FINDING OF
NO SIGNIFICANT IMPACT AND
FINAL SECTION 4(f) EVALUATION

July 2008
I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 – Phase 2)

King County, Washington

Finding of No Significant Impact and Final Section 4(f) Evaluation

By the U.S. Department of Transportation, Federal Highway Administration, Washington Division

The Federal Highway Administration (FHWA) has determined, in accordance with 23 CFR 771.121, that the proposed project will have no significant impact on the environment.

This Finding of No Significant Impact (FONSI) is based on the Environmental Assessment (EA) and Draft Section 4(f) Evaluation incorporated by reference and other documents and attachments, as itemized in this FONSI. These documents have been independently evaluated by the FHWA and are determined to accurately discuss the project purpose, need, environmental issues, impacts of the proposed project, and appropriate mitigation measures. The review provided sufficient evidence and analysis for determining that an environmental impact statement is not required.

FHWA takes full responsibility for the accuracy, scope, and content of the EA, as modified by this FONSI and the referenced documents.

7/18/08  
(Date of Approval)

Stephen P. Boch, P.E.
Federal Highway Administration
Major Projects Oversight Manager
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### Acronyms and Abbreviations

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<th>Abbreviation</th>
<th>Description</th>
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<td>a.m.</td>
<td>ante meridiem</td>
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<tr>
<td>APE</td>
<td>area of potential effect</td>
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<tr>
<td>BMP</td>
<td>best management practices</td>
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<tr>
<td>BNSF</td>
<td>Burlington Northern Santa Fe Railway Company</td>
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<td>CEQ</td>
<td>Council on Environmental Quality</td>
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<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
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<td>DAHP</td>
<td>Department of Archaeology and Historic Preservation</td>
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<tr>
<td>dBA</td>
<td>A-weighted decibels</td>
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<tr>
<td>DNS</td>
<td>Determination of Nonsignificance</td>
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<td>DPS</td>
<td>Distinct Population Segment</td>
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<td>EA</td>
<td>Environmental Assessment</td>
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<td>Ecology</td>
<td>Washington State Department of Ecology</td>
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<td>EIS</td>
<td>Environmental Impact Statement</td>
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<tr>
<td>ESA</td>
<td>Endangered Species Act</td>
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<td>ESU</td>
<td>Evolutionarily Significant Unit</td>
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<td>FAA</td>
<td>Federal Aviation Administration</td>
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<td>FEIS</td>
<td>Final Environmental Impact Statement</td>
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<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
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<td>FONSI</td>
<td>Finding of No Significant Impact</td>
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<tr>
<td>GHG</td>
<td>green house gases</td>
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<td>HOT</td>
<td>high-occupancy toll</td>
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<tr>
<td>HOV</td>
<td>high-occupancy vehicle</td>
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<td>HPA</td>
<td>Hydraulic Project Approval</td>
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<td>HRM</td>
<td>Highway Runoff Manual</td>
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<td>HSPF</td>
<td>Hydrologic Simulation Program for Fortran</td>
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<td>I-405</td>
<td>Interstate 405</td>
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<td>I-5</td>
<td>Interstate 5</td>
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<tr>
<td>IWQA</td>
<td>Integrated Water Quality Assessment</td>
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<tr>
<td>$L_{eq}$</td>
<td>Equivalent A-weighted sound level</td>
</tr>
<tr>
<td>LWD</td>
<td>large woody debris</td>
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<tr>
<td>MOA</td>
<td>Memorandum of Agreement</td>
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MTCA       Model Toxics Control Act
NAC        Noise Abatement Criteria
NEPA       National Environmental Policy Act
NMFS       National Marine Fisheries Service
NOAA       National Oceanic and Atmospheric Administration
NPDES      National Pollutant Discharge Elimination System
NRHP       National Register of Historic Places
OHWM       ordinary high water mark
p.m.       post meridiem
PSRC       Puget Sound Regional Council
RCO        Recreation and Conservation Office
RCP        Roadside Classification Plan
RCW        Revised Code of Washington
RMC        Renton Municipal Code
SEPA       State Environmental Policy Act
SPCC       Spill Prevention, Containment, and Countermeasures
SR         State Route
TESC       Temporary Erosion and Sedimentation Control
TPA        Transportation Partnership Account
TSS        total suspended solids
UDC        Urban Design Criteria
USC        United States Code
USDOT      U.S. Department of Transportation
USFWS      U.S. Fish and Wildlife Service
VMT        vehicle miles traveled
WAC        Washington Administrative Code
WDFW       Washington State Department of Fish and Wildlife
WSDOT      Washington State Department of Transportation
Description of Proposed Action

The Federal Highway Administration (FHWA) and the Washington State Department of Transportation (WSDOT) issued an Environmental Assessment (EA) and Draft Section 4(f) Evaluation on April 4, 2008 for the I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 – Phase 2), referred to as the Tukwila to Renton Project. The project provides improvements on Interstate 405 (I-405) from Interstate 5 (I-5) to State Route 169 (SR 169) and on SR 167 from I-405 to SW 43rd Street. These improvements are a part of the overall I-405 Corridor Program. The project includes the improvements listed below.

The new lanes that will be built for this project are:

- One additional general-purpose lane in both directions on I-405 from SR 181 through SR 167.
- Two additional general-purpose lanes in both directions on I-405 from SR 167 through SR 169.
- One SR 167 northbound auxiliary lane from the SW 43rd Street on-ramp to the I-405 interchange.

In addition to adding auxiliary and general-purpose lanes to I-405 and SR 167, this project will provide the following improvements:

- Add buffers between the high-occupancy vehicle (HOV) lanes and general-purpose lanes from SR 181 to SR 169 and in both directions on SR 167 between the I-405 interchange and SW 43rd Street.
- Reconstruct the SR 181 interchange by reconstructing the on-ramp and off-ramp to SR 181 and extending Tukwila Parkway as a new bridge across the Green River to connect with SR 181.
- Remove the Tukwila Parkway to northbound I-405 on-ramp.
- Reconstruct five bridges over the Green River.
- Lower the Duwamish-Green River Trail under the new Tukwila Parkway bridge and realign the Interurban Trail to parallel the railroads under I-405.
- Construct a general-purpose direct-connector ramp from southbound I-405 to southbound SR 167.
- Construct HOV direct-connector ramps from southbound I-405 to southbound SR 167 and from northbound SR 167 to northbound I-405.
- Reconstruct exterior ramps from northbound I-405 to southbound SR 167 and from northbound SR 167 to northbound I-405.
- Reconstruct SR 167 between SW 27th Street and I-405 and reconstruct East Valley Road to the west of its current alignment between SE 23rd Street and SW 16th Street.
- Construct a new split-diamond interchange at Lind Avenue and Talbot Road (SR 515), and build a southbound and a northbound frontage road connecting Lind Avenue and Talbot Road.

- Reconstruct the two local street accesses to Renton Hill.

- Relocate the Burlington Northern Santa Fe (BNSF) Railroad Bridge over the Cedar River north of its current alignment and reconstruct three bridges over the Cedar River.

- Construct two new noise walls on the south side of the freeway. One wall will be constructed along the WSDOT right-of-way line east of Benson Road S and southeast of I-405 near the Berkshire Apartments. A second wall will be constructed atop an existing retaining wall along the western edge of Mill Avenue S.

- Close Houser Way where it crosses the Cedar River and remove this bridge. Northbound traffic will be rerouted along Mill Avenue to Bronson Way, which will be restriped to accommodate the new traffic pattern.

The project will provide many short- and long-term benefits. For example, the project will:

- Reduce travel times and improves operations in the project area.

- Improve safety by adding capacity, improving traffic flow, limiting access to HOV lanes to defined merge points, and adding a four-foot-wide buffer separating the HOV and general-purpose lanes.

- Improve stormwater treatment, detention, and conveyance.

- Apply architectural treatments to improve the highway’s appearance.

- Incorporate numerous measures to avoid or minimize effects to the environment.

- Improve response time for emergency service vehicles along I-405 and SR 167.

- Reduce highway noise for the Berkshire Apartments and the Renton Hill neighborhood by constructing two noise walls.

- Mitigate for fill in lower quality wetlands by debiting credits from the Springbrook Creek Wetland and Habitat Mitigation Bank, which is a higher quality wetland complex.
WSDOT team members held a public hearing and open house on April 22, 2008, following issuance of the EA and Draft Section 4(f) Evaluation on April 4, 2008 for public distribution. The EA hearing took place at the Renton Technical College in Renton, Washington. WSDOT presenters requested that verbal comments be provided to a court reporter, written comments be provided on comment forms, or follow-up written comments be postmarked or received at the I-405 project office by May 19, 2008. The Notice of Availability of the EA was advertised in the following newspapers on the date shown:

- *Seattle Times* and *Seattle Post Intelligencer* on April 4, 2008.

Display advertisements for the EA Hearing were placed in the following newspapers on the dates shown:

- *Chinese Post* (Chinese) on April 10, 2008;
- *El Mundo* (Spanish) on April 10, 2008;
- *Highline Times/Des Moines News* on April 9, 2008;
- *Kent Reporter* on April 12, 2008;
- *Phuong Dong Times* (Vietnamese) on April 11, 2008;
- *Renton Reporter* on April 12, 2008;
- *Russian World* (Russian) on April 14, 2008; and

A total of 7,463 postcards announcing that the EA was available for review were sent to the following recipients inviting them to attend the public hearing and to comment on the EA document:

- Residents and property owners within 750 feet of the I-405 right-of-way within the project area.
- Individuals who provided comments during the Tukwila to Renton Project Scoping Period that ended on June 6, 2006.
- Section 8 housing residents in the project area (Section 8, or the Housing Choice Voucher Program, is a federal housing program that provides housing assistance to low-income renters and homeowners. This assistance comes in the form of rental subsidies, limiting the monthly rent payment of the assistance recipient).
- Individuals and agencies that commented on the I-405 Corridor Program Final Environmental Impact Statement (FEIS).
- The Renton Advisory Committee.
- Executive and Steering Committee members and their alternates.
• Individuals on various mailing lists developed during the I-405 Corridor Program.

Approximately 70 individuals and agencies received the Notice of Availability of the EA. Additionally, WSDOT provided the EA document directly to:

• Elected officials, tribal governments, and city administrators for jurisdictions within the project area;

• Regulatory agencies, and all other agencies that have expressed interest in the project; and

• Public libraries near the project.

A total of 8 people attended the April 22, 2008 public hearing. During the comment period, from April 4, 2008 through May 19, 2008, four comment letters on the EA were received: one from the City of Renton, one from King County, one from the Muckleshoot Indian Tribe, and one from the U.S. Department of the Interior. No comments were received from the public. The comment letters and responses to these comments are found in Attachment 5.
National Environmental Policy Act Finding

The Federal Highway Administration (FHWA) served as lead agency under the National Environmental Policy Act (NEPA) for the I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 – Phase 2). WSDOT prepared an EA and Draft Section 4(f) Evaluation in compliance with NEPA, 42 United States Code (USC) Section 4321 et seq.; FHWA regulations, 23 Code of Federal Regulations (CFR) Part 771; and the State Environmental Policy Act (SEPA). The EA discusses the potential effects of the project so that FHWA can determine whether significant adverse effects (as defined in Council on Environmental Quality [CEQ] 1508.27) are probable. If such a determination were made, an Environmental Impact Statement (EIS) would need to be prepared.

WSDOT has incorporated environmental considerations into its study of the project and has conducted evaluations of the project’s potential environmental effects. FHWA and WSDOT reviewed the EA prior to issuing the document in April 2008. The EA found that the project’s construction and operation will not cause any significant adverse environmental effects that will not be mitigated. This finding applies to all applicable environmental elements.

After carefully considering the EA, its supporting documents, and the public comments and responses, FHWA finds under 23 CFR 771.121 that the proposed project, with the mitigation to which WSDOT has committed, will not have any significant adverse effect on the environment. The record provides sufficient evidence and analysis for determination that an EIS is not required.

Air Quality Conformity Statement

The Puget Sound Regional Council (PSRC) has modeled the effects of the I-405 Corridor Program, which includes the Tukwila to Renton Project, on regional ozone and carbon monoxide emissions. The modeling shows that the PSRC’s Transportation Improvement Program and Metropolitan Transportation Plan conform to the State Implementation Plan at the regional level. As the Tukwila to Renton Project is included in the I-405 Corridor Program, it is also assumed to conform to the State Implementation Plan. The Environmental Protection Agency has approved the current State Implementation Plan for this area. The FHWA has approved the Council’s Transportation Improvement Program conformity analysis. This project conforms to the State Implementation Plan and both federal and state Clean Air Act requirements.

Floodplain Finding

The Federal Emergency Management Agency (FEMA) has identified floodplains along the Green River, Springbrook Creek, Panther Creek, Rolling Hills Creek, and the Cedar River that occur within the study area. The City of Tukwila’s Municipal Code 16.52 Floodplain Management and the City of Renton’s Municipal Code [4-3-050] Critical Areas Regulations,
backed by Executive Order 11988 Floodplain Management, require zero-rise in floodplain elevations due to construction projects.

The Tukwila to Renton Project will place some fill or falsework in the Green River, Springbrook Creek, Panther Creek, Rolling Hills Creek, and Cedar River floodplains. At Springbrook Creek, floodplain filling is expected to be mitigated primarily by excavation at the Springbrook Creek Wetland and Habitat Mitigation Bank. In other floodplains, WSDOT will mitigate for fill within the same floodplain and at the same one-foot elevation to ensure the no-rise requirement is met. WSDOT will perform analyses prior to placing fill to confirm that adequate mitigation is provided. Because of this, FHWA finds that no adverse effects to any 100-year floodplains or floodways will occur as a result of the proposed project.

**Surface Water and Water Quality Finding**

The Tukwila to Renton Project will add approximately 58 acres of new impervious surface. Stormwater from 154 acres of new and existing impervious area will be treated by the project for both water quality and flow control. New stormwater facilities will maintain existing flows by detaining stormwater (for half of the 2-year through 50-year storm events) prior to discharge. Water quality will be improved by routing stormwater through treatment facilities prior to discharge. This project will not degrade flow patterns or water quality from existing conditions. For these reasons, FHWA finds that this project will have no adverse affects to surface water flows or water quality.

**Endangered Species Act Finding**

WSDOT served as the lead for the Endangered Species Act (ESA) Section 7 consultation on behalf of FHWA pursuant to 50 CFR 402.07. The National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS), the agencies responsible for administering ESA, were contacted early in the project. The listings for threatened and endangered species are current as a result of reviewing the NMFS website and consultation with the USFWS.

Three species are listed as Threatened under ESA that occur within the project vicinity: Puget Sound Evolutionarily Significant Unit (ESU) chinook salmon (\textit{Oncorhynchus tshawytscha}); steelhead trout (\textit{O. mykiss}); and Coastal Puget Sound Distinct Population Segment (DPS) bull trout (\textit{Salvelinus confluentus}).

The Cedar River, Green River, and Springbrook Creek are designated as critical habitat for Chinook salmon (effective January 2, 2006). The Green River is also designated as critical habitat for bull trout (effective October 26, 2005).

A biological assessment was submitted on June 27, 2007 to NMFS and the USFWS, which concluded that the proposed action:

- May affect, and is likely to adversely affect chinook salmon.
- May affect, and is likely to adversely affect chinook salmon critical habitat.
- May affect, and is likely to adversely affect steelhead trout.
• May affect, and is likely to adversely affect bull trout.
• May affect, and is likely to adversely affect bull trout critical habitat.

NMFS and USFWS issued a Biological Opinion for the project on March 3, 2008 that concluded, “the action, as proposed, is not likely to jeopardize the continued existence of Puget Sound Chinook, Puget Sound Steelhead, or Bull Trout or result in the destruction or adverse modification of designated critical habitat for Puget Sound Chinook and Bull Trout.”

Magnuson-Stevens Fishery Conservation and Management Finding

The USFWS and the NMFS analyzed the project actions that are likely to affect essential fish habitat pursuant to Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act. Based on the investigation and analysis of the types of fish habitat that could be affected by project construction and operation, seven conservation recommendations to avoid, minimize, or otherwise offset potential adverse effects on essential fish habitat were proposed. FHWA and WSDOT will comply with these measures. In accordance with the actions and best management practices listed in the Biological Assessment and the conservation recommendations, the project will have No Adverse Effect on pink, coho, chinook salmon, or bull trout Essential Fish Habitat.

Farmland Finding

Suitable soils and active farming do not occur within the project corridor. Therefore, the Farmlands Protection Policy Act of 1981 (7 USC 4201-4209) and other applicable state and federal farmlands protection policies, orders, and guidance do not apply to the proposed project.

Wetland Finding

The proposed project will permanently affect 12 of the 22 wetlands identified in the study area. Several measures were taken during design to avoid or minimize effects to wetlands, including adjustment of the project footprint. Despite WSDOT’s efforts to avoid wetlands during construction, some of the affected wetlands will be filled completely, while others will be filled only partially for a total of 7.5 acres of wetlands that will be permanently affected. The 12 affected wetlands are along the right-of-way and/or within the median and could therefore not be avoided or minimized due to roadway design standards. The majority of affected wetlands are of low quality and are dominated by non-native invasive species, such as reed canarygrass, bentgrass, and blackberry. In addition, 1.1 acres will be disturbed temporarily during construction. This area will be restored.

Wetland credits provided from the Springbrook Wetland and Habitat Mitigation Bank are intended to be used to provide the required wetland mitigation to replace the permanently affected wetland areas.
The FHWA finds that there is no practicable alternative to the proposed new construction within wetlands. The proposed project includes all practicable measures to reduce effects to wetlands that may result from the proposed project.

**Section 106 Finding**

Archival review, tribal consultation, and field surveys identified no archaeological sites that are eligible for the National Register of Historic Places (NRHP) within the study area. As part of early coordination with the tribes in preparation for the cultural resources assessment, WSDOT provided notification to the following tribes: Muckleshoot Indian Tribe, Snoqualmie Tribe, the Confederated Tribes and Bands of the Yakama Nation, and the non-federally recognized Duwamish Tribe.

Some portions of the area of potential effect (APE) were not currently available for archaeological study due to funding and access issues. WSDOT tested for archaeological resources on the funded portion of the Tukwila to Renton Project near Talbot Road (SR 515). The remaining archaeological studies will be completed when funding and access are secured under the terms of a Section 106 Programmatic Agreement developed for the project under 36 CFR 800.14.

Cultural resource investigators determined that the proposed project has areas with a moderate probability for archaeological resources. WSDOT will follow discovery protocols should crews encounter archaeological resources during construction. If archaeological resources are found, additional studies may be required to evaluate the eligibility of those resources for the NRHP. WSDOT will develop appropriate mitigation as necessary, if those resources should be found to be eligible.

In addition to archaeological investigations, WSDOT reviewed historic properties within the APE. WSDOT, in coordination with FHWA, determined that the original Renton Fire Station (now the Renton History Museum) and the James Nelsen House are eligible for listing on the NRHP. The proposed project will have no adverse impacts on these two historic properties.

The Washington State Department of Archaeology and Historic Preservation (DAHP) concurred with these findings under Section 106 of the National Historic Preservation Act. In January 2008, DAHP sent a letter to WSDOT that concurred with the finding of “no adverse effect” to historic and cultural resources as a result of the proposed project.

**Section 4(f) and Section 6(f) Finding**

The existence of potential U.S. Department of Transportation (USDOT) Act of 1966 (49 USC 303) Section 4(f) resources was evaluated as part of the EA. Within the study area, 19 recreational properties and two historic properties were identified as protected Section 4(f) resources. Two of the recreational properties are also protected under Section 6(f) of the Land and Water Conservation Fund Act.

During project planning, WSDOT strove to find reasonable options that avoid effects to recreational resources. As a result of these efforts, Section 4(f) uses would occur at only five
resources and Section 6(f) uses would occur at only one resource. FHWA and WSDOT determined that there would be no constructive uses at any of the Section 4(f) resources.

WSDOT will provide mitigation for uses of Section 4(f) protected properties. Mitigation for impacts to Section 6(f) properties will be determined during the formal evaluation of Section 6(f) impacts that will occur once construction funding is obtained. Because all Section 4(f) and 6(f) impacts will be mitigated, FHWA finds that this project will have no adverse effects to Section 4(f) or Section 6(f) resources.

**Environmental Justice Finding**

Data from the 2000 U.S. Census indicate that thirty-nine percent of the study area residents are minorities and ten percent of residents are low-income. African American, Asian, and Hispanic populations are represented in substantial numbers throughout the study area.

Overall, few long-term adverse effects will occur from operating the proposed project. Property acquisition for the project is not disproportionate and will not adversely affect minority or low-income populations. No exceedences of the National Ambient Air Quality Standards for carbon monoxide will occur. Stormwater treatment included in the proposed project will not increase pollutant releases relative to existing conditions. No significant effects to wildlife are anticipated and substantial wetland loss is unlikely to occur as a result of this project. The study area’s existing visual character will change as a result of pavement widening, interchange improvements, and construction of two new noise walls. All residences received equal consideration under the WSDOT noise abatement policy, independent of their minority or low-income status.

FHWA finds that the construction and operation of the proposed project will not have disproportionately high and/or adverse effects on minority or low-income populations in the study area. Project design and mitigation measures will assure that adverse effects will not occur or will be minimized. Upon completion of the proposed project, mobility improvements along I-405 for passenger vehicles and public transit will benefit local residents, including minority and low-income populations.

**Noise Finding**

Under baseline conditions, 106 residences, 1 hotel, 6 parks, and 3 trails already exceed the noise abatement criteria (NAC). Baseline conditions include a noise wall that will be constructed as part of the Renton Nickel Improvement Project. Nineteen of these residences and the hotel exceed the criteria because of noise from local traffic on Main Avenue S, S Grady Way, Benson Road S, N 3rd Avenue, the SR 169/N 3rd Avenue connector, and/or SR 169. If the proposed project is not built, no additional residences would approach or exceed the NAC up until at least the year 2030.

If the proposed project is built, noise levels will increase and grow over time with an increase of 0 to 12 dBA by the year 2030. The project will acquire 30 noise-affected residences and 1 park as right-of-way. With the project in place, 92 residences, 1 library, and 1 park would go from
being below the NAC to being at or above the NAC. Added to the locations already at or above the NAC, a total of 198 residences, 1 hotel, 1 library, 6 parks, and 3 trails are predicted to experience noise levels at or above the NAC of 66 dBA set for residences in 2030.

Two noise barriers were determined to be both reasonable and feasible based on the noise analysis. These recommended noise barriers will reduce traffic noise below the NAC at 69 residences. One hundred twenty-nine other residences elsewhere in the study area would still approach or exceed the NAC in 2030. Noise barriers in these areas were determined to either be not reasonable, not feasible, or both.
Attachment 1: Errata to EA and Technical Studies

The following corrections apply to the environmental assessment (EA) and Draft Section 4(f) Evaluation, which was issued on April 4, 2008, and its accompanying technical studies for the Tukwila to Renton Project. The technical studies were completed in 2007 prior to the completion and issuance of the EA.

These corrections serve to clarify or enhance readability of the EA. Because these changes to the EA neither alter the analysis nor the conclusions of No Significant Impact, the issuance of a revised EA is not required. Changes to the EA are identified as to location by the corresponding page number in the EA. Each deletion of original text is shown with a line striking through it; new text is shown as underlined. These minor revisions to the EA and technical studies are incorporated into the EA by reference.

Environmental Assessment and Draft Section 4(f) Evaluation

Page 1-4, 1st full paragraph
The text has been revised as follows:

The I-405 Team will conduct further evaluation of the six fish passage barrier culverts within the study area. Retrofit or replacement of these barriers will be determined during the project’s permitting phase.

Page 1-5, 3rd paragraph
The text has been revised as follows:

Draft Section 4(f) Evaluation. The Tukwila to Renton Project will not adversely affect any historic properties or recreational resources. Within the study area, 20 parks and 2 historic buildings are protected Section 4(f) resources. Of these, two are also Section 6(f) resources. The Tukwila to Renton Project will have direct uses at 5 of the 22 Section 4(f) resources in the study area. These effects will change some of the resource features but will not permanently interfere with the activities or purposes of the resources. All temporarily occupied trails and parks will be restored following construction.

Page 1-6, section What is the purpose of this Environmental Assessment?
The text has been revised as follows:

The purpose of this EA is to provide information to the public about environmental effects anticipated from the Tukwila to Renton Project. This EA compares two alternatives: the Tukwila to Renton Project as the Build Alternative and a No Build Alternative. This document fulfills WSDOT’s obligation under the National Environmental Policy Act to disclose project effects and mitigation. Following the public comment period, FHWA will either publish a Finding of No Significant Impact (FONSI) document or expand this document to an EIS. Upon final approval, the project will move into the construction
phase. Construction of the entire Tukwila to Renton Project is expected to be spread over several years as funding becomes available.

**Page 3-8, last paragraph, 2nd sentence**
The text has been revised as follows:

In spring winter 2008, a public hearing and meeting will be held to discuss this EA.

**Page 5-20, How noisy is the study area?**
The text has been revised as follows:

Baseline conditions include the effects of the Renton Nickel Improvement Project. Under these conditions, some study area locations already approach, meet, or exceed the NAC. Locations that currently approach, meet, or exceed 67 dBA include approximately 98-106 residences, 2-1 hotels, 6 parks, and 3 trails. Eleven-Nineteen of these residences and the 2 hotels exceed the NAC because of noise from local traffic on Main Avenue, S Grady Way, Benson Road S, N 3rd Avenue, the SR 169/N 3rd Avenue connector, and/or SR 169.

**Page 5-20, How will noise levels change after the project is completed?**
The second paragraph of this section has been revised as follows:

To accommodate the road widening, WSDOT will acquire 30 noise-affected residences and one park as right-of-way for the roadway project. If the project were built without noise barriers, 92 residences and 1 library would go from being below the NAC to approaching, meeting, or exceeding the NAC. Added to the 98-106 residences, 2-1 hotels, 6 parks, and 3 trails that are already at or above the NAC, a total of 190-198 residences, 2-1 hotels, 1 library, 6 parks, and 3 trails are predicted to experience noise levels at or above the NAC of 66 dBA in 2030.

**Page 5-22, first paragraph**
The first paragraph on this page has been revised as follows:

With these barriers in place, the 190-198 residences that approach, meet, or exceed the NAC will be reduced to 121-129 residences. These noise barriers will not change the noise levels at the 2-1 hotels, 1 library, 6 parks, and 3 trails that are also expected to approach, meet, or exceed the NAC after the project is complete.

**Page 5-23, first paragraph**
The first paragraph on this page has been revised as follows:

With the noise barriers in place for the Build Alternative, noise levels will approach, meet, or exceed the NAC at 36 locations (representing 121-129 residences, 2-1 hotels, 1 library, 6 parks, and 3 trails). The Tukwila to Renton Project will not cause any substantial (more than 10 dBA) increases in noise.

**Page 5-23, What would future noise levels be like if WSDOT did not build this project?**
This section has been revised as follows:

If this project is not built, no additional receptors will approach, meet or exceed the NAC. Under the No Build Alternative, the 98-106 residences, 2-1 hotels, 6 parks, and 3 trails that
already approach, meet or exceed the NAC will continue to experience noise levels that approach, meet, or exceed the NAC in 2030.

Page 5-43, What recreational resources are located in the study area?
This section has been revised as follows:

There are 23 publicly-owned parks and recreation areas and no waterfowl or wildlife refuges near the proposed Tukwila to Renton Project right-of-way. Exhibit 5-18 lists these resources from east to west (northbound) and compares each resource with Section 4(f) criteria. Of these, 20 are protected Section 4(f) properties. Exhibits 5-19 and 5-20 show these properties.

