Muckleshoot Indian Tribe, to determine appropriate mitigation for the project's effects on resources protected by treaty fishing rights. A formal agreement is expected in late 2011.

Similar to Option A, the Preferred Alternative would also have a substantially wider and deeper footprint than the existing Evergreen Point Bridge. It would permanently limit access to the Muckleshoot Indian Tribe's usual and accustomed fishing areas, but the new floating bridge is not expected to cause detectable changes to water temperatures in the surface layers, or to affect tribal fish resources. WSDOT is working with the tribe to discuss the effects on fishing access and fish habitat, and agree on mitigation for these identified effects.

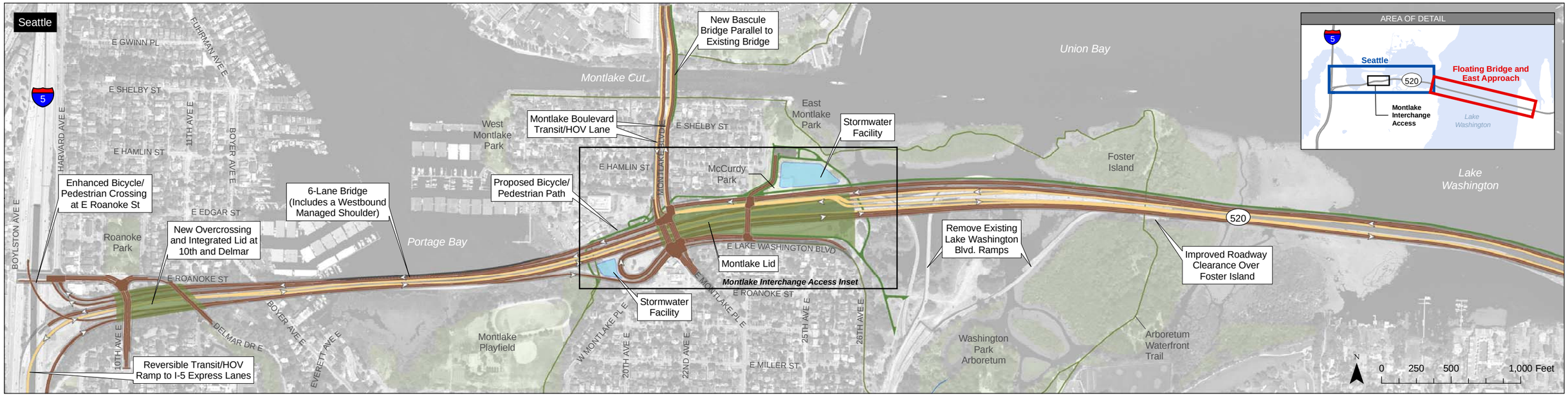
As with the SDEIS options, construction of the Preferred Alternative would affect neighborhoods that do not have a high proportion of low-income, minority, or LEP populations. Therefore, analysts conclude that the effects of construction of the Preferred Alternative (such as increased noise) would not have a disproportionate effect on low-income, minority, or LEP populations. However, it should be noted that although low-income residents of the affected neighborhoods would be exposed to the same construction effects as other residents, they might not have the resources to relocate temporarily during periods of nighttime construction or purchase an air conditioner if construction-related noise forced them to close their windows in the summertime.

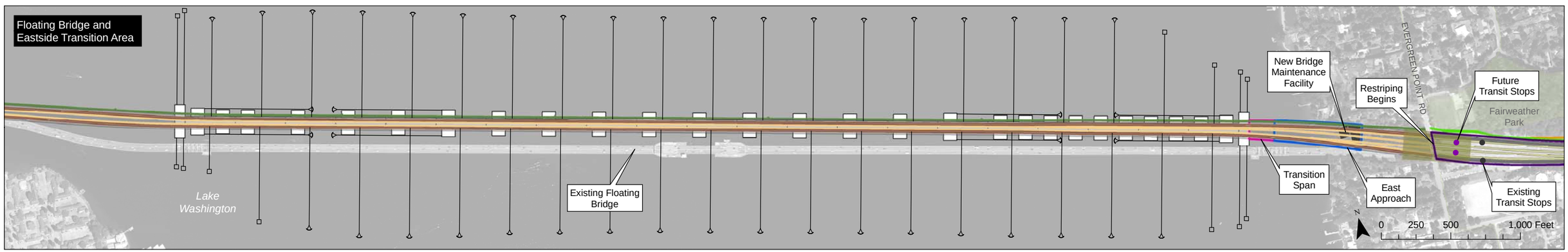
What is the SR 520, I-5 to Medina: Bridge Replacement and HOV Project?

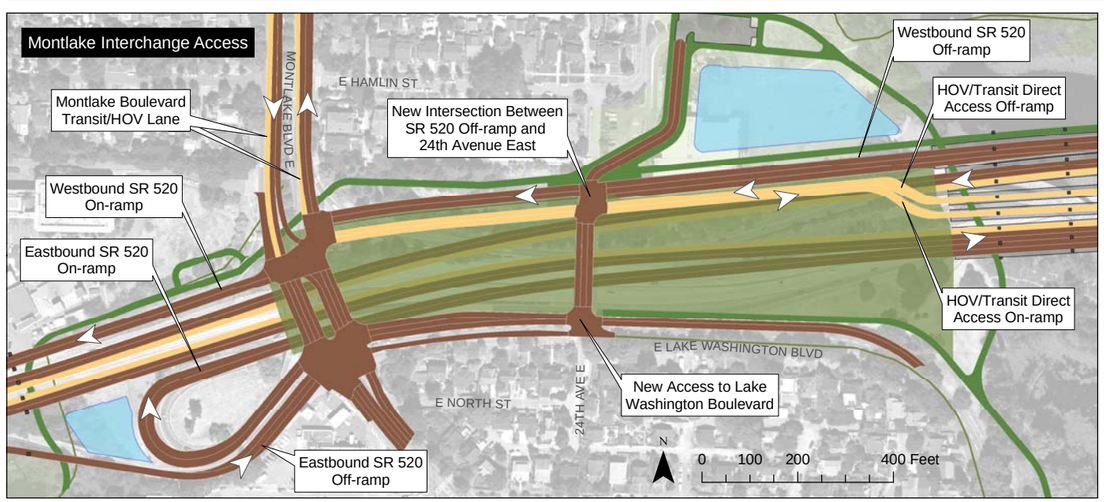
The SR 520, I-5 to Medina: Bridge Replacement and HOV Project would widen the SR 520 corridor to six lanes from I-5 in Seattle to Evergreen Point Road in Medina, and would restripe and reconfigure the lanes in the corridor from Evergreen Point Road to 92nd Avenue NE in Yarrow Point. It would replace the vulnerable Evergreen Point Bridge (including the west and east approach structures) and Portage Bay Bridge, as well as the existing local street bridges across SR 520. The project would complete the regional HOV lane system across SR 520, as called for in regional and local transportation plans.

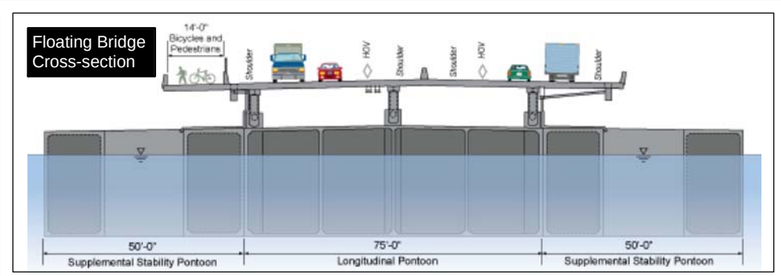
What is the Preferred Alternative?

The new SR 520 corridor would be six lanes wide (two 11-foot-wide outer general-purpose lanes and one 12-foot-wide inside HOV lane in each direction), with 4-foot-wide inside shoulders and 10-foot-wide outside shoulders across the floating bridge. The typical roadway cross-section across the floating bridge would be approximately 116 feet wide, compared to the existing width of 60 feet. In response to community interests expressed during public review of the January 2010 SDEIS, the SR 520 corridor between I-5 and the Montlake interchange would operate as a boulevard or parkway with a posted speed limit of 45 miles per hour and a median planting across the Portage Bay Bridge. To support the boulevard concept, the width of the inside shoulders in this section of SR 520 would be narrowed from 4 feet to 2 feet, and the width of the outside shoulders would be reduced from 10 feet to 8 feet. Exhibit 1 highlights the major components of the Preferred Alternative.









I-5 to Medina Project Elements

- Column
- Anchor and Cable
- Existing Regional Bicycle/Pedestrian Path
- General-Purpose Lane
- HOV, Direct Access, and/or Transit-Only Lane
- Westbound Managed Shoulder
- Proposed Bicycle/Pedestrian Path
- East Approach
- Transition Span
- Restriping Area
- Stormwater Treatment Facility
- Lid
- Pontoon

Medina to SR 202 Project Elements

- General-Purpose Lane
- HOV Lane
- Bike Path
- Points Loop Trail
- Medina to SR 202 Project Lid

Source: King County (2006) Aerial Photo, King County (2008) GIS Data (Stream), CH2M HILL (2008) GIS Data (Park). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.