Page 5-43, Exhibit 5-18
Exhibit is revised as follows:

Exhibit 5-18: Park, Trail, and Recreation Areas Compared Against Section 4(f) Criteria

<table>
<thead>
<tr>
<th>Property/Jurisdiction</th>
<th>Publicly Owned</th>
<th>Open to the Public</th>
<th>Major Purpose is Recreation as a Park</th>
<th>Significant as a Park</th>
<th>Section 4(f) Property</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crystal Springs Park (Tukwila)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ikawa Park (Tukwila)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Tukwila Park (Tukwila)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Duwamish-Green River Trail/Christensen Greenbelt (Tukwila)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Duwamish-Green River Trail Trailhead (Tukwila)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Fort Dent Park (Tukwila)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Interurban Trail (Tukwila)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Springbrook Trail (Renton)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Lake Street Open Space (Renton)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Panther Creek Wetlands Open Space (Renton)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Gateway Park (Renton)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Piazza Park (Renton)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Burnett Linear Park (Renton)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cedar River Trail-South Loop (Renton)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Tonkins Park (Renton)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Renton Hill Park (Renton)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Veterans Memorial Park (Renton)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Jones Park (Renton)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cedar River Natural Area (Renton)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Narco Property (Renton)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cedar River Trail (Renton)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cedar River Park (Renton)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Liberty Park (Renton)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

1 The City of Renton Parks Department and the City of Renton 2003 Park, Recreation, and Implementation Open Space Plan show these are currently undeveloped and only receive incidental or occasional recreation, therefore they are not significant under a Section 4(f) resource.

2 Consultation with the City of Renton Parks Department concluded that this park is not identified in the City of Renton 2003 Park, Recreation, and Implementation Open Space Plan and is not considered significant within the recreational and park objectives of the City.

3 Renton Hill Park is also known as Freeway Park.

4 While the Narco Property has not been developed, the City of Renton has completed long-range master planning that integrates the property and future recreation facilities with Cedar River Park, Liberty Park, and the Cedar River Trail.
Page 5-44, Exhibit 5-19
Exhibit has been revised to show Cedar River Natural Area as a Section 4(f) resource.

Exhibit 5-19: Potential Section 4(f) Resources Identified in the Study Area

Page 5-59, Surface Water, 2nd paragraph
The text has been revised as follows:

In general, the surface waterbodies in the study area have been highly altered from their natural states to accommodate transportation facilities, residential, commercial, and industrial land uses. This alteration has included bank hardening, such as installing riprap and placing streams in concrete channels and pipes; reducing or removing streamside vegetation; straightening stream channels; and removing in-stream habitat. The installation of levees has also reduced the historic floodplains associated with many of these waterbodies.
Page 5-77, 2nd paragraph
The text has been revised as follows:

In general, the rivers and streams in the study area have been highly altered from their natural states to accommodate transportation facilities, residential, commercial, and industrial land uses. This alteration has included bank hardening, such as installing riprap and placing streams in concrete channels; reducing or removing streamside vegetation; straightening stream channels; removing in-stream habitat, and introducing barriers to fish passage. These alterations have also resulted in loss of the historic floodplains associated with most of these waterbodies. Significant changes have occurred in the vegetation surrounding these waterbodies. What was once predominantly mature native vegetation has been replaced by a mix of immature native vegetation and non-native invasive plant species.

Page 5-77, last paragraph
The text has been revised as follows:

WSDOT has identified 10 existing culverts that convey waters of the state. These have been determined to be fish bearing, and where in-water work will occur as a result of the Tukwila to Renton Project. Of these 10 culverts, WSDOT has determined that seven of them are existing fish passage barriers. These fish passage barriers occur on Panther Creek, Rolling Hills Creek, and an unnamed tributary to Rolling Hills Creek, and Thunder Hills Creek. The remaining three culverts are presently fish passable. WSDOT will address fish passage at the culverts per the Memorandum of Agreement between WSDOT and the Washington State Department of Fish and Wildlife. Exhibit 5-37 details the 10 fish bearing culverts owned by WSDOT and associated with in-water work.
Thunder Hills Creek culvert has been replaced as an emergency repair project. This exhibit has been revised to reflect this change.

**Exhibit 5-37: Fish Bearing Culverts owned by WSDOT and Associated with In-water Work**

<table>
<thead>
<tr>
<th>Stream Conveyed</th>
<th>Culvert Type</th>
<th>Length (ft)</th>
<th>Upstream Habitat (lf)*</th>
<th>Fish Passable</th>
<th>Barrier Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gilliam Creek</td>
<td>108 inch CMP</td>
<td>1,103</td>
<td>600 to 800</td>
<td>Yes</td>
<td>N/A</td>
</tr>
<tr>
<td>Gilliam Creek</td>
<td>108 inch CMP</td>
<td>207</td>
<td>1,300 to 2,600</td>
<td>Yes**</td>
<td>N/A</td>
</tr>
<tr>
<td>Rolling Hills Creek</td>
<td>48 inch CONC</td>
<td>551</td>
<td>10,200***</td>
<td>No</td>
<td>Temporal barrier based on velocity</td>
</tr>
<tr>
<td>Rolling Hills Creek</td>
<td>132 inch CMP</td>
<td>918</td>
<td>10,200***</td>
<td>No</td>
<td>Pipe exceeds velocity criteria at high fish passage design flow</td>
</tr>
<tr>
<td>Unnamed Tributary to Rolling Hills Creek</td>
<td>30 inch CONC</td>
<td>281</td>
<td>200</td>
<td>No</td>
<td>Pipe exceeds velocity and water depth criteria at high fish passage design flow</td>
</tr>
<tr>
<td>Thunder Hills Creek</td>
<td>48 inch CONC</td>
<td>466</td>
<td>100</td>
<td>No</td>
<td>Pipe exceeds velocity criteria at high fish passage design flow</td>
</tr>
<tr>
<td>Panther Creek</td>
<td>24 inch CMP</td>
<td>155</td>
<td>2,600</td>
<td>No</td>
<td>Pipe exceeds velocity criteria at high fish passage design flow</td>
</tr>
<tr>
<td>Panther Creek</td>
<td>30 inch CMP</td>
<td>153</td>
<td>2,600</td>
<td>No</td>
<td>Pipe exceeds velocity criteria at high fish passage design flow</td>
</tr>
<tr>
<td>Panther Creek</td>
<td>72 inch Steel</td>
<td>189</td>
<td>7,100</td>
<td>No</td>
<td>Temporal barrier based on velocity</td>
</tr>
<tr>
<td>Rolling Hills Creek</td>
<td>3-foot by 4-foot box</td>
<td>265</td>
<td>N/A**** (fish passable)</td>
<td>Yes</td>
<td>N/A</td>
</tr>
</tbody>
</table>

* All habitat lengths are approximations based on field reconnaissance and are rounded to the nearest hundred foot increment.

** A large metal flap gate (which controls high flows) and a splash pad are located at the end of this culvert. The flap gate and splash pad on downstream end of the culvert prevent fish from moving up or downstream when it is closed. This culvert is owned by the City of Tukwila (Gilliam Creek Basin Stormwater Management Plan, http://www.ci.tukwila.wa.us/pubwks/gilliam.pdf).

*** These culverts both carry the main flow of Rolling Hills Creek underneath the I-405/SR 167 interchange. As such, they must be considered together for purposes of fish passage. One culvert is an overflow culvert and only conveys flow during high flow events.

**** No upstream habitat length is identified for this culvert as it is presently fish passable and all known upstream habitat is presently available.

CMP = corrugated metal pipe  CONC = concrete  ft = feet  lf = linear feet
Exhibit 5-38 has been revised to show coho salmon as occurring in Rolling Hills Creek:

**Exhibit 5-38: Anadromous Fish Species Known or Presumed to be in the Study Area**

<table>
<thead>
<tr>
<th>Fish Species</th>
<th>Chinook Salmon</th>
<th>Coho Salmon</th>
<th>Pink Salmon</th>
<th>Sockeye Salmon</th>
<th>Chum Salmon</th>
<th>Steelhead Trout</th>
<th>Bull Trout</th>
<th>Sea-Run Cutthroat</th>
<th>Pacific Lamprey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gilliam Creek</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cottage Creek</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unnamed Tributary to Gilliam Creek</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green River</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Springbrook Creek</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panther Creek</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rolling Hills Creek</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unnamed Tributary to Rolling Hills Creek</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thunder Hills Creek</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unnamed Tributary to Thunder Hills Creek</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cedar River</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unnamed Tributary to Cedar River</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Presence of coho salmon in Rolling Hills Creek is per conversation with Karen Walter of the Muckleshoot Indian Tribe, July 3, 2008.
Page 5-85, Aquatic Resources and Exhibit 5-42
The Thunder Hills Creek culvert has been replaced as an emergency repair project. The text on this page and exhibit are revised to reflect that change.

Rivers and streams that may need to be dewatered to construct the project include Gilliam Creek, the Green River, Rolling Hills Creek, an unnamed tributary to Rolling Hills Creek, Thunder Hills Creek, an unnamed tributary to Thunder Hills Creek, Panther Creek, and the Cedar River. A summary of the temporary construction effects to aquatic resources can be found in Exhibit 5-42.

**Exhibit 5-42: Summary of Temporary Aquatic Resource Effects**

<table>
<thead>
<tr>
<th>Regulated Stream Buffer (feet)</th>
<th>Temporary Effect Below OHWM (square feet)</th>
<th>Temporary Effect to Stream Buffer (square feet)</th>
<th>Temporary Effects from Shading * (square feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gilliam Creek</td>
<td>100</td>
<td>436</td>
<td>3,920</td>
</tr>
<tr>
<td>Green River</td>
<td>100</td>
<td>57,499</td>
<td>14,810</td>
</tr>
<tr>
<td>Panther Creek</td>
<td>100</td>
<td>3,050</td>
<td>6,969</td>
</tr>
<tr>
<td>Rolling Hills Creek</td>
<td>75</td>
<td>436</td>
<td>3,920</td>
</tr>
<tr>
<td>Unnamed tributary to Rolling Hills Creek</td>
<td>75</td>
<td>436</td>
<td>1,307</td>
</tr>
<tr>
<td>Thunder Hills Creek</td>
<td>75</td>
<td>436</td>
<td>4,792</td>
</tr>
<tr>
<td>Unnamed Tributary to Thunder Hills Creek</td>
<td>75</td>
<td>436</td>
<td>6,970</td>
</tr>
<tr>
<td>Cedar River</td>
<td>100</td>
<td>871</td>
<td>3,049</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>63,500</strong></td>
<td><strong>64,000</strong></td>
<td><strong>46,000</strong></td>
</tr>
</tbody>
</table>

*Areas of shading detail only those new areas that will be shaded and do not account for existing shaded areas. The shaded areas represent areas directly below/in the footprint of an overwater structure. Whereas other areas are shaded during a solar day, these are likely the areas where the effects and duration are the greatest.

**The total temporary effects in this table have been rounded up to the nearest 500 square feet

Page 5-88, Aquatic Resources
Bullet is deleted from this section:

- Encroaching into the OHWM of Thunder Hills Creek to accommodate I-405 roadway improvements including construction of a retaining wall.
Page 5-89, Aquatic Resources and Exhibit 5-45
The Thunder Hills Creek culvert has been replaced as an emergency repair project. The text on this page and exhibit are revised to reflect that change.

Rivers and streams that may need to be dewatered to construct the project include Gilliam Creek, the Green River, Rolling Hills Creek, an unnamed tributary to Rolling Hills Creek, Thunder Hills Creek, an unnamed tributary to Thunder Hills Creek, Panther Creek, and the Cedar River. A summary of the temporary construction effects to aquatic resources can be found in Exhibit 5-42.

Exhibit 5-45: Summary of Permanent Aquatic Resource Effects

<table>
<thead>
<tr>
<th>Regulated River/Stream Buffer (feet)</th>
<th>Permanent Effect Below OHWM (square feet)</th>
<th>Permanent Effect to River/Stream Buffer (square feet)</th>
<th>Permanent Shading Effects from New Over-water Cover (square feet)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gilliam Creek</td>
<td>100</td>
<td>1,742</td>
<td>46,174</td>
</tr>
<tr>
<td>Green River</td>
<td>100</td>
<td>16,553</td>
<td>121,532</td>
</tr>
<tr>
<td>Panther Creek</td>
<td>100</td>
<td>45,738</td>
<td>36,590</td>
</tr>
<tr>
<td>Rolling Hills Creek</td>
<td>75</td>
<td>4,792</td>
<td>33,106</td>
</tr>
<tr>
<td>Unnamed Tributary to Rolling Hills Creek</td>
<td>75</td>
<td>871</td>
<td>12,632</td>
</tr>
<tr>
<td>Thunder Hills Creek</td>
<td>75</td>
<td>0</td>
<td>37,462</td>
</tr>
<tr>
<td>Unnamed Tributary to Thunder Hills Creek</td>
<td>75</td>
<td>495</td>
<td>4,356</td>
</tr>
<tr>
<td>Cedar River</td>
<td>100</td>
<td>436</td>
<td>25,700</td>
</tr>
<tr>
<td>Total</td>
<td>71,000*</td>
<td>318,000**</td>
<td>37,500**</td>
</tr>
</tbody>
</table>

*Areas of shading detail only those new areas that will be shaded and do not account for existing shaded areas
** The total permanent effects in this table have been rounded up to the nearest 500 square feet

Page 5-102, bullet list
Cumulative effects for the two projects listed below were considered subsequent to the original publication of the EA. No additional effects are expected to occur because of mitigation measures that are part of these projects. These two projects are added to the bullet list.

- Thunder Hills Creek Emergency Replacement Project (WSDOT)
- Utility Relocation Project at Thunder Hills Creek and SR 515 (Puget Sound Energy)

Page 5-109, How will the completed project contribute to cumulative effects?, Aquatic Resources
Section revised as follows:

WSDOT will address fish passage at six culverts in the project area per the Memorandum of Agreement between WSDOT and WDFW. Where possible and practicable, other highway projects will also replace existing fish barriers with fish passable structures. By opening up previously inaccessible habitat, fish will be able to return to spawning, rearing, migrating, and refuge habitat.
Page 6-17, 8th paragraph
Section revised as follows:

The I-405 Team will conduct further evaluation on the seven (six) culverts that are fish passage barriers to determine which ones will be retrofitted or replaced as part of the project. The determination of which culverts will be retrofitted or replaced will occur during the project's permitting phase.

Appendix G – Cumulative Effects Analysis Technical Memorandum

Page 3, bullet list
Cumulative effects for the two projects listed below were considered subsequent to the original publication of the EA. No additional effects are expected to occur because of mitigation measures that are part of these projects. These two projects are added to the bullet list.

- Thunder Hills Creek Emergency Replacement Project (WSDOT)
- Utility Relocation Project at Thunder Hills Creek and SR 515 (Puget Sound Energy)

Appendix I – Ecosystems Discipline Report

Page viii, Exhibit S-1
The exhibit is revised as follows:

Exhibit S-1: Summary of Ecosystem Element Effects

<table>
<thead>
<tr>
<th>Ecosystem Element</th>
<th>Temporary Effects*</th>
<th>Permanent Effects*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wetlands (acres)</td>
<td>1.1</td>
<td>7.5</td>
</tr>
<tr>
<td>Wetland buffers (acres)</td>
<td>0.5</td>
<td>8.1</td>
</tr>
<tr>
<td>Aquatic resources below ordinary high water mark (streams and rivers) (square feet)</td>
<td>63,500 64,000</td>
<td>71,000 73,000</td>
</tr>
<tr>
<td>Aquatic resources from shading (streams and rivers) (square feet)</td>
<td>4,000</td>
<td>37,500</td>
</tr>
<tr>
<td>Aquatic resources buffers (square feet)</td>
<td>46,000</td>
<td>318,000</td>
</tr>
<tr>
<td>Wildlife habitat (acres)</td>
<td>73.3</td>
<td>34.0</td>
</tr>
</tbody>
</table>

* All temporary and permanent effects in this summary table have been rounded up to either the nearest tenth of an acre or the nearest 500 square feet.
To assess existing fish passage conditions in the study area, the I-405 Team also examined existing culverts. Field work associated with this culvert assessment was completed in July and August of 2006. Based on the results of the fish passage barrier investigation, WSDOT has determined that nine culverts convey waters of the state, are fish bearing, and will be affected by the project. Of these nine culverts, WSDOT has determined that six of them are existing fish passage barriers. The remaining three-culverts are presently fish passable. WSDOT will address fish passage at the culverts per the Memorandum of Agreement between WSDOT and WDFW.

Exhibit 4-7 is revised to note that Wetland 0.15R is an existing WSDOT mitigation site as follows:

<table>
<thead>
<tr>
<th>Wetland</th>
<th>Size (acres)</th>
<th>Cowardin Classification</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1R</td>
<td>0.05</td>
<td>Emergent</td>
<td>Depression dominated by reed canarygrass, soft rush (<em>Juncus effusus</em>), and bentgrass (<em>Agrostis stolonifera</em>); located in the southeast portion of the I-405/I-5 interchange</td>
</tr>
<tr>
<td>0.15R*</td>
<td>0.52</td>
<td>Emergent</td>
<td>Depression associated with Gilliam Creek dominated by reed canarygrass; located south of I-5 NB to I-405 NB ramp</td>
</tr>
<tr>
<td>0.25M</td>
<td>0.07</td>
<td>Emergent</td>
<td>Maintained swale dominated by reed canarygrass; located between I-405 NB lanes and the HOV on-ramp to I-5 NB</td>
</tr>
<tr>
<td>0.3R</td>
<td>1.29</td>
<td>Forested</td>
<td>Ponded depression associated with Gilliam Creek dominated by willow and red cedar (<em>Thuja plicata</em>); located south of I-5 NB to I-405 NB ramp and west of 61st Avenue S.</td>
</tr>
<tr>
<td>0.4L</td>
<td>0.03</td>
<td>Emergent</td>
<td>Narrow depression that flows to Gilliam Creek via culverts beneath I-405; dominated by reed canarygrass, common cattail (<em>Typha latifolia</em>), and bentgrass; located between I-405 SB lanes and Southcenter Boulevard</td>
</tr>
<tr>
<td>0.6L</td>
<td>0.17</td>
<td>Scrub-shrub</td>
<td>Narrow depression that flows to Gilliam Creek via culverts beneath I-405; dominated by reed canarygrass, black cottonwood (<em>Populus balsamifera ssp. trichocarpa</em>), willow, and soft rush; located between I-405 SB lanes and Southcenter Boulevard</td>
</tr>
<tr>
<td>0.9R</td>
<td>1.00</td>
<td>Aquatic bed and scrub-shrub</td>
<td>Depression with scrub-shrub wetland along perimeter that was the former main channel of the Green River; dominated by willow, located south of the I-405 and SR 181 interchange and east of the Green River</td>
</tr>
</tbody>
</table>

Total 3.13

NB = northbound; SB = southbound

* Wetland 0.15R is an existing WSDOT mitigation site.

In general, the rivers and streams in the Tukwila to Renton Project study area have been highly altered from their natural states to accommodate transportation facilities, residential, commercial, and industrial land uses. This alteration has included bank hardening, such as installing riprap and placing streams in concrete channels; reducing or removing
streamside vegetation; straightening stream channels; and removing in-stream habitat. These alterations have also resulted in loss of the historic floodplains associated with most of these waterbodies. Significant changes have occurred in the vegetation surrounding these waterbodies. What was once predominantly mature native vegetation has been replaced by a mix of immature native vegetation and non-native invasive plant species.

Page 4-18, Exhibit 4-12

Exhibit 4-12 has been revised to show coho salmon as occurring in Rolling Hills Creek.

**Exhibit 4-12: Anadromous Fish Species Known or Presumed to be in the Study Area**

<table>
<thead>
<tr>
<th>Fish Species</th>
<th>Chinook Salmon</th>
<th>Coho Salmon</th>
<th>Pink Salmon</th>
<th>Sockeye Salmon</th>
<th>Chum Salmon</th>
<th>Steelhead Trout</th>
<th>Bull Trout</th>
<th>Sea-Run Cutthroat</th>
<th>Pacific Lamprey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gilliam Creek</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cottage Creek</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unnamed Tributary to Gilliam Creek</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green River</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Springbrook Creek</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panther Creek</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rolling Hills Creek</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Unnamed Tributary to Rolling Hills Creek</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thunder Hills Creek</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unnamed Tributary to Thunder Hills Creek</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cedar River</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unnamed Tributary to Cedar River</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Presence of coho salmon in Rolling Hills Creek is per conversation with Karen Walter of the Muckleshoot Indian Tribe, July 3, 2008.

Sources: Anchor, 2005; Kerwin, J. 2001; Kerwin et all, 2000; WDFW, 2006; WDFW 2004; Wydoski and Whitney 2003

Page 4-28, Rolling Hills Creek

Section revised as follows:

No, According to the Muckleshoot Indian Tribe, coho salmon are the only anadromous fish species are reported to occur in Rolling Hills Creek or its unnamed tributary.48

48 King County DNR, 2004 Karen Walter, Muckleshoot Indian Tribe, conversation on July 3, 2008.
Page 4-28, Thunder Hills Creek
Section revised as follows:

The headwaters of Thunder Hills Creek are located to the southeast of I-405. Exhibit 4-22 depicts Thunder Hills Creek. Upstream of I-405, Thunder Hills Creek is contained in an incised channel with an intact stream buffer along the east side of the creek and a buffer of varying widths (from 0 to approximately 20 feet wide) along the west side of the creek. At the downstream end of this upper section, Thunder Hills Creek flows under I-405 and daylights into a concrete outfall located directly behind Sam’s Club. The culvert under I-405 acts as a complete upstream fish passage barrier due to the water velocity in the culvert during high water flows. This culvert failed in December 2007. WSDOT has replaced this culvert under an emergency repair, separate from the Tukwila to Renton Project. The new culvert will continue to act as a fish barrier due to water velocity.

Page 4-31, Fish Passage Barriers
Section revised as follows:

WSDOT has identified nine existing culverts that convey waters of the state, have been determined to be fish bearing, and where in-water work will occur as a result of the Tukwila to Renton Project. Of these nine culverts, WSDOT has determined that six of them are existing fish passage barriers. These fish passage barriers occur on Panther Creek, Rolling Hills Creek, and an unnamed tributary to Rolling Hills Creek, and Thunder Hills Creek and are described in greater detail under the descriptions of these streams above. The remaining three culverts are presently fish passable. WSDOT will address fish passage at the culverts per the Memorandum of Agreement between WSDOT and WDFW. Exhibit 4-26 details the fish bearing culverts associated with in-water work.
Page 4-32, Exhibit 4-26
Thunder Hills Creek culvert has been replaced as an emergency repair project. This exhibit has been revised to reflect the new culvert.

Exhibit 4-26: Fish Bearing Culverts owned by WSDOT and Associated with In-water Work

<table>
<thead>
<tr>
<th>Stream Conveyed</th>
<th>Culvert Type</th>
<th>Culvert Length (ft)</th>
<th>Upstream Habitat (lf)*</th>
<th>Fish Passable</th>
<th>Barrier Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gilliam Creek</td>
<td>108 inch CMP</td>
<td>1,103</td>
<td>600 to 800</td>
<td>Yes</td>
<td>N/A</td>
</tr>
<tr>
<td>Gilliam Creek</td>
<td>108 inch CMP</td>
<td>207</td>
<td>1,300 to 2,600</td>
<td>Yes**</td>
<td>N/A</td>
</tr>
<tr>
<td>Rolling Hills Creek</td>
<td>48 inch CONC</td>
<td>551</td>
<td>10,200***</td>
<td>No</td>
<td>Pipe exceeds velocity criteria at high fish passage design flow</td>
</tr>
<tr>
<td>Rolling Hills Creek</td>
<td>132 inch CMP</td>
<td>918</td>
<td>10,200***</td>
<td>No</td>
<td>Pipe exceeds velocity and water depth criteria at high fish passage design flow</td>
</tr>
<tr>
<td>Unnamed Tributary to Rolling Hills Creek</td>
<td>30 inch CONC</td>
<td>281</td>
<td>200</td>
<td>No</td>
<td>Pipe exceeds velocity criteria at high fish passage design flow</td>
</tr>
<tr>
<td>Thunder Hills Creek</td>
<td>48 inch CONC</td>
<td>466</td>
<td>100</td>
<td>No</td>
<td>Pipe exceeds velocity criteria at high fish passage design flow</td>
</tr>
<tr>
<td>Panther Creek</td>
<td>24 inch CMP</td>
<td>155</td>
<td>2,600</td>
<td>No</td>
<td>Pipe exceeds velocity criteria at high fish passage design flow</td>
</tr>
<tr>
<td>Panther Creek</td>
<td>30 inch CMP</td>
<td>153</td>
<td>2,600</td>
<td>No</td>
<td>Pipe exceeds velocity criteria at high fish passage design flow</td>
</tr>
<tr>
<td>Panther Creek</td>
<td>72 inch Steel</td>
<td>189</td>
<td>7,100</td>
<td>No</td>
<td>Temporal barrier based on velocity</td>
</tr>
<tr>
<td>Rolling Hills Creek</td>
<td>3-foot by 4-foot box</td>
<td>265</td>
<td>N/A**** (fish passable)</td>
<td>Yes</td>
<td>N/A</td>
</tr>
</tbody>
</table>

* All habitat length gains are approximations based on field reconnaissance and are rounded to the nearest hundred foot increment.
** A large metal flap gate (which controls high flows) and a splash pad are located at the end of this culvert. The flap gate and splash pad on downstream end of the culvert prevent fish from moving up or downstream when it is closed. This culvert is owned by the City of Tukwila (Gilliam Creek Basin Stormwater Management Plan, http://www.ci.tukwila.wa.us/pubwks/gilliam.pdf).
*** These culverts both carry the main flow of Rolling Hills Creek underneath the I-405/SR 167 interchange. As such, they must be considered together for purposes of fish passage. One culvert is an overflow culvert and only conveys flow during high flow events.
**** No upstream habitat length is identified for this culvert as it is presently fish passable and all known upstream habitat is presently available.
CMP = corrugated metal pipe  CONC = concrete  ft = feet  lf = linear feet

Page 4-44, Do any federally listed species or federal species of concern occur in the study area?
The second sentence in the text at the top of page 4-44 is revised as follows:

Chinook salmon primarily use the portions of these waterbodies that are in the study area for upstream and downstream migration and rearing; however, substrate conditions in the Cedar River in the study area could provide some limited spawning habitat. 56a, b, c

Page 4-46, Is the project within a recognized tribal fishing area?
The first paragraph of this section is revised as follows:

The Tukwila to Renton Project is located within the tribal treaty rights for usual and accustomed fishing areas of the Muckleshoot Indian Tribe. The Muckleshoot Indian Tribe has adjudicated Usual and Accustomed Fishing Grounds and Stations within the Tukwila to Renton Project study area. The Muckleshoot Indian Tribe’s Usual and Accustomed Fishing Grounds and Stations areas in the study area include the Green, Cedar, and Black Rivers, and as well as their tributaries and Lake Washington (384 F. Supp at 365) to these rivers.

The third paragraph of this section is revised as follows:

The Muckleshoot harvest salmon from the study area pursuant to judicially recognized treaty rights, as interpreted by the Boldt Decision of 1974. The Boldt Decision provided the Yakama Tribe “the right to enjoy all of these fisheries as they had beforehand,” which requires that they take the fish “by consent of the tribes in that region” and that consent still applies today. The Yakama Tribe has been found at treaty times to have used fisheries located in the Puget Sound area. This use of fisheries in the Puget Sound area was found to be by the consent of the tribes in that region (384 F. Supp at 365). That consent requirement remains today. Over the years, judicial decisions have affirmed that treaty tribes have a right to harvest fish free of state interference, subject to conservation principals, to co-manage the fishery resource with the state, and to harvest up to 50 percent of the harvestable fish.

Page 5-7, Aquatic Resources
The following bullet is deleted from the list on this page:

- Encroachment into the OHWM of Thunder Hills Creek to accommodate I-405 roadway improvements including construction of a retaining wall.
Page 5-8, Exhibit 5-4
The Thunder Hills Creek culvert has been replaced as an emergency repair project. This exhibit is revised to reflect that change.

Exhibit 5-4: Summary of Permanent Aquatic Resource Effects

<table>
<thead>
<tr>
<th>Regulated River/Stream Buffer (feet)</th>
<th>Permanent Effect Below OHWM (square feet)</th>
<th>Permanent Effect to River/Stream Buffer (square feet)</th>
<th>Permanent Shading Effects from New Over-water Cover (square feet)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gilliam Creek</td>
<td>100</td>
<td>1,742</td>
<td>46,174</td>
</tr>
<tr>
<td>Green River</td>
<td>100</td>
<td>16,553</td>
<td>121,532</td>
</tr>
<tr>
<td>Panther Creek</td>
<td>100</td>
<td>45,738</td>
<td>36,590</td>
</tr>
<tr>
<td>Rolling Hills Creek</td>
<td>75</td>
<td>4,792</td>
<td>33,106</td>
</tr>
<tr>
<td>Unnamed Tributary to Rolling Hills Creek</td>
<td>75</td>
<td>871</td>
<td>12,632</td>
</tr>
<tr>
<td>Thunder Hills Creek</td>
<td>75</td>
<td>2,644</td>
<td>37,462</td>
</tr>
<tr>
<td>Unnamed Tributary to Thunder Hills Creek</td>
<td>75</td>
<td>495</td>
<td>4,356</td>
</tr>
<tr>
<td>Cedar River</td>
<td>100</td>
<td>436</td>
<td>25,700</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>71,000</strong></td>
<td><strong>73,500</strong></td>
<td><strong>37,500</strong></td>
</tr>
</tbody>
</table>

*Areas of shading detail only those new areas that will be shaded and do not account for existing shaded areas
**The total permanent effects in this table have been rounded up to the nearest 500 square feet

Page 5-9, Over-water Structures
The second full paragraph is revised as follows:

The project will create additional over-water cover on the Green River, Gilliam Creek, an unnamed tributary to Gilliam Creek, Rolling Hills Creek, an unnamed tributary to Rolling Hills Creek, Thunder Hills Creek, the Cedar River, and Panther Creek.
Page 5-11, Fish Barrier Removal
Section is revised as follows:

WSDOT has identified seven existing fish passage barriers where in-water work will occur. These fish passage barriers occur on Panther Creek, Rolling Hills Creek, and an unnamed tributary to Rolling Hills Creek, and Thunder Hills Creek.

Page 5-12, Temporary Aquatic Resources Effects
Section is revised as follows:

Construction activities over, in, or near a stream can disturb fish, other aquatic species, and aquatic habitat. Except where absolutely necessary (as in the case of culvert replacements or extensions, and bridge removal and construction), construction equipment will not enter streams below the OHWM. In addition, streams will be dewatered prior to replacing or lengthening culverts. Dewatering and stream diversions could strand or entrain (draw in) fish and create temporary barriers to fish migration. Rivers and streams that may need to be dewatered to construct the project include Gilliam Creek, the Green River, Rolling Hills Creek, an unnamed tributary to Rolling Hills Creek, Thunder Hills Creek, an unnamed tributary to Thunder Hills Creek, Panther Creek, and the Cedar River. Dewatering of each of these waterbodies will only occur in localized areas where construction will occur. A summary of the temporary construction effects to aquatic resources can be found in Exhibit 5-5.

Page 5-13, Exhibit 5-5
The Thunder Hills Creek culvert has been replaced as an emergency repair project and will no longer be part of the Tukwila to Renton Project. This exhibit is revised to reflect that change.

Exhibit 5-5: Summary of Temporary Aquatic Resource Effects

<table>
<thead>
<tr>
<th>Regulated Stream Buffer (feet)</th>
<th>Temporary Effect Below OHWM (square feet)</th>
<th>Temporary Effect to Stream Buffer (square feet)</th>
<th>Temporary Effects from Shading * (square feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gilliam Creek</td>
<td>100 436</td>
<td>3,920</td>
<td>0</td>
</tr>
<tr>
<td>Green River</td>
<td>100 57,499</td>
<td>14,810</td>
<td>436</td>
</tr>
<tr>
<td>Panther Creek</td>
<td>100 3,050</td>
<td>6,969</td>
<td>0</td>
</tr>
<tr>
<td>Rolling Hills Creek</td>
<td>75 436</td>
<td>3,920</td>
<td>436</td>
</tr>
<tr>
<td>Unnamed tributary to Rolling Hills Creek</td>
<td>75 436</td>
<td>1,307</td>
<td>871</td>
</tr>
<tr>
<td>Thunder Hills Creek</td>
<td>75 0,436</td>
<td>4,792</td>
<td>0</td>
</tr>
<tr>
<td>Unnamed Tributary to Thunder Hills Creek</td>
<td>75 436</td>
<td>6,970</td>
<td>0</td>
</tr>
<tr>
<td>Cedar River</td>
<td>100 871</td>
<td>3,049</td>
<td>2,178</td>
</tr>
<tr>
<td>** Total **</td>
<td>63,500 64,000**</td>
<td>46,000**</td>
<td>4,000**</td>
</tr>
</tbody>
</table>

*Areas of shading detail only those new areas that will be shaded and do not account for existing shaded areas. The shaded areas represent areas directly below/in the footprint of an overwater structure. Whereas other areas are shaded during a solar day, these are likely the areas where the effects and duration are the greatest.

** The total temporary effects in this table have been rounded up to the nearest 500 square feet
Page 6-1, What measures will be taken to mitigate effects before and during construction?
Section is revised as follows:

- Retaining walls were used to limit in-water effects to Gilliam Creek, Rolling Hills Creek, an unnamed tributary to Rolling Hills Creek, Thunder Hills Creek, an unnamed tributary to Thunder Hills Creek, Panther Creek, and the Panther Creek wetlands (Wetland 24.7R).

Page 6-7, last paragraph
Section is revised as follows:

The effects to fish from stream buffer effects related to this project will be difficult to measure, particularly considering the already degraded condition of the existing stream buffer. Eight of the streams (Gilliam Creek, the Green River, Panther Creek, Rolling Hills Creek, an unnamed tributary to Rolling Hills Creek, Thunder Hills Creek, an unnamed tributary to Thunder Hills Creek, and the Cedar River) in the study area will experience work below the OHWM. For both stream buffer effects and work below the OHWM, on-site mitigation at the affected sites will likely not substantially improve stream functions or values in those areas based on the existing degraded condition of these streams.

Appendix J: Environmental Justice Discipline Report

Page v, How did we analyze environmental justice?
Section is revised as follows:

For the I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 – Phase 2), referred to as the Tukwila to Renton Project, we collected information from the U.S. Census Bureau, National Center for Education Statistics, and the I-405 public involvement team. The *Ecosystems Discipline Report, Water Resources Discipline Report, Social Elements, Public Services, and Utilities Technical Memorandum; Transportation Discipline Report; and Cultural, Historic, and Archaeological Technical Memorandum* prepared for this project provided information on social conditions, tribes in the area, public transportation, and schools in the area.

Page v, Does the study area have populations that are protected under environmental justice?
Section is revised as follows:

Ten percent of study area residents are low income. This percentage for low-income residents matches the city of Renton’s percentage (10 percent) and is lower than the city of Tukwila’s percentage (13 percent) according to the U.S. Census (U.S. Census 2000). Thirty-nine percent of study area residents are minority. This percentage for minority residents is higher than the city of Renton’s percentage (34 percent minority), and lower than the city of Tukwila’s percentage (46 percent minority). African American, Asian, and Hispanic populations are represented in substantial numbers throughout the study area. The study area has substantial numbers of people who speak Spanish, Vietnamese, Chinese, and
Tagalog. In addition, tribes with treaty rights (Muckleshoot, Snoqualmie, and Yakama tribes) within the project boundaries and the Duwamish Tribe have interests that could be affected by the project.

Page vi, What effects will the project have on minority and low-income populations?
Section is revised as follows:

The Build Alternative will benefit the area population by raising freeway travel speeds, decreasing congestion at most intersections, and improving safety within the study area, and improving water quality and stream habitat. Those using high-occupancy (HOV) facilities will benefit from increased speeds due to the new direct-connector ramps. These benefits will affect both the general public and minority and low-income populations.

Page 1-2, What topics are included in environmental justice?
The following are added to the end of the bulleted list:

- Ecosystems
- Water Resources

Page 3-5, What public involvement activities have occurred since the I-405 Corridor Program Final EIS?
The following is added to the beginning of the bulleted list on this page:

- We consulted with affected tribes.

Page 3-6, How did we evaluate effects on environmental justice populations?
The following are added to the end of the bulleted list:

- Ecosystems
- Water Resources
Page 4-5, Why is it important to involve tribal governments in the project?
Section is revised as follows:

American Indians are included in environmental justice analyses because they are minorities and are protected under Civil Rights laws. WSDOT consults with Indian tribes that could be affected by a project. WSDOT sent letters providing information on the project to the Confederated Tribes and Bands of the Yakama Nation, Duwamish Tribe, Muckleshoot Indian Tribe, and Snoqualmie Tribe, and Tulalip Tribe, and will continue to coordinate with the tribes. These tribes have crucial information on natural, cultural, and archaeological resources in the study area that WSDOT can incorporate into the environmental and design processes. Tribal coordination efforts are further enforced by a WSDOT Executive Order signed in 2003 that directs WSDOT employees to enter consultation with tribes who have ancestral homelands in affected areas.

Page 5-3, How will project construction affect minority and low-income populations?
Section is revised as follows:

The project will widen the roadway, widen or replace I-405 bridges, relocate or protect utilities, and install storm drainage facilities. These activities will have minor short-term effects such as increased noise, increased dust, decreased visual aesthetics, reduced access for fishing, and increased traffic congestion that could affect people living and working in and traveling through the study area. The temporary reroutes of the Duwamish-Green River and Interurban Trails will affect bicyclists and pedestrians. Parts of Cedar River Park, Liberty Park, Cedar River Trail, and NARCO Property will be redeveloped and will be temporarily unavailable for use. Because these construction effects are localized and temporary, they will have only a minor negative effect on the cohesiveness of neighborhoods or the social interactions of residents within the neighborhoods. Our analysis showed that environmental justice populations will not disproportionately bear any of these adverse effects. Relocations and displacements are discussed under operational effects.

Page 6-1, What measures will be taken to mitigate effects during construction?
Section is revised to add a bullet at the end of the list as follows:

- We will continue to consult with tribes as the project continues into construction.
Appendix L: Hazardous Materials Technical Memorandum

Exhibits 2 through 10 below replace the place holders in this appendix.

Exhibit 2. Project Area with Reasonably Predictable Sites

Note: Site of Concern No. 4 is shown as three parcels because the files reviewed for this project do not clearly identify which of the three parcels owned by Boeing/Longacres is the site of the concern identified in Exhibit 1.
Exhibit 6. Project Overview with Reasonably Predictable Sites, Sheet 4
Exhibit 7. Project Overview with Reasonably Predictable Sites, Sheet 5
Exhibit 8. Project Overview with Reasonably Predictable Sites, Sheet 6
Exhibit 9. Project Overview with Reasonably Predictable Sites, Sheet 7
Exhibit 10. Project Overview with Reasonably Predictable Sites, Sheet 8

Sites of Concern and ID
Status of Site Cleanup
- Reported Cleaned Up
- Awaiting Cleanup
- Recognized Hazardous Material Concerns
- Sites of Concern on UST and/or LUST list

- Project Area
- Stream - Open Channel
- Stream - Pipe
- Railroad
- Park
- Municipality

TRIP_HAZ_E3_E10.mxd Updated: 10-09-07
Appendix N: Noise Discipline Report

Pages vii and viii, Baseline Conditions
Section is revised as follows:

Baseline conditions (year 2014) incorporate the effects of the Renton Nickel Improvement Project. Under these conditions, some study area locations already approach, meet, or exceed the NAC for sensitive receptors. Locations that currently approach, meet, or exceed 67 dBA include approximately 98-106 residences, 12-hotels, 6 parks, and 3 trails. Eleven Nineteen of these residences and the 12-hotels exceed the NAC because of noise from local traffic on Main Avenue S, S Grady Way, Benson Road S, N 3rd Avenue, the SR 169/N 3rd Avenue connector, and/or SR 169.

Page viii, Project Effects
Section is revised as follows:

If this project is built, WSDOT will acquire 30 noise-affected residences and one park as right-of-way for the roadway project. With the project in place, 92 residences, 1 library, and 1 park will go from being below the NAC to being at or above the NAC. Added to the 98-106 residences, 12-hotels, 5 parks, and 3 trails that are already at or above the NAC, a total of 190-198 residences, 12-hotels, 1 library, 6 parks, and 3 trails are predicted to experience noise levels at or above the NAC of 66 dBA set for residences in 2030.

If this project is not built, no additional receptors will approach, meet, or exceed the NAC. Under the No Build Alternative, the 98-106 residences, 12-hotels, 6 parks, and 3 trails that already approach, meet, or exceed the NAC will continue to experience noise levels that approach, meet or exceed the NAC in 2030.

Page x, Unavoidable Adverse Effects
Section is revised as follows:

For the Build Alternative, noise levels will approach, meet, or exceed the NAC at 36 locations (representing 124-129 residences, 12-hotels, 1 library, 6 parks, and 3 trails) with the relocated Noise Barrier East 5, and new Noise Barrier 8 and Noise Barrier 10. Noise Receptor Sites 22, 25, 26, 30, 31, 34, and Freeway Park are planned for acquisition by the I-405, Tukwila to Renton Improvement Project. The Tukwila to Renton Project will not cause any substantial increases in noise.
Page 1-2, What are the key points from this report?
Paragraph 1 of this section is revised as follows:

Under baseline conditions, some places in the study area already exceed the NAC, including approximately 98 106 residences, 12-hotels, 6 parks, and 3 trails. Eleven Nineteen of these residences and 12-hotels exceed the NAC because of noise generated from local traffic on Main Avenue S, S Grady Way, Benson Road S, NE 3rd Avenue, the SR 169/NE 3rd Avenue connector, and/or SR 169.

Paragraph 3 of this section is revised as follows:

If this project is built, 92 residences, 1 park, and 1 library will go from being below the NAC to being at or above the NAC. Added to the 98 106 residences, 12-hotels, 5 parks, and 3 trails that are already at or above the NAC under baseline conditions, a total of 190 198 future residences, 12-hotels, 6 parks, 3 trails, and 1 library are predicted to experience noise levels at or above the NAC of 67 dBA set for residences in 2030.

Page 1-3, What will happen if we adopt the No Build Alternative?
Section is revised as follows:

If this project is not built, no additional residences will approach, meet, or exceed the NAC (the equivalent sound level of 67 dBA) until at least the year 2030. The 98 106 residences, 12-hotels, 6 parks, and 3 trails that already approach, meet, or exceed the NAC will continue to do so until at least 2030.

Page 4-3, Where are the modeled noise receptor locations?
Section is revised as follows:

Baseline noise levels were modeled at 64 locations that represent 339 347 residences, 12-hotels, 8 parks, 3 trails, 1 aquatic center, and 1 library. Traffic noise is the dominant noise source in the study area, with periodic air and rail noise.

Page 4-18, Exhibit 4-14
Exhibit is revised to reflect receptor 61 as an apartment building and not a hotel as shown here.
Preliminary Noise Levels

<table>
<thead>
<tr>
<th>Noise Receptor Number</th>
<th>Activity Description</th>
<th>Total Residences Represented</th>
<th>Modeled Baseline Noise Level (dBA)</th>
<th>Future Modeled Noise Levels (dBA) without Additional Abatement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>2030 No Build</td>
<td>2030 Tukwila to Renton Project</td>
</tr>
<tr>
<td>42A Residence at Mill Ave. S</td>
<td>1</td>
<td>70</td>
<td>70</td>
<td>74</td>
</tr>
<tr>
<td>42B Residence at Mill Ave. S</td>
<td>4</td>
<td>68</td>
<td>68</td>
<td>72</td>
</tr>
<tr>
<td>42C Second-story Residence at Mill Ave. S</td>
<td>2</td>
<td>71</td>
<td>71</td>
<td>75</td>
</tr>
<tr>
<td>42D Third-story Residence at Mill Ave. S</td>
<td>2</td>
<td>73</td>
<td>73</td>
<td>77</td>
</tr>
<tr>
<td>42E Residence at Mill Ave. S</td>
<td>2</td>
<td>68</td>
<td>68</td>
<td>72</td>
</tr>
<tr>
<td>42F Second-story Residence at Mill Ave. S</td>
<td>2</td>
<td>71</td>
<td>71</td>
<td>75</td>
</tr>
<tr>
<td>42G Third-Story Residence at Mill Ave. S</td>
<td>2</td>
<td>73</td>
<td>73</td>
<td>77</td>
</tr>
<tr>
<td>42H Fourth-story Residence at Mill Ave. S</td>
<td>2</td>
<td>74</td>
<td>74</td>
<td>78</td>
</tr>
<tr>
<td>43A Residence at 412 Mill Ave. S</td>
<td>3</td>
<td>70</td>
<td>70</td>
<td>71</td>
</tr>
<tr>
<td>43B Second-story Residence at 412 Mill Ave. S</td>
<td>2</td>
<td>75</td>
<td>75</td>
<td>76</td>
</tr>
<tr>
<td>43C Third-story Residence at 412 Mill Ave. S</td>
<td>2</td>
<td>76</td>
<td>76</td>
<td>77</td>
</tr>
<tr>
<td>43D Residence at 412 Mill Ave. S</td>
<td>2</td>
<td>70</td>
<td>70</td>
<td>71</td>
</tr>
<tr>
<td>44A Residence at Cedar Ave. S</td>
<td>3</td>
<td>62</td>
<td>62</td>
<td>68</td>
</tr>
<tr>
<td>44B Residence at Cedar Ave. S</td>
<td>2</td>
<td>63</td>
<td>63</td>
<td>69</td>
</tr>
<tr>
<td>44C Residence at Cedar Ave. S</td>
<td>2</td>
<td>61</td>
<td>61</td>
<td>67</td>
</tr>
<tr>
<td>45A Residence at Cedar Ave. S</td>
<td>3</td>
<td>59</td>
<td>59</td>
<td>65</td>
</tr>
<tr>
<td>45B Residence at Cedar Ave. S</td>
<td>4</td>
<td>55</td>
<td>55</td>
<td>61</td>
</tr>
<tr>
<td>46A Residence at Beacon Way S</td>
<td>3</td>
<td>64</td>
<td>64</td>
<td>67</td>
</tr>
<tr>
<td>46B Residence at Beacon Way S</td>
<td>1</td>
<td>66</td>
<td>66</td>
<td>69</td>
</tr>
<tr>
<td>46C Residence at Beacon Way S</td>
<td>2</td>
<td>65</td>
<td>65</td>
<td>68</td>
</tr>
<tr>
<td>47A Residence at Beacon Way S</td>
<td>3</td>
<td>58</td>
<td>58</td>
<td>62</td>
</tr>
<tr>
<td>47B Residence at Beacon Way S</td>
<td>4</td>
<td>57</td>
<td>57</td>
<td>61</td>
</tr>
<tr>
<td>48 Veteran's Park</td>
<td>1</td>
<td>69</td>
<td>69</td>
<td>70</td>
</tr>
<tr>
<td>49 Freeway Park</td>
<td>1</td>
<td>76</td>
<td>76</td>
<td>N/A</td>
</tr>
<tr>
<td>50A Residence at Mill Ave. S</td>
<td>2</td>
<td>67</td>
<td>67</td>
<td>71</td>
</tr>
<tr>
<td>50B Residence at Mill Ave. S</td>
<td>3</td>
<td>63</td>
<td>63</td>
<td>67</td>
</tr>
<tr>
<td>51A Residence at Renton Ave. S</td>
<td>2</td>
<td>66</td>
<td>66</td>
<td>69</td>
</tr>
<tr>
<td>51B Residence at Renton Ave. S</td>
<td>2</td>
<td>63</td>
<td>63</td>
<td>66</td>
</tr>
<tr>
<td>52 Cedar River Park – trail, picnic, recreational open space, beach area</td>
<td>5</td>
<td>63</td>
<td>63</td>
<td>67</td>
</tr>
<tr>
<td>53 Liberty Park – playground</td>
<td>1</td>
<td>68</td>
<td>68</td>
<td>69</td>
</tr>
<tr>
<td>54 Renton Public Library</td>
<td></td>
<td></td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>55* Liberty Park – furthest baseball field in outfield and tennis court</td>
<td>3</td>
<td>64</td>
<td>64</td>
<td>65</td>
</tr>
<tr>
<td>56* Liberty Park – baseball field, stands, and basketball court</td>
<td>3</td>
<td>69</td>
<td>69</td>
<td>69</td>
</tr>
<tr>
<td>57* Cedar River Park – soccer field and baseball field</td>
<td>3</td>
<td>71</td>
<td>71</td>
<td>73</td>
</tr>
<tr>
<td>58 Aquatic Center</td>
<td></td>
<td></td>
<td>63</td>
<td>63</td>
</tr>
<tr>
<td>59 Single-Family Residence</td>
<td>1</td>
<td>64</td>
<td>64</td>
<td>65</td>
</tr>
<tr>
<td>60 Silver Cloud Inn</td>
<td>Hotel</td>
<td>71</td>
<td>71</td>
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</tr>
<tr>
<td>61 Hotel Apartment</td>
<td>Hotel</td>
<td>74</td>
<td>74</td>
<td>74</td>
</tr>
</tbody>
</table>

Values in **BOLD** approach, meet, or exceed the NAC

* Measurements were taken as part of the I-405 Renton to Bellevue Project, but were analyzed as part of the Tukwila to Renton Project

N/A indicates that property is acquired by WSDOT for right-of-way.
Page 4-20, What are the modeled noise levels?
Section is revised as follows:

Noise levels for baseline conditions in the study area were modeled using TNM, and levels ranged between 56 and 76 dBA. These levels range from typical suburban outdoor sound levels (from 50 to 60 dBA\(^9\)) to very noisy levels (above 70 dBA), which is typical of locations within 100 feet of a busy freeway. Noise levels at 28 sites, representing an equivalent of 98,106 residences, 1,2-hotels, 6 parks and 3 trails, were modeled to approach, meet, or exceed the FHWA criteria of 67 dBA for baseline conditions.

Page 5-1, Build Alternative
Section is revised as follows:

Modeling for the Build Alternative indicates that noise levels will approach, meet, or exceed the NAC at 40,36 locations representing an equivalent of 190,198 residences, 1,2-hotels, 1 library, 6 parks, and 3 trails. Noise levels at 28 locations representing 98,106 residences, 1,2-hotels, 6 parks, and 3 trails approach, meet, or exceed the NAC criteria under baseline conditions.

Page 5-1, No Build Alternative
Section is revised as follows:

Modeling for the No Build Alternative indicates that noise levels will not approach, meet, or exceed the NAC at any additional locations. This means that noise levels for the No Build Alternative and baseline conditions are the same; they approach, meet, or exceed FHWA criteria at 28 locations representing an equivalent of 98,106 residences, 1,2-hotels, 6 parks, and 3 trails.

Page 5-1, How do the Baseline Conditions, No Build, and Build Alternatives differ?
Section is revised as follows:

Baseline conditions indicate that noise levels at 28 locations including 98,106 residences, 1,2-hotels, 6 parks, and 3 trails approach, meet, or exceed the NAC. Noise levels for the No Build Alternative are predicted to be the same as noise levels under baseline conditions.

Page 5-2, First paragraph
Paragraph is revised as follows:

Noise levels for the Build Alternative were predicted to increase by 0 to 12 dBA over baseline conditions at residences in the study area. Noise levels at 40,36 locations, including 190,198 residences, 1,2-hotels, 1 library, 6 parks, and 3 trails, will approach, meet, or exceed the NAC. These levels remain constant despite the effects of relocating Noise Barrier East 5. The number of residences that experience noise levels that approach, meet, or exceed the NAC would be reduced from 190,198 to 121,129 with construction of Noise Barrier 8 and Noise Barrier 10, which are included in the Build Alternative.
Page 6-18, Noise Barrier 14 (Not Feasible)
Second paragraph of this section is revised as follows:

The maximum noise reduction provided by Noise Barrier 14 is 3 dBA at Modeled Site 61, which represents a hotel or an apartment. With a 28-foot-high wall, Noise Barrier 14 will not provide a 7-dBA reduction in I-405 and SR 169 traffic noise levels for any of the sites represented in the area (see Appendix B). For this reason, Noise Barrier 14 is not feasible.

Page 8-1, First paragraph
Paragraph is revised as follows:

For the Build Alternative, noise levels will approach, meet, or exceed the NAC at 35-36 locations (representing 166-129 residences, 1-2 hotels, 1 library, 6 parks, and 3 trails) with the relocated Noise Barrier East 5, and new Noise Barrier 8 and Noise Barrier 10. Noise Receptor Sites 22, 25, 26, 30, 31, 34, and Freeway Park are planned for acquisition by the project. The Tukwila to Renton Project will not cause any substantial increases in noise.

Page B-12, Exhibit B-20
Exhibit is revised as follows:

<table>
<thead>
<tr>
<th>Modeled Site</th>
<th>Residences Represented</th>
<th>Leq (dBA)</th>
<th>Allowed Barrier Area (ft²)</th>
<th>Noise Level with Barrier</th>
<th>Reduction (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>59</td>
<td>1</td>
<td>65</td>
<td>0</td>
<td>64</td>
<td>1</td>
</tr>
<tr>
<td>60</td>
<td>1</td>
<td>71</td>
<td>0</td>
<td>70</td>
<td>1</td>
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<tr>
<td>61</td>
<td>18</td>
<td>74</td>
<td>1,244.9,952</td>
<td>71</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Barrier Area (ft²) 1,244.9,952
Planning-Level Cost ($) $66,430 $531,437 $1,121,400

*Planning-level cost based on typical construction techniques and engineering for noise barriers with a maximum height of 24 feet.

Appendix Q: Transportation Discipline Report

Appendix A
The following routes are added to the table on page A-1.

<table>
<thead>
<tr>
<th>Route</th>
<th>Service Area</th>
<th>Service Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>154</td>
<td>Tukwila, Kent, Auburn</td>
<td>Weekdays</td>
</tr>
<tr>
<td>161</td>
<td>Seattle, Tukwila, Renton, Kent</td>
<td>Weekdays</td>
</tr>
</tbody>
</table>
Appendix R: Visual Quality Technical Memorandum

Page C-2, information for Viewpoints T9 and T10

The table was inadvertently cut off. The table below now includes T9 and T10 information.

<table>
<thead>
<tr>
<th>Viewpoint Number</th>
<th>Views Toward Road</th>
<th>Evaluation Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Intactness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Invasiveness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Visual Quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Invasiveness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Intactness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Overall Invasiveness</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evaluation Scale</th>
<th>Invasiveness</th>
<th>Intactness</th>
<th>Overall Invasiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOW</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>MODERATE</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>HIGH</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MODERATE HIGH</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>HIGH MODERATE</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>VERY HIGH</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>MODERATE LOW</td>
<td>7</td>
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<td>7</td>
</tr>
<tr>
<td>LOW MODERATE</td>
<td>8</td>
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<td>8</td>
</tr>
<tr>
<td>VERY LOW</td>
<td>9</td>
<td>9</td>
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</tr>
<tr>
<td>NON-EXISTENT</td>
<td>10</td>
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</table>

<table>
<thead>
<tr>
<th>Viewpoint</th>
<th>Evaluation Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>T9</td>
<td>LOW</td>
</tr>
<tr>
<td>T10</td>
<td>MODERATE</td>
</tr>
</tbody>
</table>

July 2008
Appendix S: Water Resources Discipline Report

Page 3-2, What policies or regulations are related to effects on water resources?
Bullet list augmented as follows:

- Tribal treaty rights, including any associated senior water rights where applicable.