Exhibit 1. **Preferred Alternative Project Elements**

I-5 to Medina: Bridge Replacement and HOV Project

The Preferred Alternative would include the following elements:

- An enhanced bicycle/pedestrian crossing adjacent to the East Roanoke Street bridge over I-5
- Reversible transit/HOV ramp to the I-5 express lanes, southbound in the morning and northbound in the evening
- New overcrossings and an integrated lid at 10th Avenue East and Delmar Drive East
- A six-lane Portage Bay Bridge with a 14-foot-wide westbound managed shoulder that would be used as an auxiliary lane during peak commute hours
- An improved urban interchange at Montlake Boulevard integrated with a 1,400-foot-long lid configured for transit, pedestrian, and community connectivity
- A new bascule bridge across the Montlake Cut that provides additional capacity for transit/HOV, bicycles, and pedestrians
- Improved bridge clearance over Foster Island and the Arboretum Waterfront Trail
- A new west approach bridge configured to be compatible with future high-capacity transit (including light rail)
- A new floating bridge with two general-purpose lanes, and one HOV lane in each direction
- A new 14-foot-wide bicycle/pedestrian path with scenic pull-outs along the north side of the new Evergreen Point Bridge (west approach, floating span, and east approach), connecting regional trails on both sides of Lake Washington
- A new bridge maintenance facility and dock located underneath the east approach of the Evergreen Point Bridge
- Re-striped and reconfigured roadway between the east approach and 92nd Avenue NE, tying in to improvements made by the SR 520, Medina to SR 202: Eastside Transit and HOV Project
- Design features that would also provide noise reduction including reduced speed limit on Portage Bay Bridge, 4-foot concrete traffic barriers, and noise absorptive materials applied to the inside of the 4-foot traffic barriers and lid portals. Quieter concrete pavement would also be used for the new SR 520 main line, and noise walls where recommended by the noise analysis and approved by affected property owners would be included in the design
- Basic and enhanced stormwater treatment facilities

Exhibit 2 summarizes the Preferred Alternative design compared to the existing corridor elements, and compares the Preferred Alternative to design options A, K, and L as described in the SDEIS. For a more detailed description of the Preferred Alternative, see the Description of Alternatives Discipline Report Addendum (WSDOT 2011a).

Exhibit 2. Preferred Alternative and Comparison to SDEIS Options

Geographic Area	Preferred Alternative	Comparison to SDEIS Options A, K, and L
I-5/Roanoke Area	The SR 520 and I-5 interchange ramps would be reconstructed with generally the same ramp configuration as the ramps for the existing interchange. A new reversible transit/HOV ramp would connect with the I-5 express lanes.	Similar to all options presented in the SDEIS. Instead of a lid over I-5 at Roanoke Street, the Preferred Alternative would include an enhanced bicycle/pedestrian path adjacent to the existing Roanoke Street Bridge.
Portage Bay Area	The Portage Bay Bridge would be replaced with a wider and, in some locations, higher structure with six travel lanes and a 14-foot-wide westbound managed shoulder.	Similar in width to Options K and L, similar in operation to Option A. Shoulders are narrower than described in SDEIS (2-foot-wide inside shoulders, 8-foot-wide outside shoulder on eastbound lanes), posted speed would be reduced to 45 miles per hour (mph), and median plantings would be provided to create a boulevard-like design.
Montlake Area	The Montlake interchange would remain in a similar location as today. A new bascule bridge would be constructed over the Montlake Cut. A 1,400-foot-long lid would be constructed between Montlake Boulevard and the Lake Washington shoreline. The bridge would include direct-access ramps to and from the Eastside. Access would be provided to Lake Washington Boulevard via a new intersection at 24th Avenue East.	Interchange location similar to Option A. Lid would be approximately 75 feet longer than previously described for Option A, and would be a complete lid over top of the SR 520 main line, which would require ventilation and other fire, life, and safety systems. Transit connections would be provided on the lid to facilitate access between neighborhoods and the Eastside. Montlake Boulevard would be restriped for two general-purpose lanes and one HOV lane in each direction between SR 520 and the Montlake Cut.
West Approach Area	The west approach bridge would be replaced with wider and higher structures, maintaining a constant profile rising from the shoreline at Montlake out to the west transition span. Bridge structures would be compatible with potential future light rail through the corridor.	Bridge profile most similar to Option L, and slightly steeper; structure types similar to Options A and L. The gap between the eastbound and westbound structures would be wider than previously described to accommodate light rail in the future.
Floating Bridge Area	A new floating span would be located approximately 190 feet north of the existing bridge at the west end and 160 feet north of the existing bridge at the east end. The floating bridge would be approximately 20 feet above the water surface at the midspan (about 10 to 12 feet higher than the existing bridge deck).	Similar to design described in the SDEIS. The bridge would be approximately 10 feet lower than described in the SDEIS, and most of the roadway deck support would be constructed of steel trusses instead of concrete columns.
Eastside Transition Area	A new east approach to the floating bridge, and a new SR 520 roadway would be constructed between the floating bridge and Evergreen Point Road.	Same as described in the SDEIS.

When will the project be built?

Construction for the SR 520, I-5 to Medina project is planned to begin in 2012, after project permits and approvals are received. To maintain traffic flow in the corridor, the project would be built in stages. Major construction in the corridor is expected to be complete in 2018. The most vulnerable structures (the Evergreen Point Bridge including the west and east approaches, and Portage Bay Bridge) would be built in the first stages of construction, followed by the less vulnerable components (Montlake and I-5 interchanges). Exhibit 3 provides an overview of the anticipated construction stages and durations identified for the SR 520, I-5 to Medina project.

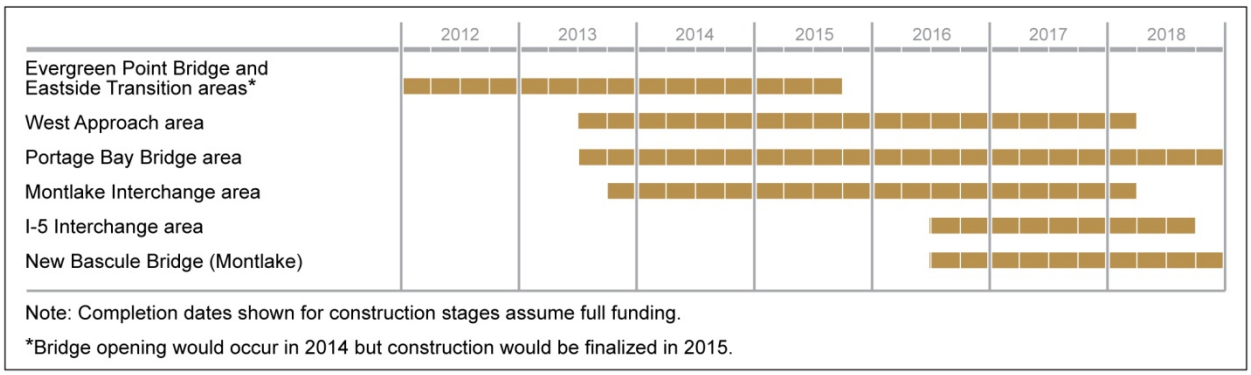


Exhibit 3. Preferred Alternative Construction Stages and Durations

A Phased Implementation scenario was discussed in the SDEIS as a possible delivery strategy to complete the SR 520, I-5 to Medina project in phases over an extended period. FHWA and WSDOT continue to evaluate the possibility of phased construction of the corridor should full project funding not be available by 2012. Current committed funding is sufficient to construct the floating portion of the Evergreen Point Bridge, as well as the new east approach and a connection to the existing west approach. The Final EIS discusses the potential for the floating bridge and these east and west "landings" to be built as the first phase of the SR 520, I-5 to Medina project. This differs from the SDEIS Phased Implementation scenario, which included the west approach and the Portage Bay Bridge in the first construction phase. Chapters 5.15 and 6.16 of the Final EIS summarize the effects for this construction phase. Therefore, this discipline report addendum addresses only the effects anticipated as a result of the updated construction schedule.

Are pontoons being constructed as part of this project?

WSDOT has completed planning and permitting for a new facility that will build and store the 33 pontoons needed to replace the existing capacity of the floating portion of the Evergreen Point Bridge in the event of a catastrophic failure. If the bridge does not fail before its planned replacement, WSDOT would use the 33 pontoons constructed and stored as part of the SR 520 Pontoon Construction Project in the SR 520, I-5 to Medina project. An additional 44 pontoons would be needed to complete the new 6-lane floating bridge planned for the SR 520, I-5 to Medina project.

The additional pontoons would be constructed at Concrete Technology Corporation in the Port of Tacoma, and if available, at the new pontoon construction facility located on the shores of Grays Harbor in Aberdeen, Washington. Final construction locations will be identified at the discretion of the contractor. For additional information about project construction schedules and pontoon construction, launch, and transport, please see the Construction Techniques and Activities Discipline Report Addendum and Errata (WSDOT 2011b).

Affected Environment

Have there been any changes to the affected environment since the SDEIS?

The 2009 Environmental Justice Discipline Report (WSDOT 2009) provides a detailed discussion of the affected environment (pages 20 to 59). Since the publication of the SDEIS, the affected environment for environmental justice has changed in the following ways:

- WSDOT has been authorized to implement early tolling on the existing Evergreen Point Bridge.
- WSDOT has determined that Foster Island is a TCP, eligible for listing in the National Register of Historic Places.

Details about these changes are described below.

Early tolling on the Evergreen Point Bridge

WSDOT has been authorized to implement early tolling on the existing Evergreen Point Bridge. This means that electronic tolling would already be in place when the Preferred Alternative becomes operational in 2016. In 2008, the federal government, WSDOT, King County, and the Puget Sound Regional Council formed the Lake Washington Urban Partnership Agreement (UPA) to use technology and tolling to relieve congestion across and around Lake Washington. The SR 520 Variable Tolling Project, which is part of that effort, will implement a new variable tolling system in 2011 to improve traffic flow on the existing SR 520 corridor. Variable tolling adjusts tolls throughout the day to help smooth traffic. WSDOT conducted an environmental assessment of this project in fall 2008. In March 2009, the Federal Highway Administration (FHWA) reviewed the environmental assessment and signed a Finding of No Significant Impact, authorizing the Urban Partnership to move forward with the project and tolling of the Evergreen Point Bridge.

> What is meant by "variable" tolling?
>
> Under a variable tolling system, different toll rates are charged depending on the time of day. Toll rates will be lower at off-peak hours and higher at peak-hours. Variable tolling helps improve traffic flow by reducing the number of vehicles using the highway at peak travel times.