Page 4-5, Thunder Hills Creek
Section revised as follows:

Thunder Hills Creek also originates on the hills above I-405 just northeast of Rolling Hills Creek and is a tributary of Rolling Hills Creek. It has a basin size of approximately 0.6 square miles. Thunder Hills Creek crosses under I-405 at milepost 3.0 in a 48-inch-diameter culvert. This culvert has been replaced as part of an emergency repair project permitted in March 2008. At this point, the creek joins the flow from a historic coalmine. Drainage from these two culverts enters a concrete flume that flows southwest to Talbot Road. From here, the flows are piped and discharged to Rolling Hills Creek.

Page 4-11, Ecology Embankments
Second paragraph is revised as follows:

Ecology embankments are very efficient at improving water quality and remove around 90 percent of total suspended solids (TSS) most pollutants. These BMPs are typically used as the first step management system that then conveys stormwater to detention ponds for flow control. Ecology embankments are generally constructed as shown in the drawing below.

Page 6-6, What measures will be taken to mitigate effects of operation?
Section revised as follows:

- Stormwater facilities for this project will maintain the peak flow rate and duration of stormwater runoff at present day conditions or better as mandated by the HRM for a range of storms from 50 percent of the 2-year up through the 50-year recurrent storm event. WSDOT will provide routine maintenance for these facilities.
Attachment 2: Notices

This attachment provides the notices prepared for the EA and FONSI and the Determination of Nonsignificance (DNS) prepared under SEPA Rules along with information on publication of these notices.

NOTICE OF AVAILABILITY OF FINDING OF NO SIGNIFICANT IMPACT
I-405, TUKWILA TO RENTON IMPROVEMENT PROJECT (I-5 TO SR 169 – PHASE 2)


This finding is based on the evaluation of the Environmental Assessment (EA) and Draft Section 4(f) Evaluation as issued on April 4, 2008, and public and agency input during the public comment period from April 4 through May 19, 2008. The public comment period included a public hearing on April 22, 2008.

Description of Proposal
WSDOT intends to improve I-405 from I-5 to SR 169. These improvements are a part of the I-405 Corridor Program. The proposed action includes the following improvements to support construction and operation of the facility:

• Add capacity to both I-405 and SR 167;
• Reconstruct bridges over the Green River and Cedar River, and add one new bridge over the Green River;
• Modify the SR 181 and SR 169 interchanges;
• Reconstruct the SR 167 interchange, including a new general-purpose direct-connector ramp from southbound I-405 to southbound SR 167, HOV direct-connector ramps from northbound SR 167 to northbound I-405 and from southbound I-405 to southbound SR 167, and a split-diamond interchange on I-405 at Lind Avenue and Talbot Road (SR 515) with connecting frontage roads; and
• Reconstruct the two local street accesses to Renton Hill.

Where Can I View the EA and FONSI?
Copies of the I-405, Tukwila to Renton Improvement Project EA and FONSI are available for a cost of $40 or $23, respectively, which does not exceed the cost of printing and distribution. Both documents are available for review online at: http://www.wsdot.wa.gov/projects/I405/. The EA and the FONSI may also be reviewed at the WSDOT I-405 Project Office at 600 108th Avenue NE, Suite 405, Bellevue.

Who Can I Contact with Questions?
Please contact William Jordan, WSDOT I-405 Project Office, 600 108th Avenue NE, Suite 405, Bellevue, WA 98004; telephone (425) 456-8647 if you have any questions.

Individuals requiring reasonable accommodations may request written materials in alternative formats; large print, Braille, cassette tape, or on computer disk, please call (360) 705-7097. Persons who are deaf or hard of hearing, please call the Washington State Telecommunications Relay Service, or Tele-Braille at 7-1-1, Voice (800) 833-6384, and ask to be connected to (360) 705-7097.

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

The preceding legal notice was advertised in the following newspaper on the date noted:
NOTICE OF AVAILABILITY OF ENVIRONMENTAL ASSESSMENT
I-405, TUKWILA TO RENTON IMPROVEMENT PROJECT (I-5 TO SR 169 – PHASE 2)

The Federal Highway Administration (FHWA) and Washington State Department of Transportation (WSDOT) will issue an Environmental Assessment (EA) and Draft Section 4(f) Evaluation on April 4, 2008, for the I-405, Tukwila to Renton Improvement Project. The project extends for approximately 4 miles along Interstate 405 (I-405) from the I-5 interchange to the State Route (SR) 169 interchange and approximately two miles along SR 167 from I-405 to SW 43rd Street. It is the purpose of this notice and of the public hearing to provide for the exchange of information regarding the effect of the proposed project on the community. This purpose is in accordance with and pursuant to the National Environmental Policy Act (NEPA) and the Federal Highway Act (Title 23 U.S.C., 101 et. seq.) and amendments.

Description of Proposal
WSDOT intends to improve I-405 from I-5 to SR 169. These improvements are a part of the I-405 Corridor Program. The proposed action includes the following improvements to support construction and operation of the facility:

- Add capacity to both I-405 and SR 167;
- Reconstruct bridges over the Green River and Cedar River, and add one new bridge over the Green River;
- Modify the SR 181 and SR 169 interchanges;
- Reconstruct the SR 167 interchange, including a new general-purpose direct-connector ramp from southbound I-405 to southbound SR 167, HOV direct-connector ramps from northbound SR 167 to northbound I-405 and from southbound I-405 to southbound SR 167, and a split-diamond interchange on I-405 at Lind Avenue and Talbot Road (SR 515) with connecting frontage roads; and
- Reconstruct the two local street accesses to Renton Hill.

Public Hearing
WSDOT has scheduled a combined open house and environmental public hearing to answer questions and receive comments on the Environmental Assessment and Draft Section 4(f) Evaluation. The open house and hearing will be from 4:00 pm to 7:00 pm on April 22, 2008, in Renton, at the Renton Technical College, 3000 NE Fourth Street, Renton, WA 98056.

The meeting will use an open house format, which is an informal arrangement that allows for one-on-one discussion with project staff while still providing the opportunity to offer testimony for the official public record to a court reporter.

Each participant may present testimony either orally to the court reporter or in writing. All written comments must be postmarked or received by May 19, 2008, to be considered by the project administrators and included in the official public record. Project questions and comments should be submitted in writing to the I-405 Environmental Manager, William Jordan, at the following address or e-mail address:

600 – 108th Ave NE, Suite 405, Bellevue, WA 98004
Email: TukwilatoRentonNEPA_EA@i405.wsdot.wa.gov

Copies of these documents are available for purchase at the above location at a cost of $40.00 for a hard copy or $3.25 for the compact disk (CD), which does not exceed the cost of reproduction and distribution.

Plans, maps, environmental documents, and other pertinent information about this project will be on display at the open house and hearing. The EA and Draft Section 4(f) Evaluation are also available for public review at Renton Public Library; Renton Highlands Library; Foster Library; University of Washington Library (Suzzalo); and Tukwila and Renton City Halls. The EA document and appendices can be viewed on-line at: http://www.wsdot.wa.gov/projects/i405/

The Renton Technical College public hearing site is accessible to persons with disabilities. Individuals requiring reasonable accommodation may request written materials in alternative formats; large print, Braille, cassette tape, or on computer disk, please call (360) 705-7097. Persons who are deaf or hard of hearing, please call the Washington State Telecommunications Relay Service, or Tele-Braille at 7-1-1, Voice (800) 833-6384, and ask to be connected to (360) 705-7097.

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

The preceding legal notice was advertised in the following newspaper on the date noted:
Seattle Times and Seattle Post Intelligencer, April 4, 2008.
DETERMINATION OF NONSIGNIFICANCE (DNS) 
AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENTATION
I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 – Phase 2), I-5 to SR 169

Washington State Department of Transportation (WSDOT) issued a determination of nonsignificance (DNS) for the I-405, Tukwila to Renton Improvement Project that extends for approximately 4 miles along Interstate 405 (I-405) from the I-5 interchange to the State Route (SR) 169 interchange and approximately 2 miles along SR 167 from I-405 to SW 43rd Street. WSDOT intends to improve Interstate 405 (I-405) from I-5 to SR 169. These improvements are part of the I-405 Corridor Program. The proposed action includes the following improvements to support construction and operation of the facility:

- Add capacity to both I-405 and SR 167;
- Reconstruct bridges over the Green River and Cedar River and add one new bridge over the Green River;
- Modify the SR 181 and SR 169 interchanges;
- Reconstruct the SR 167 interchange, including a new general-purpose direct-connector ramp from southbound I-405 to southbound SR 167, HOV direct-connector ramps from northbound SR 167 to northbound I-405 and from southbound I-405 to southbound SR 167, and a split-diamond interchange on I-405 at Lind Avenue and Talbot Road (SR 515) with connecting frontage roads; and
- Reconstruct the two local street accesses to Renton Hill.

Other features of the project include:

- Stripe lanes to provide buffer between HOV and general-purpose lanes along portions of I-405 and SR 167;
- Construct several retaining walls to accommodate the project;
- Construct stormwater management facilities to provide water quality treatment and detention and upgrade the conveyance system;
- Implement context-sensitive solutions during the project;
- Implement measures that avoid or minimize effects to the environment;
- Use Springbrook Creek Wetland and Habitat Mitigation Bank for wetland mitigation;
- Construct a noise barrier approximately 1,100 feet long and 20 feet high along northbound I-405 just north of the Benson Road;
- Construct a noise barrier approximately 2,200 feet long and 20 feet high along northbound I-405 from just north of Thunder Hills Creek to the Renton Avenue bridge over I-405; and
- Reduce the eastern end of the proposed Talbot Hill noise barrier that is discussed in the Renton Nickel Improvement Project Environmental Assessment by approximately 300 feet.

The Tukwila to Renton Project will provide many short- and long-term benefits. Some of these benefits are:

- Improving travel speeds between I-5 and SR 169 by approximately 10 to 15 miles per hour by 2014;
- Improving traffic flow and safety by limiting access points to the HOV lanes with a striped buffer; and
- Improving water quality conditions in the project area by treating approximately 200 percent of the new impervious surfaces.

Proponent: Washington State Department of Transportation

Location of current proposal: The I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 – Phase 2) extends for approximately 4 miles along I-405 from the I-5 interchange to the SR 169 interchange. Also, the project extends south on SR 167 for approximately 2 miles (milepost 24.4 to 26.3) from I-405 to SW 43rd Street.

Title and Description of documents being adopted: I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 – Phase 2), I-5 to SR 169, Environmental Assessment and Draft Section 4(f) Evaluation (WSDOT/FHWA, March, 2008).

The EA contains the results of environmental analyses to identify potential impacts of the project and the No Build Alternative, and is used to convey the project information to the public and project decision-makers so well informed decisions can be made. This EA was prepared in accordance with the National Environmental Policy Act (NEPA).

The document is available to be read at (place/time): The NEPA EA and Draft Section 4(f) Evaluation and supporting discipline studies can be found on the project website at: http://www.wsdot.wa.gov/projects/i405/
The documents can be read at the following location from 8:00 a.m. to 5:00 p.m.:

I-405 Project Office,
600 – 108th Avenue NE, Suite 405,
Bellevue, WA 98004

Copies are also available for review at the following locations: Renton Public Library; Renton Highlands Library; Foster Library; the University of Washington Library (Suzzalo); and Tukwila and Renton City Halls.

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed Environmental Checklist and other information on file with the lead agency. This information is available to the public on request.

This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 14 days from the date below.

Comments must be submitted by April 18, 2008.

We have identified and adopted this document as being appropriate for this proposal after independent review. The document meets our environmental review needs for the current proposal and will accompany the proposal to the decision maker.

Name of agency adopting document: Washington State Department of Transportation, Urban Corridors Office

Contact person: William Jordan
Phone: 425-456-8647
Email: TukwilatoRentonSEPA_DNS@i405.wsdot.wa.gov

The preceding legal notice was advertised in the following newspaper on the date noted:

*Seattle Times* and *Seattle Post Intelligencer*, April 4, 2008
Attachment 3:  
FONSI Distribution List

To promote good communication and enhance interagency coordination, we acknowledge that this FONSI is a public document and has involved the public, agencies, and tribes in implementing NEPA procedures. All those who received a copy of the EA have been sent postcards notifying them of the availability of the FONSI. The FONSI was sent to the following government agencies and tribe who commented on the EA and Draft Section 4(f) Evaluation:

- City of Renton
- King County
- Muckleshoot Indian Tribe
- U.S. Department of the Interior
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Attachment 4:  
Mitigation Commitment List

This attachment describes project mitigation commitments. The mitigation measures are organized by element of the environment, as presented in the EA. These commitments were included in the EA as Chapter 6, “Measures to Avoid or Minimize Effects,” issued on April 4, 2008. In addition to these commitments, WSDOT will also use standard construction best management practices in the usual and accustomed fashion as required by local, state, and federal regulations.

Since the issuance of the EA, corrections have been made to these commitments. These corrections serve to clarify or enhance readability. Changes are identified using strikethrough and underlining. Each deletion of original text is shown with a line striking through it; new text is shown as underlined. These minor revisions are incorporated into the EA by reference.

These commitments have been adopted as part of FHWA’s final decision on the proposed project. They are listed to “assist with agency planning and decision-making” and to “aid an agency’s compliance with NEPA when no Environmental Impact Statement is necessary” [40 CFR 1501.3(b) and 1508.9(a)(2)].
List of Commitments Identified in the EA

WSDOT has well-established design and construction practices for avoiding or minimizing impacts resulting from environmental conditions anticipated along the project alignment. The following sections describe the established design and construction practices that WSDOT will include to avoid or minimize impact to the various environmental resources during both the construction and operation phases of the project.

Transportation

WSDOT will coordinate with the local agencies and other projects to prepare a Traffic Management Plan prior to making any changes to the traffic flow or closing lanes. Local agencies, the public, school districts, emergency services providers, and transit agencies will be informed of the changes in advance through a public information process. Pedestrian and bicycle circulation will be maintained as much as possible during construction.

Transportation demand management strategies will be an important part of the construction management program. The transportation demand management strategies in the Tukwila to Renton Project area will be implemented prior to construction to increase public awareness and participation in HOV travel. The major focus will be on expanding vanpooling and vanshare opportunities.

Noise

To reduce construction noise at nearby receptors, WSDOT will incorporate the following activities where practicable:

- Limit the noisiest construction activities (e.g., pile driving) to between 7 a.m. and 10 p.m., to reduce construction noise levels during sensitive nighttime hours.
- Equip construction equipment engines with adequate mufflers, intake silencers, and engine enclosures to reduce their noise.
- Turn off construction equipment during prolonged periods of nonuse to eliminate noise.
- Where possible, locate stationary equipment away from residences to decrease noise.
- Construct temporary noise barriers or curtains around stationary equipment that must be located near residences, to decrease noise levels at nearby sensitive receptors.
- Require use of Occupational Safety and Health Administration approved ambient sound-sensing backup alarms, to reduce disturbances from backup alarms during quiet periods.

Two new noise barriers are planned for construction with the Tukwila to Renton Project. Noise Barrier 8 will be constructed in front of the Berkshire Apartments and will be 20 feet high and roughly 1,100 feet long. Noise Barrier 10, a system of two walls, will be in front of the Renton Hill Neighborhood. Noise Barrier 10 that separates at Cedar Avenue S and becomes Noise Barrier 10A to the north and Noise Barrier 10B to the south. Noise Barrier 10A will sit at the top of the stacked structure and overlap with Noise Barrier 10B where the upper and lower Mill Avenue roadway structure begins. Noise Barrier 10B will follow Mill Avenue to the bottom of
the new stacked road structure. Noise Barrier 10A will be 14 to 20 feet high and Noise Barrier 10B will be 20 feet high. Noise Barrier 10 has a total length of roughly 2,500 feet. Other noise calming options may be considered for use on this project if appropriate.

Communities, Businesses, and Public Services
To avoid and/or minimize effects to communities, businesses, and public services, WSDOT will:

- Continue active public involvement and work with neighborhood associations and public services.
- Coordinate with any affected resident or business owner to provide them relocation assistance, in compliance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.
- Coordinate with business owners and the local jurisdictions to ensure that parking losses are mitigated at an appropriate level.
- Maintain access to businesses throughout the construction period and provide reasonable access during business hours. Access measures will be prepared as part of the traffic management plan and included in the contract specifications.
- Post appropriate signs that communicate revised access information to potential customers.

Impacts to existing utilities will be avoided through project design when feasible. Where avoidance is not feasible, utilities will be relocated or protected in place.

Recreational and Cultural Resources
During final design, WSDOT will meet with staff from the Renton and Tukwila Parks and Public Works Departments to coordinate temporary trail closures and detours related to the project. If it is not possible to maintain trail traffic during construction, then the team will identify appropriate, safe detours for use by cyclists and/or pedestrians. WSDOT will develop signs explaining the temporary closure timing and detour routes.

Temporary disturbances to landscaping for recreational and cultural resources will be restored following protocols in the I-405 Context-Sensitive Solutions Master Plan. Specific measures to mitigate project effects are described below:

- **Duwamish-Green River Trail/Christensen Greenbelt.** During construction, a segment of the Duwamish-Green River Trail/Christensen Greenbelt where it crosses beneath the Southcenter Boulevard bridge, the I-405 bridges, and the Tukwila Parkway bridge will be closed for public safety reasons. A signed detour will be provided during the closure and notices will be posted to keep the public informed about the construction.

The Duwamish-Green River Trail/Christensen Greenbelt is a Section 6(f) resource. As such, the Recreation and Conservation Office (RCO) will review the conversion approval request for permanent direct use effects once this portion of the project is funded for construction. WSDOT, in consultation with the City of Tukwila, will identify proposed replacement property. This replacement property can be conveyed in a variety of forms, such as:
Acquisition of property that can be added to the existing trail corridor;

Acquisition of property within the City of Tukwila that can be used for public outdoor recreation;

Monetary compensation to the City of Tukwila for the fair market value of the affected property. The City must use these funds to acquire outdoor recreation property within the city limits.

An appraisal will be completed to establish the fair market value of the trail and of the proposed replacement property. The fair market value of the replacement property must be at least equal to the outdoor recreation property to be converted. The replacement property must also be of reasonably equal recreational value before approval will be granted.

- **Duwamish-Green River Trail Trailhead.** During construction, the trailhead will be closed for public safety reasons. Notices will be posted to keep the public informed about the construction. The trailhead will be restored by replacing existing picnic tables, signs, trash receptacles, and landscaping. WSDOT proposes to replace the lost parking adjacent to the proposed stormwater detention site immediately west of the existing parking.

- **Tri-Park complex.** WSDOT has worked with the City of Renton, through a design charrette, to assist in the City’s development of the Tri-Park Master Plan incorporating Liberty Park, Cedar River Park, Cedar River Trail, and the Narco property into one large recreational complex. This plan resolves several conflicts that arise from having a water supply system, recreational facilities, and a widened interstate highway all within a confined space. WSDOT will continue to coordinate with the City of Renton so that the timing of the Tri-Park Master Plan and the Tukwila to Renton Project coincide are compatible.

Both the City and WSDOT will have distinct scope and funding responsibilities to implement the agreed approach in the Tri-Park area. However, neither the City nor WSDOT has secured its funding to implement their portions of the shared plan. The lack of funding and presumed timing of funding poses a complication in mitigation. It is WSDOT’s desire to implement the Section 4(f) mitigation during construction of the project. However, if the City’s own funding and timeline for implementation makes this impractical, then the City and WSDOT will work together to develop a strategy to effectively implement both parties’ responsibilities.

- **James Nelsen House.** During construction, fencing will be placed to establish the limits of construction and ensure there will be no encroachment near the historic structure. Retaining walls to minimize the footprint and avoid the historic structure are an integral component in the Tukwila Parkway design. The property subject to temporary disturbance, including landscaping, will be restored after construction.

If archaeological sites are discovered in the currently unfunded and inaccessible portions of the APE during future work, the I-405 Programmatic Agreement affirms that avoidance and minimization are the preferred options where possible. If unavoidable adverse effects to
archaeological sites are discovered during future work, the I-405 Programmatic Agreement provides for the development of mitigation measures in consultation with DAHP and interested and affected Indian tribes (see Attachment 6).

WSDOT will also follow their Unanticipated Discovery Plan in the event that archaeological artifacts are found during construction.

**Visual Quality**

Guidelines from the WSDOT Roadside Classification Plan (RCP) and the Urban Design Criteria (UDC) for the I-405 corridor will be applied to mitigate for unavoidable negative visual effects caused by this project. For improvement projects such as this, the RCP requires roadside restoration within the right-of-way throughout the project limits. For this project, disturbed areas will be restored to a treatment level 2 per the 1996 RCP, with the following guidelines applied where appropriate and practicable:

- Minimize site disturbance to protect native plant communities and specimen trees.
- Restore roadside character with trees (conifers up to 4 feet in height and deciduous trees up to 1 inch in diameter) and shrub seedlings.
- Locate plantings to enhance views of natural features.
- Select vegetation and design planting density to achieve blending with adjacent land use.

If areas are expected to be disturbed by future corridor improvements within 10 years after project completion, temporary erosion control type plantings will be used. In other areas within the project construction limits, additional plantings may be installed where future corridor improvements that are planned to be completed within the next 10 years will not affect those plantings within 10 years.

The UDC implements context-sensitive solutions policy for the I-405 corridor and provides another layer of compensation for means to offset unavoidable negative effects caused by the project. In some instances, the UDC guidelines are redundant with those found in the RCP. The major project elements will have the following UDC guidelines applied where appropriate and practicable:

- Ensure visual unity and consistency throughout the I-405 corridor. This includes defining the appearance and style of built elements, such as lighting, paving, railings, signs, bridges, structures (and associated elements), and walls around bridges. The guidelines address the use of aesthetic treatments in the corridor, including the process for selecting and locating architectural treatment.
- Enhance the architectural design of project features such as retaining walls by including terracing to reduce apparent height, using a consistent design theme throughout the corridor, applying texture to the concrete surfaces to reduce apparent scale, and applying pigmented sealer for uniform color and to limit the effects of graffiti and to reduce reflective glare.
- Shield roadway light fixtures to minimize glare and ambient light spillover into adjacent residential areas.
- Minimize clearing for construction, preserving existing stands of mature trees where possible.
- Screen views of the roadway, elevated structures, retaining walls, noise walls, and other project features from areas with high viewer sensitivity where possible.
- Grade slopes to blend with the natural topography by softening slope transitions.
- Follow the guidelines in the RCP to blend the project into the adjacent land uses, while creating a unified experience for the freeway traveler.

For this project, the UDC guidelines will be applied to local street bridges over I-405 at (from south to north): 66th Avenue, Lind Avenue, and Renton Avenue. UDC guidelines will also be applied to I-405 bridges over (from south to north): the Green River, SR 181, SR 167, Talbot Road, Lower Mill Avenue, and SR 169. Additional structures that the UDC guidelines will be applied to include the new Tukwila Parkway Bridge over the Green River, the new ramps at the SR 181 interchanges, the new ramps and frontage roads associated with the SR 167 interchange improvements, the new Mill Avenue stacked structure, and the two new noise walls, and the SR 169 off-ramp.

**Water Resources**

**Surface Water**

Peak and base flow rates to streams and rivers will not be negatively altered during project construction because detention ponds will be constructed prior to the highway widening. These ponds may be used for temporary erosion and sedimentation control. WSDOT will provide routine maintenance for these facilities throughout construction.

Stormwater facilities for this project will maintain the peak flow rate of stormwater runoff at baseline present day conditions or better as mandated by the HRM for a range of storms from 50 percent of the 2-year up through the 50-year recurrent storm event. WSDOT will provide routine maintenance for these facilities.

The area of the project that is within 10,000 feet of the Renton Municipal Airport will require measures to minimize hazards associated with wildlife attraction to stormwater detention ponds. The following are guidelines that will be considered for stormwater management facilities sited near the airport:

- Design system to minimize the frequency and duration of open water to acceptable levels. Water that is detained by the 2-year design storm should completely drain or fall to a level that is covered by a net or solid cover within 24 hours after the end of the storm event.
- Minimize the size of open water ponds within the FAA 10,000-foot-radius wildlife hazard management zone to minimize aircraft-wildlife interactions.
• Use steep side slopes and deep pond depths to minimize shallow water areas and minimize the total water surface area.

• Slope the pond bottom to allow quick drainage and reduce the potential for standing water.

• Eliminate the potential for wetland vegetation growth on the pond bottom and side slopes by lining the pond with riprap or quarry spalls. Alternatively, plants that provide minimal habitat to wildlife can be used. Dense brush and small trees that will be perceived by waterfowl as hiding places for predators are a good choice. Avoid closely mowed grass, which is preferred by waterfowl.

• Break up possible flight lines by planting trees, setting up poles and or fences, which do not allow most water fowl clear landing or takeoff room on the pond surface.

• Introduce islands within open water areas as needed to support scrub-shrub vegetation cover within wetpools with emergent aquatic planting areas.

• Cover or net all permanent open water surfaces if water fowl use becomes an issue at the site.

**Water Quality**

The primary means of avoiding and reducing potential effects from this project are to use standard BMPs during construction. WSDOT makes the following commitments to protect water quality during construction of I-405 projects:

• Where construction must occur within stream channels, such construction will occur “in the dry” whereby stream flow is temporarily diverted around the work site, where practicable to prevent turbidity.

• Construction disturbances will be limited to the minimum area needed, the shortest duration, and an appropriate distance away from water bodies as practical. Seasonal work windows will be identified and implemented.

• BMPs such as erosion-control fencing, landscaping, erosion matting, hydro mulching, soil imprinting, straw bales, detention/sediment trap basins, and vegetated fringes as described in the HRM will be used as appropriate.

• Stormwater chemical treatment following Ecology’s guideline may be used as a contingency measure and if approved by WSDOT.

• A scour analysis will be conducted on any highway-related structures that are over river or creek crossings or below OHWM of these water bodies. Appropriate

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**What is an erosion-control fence?**

An erosion-control fence consists of a temporary sediment barrier made of synthetic fabric stretched between posts, with a shallow trench located upslope. The erosion-control fence is “keyed” into the ground to prevent water from running under the fence.

**What is a sediment trap?**

A sediment trap consists of a temporary ponding area formed by an earthen embankment or an excavation. Both silt fences and sediment traps are designed to slow the flow of water, allowing sediment to settle out.
measures such as fish-friendly stream bank protection or bridge modifications will be implemented if the scour analysis identifies needs.

- Construction mitigation measures such as use of non-hazardous chemicals when possible and establishment of special hazardous materials storage and handling areas will be implemented to reduce the use, transfer, and storage of hazardous materials in sensitive areas.

- WSDOT will prepare and implement a Temporary Erosion and Sedimentation Control (TESC) Plan. The TESC Plan will consist of operational and structural measures to control the transport of sediment. Operational measures will consist of good housekeeping practices, such as removing mud and dirt from trucks before they leave the site, covering fill stockpiles or disturbed areas, or avoiding unnecessary vegetation clearing. Structural measures will consist of the construction of temporary structures to reduce the transport of sediment, such as silt fences or sediment traps. Should any BMP or other operation not function as intended, WSDOT will take additional action to minimize erosion and maintain water quality.

- Fuel and chemical storage and fueling operations for construction vehicles and equipment will be located within secondary containment areas during construction whenever practicable. A Spill Prevention Control and Countermeasures (SPCC) Plan will be established for construction activities and will also detail the procedures that will be followed in the event of a spill to prevent or minimize effects. The SPCC Plan will specifically address potential fuel spills from vehicles and potential spills of chemicals that are commonly used during construction. Spill response equipment will be located at regular and specified intervals within the construction zones to minimize countermeasure response times.

- WSDOT will identify and develop staging areas for equipment repair and maintenance away from all drainage courses except in areas that are already paved and where no excavation will occur within the staging area. WSDOT will require that washout from concrete trucks not be dumped into storm drains or onto soil or pavement that carries stormwater runoff. During work on the site, thinners and solvents will not be used to wash oil, grease, or similar substances from heavy machinery or machine parts within the construction areas. WSDOT will designate a washdown area for equipment and concrete trucks.

- WSDOT will obtain a NPDES (National Pollutant Discharge Elimination System) construction permit. WSDOT will ensure that water meets the standards specified in the NPDES permit prior to discharge from the construction site. If necessary, water quality will be improved by using such BMPs as sediment ponds to allow sediment to settle out prior to discharge.

BMPs for this project will remove pollutants from runoff generated by the project. With these BMPs, the runoff is expected to meet Washington State water quality standards listed in WAC 173-201(A). According to Ecology, projects meeting the Ecology guidelines or equivalent
standards, such as the HRM, are presumed to meet federal and state water quality requirements. WSDOT will provide routine maintenance for these facilities.

**Floodplains**

Plans for compensatory floodplain storage for temporary and permanent fill will be developed after the project is funded but before construction begins. Mitigation will compensate for fill by volume. Excavation for mitigation will be done in the same floodplain as the fill and the same one-foot elevation. For fill in the Springbrook Creek floodplain, excavation from the construction of the Springbrook Creek Wetland and Habitat Mitigation Bank may be used as compensatory storage. WSDOT will analyze the effectiveness of the proposed fill mitigation to confirm that the 100-year floodplain elevation will have no rise due to the project.

In addition to providing compensatory floodplain storage, stormwater detention will also be provided in the Green River and Springbrook basins for drainage from new impervious surfaces. Detaining stormwater will help minimize changes to flow patterns of inlet sources to the floodplain.

Bridge piers placed within the floodplain will be designed to minimize hydraulic disturbance to flow. This may be achieved by designing piers that are all the same size and placed in lines parallel to the flow path.

**Groundwater**

Several construction mitigation measures have been identified by WSDOT, in consultation with the City of Renton and include the following:

- WSDOT will protect groundwater quality during construction by implementing TESC and SPCC Plans to prevent erosion, sedimentation, and spills.
- WSDOT will provide an independent construction environmental coordinator to monitor groundwater quality, storage of hazardous substances, chemical use practices, containment of hazardous materials, and to develop an emergency response and recovery plan for the sole-source aquifer.
- WSDOT will develop an environmental protection plan for the City’s review prior to construction. This will include additional investigation of the support structures and mitigation for the increase in impervious surfaces, including a monitoring plan.
- WSDOT will identify and locate staging areas away from all drainage courses except in areas that are already paved and where no excavation will occur with the staging area. Washout from concrete trucks will not be dumped into storm drains or onto soils or pavement that carries stormwater runoff. During work on the site, thinners and solvents will not be used to wash oil, grease, or similar substances from heavy machinery or machine parts within the construction areas. WSDOT will designate a wash down area for equipment and concrete trucks.
- WSDOT will ensure that fuel and chemical storage is located within secondary containment areas. These areas will be surfaced with an impermeable material and sized to contain the volume of stored fuel and/or chemicals.

- WSDOT will conduct construction within the City of Renton’s Aquifer Protection Zones 1 and 2 in compliance with State of Washington Wellhead Protection Requirements outlined in WAC 246-290-135(4) and the City of Renton Municipal Code RMC 4-9. The storage of fuel and construction chemicals and refueling operations will not be allowed within the City of Renton’s Aquifer Protection Zone 1. Every effort will be taken to minimize the storage of fuels and chemicals within Renton’s Aquifer Protection Zone 2. Emergency countermeasures equipment will be specified in the SPCC Plan and will be dedicated and maintained at designated locations within Renton’s Aquifer Protection Zones 1 and 2 for rapid and effective response to fuel spill from a vehicle or chemical spill.

- WSDOT will conduct groundwater monitoring during construction to monitor for spills that can affect the sole-source aquifer. If necessary, existing City of Renton monitoring wells can be supplemented with additional monitoring wells at key locations and used to monitor water quality during construction activities in Aquifer Protection Zone 1.

- WSDOT will take added measures for stormwater control and conveyance during construction within Renton’s Aquifer Protection Zones 1 and 2 to protect aquifers. Within Aquifer Protection Zones 1 and 2, WSDOT will construct either a lined or piped stormwater conveyance system. Stormwater will go through an existing lined detention pond, or WSDOT will construct a new lined detention pond.

- WSDOT will construct new roadway that is located over Aquifer Protection Zone 1 with an impervious liner underneath the pavement for additional protection from spills escaping the stormwater collection system.

- WSDOT will avoid placement of imported contaminated fill during construction. Imported fill must meet the state’s Model Toxics Control Act (MTCA) Method A or B soil cleanup standards (WAC 173-340-740) for unrestricted use. A fill evaluation and testing plan will be developed prior to commencing construction activities.

- For any fill over 50 cubic yards in quantity to be placed over Renton’s Aquifer Protection Zone 1, a professional engineer or geologist will certify that the soils meet MTCA cleanup standards (City of Renton Municipal Code RMC 4-9). A plan will be developed that establishes criteria for evaluating fill sources. Analytical testing protocol for sources that may contain suspect fill materials shall be specified in the plan to ensure MTCA Cleanup Method A or B soil cleanup standards are met. If analytical testing is required, imported fill soils will be analyzed before arriving at the construction site. The fill testing plan will also apply to suspect excavated soils encountered during construction. All sampling will be performed reviewed by a professional engineer or geologist.

- WSDOT will avoid drawdown of nearby wells during construction. These effects can be avoided by the use of recharge wells and/or cut-off walls, if necessary.
WSDOT will implement good construction management, safety precautions, and safety enforcements near the City of Renton’s well field to avoid a construction-related traffic accident, which could damage and disrupt these wells.

WSDOT will locate areas where permanent drainage will be required by site conditions for cut slopes. If local private groundwater users or downgradient wetlands and spring water right holders could become affected by drawdown of the groundwater table from these drain systems, these effects shall be avoided on a site-specific basis by designing the permanent drainage system to recharge or replenish the downgradient water table.

WSDOT will locate concrete structures away from production wells and use non-hazardous concrete curing chemicals.

WSDOT will use steel piles when structures are within 50 feet of production wells and locate new embankments at least 50 feet away from production wells.

WSDOT will minimize ground vibration and settlement within 50 feet of production wells.

WSDOT acknowledges that existing structures in the production well area use spread-footing foundations. After Unless indicated otherwise by further geotechnical study, spread-footing foundations may be used that do not substantially penetrate the Cedar Valley sole-source aquifer may be used for the reconstructed bridges over the Cedar River.

WSDOT will use two ponds for highway spill containment to protect the sole-source aquifer from construction spills.

WSDOT will further minimize effects by using BMPs from WSDOT’s Geotechnical Design Manual and Bridge Design Manual.

Several operational mitigation measures have been identified by WSDOT, in consultation with the City of Renton, and including the following:

WSDOT will operate stormwater facilities to minimize leakage within Aquifer Protection Zone 1.

WSDOT will use two ponds for highway spill containment to protect the sole-source aquifer from vehicle spills.

WSDOT will use the stormwater collection and detention system to capture fuel and chemical spills from vehicles using the stormwater collection and detention system. Any new stormwater systems installed for the project will include a shut-off capability for containing a spill or release. WSDOT will establish a plan to contain, clean-up, and minimize potential effects from vehicular accidents.

A higher level of protection is needed for the City of Renton’s Aquifer Protection Zones 1 and 2. To protect the aquifer protection zones, WSDOT will establish a plan in compliance with Washington State Wellhead Protection Requirements outlined in WAC 246-290-135(4) and the City of Renton Municipal Code RMC 4-9. The roadway and access ramps over Renton’s Aquifer Protection Zone 1 will have curbs and gutters or berms to collect and route major spills to the stormwater collection system. The system will be constructed in
accordance with City of Renton requirements for sanitary sewage facilities in Aquifer Protection Zone 1 and will be sized to contain a liquid spill from a double tanker truck.

- WSDOT will routinely inspect the roadway for cracks or openings that would permit leakage and escape of a major spill from the stormwater collection system within Aquifer Protection Zone 1. Patching of observed cracks/openings will be within a short time after discovery. Emergency counter measures equipment will be dedicated and maintained at a designated location within Renton’s Aquifer Protection Zone 1 for rapid response to a fuel spill from a vehicle or chemical spill occurring during use. Procedures will be specified for emergency containment, control, and cleanup of minor and major spills.

The Green-Duwamish Alluvial Aquifer near the study area is not used for domestic water supply or irrigation purposes and will be protected during operation by WSDOT maintenance following standard pollution control practices.

**Ecosystems**

All in-water work will be restricted to authorized construction periods when juvenile salmon are not likely to be present in substantial numbers. Adherence to designated work windows, as defined by appropriate permitting agencies (Washington State Department of Fish and Wildlife, NMFS, and the USFWS), will also eliminate or reduce in-water interference during periods when juvenile and adult salmon are likely to be present.

WSDOT will restore temporarily cleared areas to preconstruction grades and replant the areas with appropriate native vegetation. This applies to both wetland and upland areas.

**Wetlands**

WSDOT, in partnership with the City of Renton, has developed a wetland mitigation bank called the Springbrook Creek Wetland and Habitat Mitigation Bank. WSDOT intends to debit credits from this Bank to mitigate for permanent effects to wetlands resulting from project construction. Mitigation banking is one early-action approach identified in the I-405 Corridor Program Final Environmental Impact Statement and the Bank is part of WSDOT’s watershed approach to wetland mitigation. By consolidating mitigation into one large site, we have created mitigation that specifically contributes aquatic ecosystem functions that are lacking in the local watershed while providing safe, high-quality wildlife habitat away from the dangers of a roadside location.

**Aquatic Resources**

Temporary construction effects will be reduced or avoided by the use of standard construction BMPs.

Aquatic resources effects will be mitigated by implementing either the Panther Creek Watershed Rehabilitation Plan, or performing on-site, in-kind mitigation (such as planting native trees near where trees have to be removed to construct the project), or off-site mitigation to improve habitat conditions in areas away from the project where mitigation might be more beneficial. Specific mitigation plans will be included in the permit applications for construction of the Tukwila to Renton Project. In any of the mitigation scenarios, WSDOT will address over-
water, in-stream, and stream buffer effects to satisfy the requirements of the local critical areas regulations, the Hydraulic Code, and ESA to enhance in-stream fish habitat to the maximum extent practicable.

The Panther Creek Watershed Rehabilitation Plan is an I-405 Water Resource Initiative that proposes stream mitigation for the Panther Creek system. The plan will provide phased stream mitigation (concurrent and/or advance) at a watershed level for effects from improvements in the I-405/SR 167 vicinity that affect the Panther Creek and lower Springbrook Creek subbasins. This plan also evaluates highway drainage and how it could be cost-effectively managed to complement the stream mitigation work. Additional mitigation will be provided for effects to aquatic resources in other basins.

The benefits of implementing this conceptual plan include:

- Providing stream mitigation to address limiting factors at a watershed level.
- Providing fish habitat improvements via stream flow management to: 1) provide more reliable stream base flows; 2) create stream flow changes that are compatible with wetland floodplain enhancement; and 3) manage stream flows to be compatible with downstream flood control needs.
- Preserving high quality forested wetlands within the contiguous Panther Creek wetland complex.
- Providing a direct discharge of treated highway stormwater into the Panther Creek wetland complex to provide additional project benefits that are compatible with the mitigation proposal.

If the Panther Creek Watershed Rehabilitation Plan is not implemented, WSDOT, in cooperation with resource agencies and tribes, will develop alternative plans for habitat improvement, restoration, or construction to mitigate the effects of roadway widening and the increased width of stream crossings.

The I-405 Team will conduct further evaluation on the seven-six culverts that are fish passage barriers to determine which ones will be retrofitted or replaced as part of the project. The determination of which culverts will be retrofitted or replaced will occur during the project’s permitting phase.

**Wildlife and Vegetation**

Mitigation measures to offset construction effects will include the revegetation of all temporarily disturbed soils resulting from construction activities. Planted shrubs and tree species will be maintained for a period to ensure the revegetation of target cover types. Planting will occur in areas that provide connectivity to existing wildlife habitat but still meet safety and maintenance standards set forth by WSDOT.

No measures are necessary to mitigate for operational effects to wildlife habitat.
Cumulative Effects

No additional measures beyond those already listed in this section will be necessary during construction and operation of the Tukwila to Renton Project to avoid or minimize substantial adverse cumulative effects.
Attachment 5: Comments and Responses

In this attachment, we present the written comments received via email, on EA public hearing forms, and as letters. During the April 22, 2008 public hearing, attendees had the opportunity to make formal oral comments; however, no one presented oral comments for recording. We have copied the written comments received during the comment period in their entirety and presented them according to the index below. Our corresponding responses follow each letter.

Index to Written Comments and Responses
City of Renton
King County Department of Transportation
Muckleshoot Indian Tribe
U.S. Department of the Interior
Comment AT-1: City of Renton

May 22, 2008

Mr. William Jordan
I-405 Environmental Manager
Washington State Department of Transportation
I-405 Project Office
600 108th Avenue NE, Suite 405
Bellevue, WA 98004

Subject: I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 - Phase 2) Environmental Assessment (EA) Comments

Dear Mr. Jordan:

Previously, the City of Renton provided scoping comments, dated June 2006, for consideration when preparing the subject Environmental Assessment (EA). As noted in our scoping comments, the City of Renton and WSDOT have signed several letters of concurrence regarding the I-405 Master Plan for the segment between I-5 and SR 169.

Continuing in our collaborative efforts on the planning and design of improvements to the I-405 corridor, the City of Renton submits the following comments for consideration with regard to the I-405, Tukwila to Renton Improvement Project (Phase 2) Environmental Assessment.

APPENDICES

We recommend that the letters of concurrence noted above be included or referenced in Appendix B – Agency and Tribal Correspondence.

CHAPTER 3 – DEVELOPING THE ALTERNATIVES

The EA notes the cantilever of I-405 over Main Avenue South. The City would like the EA to note what, if any, unique impacts this may cause to the ownership, operations, and maintenance of different rights-of-way stacked in airspace. It is expected that during future project development, the City and WSDOT will need to develop ownership, operations, and maintenance agreements.
CHAPTER 5.2 – NOISE

The City recommends that noise walls be included to mitigate impacts to the City’s Tri-Parks complex, the City’s historical museum, and the City’s main library. The EA identifies that these parks, the museum, and library already exceed the noise level, and in the case of Cedar River Park, the noise level will increase.

Development of the Cedar River Vicinity Charette was based on the understanding that in order for the northbound I-405 to SR 169 off-ramp to be moved significantly closer to the Renton Community Center, this ramp would include a noise wall.

CHAPTER 5.3 – COMMUNITIES, BUSINESSES, AND PUBLIC SERVICES

The EA should address impacts to private houses on Mill Avenue South where the proposed stacked Mill Avenue is proposed, such as subterranean impacts.

CHAPTER 5.4 – RECREATIONAL AND CULTURAL RESOURCES

The Cultural Resources discipline report should have an additional description regarding the protection of the Renton Coal Mine Hoist Foundation, located between Benson Road and the I-405 southbound off-ramp to SR 515. The text should not indicate that the mine hoist foundation will be removed.

The City requests the Cultural Resources discipline report evaluate the Longacres horsetrack monuments located underneath I-405 just east of the BNSF railroad tracks. Regardless of the results of this analysis, the City would like WSDOT to commit to coordinating with the City in the future regarding the protection or relocation of these monuments.

The Panther Creek Wetlands Open Space, as identified in the City of Renton 2003 Long-Range Park, Recreation, and Open Space Plan, shows this area to be developed in the future to include a boardwalk with interpretive materials, viewpoints and trails systems. In addition, the City’s adopted Trails Master Plan designates this area as a trail location connecting west to the Springbrook Trail and east to the Cascade Trail. While not currently open to the public, this will be a major connection to trails to the east and west. The City requests the EA identify this connection under SR 167. This should be designated as a 4(f) parcel.

The Cedar River Natural Area was acquired with Washington Wildlife and Recreation Program (WWRP) funding administered by the Resource and Conservation Office (RCO) along with the NARCO property. This was completed as one acquisition; $500,000 was granted by the RCO. This property should be listed as a 4(f) parcel throughout the EA.

The EA defines a “constructive use,” and on page 5-48 indicates that noise, visual quality, and air quality studies were completed for the Tukwila to Renton Project EA and the studies found that the project would not have constructive uses at any of the recreational properties. The City
disagrees with this conclusion. The City requests noise barriers to be constructed to reduce the increased impacts and noise to the City’s Tri-Park complex, museum, and library.

CHAPTER 5.5 – VISUAL QUALITY

The EA should also include text regarding the significant effect on visual quality caused by the cantilever of I-405 over Main Avenue South.

CHAPTER 5.6 – WATER RESOURCES

WSDOT needs to work out a schedule to provide the City with the requested information and relevant studies depending on project funding.

The City’s existing underground utilities in the Tri-Parks vicinity will be severely impacted by the project, especially by the new ramp and support structures. The EA should identify these impacts and WSDOT’s commitment to relocate the City’s existing utilities, including but not limited to: water mains, sanitary and storm sewer mains, chemical lines for water treatment, telemetry and power conduits, and vaults. The EA should identify that WSDOT will commit to relocation of these utilities prior to any condemnation and/or conversion of acquired City-owned property to limited access right-of-way. As part of the EA, WSDOT should identify the need for the acquisition of a new utility corridor for the relocation of the existing City utilities impacted by the project.

Should you have any questions or concerns, please contact Keith Woolley, the City’s I-405 coordinator, at (425) 430-7318.

Sincerely,

Gregg Zimmerman, P.E.
Administrator

cc: Peter Hahn, Deputy Public Works Administrator - Transportation
Terry Higashiyama, Community Services Administrator
Lys Hornsby, Utility Systems Director
Leslie Betlach, Parks Director
Jim Seitz, Transportation Planning and Programming Supervisor
Abdoul Gafour, Utility Engineering Supervisor
Fle
Responses to Comment Letter AT-1: City of Renton:

1. These concurrence letters can be found in the project's Scoping Report, issued January 2007, and are part of the project record.

2. Maintenance, operation, and ownership agreements and acquisitions will be coordinated with the City prior to construction of the project as determined through WSDOT policy.

3. The project noise analysis demonstrates that while these resources are currently above the FHWA noise abatement criteria, noise barriers are either not feasible or are not reasonable. The museum and the library receive most of their noise from local surface streets and are at a distance from I-405 that makes noise reduction techniques less effective. The Tri-Park area does receive noise from I-405. However, as referenced in the Noise Discipline Report included in the EA as Appendix N, a noise barrier is not reasonable under WSDOT’s feasible and reasonable criteria as defined by WSDOT’s Traffic Noise Analysis and Abatement Policy and Procedures, which is consistent with FHWA noise policy.

4. This assumption is not documented in the Cedar River Vicinity Charrette Report, nor the resulting concurrence letters signed between WSDOT and the City. However, as part of this project, WSDOT analyzed potential noise effects to the Tri-Park vicinity and found that the size of the barriers needed to reduce noise would exceed what is allowed under WSDOT’s noise abatement criteria for reasonableness.

5. Subterranean easements will be negotiated with the landowner. There are currently no planned acquisitions for residents along Mill Avenue South.

6. This feature is one element of the Renton Coal Mine as described in the Cultural, Historic, and Archaeological Technical Memorandum. The Washington State Historic Preservation Officer concurred with our findings through the Section 106 Consultation process. This concurrence memorandum can be found in Appendix B of the EA. The SR 515 Interchange Project, which is part of the current funded project, will not remove the hoist foundation. However, full project build-out may remove the hoist foundation.

7. These monuments were presumably placed after 1992, when the Longacres horse track was demolished. Therefore the monuments do not reach the threshold of 50 years old for documentation. However, WSDOT will coordinate with the City prior to activities that may disturb the monuments.

8. The 2003 Park, Recreation, and Open Space Plan indicates the City's Public Works Department has plans to develop this site as a water retention area. The plan further states this development "...creates several opportunities for passive recreation. Proposed facilities at the site could include: boardwalk/interpretive trails, viewpoint areas/vistas, and trail systems.

After additional coordination with the City of Renton, FHWA has determined that due to the lack of public access and a lack of a specific development plan for this property, this site is currently not a Section 4(f) resource. The City of Renton has agreed with this determination in its July 14, 2008 letter in Attachment 6.

9. After additional coordination with the City of Renton, FHWA has determined that the entire Cedar River Natural Area is considered a Section 4(f) resource. Please see the Final Section 4(f) Evaluation (Attachment 7). However, the Draft Section 4(f) Evaluation is still accurate with regard to how effects and mitigation are characterized. Please also see City of Renton letter dated July 14, 2008 in Attachment 6.

10. Please see response to Comment No. 3.

11. This was analyzed as part of viewpoint T5 in Exhibit 5-24 of the EA. This viewpoint is related to the project feature noted under the third bullet on page 5-53. FHWA has determined that this viewpoint will not have a significant effect due to the low visual quality of the existing view.

12. WSDOT will continue to coordinate with the City regarding future work activities related to this project as funding becomes available.

13. WSDOT will work with the City when construction funding is secured to identify and relocate all utilities within the Tri-Park area that are affected by this project.
Comment Letter AT-2: King County Department of Transportation

May 19, 2008

William Jordan
I-405 Project Office
108th Ave. NE, Suite 405
Bellevue, WA 98004

Dear Mr. Jordan:

Thank you for the opportunity to review and comment on the Environmental Assessment (EA) of the Interstate 405, Tukwila-to-Renton Improvement Project (I-5 to SR-169 – Phase 2), dated March 2008. While the EA adequately addresses the transportation impacts of the proposed project, we believe that it should also fully assess the potential impacts of developing a dual-lane high occupancy toll (HOT) facility in the corridor. We have made this recommendation before, and we continue to believe that the easiest and best time to create such a facility is when the freeway is being expanded. We also believe that recently passed legislation should influence a decision about proceeding with the proposed general-purpose-lane projects in the I-405 corridor. This legislation is ESSHB 1773, which establishes tolling guidelines, and ESSHB 2815, which sets goals for the reduction of greenhouse gas (GHG) emissions and vehicle miles traveled (VMT). The EA should fully assess the potential for dual HOT lanes as a reasonable alternative that would be more consistent with the state’s recently adopted goals.

HOT lanes

High occupancy vehicle (HOV) lanes in the Puget Sound region continue to be successful, but congestion is causing their performance to decline. This is especially true in the I-405 corridor. As reported in The Gray Notebook, September 30, 2007, Measuring Delay and Congestion: Annual Update, the existing single-lane HOV system in the I-405 corridor between Tukwila and the Swamp Creek Interchange does not meet the state’s performance standard for freeway HOV lanes. This standard calls for the HOV lane to maintain an average speed of 45 miles per hour or faster during the peak period at least 90 percent of the time. The recommendation for continuation of a single HOV lane in this section of I-405 fails to explain how the state will improve HOV-lane performance in this corridor.

We believe that an evolution from HOV lanes into separated, dual HOT lanes may provide a solution for the region’s congested HOV-lane system. Dual HOT lanes preserve the speed and reliability benefits for transit and HOVs, while providing an express alternative for single-occupancy vehicles. King County has enthusiastically supported the Washington State Department of Transportation’s HOT lane pilot project now underway in the SR 167 corridor. We believe this pilot project will teach us a great deal about the use of variable tolling to
optimize traffic flow and maintain transit and HOV speed and reliability. We look forward to an analysis of the pilot project and its possible applications in other congested corridors, such as I-405.

Tolling

ESSHB 1773 provides for the State of Washington to use tolling to encourage effective use of the transportation system and to provide a source of transportation funding. The legislation states that tolling should be used when it can contribute a significant portion of the cost of a project that cannot be funded with existing sources, or when it can optimize the performance of the transportation system. Most of the elements of the Tukwila-to-Renton Improvement Project are unfunded; the EA indicates that funding is available only to design and construct the half-diamond interchange at SR-515. We believe that a discussion needs to take place about the possible use of tolling as a source of funds for the I-405, Tukwila-to-Renton project.

In February 2008, the Washington State Transportation Commission transmitted the Washington State Comprehensive Tolling Study, Part 2, ("tolling study") to the Governor and the Senate and House Transportation committees for their review and consideration. The tolling study identifies actions that might be taken early to carry out the overall direction described in the commission’s Part 1 tolling study. The commission recommends six guiding principles for the state to consider. The first principle calls for the state to consider the impacts of tolling on the entire transportation system and not focus only on specific segments of highway that might be tolled. The study notes that “The decisions of today should not create stumbling blocks for future decisions.” The tolling study further states:

“Numerous projects are proceeding in the same corridor at once. For example, the SR 167 HOT lanes project is moving towards construction. A variety of studies are underway on I-405. There are several options being discussed for Lake Washington. None of these can be considered in isolation, yet there is not yet a comprehensive forum to come to agreement on the best approach for the state and region.”

We agree with this observation and believe that a regional discussion is needed to determine if the addition of general-purpose lanes to I-405 is consistent with the state’s policy on tolling.

Reduction of VMT and GHG

ESSHB 2815 provides a framework for reducing GHG emissions for all major sectors of the Washington economy. The legislation directs the state to limit emissions of GHG by 2050 to 50 percent below 1990 levels, or 70 percent below Washington’s expected emissions level that year. ESSHB 2815 also establishes benchmarks for reduction of VMT, with the goal of reducing annual per capita VMT by 50 percent by the year 2050. The legislation calls for the Department of Transportation, using a collaborative process with the departments of Ecology and Community, Trade, and Economic Development, to make recommendations on tools and best practices to assist state, regional, and local entities in making progress towards the VMT reduction benchmarks.
Given the clear intent of ESSH 2815, we believe that the state and regional and local entities should discuss further the implications of this legislation on general-purpose-lane projects such as the I-405, Tukwila-to-Renton project. We would like to better understand how the addition of general-purpose lanes will contribute towards the goals of reducing GHG emissions and VMT.

Finally, the EA acknowledges that the EIS for the I-405 corridor identified other possibilities to better manage the corridor through tolling. This could be done by using express toll lanes that could be created through the conversion of the HOV lane and, possibly, one of the proposed new general-purpose lanes. The EA also states that if express toll lanes are to be implemented in the future, additional operational analysis and environmental documentation would be prepared. While it may be easy to convert an existing HOV lane and a general-purpose lane into a dual HOT lane facility, it would likely generate considerable public opposition. As we mentioned previously, we believe that the easiest and best time to create a dual HOT lane facility is when the freeway is being expanded.

Specific additional comments on the EA are attached.

Thank you again for the opportunity to comment on the EA for the I-405, Tukwila-to-Renton Improvement Project (I-5 to SR-169 – Phase 2). We look forward to discussing the issues raised in this letter concerning tolling, GHG- and VMT-reduction goals, and their potential impacts on projects in this corridor. If you have any questions regarding this letter, please contact Ron Posthuma, at (206) 684-4007.

Sincerely,

Harold S. Taniguchi
Director, King County Department of Transportation

Attachment

cc: Laurie Brown, Deputy Director, King County Department of Transportation
    Ron Posthuma, Assistant Director, King County Department of Transportation
Attachment: Specific comments on EA

Metro has several bus stops within the limits of the I-405 Tukwila-to-Renton Project that could be impacted by construction or rechannelization. The need to permanently relocate or alter bus stops that would be impacted by the construction may require that accessibility improvements and shelter footings be incorporated into the project. Please contact Transportation Planner Patt Comstock at (206) 684-1523 or patt.comstock@kingcounty.gov to arrange a detailed review of the potential impact locations.

Upon completion of the project, King County would be interested in looking at any vacant construction staging sites that could be used for park-and-ride lots or bus layover.

Contact our Construction Information Center at (206) 684-2732 to provide the following notifications:

- Five (5) business days notification for any road closure impacting transit routes or facilities.
- Three (3) business days notification for any temporary/short-term closures or relocations of bus stops.
- Ten (10) business days notification for the removal of any permanent structures (e.g., bus shelters) belonging to King County Metro (contractor must provide the traffic control plan for any removals).