As described in the SDEIS, the Washington State legislature authorized King County to raise property taxes to fund transit, a portion of which has been dedicated to enhancing service along the SR 520 corridor in anticipation of tolling. At the time of publication of the SDEIS, there were no

specific plans for which routes would be improved. Since then, a plan for transit service improvements has been developed and adopted.

Analysts overlaid the transit service improvements map with the demographic analysis of the SR 520 travelshed. Although there are pockets of low-income residents throughout the SR 520 travelshed, the highest concentrations of low-income SR 520 users are found in the following areas:

- The North Seattle and Lake City neighborhoods along SR 522
- The Totem Lake area in Kirkland
- Bothell where I-405 intersects with SR 522
- The Seattle neighborhoods of Greenwood, Northgate, Ballard, Fremont, the University District, First Hill, and downtown Seattle.

King County Metro Transit and Sound Transit have committed to making transit service improvements on routes that serve some of these neighborhoods.

These improvements address the issue of transit frequency for many people living in neighborhoods with low-income populations in the SR 520 travelshed. However, it should be noted that many of the improvements are on commuter routes rather than all-day routes; therefore, they do not expand travel options for low-income people who need to travel during non-peak hours (such as service or shift workers). Furthermore, because these improvements include only one new route (Sound Transit Route 542, described below), there are still areas of the SR 520 travelshed that do not have adequate transit service. Therefore, these improvements do not help low-income users for whom transit is too far from where they live or work.

The new transit enhancements include improvements to the following routes:

- King County Metro Transit Route 255: The new route provides all-day service from the Totem Lake area in Kirkland to downtown Seattle. Since October 2010, Route 255 extended morning and afternoon weekday trips from Kirkland Transit Center to Totem Lake Transit Center. Starting in February 2011, Route 255 will improve weekday service frequencies by 10 to 30 minutes. Route 255 service from Totem Lake to downtown Seattle begins at approximately 4:30 a.m. and ends at 10:30 p.m. Return service begins at approximately 5:25 a.m. and ends at midnight. These improvements will provide better access and more frequent service for low-income people living in the Totem Lake area of Kirkland.
- King County Metro Transit Route 271: This is all-day service from the Eastgate Park and Ride to the University District Ride via Bellevue Transit Center. Since October 2010, Eastgate-University District weekday service began running every 10 to 30 minutes until 6:00 p.m. Route 271 also extended its 30-minute headway service later into the evening on weekdays. Service from the University District to Eastgate begins at approximately 5:30 a.m. and ends at 10:20 p.m., with return service beginning at 5:45 a.m. and ending at 10 p.m. This improvement will provide more frequent cross-lake travel for low-income residents living in the University District.

- King Count Metro Transit Route 311: This commuter route operates during peak periods on weekdays. Since February 2011, Route 311 had three new morning and three new afternoon trips between Woodinville and Downtown Seattle, which will provide low-income people living in the Duvall area with service at least every 15 minutes during the peak periods. Service from Duvall to Downtown Seattle begins at 4:51 am and ends at 7:17 a.m. Return service begins at 3:15 p.m. and ends at 6:15 p.m. There are six outbound trips from Duvall to Seattle and six return trips, so these route improvements have limited benefits for low-income people who work non-peak hours (such as service or shift workers).
- Sound Transit Route 542: This is a new commuter route that started in October 2010 and provides two-way weekday service with 15-minute frequency during peak periods from Redmond to the University District. Service begins from the University District to Redmond at approximately 6:30 a.m. and runs every 15 minutes until 10 a.m.; it starts up again at 2:30 a.m. and runs every 15 minutes until 6 p.m. Return service begins at 5:30 a.m. and runs every 15 minutes until 9 a.m.; it starts up again at 3:30 p.m. and runs every 15 minutes until 7 p.m. This improvement will provide more frequent cross-lake service for low-income people living in the University District. Because Route 542 does not provide all day service, these route improvements have limited benefits for low-income people who work non-peak hours.

In addition, under the WSDOT Vanpool Investment Program (VIP), there will be a number of new vanpools in service. Vanpools are currently available on a first-come, first-served basis for a monthly rate that covers gas, maintenance, and insurance. Parking and tolls for vanpools are generally free. The rate varies, depending on the size of the van, number of trips per week, and distance traveled per trip. For example, the monthly rate for a 7-to-10-passenger van traveling up to 20 miles roundtrip five days a week would be $380 ($38 to $54 per person per month). Individuals who wish to form a vanpool must do the following: assemble a group of four or more people, choose a driver, and complete an application. WSDOT has been promoting vanpools to community-based social service agencies as an affordable alternative to paying the toll for their staff and clients.

Although not related to the implementation of early tolling on SR 520, King County Metro Transit will be launching RapidRide bus service to from Redmond to Bellevue via Crossroads and Overlake in fall 2011. RapidRide B Line will provide all day, high frequency service and improve connections to buses serving the Eastside, Seattle, south King County, Lynnwood, Everett, and other places. This will help low-income residents of Bellevue's Crossroads neighborhood as well as low-income people traveling to Bellevue or Redmond for work.

In addition, WSDOT has been conducting extensive outreach to community-based social service agencies that serve low-income residents of the SR 520 travelshed. WSDOT has been updating them about the tolling, and has been providing training to them on how to help their staff and clients access affordable alternatives to paying the toll, such as vanpools and ridesharing.

Since May 2010, the WSDOT tolling team has been conducting the following outreach activities:

- Translated informational materials about tolling into Chinese, Korean, Japanese, Russian, Spanish, and Vietnamese – the same languages that the Washington State Department of Licensing translates.
- Translated the Good to Go! Website into Spanish.
- Distributed information about tolling to community-based social service agencies, churches, schools, and other organizations that serve low-income and minority populations throughout the travelshed.
- Facilitated two trainings for social workers to help them provide information about tolling to their clients and ensure that staff has the tools and materials to share accurate information with clients.
- Purchased advertising, pitched stories, and coordinated with editorial boards for ethnic newspapers and radio stations.
- Disseminated information about how to purchase transponders and establish and replenish prepaid transponder accounts using an electronic benefits transfer (EBT) card. EBT cards function like a debit card for recipients of public benefits.

Determination of Foster Island as TCP

Through coordination with affected area tribes, WSDOT and FHWA have determined that project construction and operation would have an adverse effect on historic properties, including Foster Island. As defined by 36 CFR 800, a TCP is an established place associated with the cultural practices or beliefs of a living community, that are rooted in the community's history, and are important in maintaining the continuing cultural identity of the community. In consultation with area tribes, WSDOT and FHWA have determined that Foster Island is a TCP that is eligible for listing in the NRHP. In accordance with 36 CFR 800, WSDOT and FHWA continued consultation with the affected area tribes to develop a binding agreement, which stipulates the measures that will mitigate the project effects to Foster Island.

How have environmental justice populations been involved in the project since the SDEIS?

The SR 520, I-5 to Medina project public involvement team conducted the following outreach activities with environmental justice populations after publication of the SDEIS:

- Staffed project information booths at two local fairs and festivals that attract many low-income and minority residents: the Chinatown/International District Street Fair and the Dia de Muertos Festival at Seattle Center

- Translated the program overview fact sheet entitled "Enhancing safety and reliability on SR 520" (June 2010) into Spanish, Chinese, and Vietnamese languages
- Encouraged interested individuals to request language interpretation services at any time

The Agency Coordination and Public Involvement Discipline Report Addendum and Errata (WSDOT 2011g) contains additional information about public involvement activities for this project.

Outreach to Native Americans

Native Americans are a minority population, so coordination with tribes potentially affected by the project is part of WSDOT's environmental justice outreach. Furthermore, a WSDOT Executive Order signed in 2003 directs WSDOT to enter consultation with tribes who have ancestral homelands in affected areas. To make sure that tribal concerns are properly considered and addressed, WSDOT is following a process of early and continuous communication with the tribes as the project progresses.

WSDOT engages with tribes through government-to-government consultation and conducts outreach through correspondence, individual meetings, and resource agency meetings. WSDOT has consulted with the Confederated Tribes and Bands of the Yakama Nation, the Muckleshoot Indian Tribe, Snoqualmie Tribe, the Tulalip Tribes, the Suquamish Tribe, and the Duwamish Tribe (a non-federally recognized tribe). WSDOT has met with these tribes 18 times since publication of the SDEIS. Tribes are also invited to attend and participate in Regulatory Agency Coordination Process and Technical Working Group meetings, along with regulatory agencies. These meetings serve as multi-agency forums for exchanging information and developing strategies to advance technical permitting work on various project topics. Representatives from the Muckleshoot Indian Tribe, whose usual and accustomed fishing area includes the project area, have regularly attended these meetings. WSDOT will continue to coordinate with the tribes throughout the planning, design, and construction of the project. More recently, WSDOT has also initiated consultation with the Puyallup and Nisqually Tribes.

Potential Effects

The 2009 Environmental Justice Discipline Report provides a discussion of the potential effects of the No Build Alternative and Options A, K, and L. The discussion below supplements the discipline report and discloses the effects of the Preferred Alternative, comparing it with the SDEIS options using new text and new or updated exhibits where appropriate.

What methods were used to evaluate the potential effects and how have they changed since publication of the SDEIS?

To identify the ways in which the Preferred Alternative would specifically benefit or adversely affect low-income or minority populations in the study area, the analyst built on the evaluation completed

for the SDEIS options by examining the findings of other discipline report addenda. As was done for the SDEIS, after identifying the Preferred Alternative's potential effects and benefits, the analyst isolated project effects that would affect people differently. For example, noise affects people differently, depending on how close they live to the source of the noise. The analyst applied the following U.S. Department of Transportation and FHWA criteria to determine whether low-income or minority populations would experience disproportionately high and adverse effects because of the project:

- Low-income or minority populations would predominantly bear the effect
- Low-income or minority populations would suffer the effect, and the effect would be considerably more severe or greater in magnitude than the adverse effect suffered by the general population

How would construction of the project affect low-income, minority, or LEP populations?

The effects of constructing the Preferred Alternative on low-income, minority, and LEP populations would be similar to those described for Option A in the 2009 Environmental Justice Discipline Report (see pages 64 through 76) except where noted in the sections that follow. The Social Elements Discipline Report Addendum and Errata (WSDOT 2011h) provides a description of the Preferred Alternative's construction effects on neighborhoods in the study area.

According to the geographic information system (GIS) demographic analysis, the neighborhoods that would be affected by project construction do not have a high proportion of low-income, minority, or LEP populations. Therefore, the analyst concludes that the effects of project construction (such as increased noise and traffic) will not have a disproportionate effect on low-income, minority, or LEP populations. However, construction might be a bigger hardship for these populations than for other residents. The increased noise, degraded visual quality, and increased traffic congestion could result in degraded community cohesion in areas near construction because these conditions might make it more difficult for people to spend time outside and interact with their neighbors. Low-income residents of the affected neighborhoods would be exposed to the same construction effects as other residents, but they might not have the resources to relocate temporarily during periods of nighttime construction or purchase an air conditioner if construction-related noise forced them to close their windows in the summertime.

Exhibit 4 summarizes the potential effects of construction of the Preferred Alternative on neighborhoods including low-income, minority, or LEP populations in the project study area and compares them to potential construction effects of the SDEIS options.

Exhibit 4. Summary Comparison of Construction Effects of the Preferred Alternative and the SDEIS Options

Preferred Alternative	SDEIS Options A, K, and L
All Areas	
All of the neighborhoods in the study area would experience a number of construction effects. Low-income and minority populations would be affected the same way as other residents. Construction is planned to begin in 2012, and to be complete by 2018.	The duration of Preferred Alternative construction would generally be comparable the SDEIS options, which are shown in Exhibit 27 of the 2009 Environmental Justice Discipline Report.
Haul routes through neighborhoods would result in negative effects related to noise, dust, and traffic congestion if the effects were not abated or mitigated. Therefore, efforts were made to identify designated arterial streets for potential use as haul routes. Final haul routes will be determined by local jurisdictions for those actions and activities that require a street use or other jurisdictional permit. Proposed routes are discussed for each specific area in the following entries of this table.	Potential haul routes for the Preferred Alternative differ slightly from those supporting the SDEIS options, with revisions to account for updated project design, improved traffic management, response to comments received on the SDEIS, and change to construction schedules.
I-5 Area	
The Preferred Alternative would include the following potential haul routes in the I-5 area: Boylston Avenue East, Eastlake Avenue NE, Harvard Avenue East, East Roanoke Street, Fuhrman Avenue East, 7th Avenue NE, NE 45th Street and Roosevelt Way NE. No haul routes would go through the North Capitol Hill neighborhood.	Potential haul routes in the I-5 area are the same for the Preferred Alternative and the SDEIS options.
Portage Bay Area	
Potential haul routes for the Preferred Alternative in the Portage Bay/Roanoke neighborhood would include Delmar Drive East, Boyer Avenue East, and East Lynn Street.	In addition to the potential haul routes in the Portage Bay area, listed for the Preferred Alternative, the SDEIS options would also include15th Avenue NE and NE 45th Avenue. These haul routes have been removed under the Preferred Alternative.
Montlake Area	
Under the Preferred Alternative, the potential haul routes in the Montlake area include, Delmar Drive East, East Lynn Street, 19th Avenue East, West Montlake Place East, East Roanoke Street, East Lake Washington Boulevard, Montlake Boulevard East, and the northernmost portion of 24th Avenue.	In addition to the potential haul routes in the Montlake area, listed for the Preferred Alternative, the SDEIS options would also include haul routes along East Hamlin Street, East Shelby Street, Montlake Boulevard NE, and NE Pacific Street. These haul routes have been removed under the Preferred Alternative.
Residents with views of SR 520 would experience negative visual effects from construction and associated construction equipment.	Due to the larger Montlake lid to be constructed with the Preferred Alternative, construction of the Montlake interchange would be longer for the Preferred Alternative (approximately 56 months) than for SDEIS Option A (approximately 48 months), but would be shorter compared to SDEIS Options K and L (78 and 60 months, respectively), as shown in Exhibit 27 of the 2009 Environmental Justice Discipline Report.

Exhibit 4. Summary Comparison of Construction Effects of the Preferred Alternative and the SDEIS Options

Preferred Alternative	SDEIS Options A, K, and L
West Approach Area	
The Preferred Alternative would have similar effects to Option A across Foster Island. However, the Preferred Alternative would not have a construction easement on the south island, as Option A would. Since publication of the SDEIS WSDOT has committed to using low impact construction techniques to minimize ground disturbance on the Foster Island TCP.	There would be greater ground disturbance on Foster Island with the SDEIS options as described in the Construction Techniques Discipline Report Addendum and Errata (WSDOT 2011b). Additionally, all SDEIS options would affect the south island permanently or temporarily.
Lake Washington	
The Preferred Alternative would result in the same effects as the SDEIS options.	Construction effects along the Lake Washington portion of the project would include activities associated with barges, bridges that would be in place for the duration of construction, and cranes. These effects would affect low-income, minority, and LEP residents of these neighborhoods in the same way that they would affect other residents
Eastside Transition Area	
The Preferred Alternative would result in the same effects as the SDEIS options.	Construction effects on Medina, Hunts Point, and Yarrow Point residents would be similar to those experienced by residents in Seattle neighborhoods. Low-income, minority, and LEP residents of Medina, Hunts Point, and Yarrow Point would experience these effects in the same way as other residents. Construction effects are described in the 2009 Environmental Justice Discipline Report. .

Resources of Particular Importance to Low-Income, Minority, or LEP Populations

The following section describes the potential effects of construction of the Preferred Alternative on resources of particular importance to low-income, minority, or LEP populations.

All Areas

The effects of project construction on resources of particular importance to low-income, minority, or LEP populations (such as transit facilities, community centers, religious organizations, schools, and other resources) would be similar to those described for Option A in the 2009 Environmental Justice Discipline Report, as discussed in the following paragraphs.

As discussed in the Final Transportation Discipline Report (WSDOT 2011e), the presence of construction activities, temporary roadway modifications, and increased traffic volumes would affect existing transit facilities and how riders use them. Transit riders would experience construction-related noise and visual effects at transit stops in proximity to construction activities.

Because construction phasing and schedules have not been finalized, WSDOT will continue to coordinate with local and regional transit agencies regarding potential construction effects on transit service and facilities.

As with the SDEIS options, under the Preferred Alternative, the construction limits would extend into the usual and accustomed fishing areas of the federally recognized Muckleshoot Indian Tribe. The tribe's usual and accustomed fishing areas within the project area include all of Lake Washington, the Ship Canal, and other areas where pontoons would be outfitted and transported. Pontoon construction and transport are addressed in the Construction Techniques and Activities Discipline Report Addendum and Errata (WSDOT 2011b). The Muckleshoot Indian Tribe may harvest salmon from the study area pursuant to judicially recognized treaty rights, as interpreted by the Boldt Decision of 1974. In effect, the Boldt Decision affirmed that tribes had retained the right to fish at "usual and accustomed" fishing areas when they signed treaties with the U.S. government in 1854 and 1855, according to the Web site Historylink.org (Historylink.org 2010). In addition to fishing rights, treaty rights include hunting, gathering, and other rights, reserved under the Point Elliott and Medicine Creek treaties.

Usual and accustomed fishing areas are crucially important to the livelihood, lifestyle, and identity of Muckleshoot Indian Tribe members. According to the official Muckleshoot Indian Tribe Web site, Muckleshoot.nsn.us (2010):

> Perhaps the most important element of the Muckleshoot Tribe's battle for recognition of its inherent rights as the original people of this ecosystem was the battle over treaty fishing rights. The right of tribal members to take Salmon at all of their "usual and accustomed" fishing sites was explicitly guaranteed in the treaties, and efforts to reassert those rights led to the so-called "Fish Wars" of the 1960s and 70s. The subsequent Boldt Decision, which reaffirmed the Tribe's treaty fishing rights, had a vast impact on the Muckleshoot Tribe, resulting in improved economic conditions and an opportunity to serve as comanager of regional salmon resources. Many of today's Tribal leaders were active participants in the Fish Wars.

Constructing the Preferred Alternative could prevent or limit access to usual and accustomed tribal fishing areas because of the following:

- Existing areas used by the Muckleshoot Indian Tribe for fishing would be partially obstructed.
- Some navigation channels would close for periods during construction of the project's new bridge spans and demolition of the existing bridges over those channels. For example, under the Preferred Alternative, WSDOT would close down Montlake Cut to all boat traffic periodically over a 3 to 4 week period for a total of approximately six full (24-hour) days. To reduce the potential effects of construction activities on tribal fishing vessel traffic, the bridge work requiring this closure would be staggered, so that half the bridge could remain open through most of the construction process.

- Construction-related vessel and barge movement in Portage Bay, Union Bay, Lake Washington, and the Puget Sound could interfere with tribal fishing. Construction barges would likely only be located in the Montlake Cut during actual bridge assembly work.
- Pontoon storage and staging areas could limit access to tribal fishing areas.
- The Muckleshoot Indian Tribe could lose access to fishing in some areas for several years while in-water work is taking place.