TDR Section 2, page 2-5: First section, “Reconstruct the off-ramp from NB 405 to 181” Exhibit 2-2 is missing the note to this change.

TDR Section 2, pages 2-20 to 2-21: Mill and Main Avenue options should be coordinated with King County Metro, as changes will affect Metro and Sound Transit routes as well as Metro facilities. Consideration should be given to better accommodate Metro service and riders as traffic increases on Bronson Way.

TDR Section 2, pages 2-23 to 2-24: Concerning Road Closures and Traffic Control, local agencies should also include the King County Transit Construction Coordination office.

TDR Section 5, page 5-10: Transit service and facilities on local streets will be affected by the reconfigurations of the local street network with the widening of the 405 bridge over the Cedar River, the widening of the Bronson Bridge, the new ramp to SR-515, etc. Exhibit D-1 in Appendix D reports that the intersection of SR-515 and Grady Way will experience more delay in the mornings with the new ramp. Several Metro routes travel through this intersection. Intersection improvements should be considered at this and other locations where new traffic will be generated by the project.

TDR Section 5, page 5-10: There are two existing bus stops at Renton Village Place on SR-515, where the new southbound I-405 ramp is being proposed. These stops will be affected and will likely need to be relocated due to the project.
TDR Appendix A: Routes 154 and 161 are missing from the list. Route 154 will travel through the proposed Tukwila Parkway extension on SR-181, and Route 161 will travel through the new proposed frontage road connections on Lind Avenue. Since the project will directly route new traffic through these intersections, there will be some impact on these transit routes.
Responses to Comment Letter AT-2: King County Department of Transportation

1. WSDOT recognizes that the current HOV system no longer performs during the peak period at the established 45 miles per hour standard set for HOV lanes. These HOV lanes have been so successful that they are now overwhelmed. To address the lack of performance in the HOV lanes, many have suggested that the HOV system should go to three-person carpools. (For the project analysis, a change to 3+ carpools was assumed in determining future traffic operations.) The difficulty in switching the occupancy requirement is that nearly 80% of the users of the HOV system are two-person carpools. To restrict them from the HOV lane will not only further congest the general-purpose lanes, but will also leave the HOV lanes underutilized. This would lead to an inefficient use of our infrastructure. WSDOT sees HOT lanes as a way to better manage these lanes by providing not only a reliable trip to those in the lane, but also to ensure that the system is being used efficiently based on the demands of the transportation system through pricing.

In 2002, the I-405 Corridor Program Final Environmental Impact Statement and Record of Decision did acknowledge the need to provide the necessary accommodations to implement a managed lanes system, i.e., HOT lanes. At that time, the Executive Committee for the Program believed that another regional transportation body would provide the direction for I-405 to include these HOT lanes as a project component. Where as this regional transportation body has not formed, efforts have been undertaken to determine the benefits of HOT lanes on I-405.

During 2003, WSDOT embarked on a study of managed lanes in the corridor. The analysis looked at the benefits of: one HOV lane with a three-person carpool designation, a single HOT lane where three-person carpools would be free, a two-lane HOT lane system where two-person carpools were free, and a two-lane HOT lane system where three-person carpools were free. The results of the analysis showed that by managing two lanes through pricing, the overall roadway system could move more people and vehicles than to manage a single lane either by occupancy or through pricing.

In 2005, with the combination of Nickel and TPA gas tax funding, WSDOT saw the opportunity to look more closely at this HOT lane system in the northend of the corridor. The I-405, SR 520 to I-5 Improvement Project is currently evaluating the benefits of a two-lane HOT lane system. Legislative direction was also given to support this consideration.

A similar analysis was not embarked upon for the Tukwila to Renton Project due to the fact that the length of the project was not conducive for a HOT lane system. This does not mean that the HOT lanes are not a good idea for the south end of the corridor, but the length of the project as currently defined would not produce a logical stand-alone system. Should these lanes be considered for a switch to express toll lanes, this would be addressed in separate environmental documentation.

With the failure of Proposition 1 and ESSHB 1773, WSDOT has recently started an evaluation of a two-lane HOT lane system on I-405 from SR 167 to I-5 in Lynnwood to determine if tolling could generate the needed funding to build the infrastructure for the HOT lane system. Preliminary results of this analysis are expected later this year and we would be happy to meet with King County to discuss the results at that time.

With the successful opening of the SR 167 HOT lanes, WSDOT sees the timing of further discussion on expanding such a traffic management technique as very timely. We see the difficulty there would be if new lanes are opened to general-purpose traffic to later be used for a HOT lane system. We appreciate your support for such a system and look forward to working with you as this work continues.

2. Please see response to Comment No. 1.

3. Please see response to Comment No. 1.

4. ESSHB 2815 sets statewide greenhouse gas goals for Green House Gases (GHG) and per capita vehicle miles traveled (VMT) reductions. We are working to improve the quality of the climate change and GHG-related information discussed in our project-level environmental documents. At this point in time, we have two concurrent efforts in progress: we are trying to help the public and decision makers see where an individual project fits in; and
we are working with the Climate Action Team and its work groups to expand the tools and resources needed to explain what information we have and what it may mean. The current Tukwila to Renton Project EA discusses climate change and WSDOT’s efforts, but given that much of the science and proposed methods are evolving at this point, we do not have quantitative information at the project-level. Looking at GHGs for individual projects that add single lanes of traffic, without taking into account the relationship to travel patterns of the area, would provide a skewed image of GHGs.

Corridor and regional scale analyses are another valuable resource on the horizon. For example, we are hopeful concerning the outcome of the Puget Sound Regional Council’s (PSRC) regional travel demand modeling and similar efforts. PSRC is currently evaluating climate change and GHGs as part of their Destination 2030 plan update. This update will take all phases of the I-405 corridor improvements into account (including tolling scenarios), as well as other major project development in the region. This regional approach will give WSDOT, King County, and PSRC’s other member jurisdictions a better and more comprehensive view of GHG and VMT effects.

5. WSDOT will coordinate with King County Metro prior to construction. WSDOT will develop a Traffic Management Plan that will address potential impacts to bus routes and service.

6. Exhibit 2-2 is provided as a visual reference. There is yellow shading on the off-ramp to indicate new construction will occur there.

7. Please see response to Comment No. 5.

8. Please see response to Comment No. 5.

9. Some movements at the SR 515/Grady Way intersection will experience slight delay increases once the currently funded portion of the project is built; however, much of the surrounding transportation network will operate better as a result of this project. In addition, freeway access for transit and other vehicles will be improved with this project. Please also note, the Bronson Way bridge will only be restriped, not widened. Also please note that Appendix D of the Transportation Discipline Report addresses only the effects of the funded SR 515 portion of this project. The Tukwila to Renton Project as a whole is expected to improve operation of the SR 515 and Grady Way intersection.

10. Please see response to Comment No. 5.

11. The table in Appendix A of the Transportation Discipline Report has been updated. The update can be found in Attachment 1: Errata to the EA and Technical Studies.
Comment Letter AT-3: Muckleshoot Indian Tribe

MUCKLESHOOT INDIAN TRIBE
Fisheries Division
39015 - 172nd Avenue SE • Auburn, Washington 98092-9763
Phone: (253) 939-3311 • Fax: (253) 931-0752

May 16, 2008

William Jordan
I-405 Environmental Manager
Washington State Department of Transportation
600 108th Avenue NE, Suite 405
Bellevue, WA 98004

RE: I-405, Tukwila to Renton Improvement Project (I-5 to SR 169, Phase 2), Environmental Assessment

Mr. Jordan:

The Muckleshoot Indian Tribe Fisheries Division has reviewed the Environmental Assessment and its associated Discipline Reports for the above referenced project. We offer the following comments in the interest of protecting and/or restoring the Tribe’s fisheries resources.

In general, we have several concerns about the potential impacts associated with this project. The proposal to place temporary piles and falsework, bridge piles and fill into the Green River could potentially adversely affect Muckleshoot Tribal fishing that occurs in the area. In addition, this project will adversely affect the Tribe’s treaty protected salmonid resources as discussed in the comments below. WSDOT will need to address these issues prior to permit approvals.

Our specific comments are attached for your review and consideration. We appreciate the opportunity to comment on this proposal. If you have any questions about these comments or would like to meet to discuss them, please contact me at (253) 876-3116.

Sincerely,

Karen Walter
Watershed and Land Use Team Leader

Cc: Steve Boch, FHWA
    Rebecca McAndrew, ACOE, Regulatory Branch
    Krista Rave-Perkins, EPA, Region 10
    Mike Grady, NMFS
    Emily Teachout, USFWS
    Jim Fraser, WDFW
    Larry Fisher, WDFW
    Rebekah Padgett, WDOE, Northwest Region, Water Quality Program
Muckleshoot Indian Tribe Fisheries Division
Comments to I-405, Tukwila to Renton Improvement Project

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Page 2

EA Comments

1. General comment: Since the I-405 Corridor Program DEIS and Record of Decision (ROD) was adopted by WSDOT and Federal Highway Administration, gas prices have increased substantially making mass transit a more desirable option for many commuters. It seems reasonable that this project should also give equal consideration to a third alternative that considers increasing bus transit, carpools and other methods to relieve congestion.

2. Page 1-2 It is misleading for this project to issue this EA, which includes the SR 515 Interchange Project after the Corps permit was put out for public notice and potentially approved. This approach piecemeals the review process and makes it difficult to evaluate potential cumulative impacts from the SR 515 Project and the larger I-405 Tukwila to Renton project.

3. Page 1-3 The cumulative effects statements are incorrect. There will be permanent filling of floodplains, stream channels, wetlands, stream and wetland buffers, additional stormwater from increases in impervious surfaces, and the potential for the continuation of blocking culverts for fish passage. All of these actions are significant and will result in negative long-term cumulative effects to aquatic habitat.

4. Page 1-3 and 1-4 The details of the Panther Creek Watershed Rehabilitation Plan, which is mentioned in several places but not fully discussed are unknown at this time and cannot be evaluated to determine if this mitigation plan will be sufficient to mitigate for impacts to the Green River, Springbrook Creek, Thunder Hills Creek and its tributary, Rolling Hills and its tributary, Panther Creek, Gilliam Creek and its tributaries and the Cedar River. As a result, we reserve the right to comment on this potential mitigation plan and amend these comments accordingly.

5. Page 1-4, Please clarify what further evaluation is needed for the “seven” fish passage barrier culverts within the study area. See also our comments below regarding if number of barriers in the project area is correct or not.

6. Page 1-4, We strongly disagree with the statement that the project will not have a “disproportionately high or adverse effects on minority or low-income people” with respect to the Muckleshoot Indian Tribe. See our specific comments below under the Environmental Justice DR comments.

7. Page1-6, There is no analysis in the Water Resources DR or anywhere else to suggest that peak and/or base flows will not be altered by the project. Similarly, there is no analysis regarding other impacts associated with floodplain fill except potential increases in flood elevations. This is not the only potential impact.

8. Page 1-6, The decision to issue a Finding of No Significant Impact (FONSI) should be made once all of the comments are in for this EA. Anything less pre-supposes the outcome. There is potential that an Environmental Impact Statement is needed based on the comments and potential impacts associated with the project.

9. Pages 3-5 and 3-6, Please discuss how the proposed new bridge over the Nelson Side Channel and Green River is consistent with the WRIA 9 Salmon Recovery Plan's project to build a side channel feature at the Nelson Side channel. It appears that this project element may be in conflict with planned habitat restoration.

10. Page 3-6, The decision to conduct the majority of the widening to the south to avoid business to the north has impacts for area streams and wetlands. This approach appears to ignore the first step of mitigation, which is avoidance of impacts.

11. Page 3-7, Please clarify if the bridge piers for the bridge modifications/new bridges crossing the Cedar River will be
within the 100 year floodplain or not.

Page 4-16, Please clarify if the culvert conveying Thunder Hills Creek will need to be extended as part of this project or not. If this culvert will need to be extended, please indicate when this determination was made.

Page 4-21, Please clarify if the Bronson Way North bridge crossing over the Cedar River will need to be expanded or not.

Page 4-24, Please indicate if the "Tri-Park" area will have additional impacts to the floodplain, river, and riparian areas of the Cedar River. If so, these impacts need to be disclosed and analyzed as part of the cumulative impacts analysis.

Page 5-21, Please clarify if the Noise Barrier 8 will result in additional filling to the stream channel and/or additional removal of riparian vegetation for Thunder Hills Creek.

Page 5-22, Please clarify whether the location and extent of Noise Barriers 10B and 10A could impact any future culvert removal necessary for Rolling Hills Creek.

Page 5-59, Significant adverse impacts to water resources in the project area has occurred as a result of the existing highway. The EA fails to mention this.

Page 5-59, The print date for this EA is March 2008. The EA should reflect the most current 303(d) list information, note the 2004 list.

Page 5-77, Significant adverse impacts to rivers and streams and their riparian areas in the project area has occurred as a result of the existing highway. The EA fails to mention this.

Page 5-77, Per the Final Responses to the I-405 Renton Nickel 404 Permit (WSDOT February 9, 2007 document in response to MITFD comments) there are 82 culverts in the project area. Fifty of these culverts convey stormwater, 2 culverts convey mine sweps, 5 culverts are plugged and convey no water; 25 culverts convey "waters of the state". Of these 25 culverts, 24 were identified to convey fish bearing streams. WSDOT determined that 11 of these culverts are fish passage barriers; 1 needs additional information and 5 are fish passable as of February 2007. However, the Ecosystems Discipline Report for this project indicates that there are 10 culverts conveying fish bearing waters for the same project area. Please explain this discrepancy.

Also on this page, please note that based on U.S. v. Washington, case no. CV 9213RSM, Subproceeding No. 01-01, WSDOT will need to resolve all culverts issues for this project with the Muckleshoot Indian Tribe and may not be able to rely on its MOA with the Washington Department of Fish and Wildlife to address fish passage issues for this project.

Page 5-78, Exhibit 5-37, Please see previous comments regarding the number of culverts in the project area. Also, the culvert/floodgate on Gilliam Creek at the Green River confluence is at least a partial barrier as it prevents upstream and downstream passage when it is closed.
Also, please clarify if the Puget Dr S culvert conveying Rolling Hills is fish passable or not. It is part of the SR 515 project.

Pages 5-38 and 5-39, Please clarify how the information in Exhibit 5-38 and 5-39 considered the current fish blocking culverts in the project area when determining presumed fish use.

Page 5-81, Please clarify the statement “The National Marine Fisheries Service (NMFS) has concluded that critical habitat cannot be determined at this time for Puget Sound steelhead trout.” This statement appears to contradict the following documents: http://www.nwr.noaa.gov/Publications/FR-Notices/2005/upload/70FR52639Pre.pdf http://www.nwr.noaa.gov/ESA-Salmon-Listings/upload/snapshot0208.pdf

Page 5-84, Please define what is meant by a “temporary impact” as the result of riparian vegetation removal. The affected streams and the Green River are already degraded with respect to riparian buffers and instream habitat and any loss of additional instream or riparian habitat should be viewed as a significant impact. Planting smaller sized trees does not address the temporal impact that occurs when larger trees are removed. There is a need for additional mitigation.

Page 5-84, Please indicate which culverts will be replaced or lengthened as a result of this project so that we can assess potential impacts associated with these actions.

Page 5-85, Exhibit 5-42, Please note that the impact values shown in this table are substantial and will likely cause significant adverse impacts to the affected waters bodies as a result.

Page 5-87, Exhibit 5-44, Please note that the impact values shown in this table are substantial and will likely cause significant adverse impacts to the affected wetlands and potentially associated streams as well.

Page 5-89, Exhibit 5-45, Please note that the impact values shown in this table are substantial and will likely cause significant adverse impacts to the affected wetlands and potentially associated streams as well.

Page 5-99, Since this analysis is looking at the time frame from 1960 through 2030, there should be an analysis and discussion about the amount of streams that are currently piped and culverted as a result of I-405 since 1960, as well as, the length of streams and rivers that have been relocated.

Page 5-102, There are other projects that should have been addressed in the cumulative impacts analysis, including but not limited to, the relocated PSE transmission line near Thunder Hills Creek, the Thunder Hills Emergency culvert repair, etc.

Page 5-104, The Washington Water Quality standards have changed since 2004 and this may affect the number of waterbodies listed under the 303(d) list.

Page 5-105, Please provide the data to demonstrate that the goal on “No net loss” for wetlands has occurred within the project area.

Page 5-107, There is insufficient data to support the statement that in the long-term the cumulative effects of “these projects” (not fully discussed) will be successful in creating more wetland functions than those lost.

Page 5-107 Regarding cumulative construction impacts, please see previous comments regarding the Thunder Hills
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Creek emergency culvert and the PSE transmission line relocation.

Page 5-109 Since it was not disclosed or discussed fully in the EA, we do not know how many of the existing blocking culverts will be replaced with fish passable structures. It is premature to assume that the built project will result in improvements to fish passage compared to the no-build alternative. The project will cause other impacts besides blocking culverts to the aquatic resources in the project area, which are not identified on this page. See also our comments on the various DR documents below.

Page 6-7, There is no basis for the statement that "peak and base flow rates to streams and rivers will not be negatively altered during project construction because detention ponds will be constructed prior to highway widening." Elsewhere in the EA it is noted that the ponds must discharge their stormwater within 24 hours to avoid creating ponds and attracting waterfowl. This suggests there will be impacts to peak and baseflows as a result since stormwater won't be detained for more than 24 hours nor infiltrated.

Page 6-11, Mitigation should be proposed for impacts to groundwater and peak flows associated with increases in impervious surfaces. Please clarify what the proposed mitigation is for the increase in impervious surfaces and impacts to groundwater.

Page 6-15, Note that the work windows for fish typically aim to protect juvenile fish and not adult salmon.

Page 6-15, Please discuss how many credits will be sought from the Springbrook Creek Wetland Mitigation Bank. We remain skeptical about this wetland mitigation bank and will require an evaluation of its success to date or its effectiveness outlook.

Page 6-16, We reserve the right to address statements made on this page once we have reviewed the Panther Creek Watershed Rehabilitation Plan.

Page 6-17, We disagree with the statement that no additional measures will be needed to avoid or minimize substantial adverse cumulative effects based on the comments on this letter.

SPECIFIC Discipline Report Comments
Appendix F: Cumulative Effects Technical Memorandum

Page 19, Please note that a TMDL is in the works for the Green River for temperature and dissolved oxygen. A water quality plan is proposed to be released this summer and may affect this project. See http://www.ecy.wa.gov/pubs/0610061.pdf for more information.

Page 23, We disagree with the statement that the goal of no net loss of wetlands, avoidance and mitigation measures are helping restore wetland areas. Please see http://seattletimes.nwsource.com/html/localnews/2004407515_growth_wetlands15m1.html for a recent discussion about how wetlands are continued to being lost despite regulatory programs.

Page 26, The section regarding existing impacts fails to discuss the amount of streams that are currently piped and culverted as a result of I-405 and how this number will likely change as a result of this project.
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Finding of No Significant Impact

Page 31, The direct removal of trees and other vegetation may lead to increases in water temperatures and decreases in dissolved oxygen. Increases in TSS concentrations may result should the construction ponds fail or discharge unregulated stormwater. Since many of the waterbodies already do not meet state water quality standards for temperature and dissolved oxygen these actions would add to the existing degraded condition. The report fails to acknowledge these potential impacts and the subsequent impacts that may occur to salmonids as a result.

Page 32- The direct impacts section fails to discuss changes to water quantity as a result of increasing impervious surfaces and the lack of infiltration for treatment. There is no analysis to demonstrate that baseflows for the various streams will not be impacted as part of this project as a result of new impervious surfaces and wetland filling (i.e. filling of 5.42 acres of Wetland 24.7R, the Panther Creek wetland that supports salmonids). In fact, the Ecosystems DR states the opposite “rerouting of stormwater into new or existing stormwater systems can change baseline drainage patterns into or away from creeks, and can also result in lost opportunities for groundwater infiltration” (page 5-11).

Also since WSDOT will not be managing the project’s stormwater to match flow durations with pre-developed conditions that there will likely be a loss of rearing habitat (particularly for coho) where stormwater is discharged to these habitat areas. Stormwater from this project and other projects, stream piping and culverts will all likely reduce the amount of rearing habitat. None of these cumulative impacts were considered for the various affected streams in the project area.

Page 34, Data has not been presented to demonstrate that the loss of 7.5 acres of wetland will be functionally replaced at the Springbrook Creek Wetland Mitigation Bank. In particular, the flood storage capacity of the wetlands to be filled has not been evaluated and the potential increases in flows in affected streams as a result. For example, there is a statement that wetlands that currently receive stormwater will benefit from stormwater management measures but no details and no analysis. A trade off between improved water quality and degraded water quantity is not necessarily a positive cumulative impact.

Page 35- As far as direct construction impacts are concerned, the loss of a single tree that provides shade and a source of wood recruitment should be considered a significant impact as these two functions require decades of tree growth to restore. The loss of several trees would be substantial and is not adequately addressed in this section.

The direct, indirect and cumulative operation impacts sections fail to fully consider that the affected portion of the Green River, Gilliam Creek, Rolling Hills Creek, Thunder Hills Creek, Panther Creek and the affected portion of the Cedar River are all suffering from degraded instream habitat and riparian conditions, and poor water quality conditions due in part to I-405 and the associated roadways in the project area. Where the roadway and its associated facilities expand into these areas represents a permanent loss of functions and the potential for adding significant time to recover the areas that will be revegetated or relocated. As noted in the Ecosystems Discipline Report, 1.68 acres (73,500 ft2) will have permanent impacts below the ordinary high water mark. There will be another 318,000 ft2 of permanent impacts to riparian areas for streams and rivers in the project area. These values don’t include the other temporary impacts to these areas or the permanent and temporary impacts to wetlands. The lack of commitment by WSDOT to replace existing blocking culverts as required under State law as part of this project is not fully considered or evaluated. All of the impacts described above along with the stormwater impacts (both water quantity and quality) equate to a project that will cause cumulative impacts to wetlands, streams, and salmon species that do and/or could use the affected streams in the project area. There is no data or basis for the statement that “proper maintenance and continued operation of the Tukwila to Renton Project’s water treatment facilities, culverts, and fish passage facilities, when combined with those associated with the Renton Nickel Improvement, Renton to Bellevue, SR 167 Improvements, Westfield Shoppingtown Mall Access, and SR 518 Corridor Improvement Projects, should
result in a positive cumulative effect on aquatic resources”.

Page 38 - The project will likely need measures to avoid or minimize adverse cumulative impacts.

**Appendix J-Environmental Justice**

We strongly disagree with the statement that this project “will not result in disproportionately high or adverse effects on minority or low-income populations”. This project has a great potential to cause adverse impacts to salmonid populations that the Muckleshoot Indian Tribal members depend upon, as well as, potential impacts to areas where the Tribe fishes. The DR fails to explicitly consider the environmental effects on salmon that may result in a new or continued loss of fish production that may adversely affect the Tribe by reducing their fishing opportunities. Unlike the non-tribal fishing community, the Muckleshoot Indian Tribe is not able to go fishing just anywhere within Washington State and they cannot exercise their treaty right out of state. Their fishing area is defined in U.S. v. Washington which limits the area that they are able to fish. As a result, they have to rely in part on the fish production capabilities of the habitat in the project. Impacts from the project that reduce fish production would limit their opportunities now and in the future. There are several issues with this project that will likely result in a loss of fish production in WRIA 8 (Lake Washington basin) and WRIA 9 (Green-Duwamish basin). None of these issues were considered in this Discipline Report (DR). In fact, the DR did not consider the information in the Ecosystems nor the Water Resource DRs created for this project when evaluating potential impacts to minority or low income communities.

**Appendix I- Ecosystems Discipline Report**

Page 3-7, per the Final Responses to the I-405 Renton Nickel 404 Permit (WSDOT February 9, 2007) there are 82 culverts in the project area. Fifty of these culverts convey stormwater, 2 culverts convey mine sweeps, 5 culverts are plugged and convey no water; 25 culverts convey “waters of the state”. Of these 25 culverts, 24 were identified to convey fish bearing streams. WSDOT determined that 11 of these culverts are fish passage barriers; 1 needs additional information and 5 are fish passable as of February 2007. The Discipline Report for this project indicates that there are 10 culverts conveying fish bearing waters for the same project area. Please explain this discrepancy.

Also on this page, please note that based on U.S. v. Washington, case no. CV 9213RSM, Subproceeding No. 01-01, WSDOT will need to resolve all culverts issues for this project with the Muckleshoot Indian Tribe and may not be able to rely on its MOA with the Washington Department of Fish and Wildlife to address fish passage issues for this project.

Page 4-2, Exhibit 4-1 and Page 4-8. It is our understanding that wetland 0.15 R is a previous WSDOT mitigation wetland site for the SR 167, South 180th Street to SR 405 Northbound HOV (Tukwila) project. According to WSDOT (2007), this wetland has a combined cover of herbaceous and tree/shrub later greater than 90%. The exhibit fails to note this wetland is a mitigation site. The DR also fails to discuss potential impacts to this wetland that may negate the mitigation. Finally, we recommend that this wetland be avoided as part of this project or additional mitigation will be needed for the cumulative impact of this and the previous project.

Page 4-7, With respect to the 22 wetlands in the project area, please indicate how many of these wetlands have been affected by the construction and operation of I-405 in the project area since it was constructed in 1960. The DR notes that “of the 15 wetlands in the study area that occur within Renton, nine (60 percent) are considered to be Category 3 according to the Renton CAO”. These wetlands have undergone human related hydrologic alterations such as ditching or channelization, thus qualifying them as Category 3 without identifying how many and which of these wetlands were ditched or channelized as a direct impact from I-405 actions since 1960.
I-I05, TUKWILA TO RENTON IMPROVEMENT PROJECT (I-5 TO SR 169 – PHASE 2)  
FINDING OF NO SIGNIFICANT IMPACT

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Page 4-17, The DR fails to note that the rivers and streams in the Project Area have also been altered due to I-405, its interchanges and connections to local roads since 1960. There is fill in the channels and floodplains to accommodate bridges, streams are flowing in culverts and pipes, etc.

Pages 4-18, Exhibit 4-12 and 4-19, Exhibit 4-13. This table is misleading as it tells us nothing about the potential for fish use should blocking culverts and pipes be replaced/removed for the smaller streams that are not marked for fish presence or presumption of use. Most of the data cited is limited in its application to these smaller streams.

Page 4-31, Coho don’t necessarily need a defined channel to use the wetland and the unnamed tributary to the Cedar River (see http://www.psmfc.org/habitat/cohowin.html and http://www.kenaiwetlands.net/Habitat.htm. Since none of the surveys were conducting during higher flows, it is likely that this stream has not been fully assessed for potential anadromous fish use.

Also on this page, please note that based on U.S. v. Washington, case no. CV 9213RSM, Subproceeding No. 01-01 ("culvert case”), WSDOT will need to resolve all culverts issues for this project with the Muckleshoot Indian Tribe and may not be able to rely on its MOA with the Washington Department of Fish and Wildlife to address fish passage issues for this project.

Page 4-32, Exhibit 4-26, Please see previous comments regarding the number of culverts in the project area. Also, the culvert/floodgate on Gilliam Creek at the Green River confluence is at least a partial barrier as it prevents upstream and downstream passage when it is closed.

Page 4-40, Riparian areas are the source for wood to recruit to stream channels and create pools and other forms of salmon habitat. This is critical point because all of the affected streams in the project area are lacking wood and the project will be removing trees as a result. Per the tree survey in the DR, as many as 1063 trees equal to or greater than 6” in diameter within 200 feet of the affected waterbodies could be removed. This is a significant impact that will not be fully mitigated by planting smaller trees outside of permanently impacted areas. Additional mitigation will be needed.