Construction activities might also adversely affect treaty fisheries resources. In general, construction of the Preferred Alternative would adversely affect aquatic habitat and could affect fish in usual and accustomed tribal fishing areas in Lake Washington and nearby waterways:

- In-water construction could harm fish. For example, driving steel piles with an impact hammer might injure or kill fish that are in close proximity to pile-driving. Even with sound-reducing best-management practices (BMPs), the maximum effects of noise from pile-driving could exceed thresholds established by the Fisheries Hydroacoustic Working Group (FHWG; 2008). Sound levels and their effects differ depending on the geotechnical conditions and water depth. Similar to Option A, the Preferred Alternative would involve substantially less in-water and over-water work than Option K.
- Construction activities could temporarily displace some fish species, as they seek to avoid construction-related noise or other disturbances to their aquatic habitat. However, much of the project work will take place in areas that are not preferred habitat for salmonid and other native fish species, including much of Portage Bay, Union Bay, and around the Arboretum.
- Migrating salmonids tend to pass through the project site relatively quickly, so analysts do not anticipate long-term displacement of individual fish. Much of the project area is not preferred habitat for adult salmonids and their primary spawning areas are considerable distances from the SR 520 corridor. Therefore, it is unlikely that adult salmonids would choose to remain in the project area after entering Lake Washington. During construction, unintentional sediment discharge from installing the permanent support column, falling debris during construction of the new bridge, and demolition of the existing bridge deck could injure or kill fish or lead to changes in fish behavior. WSDOT would use standard over-water and in-water and demolition BMPs and implement a concrete containment and disposal plan to prevent such discharge and falling debris. Therefore, this process would have limited potential to adversely affect fish or aquatic habitat in the area.
- Accidental spills of hazardous materials or pollutants in the water could kill or harm fish. WSDOT would use BMPs to prevent such spills.
- Lighting associated with nighttime highway construction could affect the distribution and behavior of fish, depending on the intensity and proximity to the water, principally from potential predation on juvenile salmonids. Lighting would be used to a greater extent in early spring and late summer, when daylight hours are shorter. Few juvenile salmon are expected to

appear in the study area during this time of year. Therefore, ecosystems analysts do not anticipate substantial adverse effects from construction lighting.

- As with the SDEIS options, WSDOT would need to build construction work bridges along both sides of the existing bridge structures (Exhibit 5). These work bridges would create shading of open water in usual and accustomed tribal fishing areas during construction. Areas under these structures would probably not provide optimal conditions for aquatic plant growth because of light restrictions, which could affect salmonid migration and the distribution of predators. Most work bridges would be in shallow water areas, where there are few juvenile and adult salmonids. However, only work bridges along the eastern portions of the west approach would occur in a primary juvenile salmon migration corridor. The Preferred Alternative would result in 10.9 acres of over-water shading from work bridges during construction, which is within the range of the SDEIS options (10.3 to 11.8 acres). These construction work bridges would be in place for 2 to 5 years, depending on location.
- Construction barges temporarily anchored in deep water would also create shading, similar to the SDEIS options. There are no estimates for the amount of over-water shading these barges will cause, because the number, location, and duration of their use will not be known until WSDOT has selected a contractor. It is safe to assume that barges will be in one location for relatively brief periods – from a few days to a few weeks.

I-5 Area

Construction of the Preferred Alternative would adversely affect the TOPS school in Eastlake, which is a magnet school that serves diverse populations, including many low-income and minority students. The construction noise, dust, and traffic effects to TOPS would be similar to those for Option A, as described in the 2009 Environmental Justice Discipline Report (page 70).

Portage Bay Bridge Area

Construction effects to resources of particular importance in the Portage Bay Bridge area would be similar to those of Option A, as described in the 2009 Environmental Justice Discipline Report.

Construction-related traffic congestion and noise around the I-5/Roanoke Street crossing, the 10th Avenue East/Delmar Drive East lid, and East Roanoke Street may affect congregants of the Vedanta Society and St. Patrick's Catholic Church. The effects of the Preferred Alternative would be somewhat less intensive than Option A because the 10th Avenue East and Delmar Drive East overcrossings would remain open during construction. However, construction during peak periods could still cause disruption at those two religious institutions. Many religious services include periods of prayer and contemplation, which construction-related noise could disturb. WSDOT is currently evaluating the necessity and feasibility of avoiding intensive construction activities on Sundays and major holidays.

Preferred Alternative

Portage Bay
West Montlake Park
MONTLAKE
MONTLAKE BLVD E
NOAA Northwest Fisheries Science Center
Seattle Yacht Club
Queen City Yacht Club
St. Patrick's Church
PORTAGE BAY/ ROANOKE
Vedanta Society
Roanoke Park
Washington State Patrol
E ROANOKE ST
BOYLSTON AVE E
HARVARD AVE E
10TH AVE E
11TH AVE E
BOYER AVE E
5
Rogers Playground
TOPS
EASTLAKE
Single-family Residence
Bayshore Condominiums
Duplex Residence
DELMAR DR E
Seattle Fire Station #22
Seattle Preparatory School
MontlakePlayfield
WEST MONTLAKE PL E
MONTLAKE
Montlake Elementary
19TH AVE E
FEDERAL AVE E
NORTH CAPITOL HILL
Interlaken Park

AREA OF DETAIL

- Haul Route
- Limits of Construction
- Lid or Landscape Feature
- Work Bridge
- Construction Staging Area
- Pavement
- Permanently Removed Structure
- Park

N

0 400 800 Feet

Source: King County (2006) Aerial Photo, CH2M HILL (2008) GIS Data (Parks). Horizontal datum for all layers is NAD83(91); vertical datum for layers is NAVD88.

Exhibit 5. **Construction within the I-5 and Portage Bay Areas**

I-5 to Medina: Bridge Replacement and HOV Project

SEA \\JAFAR\PROJ\PARAMETRIX_400707\MAPFILES\WESTSIDE\DR\ENVIRONMENTALJUSTICE\WS_DRA_EJ_CONSTRUCTION.MXD AJOHNSON 4/21/2011 10:20:19

Montlake Area

Other than those effects described under "All Areas," WSDOT did not identify any construction effects of the Preferred Alternative on resources of particular importance to low-income or minority populations in the Montlake area.

The Montlake Freeway Transit Station would remain open for most of the time during construction of the Montlake Interchange, although periodic closures would be needed. During these closures, riders traveling to the Eastside would need to board their bus at the NE Pacific Street transit stop near the University of Washington Medical Center. Riders who travel from the Eastside to Montlake Boulevard or the University District would need to transfer to a University District-bound bus at one of the transit stations on the east side of the Evergreen Point Bridge. Riders who currently travel from the Montlake Freeway Transit Station to downtown Seattle would need to board their bus on Montlake Boulevard.

West Approach Area

Foster Island would experience construction related effects from a construction work bridge located on the island, which would be removed after the permanent structure was completed (WSDOT 2011b). Construction activities would generate dust and construction-related noise and vibration on Foster Island; during construction, access to the north part of the island would be restricted. After construction is completed, construction easements on Foster Island would be returned to park use.

The permanent acquisition and the construction easement would be on the north side of the existing right-of-way on the northern section of Foster Island. No construction staging would occur on the south island or outside of the construction easement.

Lake Washington

Information on effects to usual and accustomed fishing areas of the Muckleshoot Indian Tribe in the Lake Washington area are discussed under "All Areas" earlier in this section.

Eastside Transition Area

WSDOT did not identify any construction effects of the Preferred Alternative to resources of particular importance to low-income, minority, or LEP populations in the Eastside transition area.

How would operation of the project affect low-income, minority, or LEP populations?

As with the SDEIS options, operation of the project would result in a number of effects, both beneficial and adverse, for neighborhood residents (as discussed in pages 77 through 83 of the 2009 Environmental Justice Discipline Report). According to the demographic analysis of the study area, low-income, minority, and LEP residents of those neighborhoods would experience the same effects as other residents. However, as noted earlier, even if low-income populations experience the same exposure to adverse effects as other residents, the effects of that exposure might be more severe.

Exhibit 6 compares operation effects on neighborhood residents under the Preferred Alternative and the SDEIS options, by geographic area.

Exhibit 6. Summary Comparison of Operation Effects to Neighborhoods from the Preferred Alternative and the SDEIS Options

Preferred Alternative	SDEIS Options A, K, and L
All Areas	
Similar to the SDEIS options, WSDOT anticipates that the Preferred Alternative would meet conformity standards and would not cause or contribute to any new violations of air quality standards. More important, the Preferred Alternative would result in no noticeable change in air quality, either locally or regionally. Additional information on air quality can be found in the Air Quality Discipline Report Addendum and Errata (WSDOT 2011d)	The 2009 Environmental Justice Discipline Report indicated that SDEIS options would meet air quality standards, and would have no noticeable effect on air quality, either locally or regionally.
The Preferred Alternative would improve community cohesion for neighborhoods in the study area because of the lids and the addition of the continuous bicycle and pedestrian path across Lake Washington. The path would enhance non-vehicular modes of travel within and between neighborhoods in the study area, helping to improve neighborhood connections. The Social Elements Discipline Report Addendum and Errata (WSDOT 2011h) provides more information about improvements to community cohesion because of this project.	Option A's effects would be similar to those of the Preferred Alternative.
The Preferred Alternative would result in fewer locations needing noise mitigation than the SDEIS options due to incorporation of design refinements and general corridor improvements that improve noise conditions. Noise walls along SR 520 are recommended in the Medina area. Noise walls would only be constructed where approved by affected communities.	The SDEIS options and the Preferred Alternative would reduce noise levels throughout the corridor compared to both existing conditions and the No Build Alternative. Noise modeling indicates that all options and the Preferred Alternative would result primarily in beneficial effects on noise levels in the neighborhoods, and that the overall number of residences that exceed the noise abatement criteria (NAC) would decrease from existing conditions. The Noise Discipline Report Addendum and Errata (WSDOT 2011i) provides more information about the noise analysis. Noise walls are recommended at a number of locations along SR 520 for the SDEIS options, as discussed in the Noise Discipline Report Addendum and Errata.
Although WSDOT would need to relocate six residences and one civic place, it does not anticipate an adverse effect on community cohesion once the Preferred Alternative is in operation. This is because relatively few relocations would be associated with this project, and the households that would need to be relocated are not concentrated in one neighborhood. To the knowledge of WSDOT at the time of publication, no low-income, minority, or LEP households would be relocated. The Land Use, Economics, and Relocations Discipline Report Addendum and Errata (WSDOT 2011j) provides more information about relocations.	The Preferred Alternative would require more relocations than Options K or L, but fewer than under Option A.

Exhibit 6. Summary Comparison of Operation Effects to Neighborhoods from the Preferred Alternative and the SDEIS Options

Preferred Alternative	SDEIS Options A, K, and L
The Preferred Alternative would have beneficial effects for pedestrians, bicyclists, and transit riders. The project would not result in any negative changes to pedestrian, bicyclist, transit facilities, or transit access to any of the community services in the study area. The new, continuous pedestrian and bicycle path would extend across Lake Washington, creating a new nonmotorized link, both locally and regionally. The SR 520 Health Impact Assessment (King County 2008) indicates that the increase in available facilities would lead to an increase in pedestrian and bicycle activity, resulting in more healthy neighborhoods. The enhanced bicycle/pedestrian crossing at I-5/East Roanoke and lids at 10th Avenue East/Delmar Drive East and in the Montlake area would include pathways to improve connectivity and provide access across SR 520 and I-5, improving safety for pedestrians and bicyclists.	The SDEIS options' effects would be similar to those of the Preferred Alternative.
Transit, carpools, and vanpools would all benefit from improvements in travel times with the addition of HOV lanes on SR 520 and the reversible HOV lane to I-5. By adding HOV lanes in both directions, the proposed project would improve transit access to SR 520 and also provide a travel-time savings in the p.m. peak period for people who use transit, vanpool, or carpool along the SR 520 corridor in the study area, thereby improving mobility	The SDEIS options' effects, as described in the 2009 Environmental Justice Discipline Report (page 81), would be similar to those of the Preferred Alternative.
Low-income, minority, and LEP residents of these neighborhoods would be affected in the same way as other residents. As shown in Exhibits 12, 13, and 14 of the 2009 Environmental Justice Discipline Report, the Montlake, Madison Park, and Laurelhurst neighborhoods have relatively low percentages of low-income, minority, and LEP residents. The University District has higher proportions of low-income, minority, and LEP residents, but this neighborhood would experience minimal operation effects.	The SDEIS options' effects, as described in the 2009 Environmental Justice Discipline Report, would be similar to those of the Preferred Alternative.
The Preferred Alternative would not affect social institutions, government facilities, or utilities in the study area.	There would be no effects to social institutions, government facilities, or utilities in the study area as a result of the SDEIS options, the same as with the Preferred Alternative.
I-5 Area	
The 10th Avenue East and Delmar Drive East lid would provide a new, safe connection between the Portage Bay/Roanoke and North Capitol Hill neighborhoods. This would improve community cohesion, pedestrian and bicycle connectivity, and visual quality.	Option A's effects, described in the 2009 Environmental Justice Discipline Report, would be similar to those of the Preferred Alternative.

Exhibit 6. Summary Comparison of Operation Effects to Neighborhoods from the Preferred Alternative and the SDEIS Options

Preferred Alternative	SDEIS Options A, K, and L
In the I-5 area, the Preferred Alternative would result in overall lower noise levels compared to the No Build Alternative, due to the noise reducing effects of the 10th Avenue East and Delmar Drive East lid, the 4-foot concrete traffic barriers with noise-absorptive materials, and the lower posted speed limit between I-5 and the Montlake lid.	Similar to the Preferred Alternative, the SDEIS Options A, K and L, with or without recommended noise walls, would result in overall lower noise levels in this area, compared to existing conditions and the No Build Alternative.
In response to community interests expressed during public review of the SDEIS, the SR 520 corridor between I-5 and the Montlake area would have a posted speed limit of 45 mph.	This is a design refinement of the SDEIS options to address community concerns. SDEIS options maintain freeway speeds through these areas.
Under the Preferred Alternative, the I-5/East Roanoke Street lid included in the SDEIS options would be replaced with an enhanced bicycle/pedestrian crossing. The overcrossing would run parallel to the existing East Roanoke Street Bridge and provide neighborhood amenities including pedestrian movement as well as aesthetic improvements such as plantings or views.	All SDEIS options would include a lid at I-5 and East Roanoke Street, which would function as a vehicle and pedestrian crossing, a landscaped area, and open space.
Low-income, minority, and LEP residents of this neighborhood would be affected in the same way as other residents. As shown in Exhibits 12, 13, and 14 of the 2009 Environmental Justice Discipline Report, the Portage Bay/Roanoke neighborhood has relatively low percentages of low-income, minority, and LEP residents.	The SDEIS options' effects, described in the 2009 Environmental Justice Discipline Report, would be similar to those of the Preferred Alternative.
Portage Bay Bridge Area	
Like the SDEIS options, the Preferred Alternative would require acquisition of one single-family residence and one duplex in the Portage Bay/Roanoke neighborhood. To the analysts' knowledge at the time of publication, none of the affected households are low-income or minority.	Option A's effects, described in the 2009 Environmental Justice Discipline Report, would be similar to those of the Preferred Alternative.
In the Portage Bay area, the Preferred Alternative would result in fewer residences exceeding the NAC, compared to the No Build Alternative and existing conditions.	Similar to the Preferred Alternative, the SDEIS Options A, K and L, with or without recommended noise walls, would result in overall lower noise levels in this area, compared to existing conditions and the No Build Alternative.
Montlake Area	
The Preferred Alternative would require the acquisition of two single-family residences in the Montlake neighborhood. Existing data suggests that none of the affected households are low-income or minority.	Option A's effects, described in the 2009 Environmental Justice Discipline Report, would be similar to those of the Preferred Alternative, but would include additional acquisition near the eastbound off-ramp and westbound on-ramp of the Montlake interchange.
The Preferred Alternative would eliminate the existing Lake Washington Boulevard eastbound on-ramp and westbound off-ramp and the R.H Thomson Expressway ramps. Congestion at the SR 520 interchange would be similar to or better than the No Build Alternative.	Similar to the Preferred Alternative, Option A would increase traffic volumes through the Montlake interchange. Congestion at the SR 520 interchange would be similar to or better than the No Build Alternative under all SDEIS options.

Exhibit 6. Summary Comparison of Operation Effects to Neighborhoods from the Preferred Alternative and the SDEIS Options

Preferred Alternative	SDEIS Options A, K, and L
In the Montlake area, the Preferred Alternative would result in fewer residences exceeding the NAC, compared to the No Build Alternative and existing conditions.	Similar to the Preferred Alternative, the SDEIS Options A, K and L, with or without recommended noise walls, would result in overall lower noise levels in this area, compared to existing conditions and the No Build Alternative.
The Preferred Alternative would not include removal of the Montlake 76 service station.	Option A would include removal of the Montlake 76 station.
Low-income, minority, and LEP residents of these neighborhoods would be affected in the same way as other residents. As shown in Exhibits, 12, 13, and 14 of the 2009 Environmental Justice Discipline Report, the Montlake, Madison Park, and Laurelhurst neighborhoods have relatively low percentages of low-income, minority, and LEP residents. The University District has higher proportions of low-income, minority, and LEP residents, but this neighborhood would experience minimal operation effects.	The SDEIS options' effects, described in the 2009 Environmental Justice Discipline Report, would be similar to those of the Preferred Alternative.
West Approach Area	
With the Preferred Alternative's noise-reducing design elements, there would be no negative effects remaining in the Laurelhurst or Madison Park neighborhoods.	For all SDEIS options, overall noise levels in Madison Park would decrease compared to existing conditions and the No Build Alternative. In the Laurelhurst neighborhood, noise levels would increase by 1 to 3 dBA (which is imperceptible to the human ear) for all SDEIS options, compared to the No Build Alternative.
Lake Washington	
Not Applicable	Not Applicable
Eastside Transition Area	
The Preferred Alternative's effects would be the same as the SDEIS options.	Some Medina residents living near the bridge maintenance facility would experience diminished visual quality and increased noise, affecting low-income, minority, and LEP residents of Medina the same as other residents.

Resources of Particular Importance to Low-Income, Minority, or LEP Populations

The following section describes the potential effects of the Preferred Alternative on resources of particular importance to low-income, minority, or LEP populations.

I-5 Area

As with the SDEIS options, no I-5 area resources of particular importance to low-income, minority, and LEP populations would be negatively affected.

Portage Bay Bridge Area

The operational effects of the Preferred Alternative in Portage Bay would be related to tribal fishing, similar to Option A, with the following design refinements:

- Where bridges are elevated over existing water bodies, the resultant shading could affect fish in tribal fishing areas, especially in shallow habitats near the shore. Shade can affect fish (including native salmonids) by reducing the growth of aquatic vegetation in shallower areas, and it can affect salmonid migration and the distribution of predators. Through Portage Bay, the height of the Preferred Alternative would be similar to today's bridge for the western half, and would be higher than the existing structure on the eastern half. With the Preferred Alternative, the new bridge would have slightly less area (5.3 acres) of over-water shading in Portage Bay than Option A (5.7 acres) as well as a higher profile than any of the SDEIS options through the west approach.
- By reducing the width of the inside and outside shoulders, the width of the new Portage Bay Bridge at the midpoint would be decreased from 110 to 105 feet.