Page 4-44, Chinook spawning occurs in the Cedar River within the project area.

Page 4-46 The section regarding the Muckleshoot Indian Tribe and Yakama Tribes should be modified as follows:  
"The Muckleshoot Indian Tribe has adjudicated Usual and Accustomed Fishing Grounds and Stations within the Tukwila to Renton Project area. The Muckleshoot Tribe's Usual and Accustomed Grounds and Stations include the Green, Cedar and Black Rivers as well as their tributaries and Lake Washington." 384 F.Supp at 365.

"The Yakama Tribe has been found to at treaty times to have used fisheries located in the Puget Sound area. This use of fisheries in the Puget Sound area was found to be by the consent of the tribes in that region. 384 F.Supp at 380. That consent requirement remains today."

Page 5-7, Please note that some of the activities described on this page will adversely affect both treaty protected fish and tribal fishing. These issues will need to be resolved prior to permit completion.

Page 5-8, Overwater structures can also interfere with the establishment of trees necessary to provide wood to create instream habitat for fish.

Page 5-9, Overwater structures can produce shade, which can create favorable conditions for ambush salmonid
predators such as sculpin and bass. Lighting on overwater structures can have the same impact, too and should be evaluated as part of this DR.

Also on this page, pilings for bridges within the ordinary high water mark of streams and rivers (i.e. Green River, Rolling Hills Tributary and Rolling Hills Creek) can trap wood, which is typically removed as part of routine road maintenance activities. When this wood is removed, it creates a permanent lost potential for pools and other habitats to form for salmonids.

Page 5-17, This project will result in the further loss of instream and riparian habitat and additional stormwater for the streams and rivers in the project area that will likely adversely affect salmonids. No where is this stated as such.

Appendix S- Water Resources Discipline Report
Page viii- Filling in the floodplain has more impact on natural resources than just floodwater elevations. This filling disconnects the stream/river from its floodplain, which adversely affects habitat forming processes and biological processes necessary to support salmonids.

Page ix- The DR fails to demonstrate that the proposed detention facilities within the Green River and Springbrook Creek basins will not increase flow durations with subsequent increases in water velocities to the detriment of rearing salmonids. There are statements elsewhere in the EA and other DR documents that contradict this statement. The streams and rivers that will receive additional stormwater are simplified and degraded and already are limited in rearing and refuge habitat that juvenile salmonids need to avoid stormwater. Additional stormwater discharges will likely make a bad situation worse.

Also on this page, the stormwater treatment facilities, if functioning probably are expected to decrease total suspended solids, total zinc, and total copper pollutant loading. There are other pollutants associated with stormwater from motor vehicles: cadmium, chromium, oil and grease (WDOE, 2006). It is not clear if the treatment facilities will treat these pollutants or not.

Page 1-4, As noted on this page, stormwater is proposed to be discharged into the Cedar River without flow control. This approach may adversely affect juvenile salmonids using margin habitats along the Cedar River during high flow events. Opportunities for stormwater infiltration should be explored.

Also on this page, the proposal to discharge stormwater into the Panther Creek stream and wetlands may adversely affect salmonids rearing in this area. Panther Creek is simplified and degraded and already are limited in rearing and refuge habitat that juvenile salmonids need to avoid stormwater. Additional stormwater discharges will likely make a bad situation worse.

Page 3-1, With respect to the Phase 1 Built Alternative detailed in the I-405 Renton Nickel Improvement Project, I-5 to SR 169, Environmental Assessment, this EA and the project was amended to address the concerns of the Muckleshoot Indian Tribe Fisheries Division. These changes reflect the baseline conditions. Also, since the Renton Nickel EA was published, the culvert conveying Thunder Hills Creek underneath I-405 failed and required an emergency repair that resulted in additional fill and riparian removal as well as a new culvert that will not provide fish passage to upstream habitat.

Page 3-2, Tribal treaty rights, including senior water rights is another aspect to consider for water resource impacts associated with this project. There is no discussion about Tribal treaty rights here.
Pages 4-2 through 4-5, Please clarify if the existing conditions described on these pages include any filling or piping conducted under Phase 1: I-405 Renton Nickel or not.

Page 4-5, Water Quality conditions for affected surface waterbodies. Please note that this section fails to provide any data or information about the condition of these waterbodies beyond what is shown in the 303(d) list. Please indicate if WSDOT is conducting any water quality assessment for its stormwater outfalls in the project area and provide the data accordingly.

The DR lacks an analysis to determine whether the proposed project will cause violations of Washington State water quality standards and cause degradation to the existing quality of the surface water. The range (maximum and minimum) of concentrations (and loads) of each pollutant should be estimated for the comparison of No-Build and Proposed Project effects.

The project should discuss how it will contribute to reducing pollution from roadway runoff given the alarming occurrence of pre-spawn mortality (PSM) of adult coho salmon. PSM in adult coho has been consistently observed by NOAA researchers (led by Nathaniel Scholz, Northwest Fisheries Science Center) over the past several years in urban Puget Sound area streams. PSM rates are extreme and have ranged from 63 to 89 percent. Although the precise cause of PSM in these streams is not yet known, conventional water quality parameters (i.e., temperature and dissolved oxygen) and disease do not appear to be the cause. A spatial analysis of land cover by NOAA found that total area of heavy use roads was the most highly correlated with coho PSM rates, suggesting that pollutants specific to roadway runoff from heavy use roads may be the cause.

Page 4-6 Please note that a TMDL is in the works for the Green River for temperature and dissolved oxygen. A water quality plan is proposed to be released this summer and may affect this project. See http://www.eey.wa.gov/pubs/0610061.pdf for more information.

Page 4-7, These pollutants (copper, zinc, and cadmium; oil and grease and sediment) can all adversely affect salmonids.

Page 4-8, Please clarify if WSDOT is using a predeveloped condition to design this project’s stormwater ponds or not.

Page 4-9, Since the new stormwater ponds will not have a permanent wetpool due to concerns with the creating waterfowl habitat, then there should be an analysis to demonstrate that the new ponds will remove suspended solids and meet State water quality standards. Also, please quantify the capacity of the existing stormwater ponds. Finally, please quantify the current treatment efficiency of the existing biofiltration swales.

Page 4-11, Please discuss the pollutants can be removed up to 90% via ecology embankments.

Page 4-12 Please provide information and/or letter to support the statement that “according to Ecology, projects meeting the Ecology guidelines or equivalent standards such as the HRM are presumed to meet federal and state water quality requirements.”

Page 5-4, Please clarify what is meant about a direct discharge of stormwater to the Panther Creek wetlands described on this page and what impacts will occur to rearing salmonids as a result.

Page 5-9 The groundwater discussion on this page only considers impacts to the Cedar River Valley aquifer and fails
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to discuss if decreases in the shallow alluvial aquifers will be adversely affected with subsequent reductions in baseflows for streams and wetlands that salmon in the project area depend upon.

Page 5-11, The indirect effects analysis is incomplete. If there are changes to water quantity and/or quality in the project area as a result of this project that adversely affect salmonids, then this project will likely contribute towards the current declining population trends.

Also on this page, the cumulative effects analysis are not adequately addressed. See previous comments above.

Page 6-1, Since we do not have a scour analysis for any proposed highway related structures that are over rivers or streams or below the OHWM of these water bodies, we cannot assess these potential impacts at this time. We reserve the right to provide additional comments on this issue once the information is available. Also please note that we have seen very few, if any “fish-friendly stream bank protection or bridge modifications” to date if they are needed to avoid scouring these new structures.

Page 6-3, Since we do not have complete plans for compensatory floodplain storage for temporary and permanent fill, we cannot evaluate this potential impact at this time. Please note that there are other impacts beside flood elevations that will likely require mitigation beyond the proposed “mitigation compensating for fill” approach.

Page 6-6. On this page, it states “Stormwater facilities for this project will maintain the peak flow rate of stormwater runoff at present day conditions or better as mandated by the HRM for a range of storms from 50 percent of the 2-year up through the 50-year recurrent storm event.” This statement implies that only peak flow rates will be managed, not flow durations as described elsewhere in this and other DRs. If this is the approach for this project, then additional mitigation will be needed to address increases in flow durations as a result of stormwater discharges.

Page 7-1, To meet requirements to avoid ponding water, the propose stormwater facilities will likely cause an increase in water velocities over longer periods of time than existing conditions. This is unavoidable impact caused by constraints due to the Renton airport could result in significant adverse impacts to the water resources in the project area and the salmonids dependent upon them.
Responses to Comment Letter AT-3: Muckleshoot Indian Tribe

1. As described in the I-405 Corridor Program Record of Decision, the Selected Alternative does include multi-modal project elements including increased transit, increased vanpools, bus rapid transit, increased capacity of park-and-rides, managed lanes, and improved bicycle routes. The project does not preclude tolling or additional multi-modal opportunities if funding becomes available. Page 2-4 of the EA discusses further the use of express toll lanes and commits to additional operational analysis and appropriate environmental documentation if this idea is advanced.

2. The nationwide permit did not go out for public review. The SR 515 Interchange Project is simply the currently funded portion of the larger Tukwila to Renton Project. The EA evaluates the entire Tukwila to Renton Project. As it is all one project, the funded portion (SR 515) has no additional cumulative effect. The sequence for permit acquisition, in the case of the funded portion of the Tukwila to Renton Project, was different from what has occurred on I-405 projects in the past.

3. The Build Alternative treats runoff from new and existing impervious surfaces, utilizes the Springbrook Creek Wetland and Habitat Mitigation Bank (the Bank) for effects to wetlands, contemplates significant improvements to the Panther Creek watershed, and provides improvements to the stream habitat through mitigation requirements. Culverts affected by the project would also be examined for fish passage per the Memorandum of Agreement (MOA) with the Washington State Department of Fish and Wildlife (WDFW) and current WSDOT policies. WSDOT will work directly with the Muckleshoot Indian Tribe to resolve its concerns. The Build Alternative would also provide mitigation for filling of floodplains by removing existing fill at a ratio of 1:1 within one-foot elevation of the same floodplain in which the effect occurs. Combined, the actions associated with the Build Alternative are not expected to result in significant long-term negative cumulative effects on aquatic habitat.

4. WSDOT will continue to consult with the Muckleshoot Indian Tribe on mitigation plans during the permitting phase for the project. WSDOT agrees to evaluate a range of mitigation opportunities including bringing the Panther Creek Watershed Rehabilitation Plan forward with design as further funded elements of the Tukwila to Renton Project advance. WSDOT provided a copy of the Panther Creek Watershed Rehabilitation Plan to the Tribe on July 3, 2008.

5. Since the EA was written, the culvert conveying Thunder Hills Creek was replaced as part of an emergency repair project. Therefore, per our response to Comment No. 13, WSDOT will not impact the new Thunder Hills Creek culvert as part of the Tukwila to Renton Project. WSDOT has updated the culvert information to show that the Thunder Hills Creek culvert will not be impacted, which has required a change in the number of culverts proposed for in-water work. The EA noted that there were 10 culverts conveying waters of the state proposed for in-water work, the errata to the EA notes that there are 9 culverts conveying waters of the state that are proposed for in-water work.

Further evaluation will be required to determine the type of design. Permit packages will be developed as additional funding becomes available. Please see the response to Comment No. 21 for our discussion on barriers. There are 88 culverts in the project area, 52 convey stormwater, 36 convey waters of the state. In the study area, 9 of the 36 conveying waters of the state and are proposed for in-water work, of these 9, 6 culverts are considered fish passage barriers. The 9 culverts proposed for in-water work are included in Exhibit 5-37 in the errata to the EA. The 6 culverts considered to be fish passage barriers are: Rolling Hills Creek 48”, Rolling Hills Creek 132”, Unnamed Tributary to Rolling Hills, Panther Creek 24”, Panther creek 30”, and Panther Creek 72”.

6. Please see response to Comment No. 54

7. Peak flow analysis (and durations) were modeled using the Hydrologic Simulation Program for Fortran (HSPF) for a low rain event (50% of a typical 2-year storm) and a high rain event (100-year rain event). This peak flow analysis matched existing peak flows. While WSDOT did not complete a quantitative analysis to determine effects to base flows, WSDOT does not anticipate a change to stream base flows as a result of the project.

WSDOT will follow the Highway Runoff Manual (HRM) and WSDOT policies in effect at the time stormwater design is completed for the project. The current HRM requires WSDOT to match existing conditions for peak flows and durations for 50% of a typical 2-year storm except the designs for the flow control exempt waterbodies. Therefore WSDOT does not anticipate impacts to be associated with the implementation of the approved stormwater design.
8. This language has been changed in the errata to note that upon completing the EA and considering the comments received, FHWA will decide which approach to take. This may be to initiate an EIS or to issue a Finding of No Significant Impact (FONSI).

9. WSDOT has previously coordinated with staff at King County to ensure this project will not impede the planned future development of the Nelsen Side Channel. The Final WRIA 9 Salmon Recovery Plan acknowledges the future planned improvements to I-405. WSDOT has committed to conduct additional and continued conversations with King County staff, including Andy Levesque, to ensure the Nelsen Side Channel work and the proposed I-405 bridge work remain coordinated.

10. Engineering, hydrology, stormwater treatment obligations, and avoidance and minimization efforts drove the decision to widen to the south. The decision to widen to the south attempted all feasible means to avoid impacts to both streams and wetlands, as well as residences and businesses.

11. Bridge piers will be placed within the 100-year floodplain of the Cedar River. Please see page 5-9 of the Water Resources Discipline Report for more details regarding floodplain impacts.

12. The new pavement is located to the east of SR 167. Ecology embankments depend on capturing stormwater as sheet flow and treating it before it is concentrated. The new pavement will slope to the east; therefore, the only place to capture that water and treat it is to the east of the highway. The mitigation plans for the SR 167 Stage III mitigation work have also been reviewed, and the ecology embankment is not expected to compromise this site as the proposed ecology embankment is north of this site.

13. As part of the Thunder Hills Creek Emergency Culvert Replacement Project, the existing culvert is being abandoned and replaced by a new culvert. This new culvert will not be extended as part of the Tukwila to Renton Project.

14. The Bronson Way Bridge will not be expanded as part of this project.

15. The cumulative effects analysis used all available resources to reach a conclusion. There was no definitive information available on impacts to the floodplain, river, and riparian areas of the Cedar River associated with the Tri-Park Master Plan. The Tri-Park Master Plan is a City of Renton initiative. The City of Renton will be responsible for project permitting and environmental documentation for the Tri-Park Master Plan. No further details have been developed at this time.

16. Noise Barrier 8 will not affect the channel or riparian habitat of Thunder Hills Creek.

17. Noise Barriers 10B and 10A do not cross over the Rolling Hills Creek culvert and therefore their construction will not impede any potential work regarding the Rolling Hills Creek culvert.

18. We have added “transportation facilities” to our discussion of previous effects.

19. At the time of publication for this EA, the 2004 Integrated Water Quality Assessment (IWQA) is the most current available. The 2008 IWQA is yet to be issued and will cover both the 2006 and 2008 assessment periods.

20. Please see response to Comment No. 18

21. The response WSDOT provided for comments on the Renton Nickel Improvement Project 404 permit was a comprehensive list of all known culverts in the study area. Exhibit 4-26 on page 4-23 is not intended to be a comprehensive list of all culverts in the study area. The culverts identified in the Ecosystems Discipline Report in Exhibit 4-26 are only those culverts conveying waters of the state where in-water work is proposed to occur for this project. This language has been changed in the errata to clarify this. A listing of culverts is provided in response to Comment No. 5.

22. This project will follow the MOA with WDFW and current WSDOT policies when addressing fish passage issues. WSDOT will work directly with the Muckleshoot Indian Tribe to resolve the Tribe’s concerns with this issue as funded pieces advance through permitting and more design details and opportunities become available.
23. Please see response to Comment No. 21. The culvert at Gilliam Creek outlet is assumed passable. The flap gate on this culvert is a separate component of a flood control system owned by the City of Tukwila and the second footnote of the exhibit notes that when closed, the flap gate prevents fish passage. The culvert is also owned by the City of Tukwila.

Impacts below the ordinary high water mark (OHWM) were avoided at Puget Drive S; therefore, the culvert that conveys Rolling Hills Creek under Puget Drive S was not assessed for fish passage. The culvert conveying Rolling Hills Creek under Puget Drive S is understood to be owned by the City of Renton.

Copies of the right-of-way plan showing the Gilliam Creek culvert outside of WSDOT’s property limits have been provided to the Muckleshoot Indian Tribe.

24. Fish presence was determined by available habitat and documented observations. Please see references 29 and 30 on pages 4-18 and 4-19 of the Ecosystems Discipline Report. Human-created barriers were not the basis for determining presumed fish use. The project team made every attempt to err on the side of assuming fish use if there was any question of that possibility. However, the team also attempted to use well documented sources before reaching conclusions about use. Most of the assessment work was completed early on by Paul LaRiviere with subsequent work by Derek Koellmann and other I-405 team members. The protocol used is explained in detail in Appendix A of the Ecosystems Discipline Report.

Exhibit 5-38 of the EA and Exhibit 4-12 of the Ecosystems Discipline Report have been updated in the errata section to show coho salmon presence in Rolling Hills Creek per conversation with Karen Walter of the Muckleshoot Tribe on July 3, 2008.

25. NOAA is currently assessing critical habitat, but had yet to designate critical habitat for Puget Sound steelhead trout. The proposal was issued in February 2007 and as of publication of the EA for this project, NOAA had not issued a final decision on critical habitat.

26. Temporary stream buffer impacts are ones that result from ground-disturbing activities, such as clearing and grubbing, that could not be avoided in constructing the project, but will be restored after construction. Mitigation will be determined during permitting as the project receives funding. WSDOT recognizes that the removal of larger trees may not be fully mitigated by smaller replacement trees. Mitigation for tree loss will be addressed as additional engineering details become available.

27. Please see response to Comment No. 5.

28. Measures to avoid or minimize effects are described in Chapter 6 of this EA and are proposed for implementation to offset impacts to these resources. Appropriate specific mitigation requirements will be determined at the time of permitting.

29. Please see response to Comment No. 28.

30. Please see response to Comment No. 28.

31. No unavoidable adverse cumulative effects are anticipated due to the construction of the Tukwila to Renton Project. The cumulative effects analysis looks at the effects of all projects from 1960 to 2030 with a goal of determining if this proposed project will, in combination with other projects, lead to environmental change. With available information, it is difficult to accurately assess incremental impacts from past individual projects, including past construction relating to I-405. However, by practicing avoidance, minimization, and mitigation, this I-405 project will not contribute to a negative adverse cumulative effect.

The cumulative effects analysis made attempts to understand the impacts associated with past projects within the study area. However, not all historical information (as-builts) is available for a complete understanding of individual projects and why certain engineering decisions were made. In addition, laws and regulations have changed since 1960, and the current biological understanding of species level effects were less well understood than they are today. The project has made every reasonable effort to avoid and minimize any further cumulative environmental effects.
32. Both the Puget Sound Energy transmission line relocation and the Thunder Hills Creek Emergency Culvert Replacement Project have been reviewed in context of the cumulative effects analysis and no change to the effects determination was made. These projects were added as errata to the list on page 5-102 of the EA and to the list in the cumulative effects analysis. The Thunder Hills Creek culvert emergency work will be mitigated through the conditions of the permit associated with the emergency work.

33. Please see response to Comment No. 19.

34. All permitted WSDOT projects within the study area have mitigated for wetland loss at a ratio of equal to or greater than 1:1. Therefore, the goal of no net loss has been maintained by WSDOT. The project will continue its on-going stewardship of all its wetland mitigation sites. As monitoring data become available, WSDOT will provide the information to the permitting agencies, the Muckleshoot Indian Tribe, and other interested parties.

35. The monitoring data are not yet available. However, WSDOT is held to performance measures that must be met for each wetland mitigation site to ensure that each mitigation site is successful in creating the intended habitat functions.

36. Please see response to Comment No. 32.

37. WSDOT will follow the MOA with WDFW and current WSDOT policies when addressing fish passage issues. This commitment does not exist with selection of the No Build Alternative.

As we move through the design-build process and the design is advanced, fish passage at these culverts will be addressed per the MOA and WSDOT policies. In addition, please see the response to Comment No. 5.

38. Stormwater design will follow the HRM. Designing to a 24-hour discharge within the FAA mandated zones is consistent with the HRM and is not expected to result in any additional impacts. The Cedar River is flow control exempt. Details regarding how the 24-hour standard was met and the associated sizing of the ponds to meet this obligation are part of the engineering hydrology analysis that was required to meet the HRM. Preliminary design shows these to meet the HRM. Final design will be obligated to fully meet the HRM, which will require the ponds to not to exceed the peak flow. If standing water must remain past 24 hours in the 10,000-foot management zone, it will be required to be covered with netting, or some other FAA approved mechanism will need to be in place to deter bird use. Please see response to Comment No. 7 for additional discussions regarding peak and base flow rates.

39. Groundwater is not anticipated to be affected because most of the recharge occurs upgradient and outside of the study area. WSDOT does not anticipate the stormwater design to adversely affect groundwater or peak flows. Please see page 5-9 and page 6-6 of the Water Resources Discipline Report for more information. Also please see response to Comment No. 7.

Mitigation for other project effects will be implemented during the required permitting processes.

40. Comment noted.

41. The amount of credits debited from the Bank will be determined at the time of permitting. The project design will need to advance further before this level of detail becomes available.

42. See response to Comment No. 4. A conceptual plan has been shared with the permitting agencies and the Muckleshoot Indian Tribe. The Tribe received a copy on July 3, 2008.

43. Mitigation commitments made in this section, along with the development of specific mitigation plans during permitting of the project, are anticipated to mitigate for the project’s effects.

44. Comment noted. The project will monitor this development and incorporate any information that comes out as the project becomes funded.

45. Please see responses to Comments No. 34 and No. 35.

46. Please see response to Comment No. 31. WSDOT will be able to provide additional stream impact information as more pieces of the overall project become funded. Mitigation for effects will therefore be addressed during the permitting phase.
47. Stormwater treatment measures, including detention ponds will be designed to meet WSDOT's HRM, which makes failure unlikely for the storm events modeled. WSDOT will also follow permit conditions to ensure water quality is met during construction. Mitigation for loss of aquatic and riparian habitat will be designed to offset the effects of the project as determined through the permitting process. WSDOT acknowledges that removal of large trees near streams can influence water temperatures and may have an effect on dissolved oxygen in some cases. WSDOT acknowledges that removal of larger trees may not be fully mitigated by replacement with smaller trees. WSDOT will follow the latest NPDES permitting provisions (as they relate to temperature and dissolved oxygen) as the project becomes funded. Also see response to Comment No. 26.

48. It is true that as a potential effect, as described in Chapter 5 of the Ecosystems Discipline Report, rerouting of stormwater could create a change in the hydrology of streams. However, in Chapter 6 (pgs 6-3 and 6-4) of the Ecosystems Discipline Report, avoidance and minimization measures are described that will be employed to offset potential effects resulting from new impervious surfaces. Please also see the responses to Comments No. 7 and No. 39.

49. Effects associated with in-water work by this project will be mitigated. Please see the response to Comment No. 7, regarding stormwater flows.

50. Wetland impacts are anticipated to be mitigated at the Bank as appropriate. However, specific mitigation plans will be determined during the permitting process.

51. When considering the potential effects of the project after proposed avoidance and minimization measures outlined in this EA, each discipline report, each technical memorandum, and the errata noted in response to Comment No. 32, FHWA has determined no additional mitigation is required for cumulative effects. Please also see response to Comment No. 26 regarding tree impacts.

52. WSDOT acknowledges some level of cumulative effects cannot be avoided. However, WSDOT will mitigate its contribution to these cumulative effects to the extent possible. WSDOT will work with the permitting agencies, the Muckleshoot Indian Tribe, and other Tribes during the permitting process to identify possible mitigation opportunities.

53. Please see response to Comment No. 52.

54. WSDOT understands that as a result of the decisions from U.S. v. Washington, the Muckleshoot Indian Tribe’s treaty fishing rights are restricted to a specific geographic area. The construction and operation of the project are not expected to reduce the net population of fish within the study area. WSDOT expects some improvement for fish habitat through implementation of water quality and mitigation measures if the Build Alternative is constructed. WSDOT expects to improve water quality in the affected streams by providing treatment to untreated stormwater from all new and a portion of existing impervious surfaces, which should benefit fish and fish habitat. As noted in the Ecosystems Discipline Report, WSDOT will also be addressing fish passage barriers per the MOA with WDFW and WSDOT policies. WSDOT will work directly with the Muckleshoot Indian Tribe to resolve its concerns. WSDOT will carry these commitments through the permitting process, mitigation plan development, final design, and construction.

55. Please see response to Comment No. 21.

56. Please see response to Comment No. 22.

57. The project will not impact wetland 0.15R. Exhibit 4-7 has been modified to reflect that wetland 0.15R is an existing WSDOT mitigation site.
58. WSDOT does not have specific knowledge of past effects that I-405 may have had on these wetlands. The discipline report assumes all Category 3 wetlands within the City of Renton have incurred human disturbance, either through construction of I-405 or other infrastructure development within the study area.

59. Please see response to Comment No. 18.

60. Please see response to Comment No. 24.

61. The unnamed tributary to the Cedar River mentioned on page 4-31 will not be modified by this project. If future I-405 projects are determined to have the potential to affect this stream, additional analysis will be conducted at that time.

62. Please see response to Comment No. 22.

63. Please see responses to Comments No. 21 and 23.

64. Please see response to Comment No. 26.

65. This point is acknowledged in the errata for page 4-44 of the Ecosystems Discipline Report in the statement “…substrate conditions in the Cedar River in the study area could provide some limited spawning habitat.” Spawning has occurred in the lower Cedar River per the 2000, 2001, and 2002 Salmonid Spawner Survey Results for the Lower Cedar River and Elliot Rearing/Spawning Side-Channel. These surveys were prepared for the U.S. Army Corps of Engineers Section 205 Cedar River Flood Damage Reduction Project and these citations were provided by the Muckleshoot Indian Tribe.

66. This language has been updated in the errata to reflect your suggestion.

67. Please see response to Comment No. 54. WSDOT will work through this issue during permitting. As we move through the design-build process and design is advanced, fish passage will be addressed per the MOA and WSDOT policies. WSDOT will work directly with the Muckleshoot Indian Tribe to resolve the Tribe’s concerns.

68. Comment noted.

69. All new lighting over waterbodies will be installed to focus the illumination on the roadway and to minimize the spill over of light onto the waterbodies. The new lighting will incorporate “cut-off” fixtures.

Regarding removal of material from bridge supports, WSDOT will operate under its Hydraulic Project Approval (HPA) for maintenance activities. The website for the maintenance HPA is: http://www.wsdot.wa.gov/environment/Programattics/default.htm.

The existing HPA states if large woody debris (LWD) becomes lodged next to the bridge piers within the OHWM during the operation of the facility, WSDOT maintenance will reposition the LWD downstream of that bridge to provide stable, functional fish habitat.

70. While mitigation measures have not been fully decided, it is WSDOT’s intent that this project, with its associated mitigation measures, does not result in any significant adverse effects to salmonids.

71. Effects to floodplains will be mitigated by removing compensatory fill within 1 foot of elevations and within the same basin for which fill was placed in the floodplain. If there are additional effects determined during design that are associated with filling within the floodplain, appropriate mitigation will be implemented during permitting. A WSDOT fisheries biologist will be consulted during permitting regarding floodplain effects. WSDOT will work with the Muckleshoot Indian Tribe to identify and resolve these impacts.

72. Please see response to Comment No. 7. The facilities are designed for a certain level of storm events and are not expected to fail for engineering reasons at the modeled storm events. Also, these facilities will treat some level of other metals found in stormwater runoff. This is an improvement over existing conditions. Cadmium and chromium are included in total suspended solids (TSS). Grease and oil are noted on page 4-6 of the Water Resources Discipline Report to become attached to small particles in the water. The Build Alternative reduces TSS; therefore, these pollutants are also assumed to decrease.
As noted in the HRM, durations must also be taken into account in the calculations. The text “and duration” has been added to the sentence in the errata to make it clearer. The design criteria of the HRM requires matching durations for the range of storms from 50% of the 2-year storm through the 50-year recurrent storm event.