Montlake Area

The operational effects of the Preferred Alternative in the Montlake area would be similar to Option A as described in the 2009 Environmental Justice Discipline Report (pages 79 through 83) especially with regard to transit and school access:

- As with Option A, the Preferred Alternative would involve replacing the Montlake Freeway Transit Station with transit access on the Montlake lid to avoid a negative effect to transit. University District bus routes would continue to operate as they do now, with direct service. The Final Transportation Discipline Report (WSDOT 2011e) contains more information related to transit improvements and the effect of removing the Montlake Freeway Station on the transit system. Similar to Option A, the Preferred Alternative would result in improved transit travel times to the University of Washington.
- As with the SDEIS options described in the 2009 Environmental Justice Discipline Report (page 81) transit, bicycle, and pedestrian improvements under the Preferred Alternative would make it easier to reach the University of Washington campus.

West Approach Area

Similar to Option A, the Preferred Alternative would cross over Foster Island with a pier and span bridge. The wider footprint of the new roadway would require acquisition of approximately half an acre of land on Foster Island and expansion of the right-of-way to the north of the existing alignment. Operation of the Preferred Alternative would include maintenance activities on Foster Island. The Preferred Alternative provides approximately 16 to 20 feet of clearance above Foster Island. This change would improve the visitor's experience on Foster Island by opening views at ground level while still maintaining a relatively low profile. Unlike the SDEIS options, the Preferred Alternative would not include stormwater treatment on Foster Island. Spacing of bridge columns in

the west approach area under the Preferred Alternative would be increased compared to the existing structures and bridge spans would be longer, which would reduce the number of columns in fish habitats in tribal fishing areas.

Lake Washington

Like the SDEIS options, the Preferred Alternative would have a substantially wider footprint than the existing Evergreen Point Bridge, reducing access to usual and accustomed tribal fishing areas for the Muckleshoot Indian Tribe. The wider bridge deck, supplemental stabilization pontoons, and anchor cables would span 450 to 600 feet wider than the existing Evergreen Point Bridge. In addition, the alignment of the new bridges would shift north. Bridge structures and operations located in or near water could obstruct access for fishers, who might need to move farther away from the bridge to fish, potentially exposing them and their gear to an increased amount of vessel traffic than under current conditions. However, like Option A, spacing of bridge columns under the Preferred Alternative would be increased and bridge spans would be longer, which would reduce the number of columns in fish habitats in tribal fishing areas.

Eastside Transition Area

The Preferred Alternative would include a bridge maintenance facility on the east end of the bridge with a dock in an area that may be used for sockeye spawning. According to the Ecosystems Discipline Report Addendum and Errata (WSDOT 2011c), design refinements since publication of the SDEIS will displace more substrate in the sockeye spawning areas near the east approach than Option A (7,800 square feet under the Preferred Alternative, compared to 450 feet in the SDEIS). As with the SDEIS options, no other resources of particular importance to low-income, minority, and LEP populations in the Eastside transition area would be affected.

How would tolling affect low-income, minority, or LEP populations?

As with the SDEIS options, the Preferred Alternative would require electronic tolling for motorists who use the floating bridge facility. Since publication of the SDEIS, WSDOT has clarified the tolling assumptions for the Preferred Alternative:

- Tolls would be in place from the time the project is open to traffic until the project is paid off.
- Single-point tolling implemented on SR 520 between I-5 and I-405.
- Toll rates would be variable depending on the time of day and whether it is a weekday or weekend. WSDOT anticipates that there will be no tolls from 11 p.m. to 5 a.m.
- WSDOT anticipates a peak toll rate of $3.81 (2007 dollars) during the evening commute.
- WSDOT anticipates that transit and HOV with three or more occupants would be exempt from the toll, although the final decision will be made by either the Washington Transportation Commission or the legislature.

As described in the SDEIS, all vehicles with one or two occupants would be charged a toll to cross the bridge. Drivers would not need to stop at a tollbooth. Instead, drivers would need to purchase a transponder and open an account associated with a debit, credit, or checking account. As the driver passes under an electronic card reader over the roadway, the toll will automatically debit from the transponder account. Drivers who do not have a transponder would have three options:

1. Pay by Plate – The customer could set up a pre-paid account associated with their license plate. The customer's license plate would be videotaped when it crosses the bridge and the toll would be automatically debited from the license plate account. This method is estimated to cost $0.25 more than the transponder method.

2. Customer-initiated payment– The customer could call, go online, or visit a customer service center within 72 hours of crossing the bridge to pay the toll. This method is estimated to cost $0.75 more than the transponder method.

3. Pay by Mail – The customer's license plate would be videotaped when it crosses the bridge and the customer would receive a bill for the toll in the mail. This method is estimated to cost $1.50 than the transponder method.

As with the SDEIS options, analysts conclude that the toll would have the following effects on low-income and LEP users:

- The cost of the tolls would be appreciably more severe for some low-income users than other users. The toll would be the same amount for all users, regardless of income, which means that low-income users would have to spend a higher proportion of their income on the toll. According to surveys and focus groups conducted with low-income SR 520 users in 2008, transit would not provide a reasonable affordable alternative to paying the toll. Low-income SR 520 users who participated in the study indicated that current transit service is too infrequent or that it is too far from where they live or work. Furthermore, the study found that low-income users do not use transit service on SR 520 at a higher rate than the general population. Many survey participants also indicated that they would not use these routes because they would add substantial time, distance, and cost to their trip. However, because of the substantial improvements to transit and rideshare service on SR 520 described earlier in this document, there are new affordable alternatives to the toll that were not available at the time the 2008 study. Therefore, analysts expect the effect of the tolls on low-income populations to be much less severe than originally anticipated.

- On the other hand, many low-income users will benefit from a faster, more reliable trip. According to the telephone survey conducted for this project, 42 percent of low-income users indicated that they were willing to pay $3.50 for a faster, more reliable trip across the bridge. According to outcomes from the focus groups and Spanish-language interviews conducted for this project, for some low-income populations, the cost of delay exceeds the cost of a toll. For example, if people in lower-paying jobs are late for work because of traffic, they are much more likely to lose pay or be fired than someone in a salaried position.

- Pre-paying for a transponder account would have an appreciably more severe adverse effect on low-income bridge users, as they are more likely to lack a credit or debit card or have enough money to make the initial deposit. As described in the 2009 Environmental Justice Discipline Report, recipients of public benefits may use their Electronic Benefits Transfer (EBT) card to pre-pay their transponder account. In addition, Evergreen Point Bridge users who do not have a credit or debit card could use the new Pay by Mail option. However, this option would cost an additional $1.50, which would present an additional burden to low-income users. Mobile service centers will also be available for cash payments to update accounts.
- Enrolling in electronic tolling would have an appreciably more severe adverse effect for LEP bridge users who might have difficulty understanding how to use the system. As described in the 2009 Environmental Justice Discipline Report and earlier in this document, WSDOT is conducting outreach to social service agencies that serve LEP populations to explain the electronic tolling system and how to purchase a transponder and open a pre-paid account. WSDOT is also translating information about electronic tolling into Chinese, Korean, Japanese, Russian, Spanish, and Vietnamese, but understanding the system would remain difficult for LEP populations who speak other languages.
- Tolls would affect the ability of social service agencies to provide services to low-income, minority, and LEP populations. Many social service agencies operate under very tight budgets, and the tolls would add to the cost of delivering services to their clients. Although public paratransit services such as King County Metro Access and Community Transit DART would be classified as transit and not be charged a toll, private providers such as Hopelink would not be exempt from the toll.

Mitigation

What has been done to avoid or minimize negative effects on low-income, minority, and LEP populations?

Minimizing the effects of construction

Throughout the design and planning process, WSDOT has taken care to avoid and minimize adverse effects on low-income, minority, and LEP populations. To avoid and minimize adverse effects, WSDOT has taken the following measures during planning and design, and would continue to do so during construction:

- Use BMPs to minimize construction emissions to the air. State law requires construction site owners and operators to take reasonable precautions to prevent dust resulting from construction from becoming airborne. WSDOT will comply with the procedures outlined in the Memorandum of Agreement between WSDOT and the Puget Sound Clean Air Agency for

controlling dust (see the Air Quality Discipline Report Addendum and Errata [WSDOT 2011d] for additional detail).

- Minimize the quantity of in-water work by performing construction activities from barges where feasible and using work bridges primarily in shallow areas where there are few juvenile and adult salmonids (see the Ecosystems Discipline Report Addendum and Errata [WSDOT 2011c] for additional detail).
- Minimize the effects of in-water construction activities by isolating work areas from the aquatic environment; using sound-reducing BMPs to minimize underwater noise levels during pile-driving; and minimizing in-water construction activities near the shoreline, where construction could affect fish during particularly sensitive periods of their development (see the Ecosystems Discipline Report Addendum and Errata [WSDOT 2011c] for additional detail).
- Use BMPs to minimize unintended sediment discharge during installation of the new bridges and demolition of the existing bridges (see the Ecosystems Discipline Report Addendum and Errata [WSDOT 2011c] for additional detail).
- Continue consultation with the affected area tribes to create and implement a treatment plan that would mitigate the adverse effect to the Foster Island TCP.
- WSDOT and FHWA will continue to engage in government-to-government consultation with the Muckleshoot Indian Tribe. Together, they will determine strategies to avoid or minimize effects of project construction and protect treaty rights covering fishing, hunting, gathering, and other practices.

In addition to the strategies WSDOT would institute as the government-to-government coordination with Native American tribes continues, WSDOT will implement the following avoidance and minimization measures:

- Implement measures to reduce the likelihood of conflict with access to tribal fishing during construction. WSDOT is coordinating with the Muckleshoot Indian Tribe to document important access points in an effort to avoid or minimize effects to tribal fishers.
- Coordinate with the Muckleshoot Indian Tribe to schedule the closure of the Montlake Cut at a time when the tribe is not accessing its fisheries resources in Lake Washington.
- Coordinate with all tribes with treaty rights in the pontoon construction and transport area to minimize the effects of pontoon construction and towing on access to tribal fishing areas and fish habitat.

Minimizing the effects of operation

The Preferred Alternative would have minimal potential effects on low-income, minority, and LEP populations. Measures to avoid or minimize effects of the Preferred Alternative on these populations are similar to those for the SDEIS, except as noted in the following section.

All Areas

While the Preferred Alternative is most similar to SDEIS Option A, WSDOT included specific design changes to minimize some of the potential effects on fish and aquatic habitat in Muckleshoot Usual and Accustomed fishing areas. These changes include the following:

- Reduce in-water structures by minimizing the number and size of bridge support columns, increasing the space between columns, and using special footings for the structure foundation that rest under the mud at the bottom of the lake.
- Minimize the effects of shading on open-water habitat by increasing the bridge height compared to existing conditions and SDEIS options and reducing the overall width of the over-water structures as much as possible, considering other project needs.
- Improve water quality by treating stormwater runoff.
- Minimize the effects of lighting on aquatic habitat by placing them on the center median whenever possible and using special fixtures on lights that are adjacent to the water.

The Ecosystems Discipline Report Addendum and Errata (WSDOT 2011c) provides more detail about these mitigation measures.

Portage Bay Area

The width of the new Portage Bay Bridge would be reduced from 110 to 105 feet at its midpoint, compared to the SDEIS alternatives, lessening shading effects on fish in usual and accustomed tribal fishing areas.

West Approach Area

In 2010, the Washington State legislature passed Engrossed Substitute Senate Bill (ESSB) 6392, which established a workgroup that brought together King County Metro, University of Washington, Sound Transit, and other designees to consider design refinements and transit connections considered under the Preferred Alternative. The 6392 Workgroup made recommendations for design refinements and transit improvements. Final decisions about which recommendations to adopt are still being made.

The Preferred Alternative minimizes impact to the Foster Island TCP. As a result of coordination with the affected area tribes, WSDOT limited the additional width required for project design refinements.

What would be done to mitigate negative effects that could not be avoided or minimized?

Construction Mitigation

Because low-income, minority, and LEP residents of neighborhoods in the study area would not experience disproportionately high and adverse effects as a result of project construction, WSDOT

has not identified a specific need for mitigation of construction effects on neighborhoods to address this segment of the population. The Social Elements Discipline Report Addendum and Errata (WSDOT 2011h) outlines mitigation measures for construction effects on neighborhoods.

To fully compensate for project effects on aquatic resources, WSDOT engaged regulatory agencies, the University of Washington, and the Muckleshoot Indian Tribe in collaborative technical working groups to assist in the development of appropriate aquatic mitigation for project effects. Project mitigation was discussed in detail during those workgroup meetings held from June to October 2010. The goal of the meetings was to discuss potential mitigation sites that would appropriately mitigate for the types and amount of project effects. These sites underwent detailed analysis prior to inclusion in the Conceptual Aquatic Mitigation Plan (WSDOT 2011k) and for permit submittals in April 2011.

Compensatory mitigation is a component of the Preferred Alternative and the SDEIS options. Compensatory mitigation will be used to compensate for construction and operation effects on fish and other aquatic resources from the increased in-water and over-water structures. The goal of the compensatory mitigation will be to achieve no net decrease in habitat function that affects fish survival.

WSDOT would conduct specific mitigation activities at several locations within the Water Resource Inventory Area (WRIA) 8 watershed, because the different types of potential project effects on fish and aquatic resources would occur in several distinct habitat types and fish life history stages (for example, out-migrating juvenile salmon versus shoreline spawning adults). The highly urbanized environment within the study area and Lake Washington, in general, influences the potential need for this type of mitigation strategy, which limits the number and sizes of available replacement sites along the lake.

In accordance with 36 *Code of Federal Regulations* [CFR] 800.6, "Resolution of Adverse Effects," WSDOT is also consulting with the tribes to develop a treatment plan that will stipulate the measures to be taken to mitigate the adverse effect on Foster Island.

Operation Mitigation

WSDOT is actively consulting with the interested and affected area tribes, in accordance with Section 106 of the National Historic Preservation Act and the 1989 Centennial Accord between the Federally Recognized Tribes in Washington State and the State of Washington, the New Millennium Agreement, the WSDOT Executive Order on Tribal Consultation, E 1025.01, and the Centennial Accord Plan of the Washington Department of Transportation. WSDOT anticipates two separate agreements will be developed as a result of these consultations:

(a) A programmatic agreement with consulting parties under Section 106, including interested and affected tribes, which references a Foster Island Treatment Plan that would mitigate the adverse effect on the traditional cultural property

(b) An agreement between WSDOT, FHWA, and the Muckleshoot Indian Tribe that describes the commitments made between WSDOT, FHWA, and the Muckleshoot on issues such as, but not limited to, treaty fishing and natural resources.

Additional measures to compensate for operational effects to fish resources are included in the Conceptual Aquatic Mitigation Plan (WSDOT 2011k), Attachment 9 to the Final EIS, as noted above.

As stated earlier, in accordance with 36 CFR 800.6, Resolution of Adverse Effects, WSDOT is consulting with the tribes to develop a treatment plan that mitigate the project's adverse effect on the Foster Island TCP. The Final Cultural Resources Assessment and Discipline Report (WSDOT 2011f) contains more information about mitigation relating to Foster Island. Because the Preferred Alternative would not have any remaining effects of operation on low-income, minority, or LEP populations, WSDOT did not identify additional mitigation.

As described in this report, there are substantial new improvements to transit and rideshare service across SR 520. In addition, WSDOT has been and will continue to conduct extensive outreach to community-based social service agencies that serve low-income and LEP populations, to inform them and their clients about electronic tolling and assist them with accessing affordable alternatives to paying the toll.

Coupled with and the SR 520 Variable Tolling project's mitigation measures discussed in the 2009 Environmental Justice Discipline Report (see sidebar), analysts conclude that the effect of the toll on low-income populations has been greatly minimized. Therefore, this report does not recommend additional mitigation measures to avoid or minimize the effects of tolling.

SR 520 Variable Tolling Project Mitigation

The following mitigation strategies would minimize the effects of tolling on low-income, minority, and LEP populations:

- Establish transit-accessible customer service center at each end of the bridge where drivers would be able to purchase transponders and establish prepaid accounts with cash.
- Establish permanent transponder retail outlets at grocery stores, convenience stores, or pharmacies.
- Well in advance of tolling, distribute information in multiple languages about the new tolling system and transponders via community-based organizations, social service offices, churches, schools, and advertising in ethnic newspapers and radio stations. Also, establish hotlines with multi-lingual customer service agents.
- Train social service workers with information about the tolling system to aid social service workers in sharing accurate information with clients.

What negative effects would remain after mitigation?

WSDOT will continue to work through government-to-government consultation with the Muckleshoot Indian Tribe on an agreement to fully and fairly resolve issues associated with the impacts of the project on treaty rights. As a result, WSDOT has determined that there would not be a disproportionately high and adverse effect to tribal fishing as a result of the Preferred Alternative.

Even with mitigation and the new transit improvements and outreach, there will be some identifiable low-income populations that will be adversely affected by the toll, especially those who are car dependent or live or work far from transit or paratransit. However, based on the increased affordable mobility for all (including those of low-income), and the outreach to LEP populations that

WSDOT is conducting, WSDOT has determined that there is no disproportionately high and adverse effect to low-income or LEP populations as a result of the toll on SR 520.

Environmental Justice Determination

According to the FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (6640.23), when determining whether a particular activity will have disproportionately high and adverse effects on minority and low-income populations, FHWA managers and staff should take into account mitigation and enhancement measures and potential offsetting benefits to the affected minority and low-income populations. FHWA has provided WSDOT with guidance that potential offsetting benefits include overall project benefits, even those that benefit the general population as much as the affected population. All SR 520 users will benefit from a safer bridge that is less vulnerable to catastrophic failure. In addition, all SR 520 users will benefit from a faster, more reliable trip across SR 520, including low-income populations. The new affordable alternatives to paying the SR 520 driving toll would minimize transportation effects to low-income populations. WSDOT targeted outreach to environmental justice populations including tribes. With these activities, in addition to mitigation outlined in this addendum and the 2009 Environmental Justice Discipline Report, analysts conclude that this project will not have a disproportionately high and adverse effect on minority or low-income populations.

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Attachment 1

Errata

Attachment 1
Environmental Justice Discipline Report Errata

The following corrects errors in and provides clarifications to the 2009 Environmental Justice Discipline Report for the SR 520, I-5 to Medina: Bridge Replacement and HOV Project.

Page	Current Text	Corrected Text/Clarification
1	The concept of environmental justice is rooted in Title VI of the Civil Rights Act of 1964, which prohibits discrimination based on race, color, or national origin. In response to a concern that low-income or minority populations bear a disproportionate amount of adverse health and environmental effects of public projects, and to reinforce the fundamental rights and legal requirements contained in Title VI, in 1994, President Clinton issued Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." It directs each federal agency to make environmental justice a part of its mission.	Many consider Dr. Benjamin Chavis to be the father of environmental justice. The concept of environmental justice is rooted in Title VI of the Civil Rights Act of 1964, which prohibits discrimination based on race, color, or national origin. In response to a concern that low-income or minority populations bear a disproportionate amount of adverse health and environmental effects of public projects, and to reinforce the fundamental rights and legal requirements contained in Title VI, in 1994, President Clinton issued Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." It directs each federal agency to make environmental justice a part of its mission.
5	• Usual and accustomed fishing areas of tribal nations that have historically used the area's aquatic resources and have treaty rights	• Usual and accustomed fishing areas of the Muckleshoot Tribe, which has ~~tribal nations that have~~ historically used the area's aquatic resources and has~~have~~ treaty rights for its protection and use
29	• The Muckleshoot Indian Tribe and Snoqualmie Nation serve as cooperating agencies for the SR 520, I-5 to Medina: Bridge Replacement and HOV Project.	• Delete sentence.