73. As noted in the Water Resources Discipline Report page 4-22, the opportunities for infiltration within the study area are limited due to the City of Renton Municipal Code, which limits infiltration opportunities within this aquifer recharge zone. The City code cited in the discipline report specifically prohibits infiltration here. If effects are identified, WSDOT will work to address these through the permitting process.

Treatment standards detailed in the HRM will ensure discharge into the Panther Creek wetland complex will not further degrade the system. It is not anticipated that the project will affect habitat at the discharge locations. As further details are identified, WSDOT will work through any additional issues through the permitting process.

74. A permit was issued for the Thunder Hills Creek emergency repair work in March 2008. Errata have been added acknowledging the changed baseline condition.

75. We have added a bullet in the errata to note tribal treaty rights, including any associated senior water rights where applicable.

76. The baseline conditions for this report assume the Renton Nickel Improvement Project is constructed.

77. We are not conducting an analysis within this study area. However, please view the WSDOT NPDES website that provides information regarding WSDOT’s state-wide analysis: http://www.wsdot.wa.gov/Environment/WaterQuality/default.htm. To date, WSDOT has not conducted stormwater monitoring in this area. However, other monitoring has occurred in western Washington.

78. It is assumed the project will meet state water quality standards by meeting the HRM. See also Appendix C of the Water Resources Discipline Report.

79. This reduction in pollutant loading is provided in Appendix C of the Water Resources Discipline Report. WSDOT and FHWA have coordinated closely with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) on this project.

80. Comment noted.

81. The Build Alternative proposes reductions in TSS and metals. Also, please see responses to Comments No. 72 and No. 79.

82. The Springbrook Creek basin was modeled using the pre-project (existing) condition. Effects, if identified, will be mitigated during permitting. The Green River basin was modeled using 75% forested/25% pasture, assuming that predevelopment conditions included pasture and forests affected by forest fires. The Cedar River basin is flow control exempt.

83. This analysis was completed and is summarized in Appendix C of the Water Resources Discipline Report. Stormwater ponds are considered to provide only negligible water quality treatment, they are designed for flow control. The project will use best management practices recommended in the HRM to provide water quality treatment prior to stormwater entering the detention ponds. Detention and treatment can, in some cases, be considered separately.

Capacities for existing stormwater ponds and treatment efficiencies for biofiltration swales within the study area were not calculated for this project because this information does not contribute to calculations needed to be made for the current treatment standards. WSDOT calculated water quality and water quantity treatment needs for the effects of this project based upon water resources and used this information as described in the HRM to design treatment measures to offset these effects.

Where open water cannot be passed through the 10,000-foot safety zone within 24 hours, other measures, such as netting, must be considered to prevent bird use. Also see response to Comment No. 38.

84. The 90% is in relation to TSS. The language has been modified in the errata to note this.
85. Information on the HRM, including Ecology's concurrence memorandum, can be found at the following website: http://www.wsdot.wa.gov/Environment/WaterQuality/Runoff/HighwayRunoffManual.htm.

86. Direct discharge with the Panther Creek Watershed Rehabilitation Plan would include discharging treated stormwater directly to the Panther Creek wetland complex without detaining the new, or equivalent area of the new, impervious surfaces. No assessment of the effects of the proposed discharge was made because two options exist, and this portion of the project remains unfunded. If a direct discharge to Panther Creek is not permitted, other options for detention will be considered.

87. Decreases in shallow alluvial aquifers resulting from this project are not expected to be substantial. The reference to the Cedar Valley Aquifer is only used as an example to support the preceding statement about shallow alluvial aquifers in the vicinity of the project. Also, please see response to Comment No. 7.

88. Based on the information presented, FHWA finds the selection of the Build Alternative is not anticipated to adversely affect water quality. The Build Alternative is expected to provide better water quality improvements than the No Build Alternative. Selection of the Build Alternative is expected to do more for those populations of salmonids that are declining than selection of the No Build Alternative.

FHWA stands by its conclusions made within the cumulative effects analysis. No unavoidable adverse cumulative effects are anticipated due to the construction of the Tukwila to Renton Project.

89. WSDOT will continue to consult with the Muckleshoot Indian Tribe during the permitting process.

90. WSDOT will continue to consult with the Muckleshoot Indian Tribe during the permitting process.

91. Please see response to Comment No. 72.

92. The release of stormwater over a 24-hour period within the FAA zone is consistent with the HRM. No significant adverse effects are expected to result from this.

Where open water cannot be passed through the 10,000-foot safety zone within 24 hours, other measures, such as netting, must be considered to prevent bird use.

Also see response to Comment No. 7 regarding flow durations.
Comment Letter AT-4: U.S. Department of the Interior

United States Department of the Interior

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Mr. William Jordan
I-405 Project Office
Washington State Department of Transportation
600 – 105th Avenue NE, Suite 405
Bellevue, WA 98004

Dear Mr. Jordan:

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Assessment (DEA) and the Draft Section 4(f) Evaluation for the I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 – Phase 2), King County, Washington. The Department offers the following comments:

Section 4(f) Comments

The Draft Section 4(f) Evaluation was very well-written and contained helpful maps and aerials. The document illustrated proposed impacts very clearly. The consultant who worked on this document did an excellent job of clearly incorporating 6(f) issues. To make the Final Section 4(f) Evaluation even more helpful than the draft, we recommend showing the existing right-of-way and any proposed new right-of-way on most of the map exhibits.

Duwamish-Green River Trail/Christensen Greenbelt

Part of the proposed project involves constructing a new bridge over the Duwamish-Green River Trail/Christensen Greenbelt, which is adjacent to the Green River. The Draft Section 4(f) Evaluation does not consider this a "use," because no land will be permanently incorporated into the transportation facility. See Page 5-5.

This statement is consistent with Federal Highway Administration’s (FHWA’s) position of not recognizing "air rights" to be a "use," unless it substantially impairs the protected attributes of the 4(f) resource. See FHWA's Section 4(f) Policy Paper, available at http://www.environment.fhwa.dot.gov/projdev/4fpolicy.asp#1.
However, the National Park Service (NPS) disagrees with FHWA’s position insofar as “air rights” include occupancy of areas above land that require an easement. We believe FHWA’s treatment of Section 4(f) regarding air rights is inconsistent with its statement in the Section 4(f) Policy Paper that “[l]and will be considered permanently incorporated into a transportation project when it has been purchased as right-of-way or sufficient property interests have been otherwise acquired for the purpose of project implementation.” Furthermore, this represents a conversion of use under Section 6(f)(3) of the Land and Water Conservation Fund (LWCF) Act.

The NPS cannot concur that there is no “use” of Duwamish-Green River Trail/Christensen Greenbelt, particularly in this case where the bridge will be low enough so that the trail will have to be lowered by approximately 8 feet to provide adequate clearance for trail users. The NPS considers the new bridge to be a “use” under Section 4(f). It is also a conversion under Section 6(f)(3) of the LWCF Act.

Cedar River Natural Area

On page 4-2 and 4-3, Exhibits 4-1 and 4-2, respectively, Cedar River Natural Area is not considered a 4(f) resource, because it is not considered significant as a park. It appears that the City of Renton Parke Department concluded it was not significant as a park, because it was not included in the 2003 Park, Recreation, and Open Space Implementation Plan. We are perplexed that this area is not considered significant, since the open space appears to be contiguous to the Narco Site and the Cedar River Trail, and part of the larger complex of parks (i.e., Liberty Park, Cedar River Park, and the Narco Site). We believe that these sites should be viewed jointly and that this larger area seems to represent an excellent opportunity to preserve contiguous park land and open space in an increasingly urbanized area.

Section 6(f) of the LWCF Act

Duwamish-Green River Trail/Christensen Greenbelt

The Draft Section 4(f) Evaluation does a good job of discussing 6(f) issues. However, some of the discussion should be clarified. Construction of the new Tukwila Parkway bridge and the I-405 northbound on-ramp from State Route 181 will result in a 6(f) conversion. This should be clearly stated throughout (see pages x to xi, 2-6, 4-7 to 4-8, and 5-4 to 5-5) and addressed.

Duwamish-Green River Trail Trailhead

The project will result in a conversion of the Duwamish-Green River Trail Trailhead under Section 6(f).
In summary, the conclusion in the Draft Section 4(f) Evaluation that 6(f) conversion issues have been avoided is in error. There are two conversions that will result from the project: one for the new bridge over Duwamish-Green River Trail/Christenen Greenbelt, and one for the highway expansion where it impacts Duwamish-Green River Trail Trailhead.

Please continue to coordinate with the Washington Recreation and Conservation Office and NPS on 6(f) conversion issues.

Section 7 of the Endangered Species Act (ESA)

The proposed action was the subject of a formal ESA Section 7 consultation conducted over the period June 2007 – March 2008 (FWS Ref. No. 13410-2007-F-0416). On March 3, 2008, the U.S. Fish and Wildlife Service (Western Washington Fish and Wildlife Office - Lacey) and National Marine Fisheries Service (Washington State Habitat Office - Lacey) (Services) signed a joint Biological Opinion (BO) concluding Section 7 consultation with the FHWA.

The proposed action’s unavoidable impacts to instream habitat and habitat connectivity, and potential direct and indirect effects to watershed functions and surface water quality, and their effects on bull trout and Puget Sound Chinook salmon were the focus of the section 7 consultation. During the course of consultation, the FHWA and Washington State Department of Transportation (WSDOT) committed to implementation of measures described in the Services’ joint BO. We offer the following comments as they relate to the Section 7 ESA consultation:

- The FHWA/WSDOT committed to capturing and treating stormwater runoff from an area equivalent to the net-new impervious surface associated with the highway and related improvements, plus stormwater runoff originating from approximately 64 acres of existing, currently untreated impervious surface. The DEA and supporting documentation accurately reflect these agreed-upon measures.

- The FHWA/WSDOT committed to instream habitat and watershed functional enhancements associated with a related activity; the proposed Panther Creek Watershed Rehabilitation Plan. The proponent also committed to in-kind mitigation for unavoidable impacts to the Green and Cedar Rivers. The DEA accurately reflects these measures.

- The FHWA/WSDOT committed to enhancing fish passage at culverts replaced or modified by the project in compliance with the current Memorandum of Agreement between WSDOT and the Washington State Department of Fish and Wildlife. They also agreed to construct other,
concurrent, instream habitat enhancements "in lieu of replacing a fish passage barrier(s)". While content from the DEA accurately reflects the commitment to further assess and prioritize fish passage enhancements, it does not identify whether and how the proponent will replace lost or impaired functions in the event one or more fish passage corrections are deemed impracticable.

In comments offered previously for the I-405, Renton Nickel Improvement Project (Letter Correspondence with Ms. Allison Ray, WSDOT/ I-405 Corridor Program; dated 11/9/06), U.S. Fish and Wildlife Service (USFWS) expressed similar concerns related to the prioritization of fish passage enhancements:

The EA and supporting documentation should include more information to explain which structures were assessed, what is their current fish passage status and reason(s) for deficiency, and what criteria were used to examine the costs, benefits and feasibility of retrofit for improved passage. Where the project will modify but not correct existing deficient structures, the decision and supporting rationale should be explained in clear and transparent terms.

The U.S. Fish and Wildlife Service remains concerned the WSDOT and FHWA lack a strategy for identifying, prioritizing, and reaching consensus on the necessary and appropriate fish passage corrections, or "in lieu" habitat enhancements, to be undertaken as part of the proposed action (and/or the related "nickel improvements"). We also note the proponent's plans for correcting (or not correcting) fish passage barriers within the project limits remains a significant issue for the Muckleshoot Tribe tribal interests.

Contact Information

If we can be of further assistance, please contact us.

For Section 4(f) questions:

Ms. Kelly Powell
Realty Specialist & Regional Environmental Coordinator
National Park Service
168 S. Jackson St.
Seattle, WA 98104-2853
(206) 220-4106
kelly_powell@nps.gov
For Section 6(f) questions:

Ms. Heather Ramsay  
LWCF & UPARR Project Manager  
National Park Service  
Pacific West Region, Partnership Programs  
909 First Avenue, Floor 5  
Seattle, WA 98104-1060  
(206) 220-4123  
heather_ramsay@nps.gov

For Section 7 questions:

Mr. Ryan McReynolds  
Transportation Liaison  
United States Fish and Wildlife Service  
510 Desmond Dr. SE, Suite 102  
Lacey, Washington 98503  
(360) 753-6047  
ryan_mcreynolds@fws.gov

Ms. Emily Teachout  
Fish and Wildlife Biologist  
United States Fish and Wildlife Service  
510 Desmond Dr. SE, Suite 102  
Lacey, Washington 98503  
(360) 753-9583  
emily_teachout@fws.gov

Thank you for the opportunity to provide these comments.

Sincerely,

[Signature]

Willie R. Taylor  
Director, Office of Environmental Policy and Compliance

cc: (next page)
cc:
Ms. Leslie Betlach
Director
Renton Parks
Renton City Hall
1055 S. Grady Way
Renton, WA 98057

Mr. Bruce Fletcher
Parks Director
City of Tukwila
6300 Southcenter Blvd.
Tukwila, WA 98188
Responses to Comment Letter AT-4: U.S. Department of the Interior

1. FHWA believes a use does not exist, because the trail will not be incorporated into the transportation facility. The construction of the new bridge does not substantially impair the continued use of the property as a trail in the future.

While the trail will be lowered, the experience will not change for the trail user. Even if this was deemed a use under 4(f), there are no feasible and prudent avoidance alternatives and the project currently incorporates all possible planning to minimize harm.

Please see response to Comment No. 3 for Section 6(f) resources.

2. After additional coordination with the City of Renton, FHWA has determined that the entire Cedar River Natural Area is considered a Section 4(f) resource. However, the Draft Section 4(f) Evaluation is still accurate with regard to how effects and mitigation are characterized. Please also see letter from the City of Renton dated July 14, 2008 in Attachment 6.

3. The Draft Section 4(f) Evaluation is not intended to discuss Section 6(f) resources. Please see Chapter 5 and Chapter 6 of the EA for more discussion on Section 6(f) resources.

WSDOT will ensure compliance with requirements from both the National Park Service and the State Recreation and Conservation Office prior to project construction, which may affect Section 6(f) resources.

4. A Section 6(f) conversion package will be completed once project funding has been secured.

5. Comment noted.

6. Comment noted.

7. Correcting fish passage culverts will be conducted using the MOA between WSDOT and WDFW.

WSDOT consulted with NMFS and the USFWS. This consultation resulted in a Biological Opinion from NMFS and USFWS that stated this project is not likely to jeopardize the continued existence of Puget Sound Chinook salmon, Puget Sound steelhead trout, or bull trout.

8. Please see response to Comment No. 7.
Attachment 6:
Agency Agreements

This section contains the following documents:

- Section 106 Programmatic Agreement
- EPA Concurrence regarding the Cedar Valley Sole Source Aquifer
- City of Renton Concurrence on Section 4(f) Resources
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PROGRAMMATIC AGREEMENT
Pursuant to Section 106 of the National Historic Preservation Act of 1966

Among

The Federal Highway Administration,
The Washington State Historic Preservation Officer,
The Washington State Department of Transportation,
The Muckleshoot Indian Tribe, and
The Snoqualmie Indian Tribe

For Improvements to Interstate 405 (I-405) Corridor,
King County and Snohomish County, Washington

WHEREAS, the U.S. Department of Transportation, Federal Highway Administration (FHWA),
may provide assistance to the Washington State Department of Transportation (WSDOT) to
make improvements to Interstate Highway 405 Corridor in King County and Snohomish County,
Washington (the program), to provide multi-modal congestion relief; and

WHEREAS, FHWA issued a corridor level Record of Decision (ROD) under the National
Environmental Policy Act (NEPA) for the program on October 9, 2002, covering the Selected
Alternative, as identified in the ROD, which attempts to substantially improve mobility options
for all travel modes and to provide a high capacity transit system throughout the study area, as
described in the final environmental impact statement (FEIS) issued by the FHWA as FHWA-WA-EIS-01-01-F, approved on June 10, 2002 and issued on June 28, 2002; and

WHEREAS, the improvements within the I-405 Corridor program have been divided into
individual projects for design and funding purposes; and

WHEREAS, some of the projects are not yet fully funded, meaning that some properties which
are planned to be purchased are not currently available and/or may be inaccessible for study; and

WHEREAS, the projects may be implemented using a design-build procurement process, which
integrates the final design and construction phases; and

WHEREAS, the design-build process requires flexibility in the location of certain ground-
disturbing elements, including but not limited to stormwater detention ponds and ecology
embankments, meaning that the location of some ground-disturbing elements may not be known
until immediately prior to construction; and

WHEREAS, a NEPA environmental analysis which, among other things, considers impacts to
historic properties in coordination with provisions of the NHPA, will be conducted for each
individual project; and

1
WHEREAS, according to 36 CFR § 800.16 (l) historic property “means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria;” and

WHEREAS, FHWA and WSDOT, in consultation with the Washington State Historic Preservation Officer (SHPO) and affected federally-recognized Indian tribes and interested parties, will conduct cultural resource studies for each individual project to identify and evaluate historic properties located within the project’s Area of Potential Effects (APE) which are listed in or eligible for listing in the National Register of Historic Places (National Register); and

WHEREAS, FHWA and WSDOT have determined that the design-build process and phased funding for the projects means that some of the project effects upon historic properties can not be determined until property is acquired or the design is completed by the design/build contractor, and that this Agreement is authorized by 36 C.F.R. § 800.14(b)(1)(ii); and

WHEREAS, FHWA and WSDOT have determined, in consultation with SHPO, that the APE for the projects, as defined in 36 CFR § 800.16(d) of the Council’s regulations, are defined as (1) all areas where ground disturbance is planned, including but not limited to: clearing and grubbing, grading, bridge foundations, retaining walls, noise walls, detention ponds, conveyances, and ecology embankments, creation or enhancement of wetland mitigation sites, and staging and stockpiling areas, and (2) historic properties located either one tax lot on each side of the affected rights-of-way or 200 feet from their margins, whichever is less; and

WHEREAS, the Advisory Council on Historic Preservation has been invited to participate in the development of this Agreement, and has declined to participate; and

WHEREAS, the following parties have been consulted and invited to concur with this Agreement: Muckleshoot Indian Tribe, Snoqualmie Tribe, Tulalip Tribes, Yakama Nation, the Duwamish Tribal Organization; and

WHEREAS, the Muckleshoot Indian Tribe and Snoqualmie Indian Tribe have agreed to consider being concurring parties to this Agreement, and

WHEREAS, the Yakama Nation, the Duwamish Tribal Organization, and the Tulalip Indian Tribes have chosen to not participate in this Agreement; and

WHEREAS, pursuant to 36 CFR § 800.2(c)(4) FHWA has authorized WSDOT to initiate consultation with SHPO, but still retains legal responsibility for all findings and determinations of eligibility and effect; and

WHEREAS, pursuant to 36 CFR § 800.13, FHWA WSDOT, and SHPO have developed procedures in this Agreement to ensure that the identification and evaluation of historic properties, assessment of effects, and development of treatment and mitigation plans for
unforeseen effects to previously identified historic properties and/or historic properties
discovered during implementation of the projects are properly coordinated with all phases of the
design and construction of the projects; and

NOW, THEREFORE, FHWA, WSDOT and SHPO agree that the projects shall be implemented
in accordance with the following stipulations in order to take into account unforeseen and
unforeseen future effects to historic properties.

STIPULATIONS

FHWA, in coordination with WSDOT, will ensure that the following measures are carried out.

I. GENERAL PROCESS FOR CONSIDERATION OF HISTORIC PROPERTIES

A. Prior to concluding the project-specific NEPA process, FHWA and WSDOT shall
conduct a cultural resources survey to identify and evaluate historic properties in areas
where project effects can be predicted prior to final design or purchase. For some of the I-
405 projects, these surveys are already underway. For each survey:

1. Consulting parties will have the opportunity to review and comment on the project’s
   Area of Potential Effects.

2. All potentially historic above-ground structures will be evaluated in the survey report.
   Level of evaluation may vary and will be determined in consultation with DAHP.

3. Archaeological survey will be conducted in known and accessible areas of proposed
ground disturbance within funded portions of the project.

4. Consulting parties will be notified of any archaeological finds, and offered the
   opportunity to comment on evaluation methods and observe fieldwork.

5. All consulting parties will be afforded the opportunity to review and comment on the
   results of the survey, and on the historic properties determinations made by FHWA,
   per 36 CFR § 800.4.

B. After design of project elements, or after purchase of property, whichever is appropriate
depending on the level of design detail needed, FHWA and WSDOT will conduct studies
as described in Stipulations III and IV for project elements that were not previously
considered as described in Stipulation I.A.

C. FHWA and WSDOT will ensure that all work under this Agreement is performed by or
under the direct supervision of a qualified individual(s) in the appropriate historic
preservation discipline who meets, at a minimum, the Secretary of Interior’s Professional
Qualification Standards as set forth in 36 CFR § 61. Under certain circumstances it may
be appropriate to have a tribal monitor (who is not required to meet the Secretary of
Interior’s Professional Qualification Standards) involved in the work being performed.
D. FHWA and WSDOT affirm that avoidance of adverse effects to historic properties remains the preferred course of action and that design activities may include the shifting of project elements if feasible to avoid adverse effects to historic properties.

E. If adverse effects to historic properties cannot be avoided, FHWA and WSDOT will seek to resolve the adverse effect in consultation with the signatories, consulting parties, and the public, as described in 36 CFR § 800.6 and further explained in Stipulation VI.

F. FHWA and WSDOT will ensure that the design-build contractor is aware of, understands, and complies with the requirements of this Agreement. The design-build contractor shall ensure that its sub-contractors comply with the requirements of this Agreement. Compliance with this Agreement shall be required as part of the project contract and will be included in the project contract.

II. PUBLIC PARTICIPATION

A. FHWA and WSDOT will ensure opportunities for public participation for Section 106-related activities conducted after the project-specific NEPA process is complete. Modified versions of reports on historic properties (locational information removed as appropriate, in accordance with state and federal laws) will be made available for review to the general public at the I-405 Project Office, or on the WSDOT website, or through other reasonable means. The views of interested parties and the general public will be considered by FHWA and WSDOT with respect to the terms of this Agreement.

B. To the extent required by Section 304 of the NHPA and Section 9 of the Archaeological Resources Protection Act of 1979 (ARPA) (16 U.S.C. 470hh), the signatories and participating concurring parties to this Agreement will withhold from disclosure to the public information about the location, character, or ownership of a historic property until the Secretary of the Interior can determine whether disclosure may (1) cause a significant invasion of privacy, (2) risk harm to a historic property, or (3) impact the significance or use of a traditional religious site by practitioners. To the extent authorized by state and federal law, information will also be withheld from disclosure at the owner’s request.

III. POST-NEPA CONSIDERATION OF PREVIOUSLY INACCESSIBLE PROPERTY

A. In certain circumstances, cultural resource investigations are not possible or practicable at the time of the NEPA analysis due to private ownership or physical inaccessibility. In these cases, cultural resource investigations may be deferred until the property has been acquired by WSDOT.

B. Once properties have been acquired by WSDOT, and sufficient design detail is available to know where ground disturbance will occur, FHWA and WSDOT, will work together to determine whether proposed activity at the property has the potential to affect historic
properties. This determination may be made using the terrain map described in
Stipulation IV.C. WSDOT will notify SHPO and the concurring parties of the
determination via email and telephone. SHPO and the concurring parties will review the
documentation and respond within thirty (30) calendar days.

C. FHWA and WSDOT, in consultation with SHPO and the concurring parties, may
determine that further study is necessary. This may require fieldwork, including
pedestrian survey and subsurface testing.

D. If subsurface testing is required to determine whether archaeological resources are
present, WSDOT will obtain the concurrence of FHWA prior to notifying the design-
build contractor, if under contract. The maximum extent of construction-related ground
disturbance will be defined and flagged by the design-build contractor, if under contract,
or by WSDOT.

E. WSDOT will arrange to have the fieldwork conducted by a qualified professional,
consistent with Stipulation I.C.

F. Testing must be consistent with the I-405 Corridor Program Cultural Resources
Assessment Guidelines (Appendix A).

IV. DESIGN-BUILD PROCEDURES

A. Due to the nature of the design-build process, the exact location of some ground
disturbing project elements, such as support columns, detention ponds, or stormwater
conveyance alignments, will be designed by the design-build contractor. The interval
between the design of an element and its construction may be too short to perform
standard Section 106 identification, evaluation, and assessment of effects on an historic
property.

B. Adverse effects on archaeological historic properties will be prevented or minimized in
two ways: a phased series of terrain surveys to identify completely disturbed, covered-by-
fill, and relatively lightly disturbed areas, assuming that disturbance is the largest factor
affecting archaeological potential (Stipulation IV.C.); and development of streamlined
protocol for resource review and resolution of adverse effects (Stipulations V and VI.A.).

C. The archaeological potential of specific terrain areas within the I-405 project areas, based
on extent and type of previous ground disturbance, will be established using the
following methods:

1. Within each project area, WSDOT Cultural Resources Specialists (CRS) will
determine the archaeological potential of specific zones based on the locations of the
original cut-and-fill lines and corresponding extent of disturbance for the construction
of I-405 using low-elevation aerial photographs, as-built maps, recent topographic
maps produced by I-405 program, previous archaeological studies, and ground reconnaissance.

2. The CRS will verify existing terrain conditions by windshield survey, pedestrian survey, and shovel/auger/probe testing as necessary. Specific terrain zones will be delineated precisely on a map.

3. Zones where Holocene era native surfaces and post-glacial soils and sediments have been removed entirely will be considered “Unrestricted.” The design-builder may locate any ground-disturbing project element in an Unrestricted Zone without any further cultural resources review.

4. Zones identified as having deep fill, where native soils and possibly buried surfaces still may be present under the fill will be classified as “Fill Zones.” Each fill zone will be labeled on the map with a number indicating estimated depth of fill. The design-builder may locate any ground-disturbing project element in a Fill Zone when design indicates disturbance will not exceed three-quarters (3/4) the fill depth (to account for over-excavation).

5. Zones identified as having little to no previous ground disturbance, where native sediments and buried surfaces are likely to be present will be classified as “Restricted Zones.” The design-builder may NOT locate any ground-disturbing project element, regardless of the depth of the projected ground disturbance, in a Restricted Zone until it is reviewed and approved (in email or letter) by the WSDOT in consultation with interested and affected tribes and SHPO (see Stipulation IV.D).

6. WSDOT will provide a printed map showing the locations of Unrestricted, Fill, and Restricted Zones, and an electronic data file of the map, to the interested and affected tribes and SHPO.

7. Tribes and SHPO will have thirty (30) calendar days to review the map and associated documentation.

8. WSDOT CRS will amend the map based on tribal and SHPO comments, if necessary, and provide a final paper map and electronic file to the Tribes, SHPO, FHWA, and the design-build contractor.

D. If the design-build contractor wishes to change the location of a ground-disturbing project element within a Restricted Zone or to a Restricted Zone, the contractor must notify WSDOT 15 days prior to scheduled ground disturbance. WSDOT CRS will review the project element description and location.

1. The WSDOT CRS will determine, in consultation with interested and affected tribes and SHPO, whether a cultural resources survey is required. Survey will only be required if the area has not already been adequately investigated or characterized. If a
survey is required, it must be consistent with the I-405 Corridor Program Cultural Resources Assessment Guidelines (Appendix A).

2. If a survey is required, WSDOT will notify FHWA prior to notifying the design-build contractor, if under contract. The maximum extent of construction-related ground disturbance will be defined and flagged by the design-build contractor, if under contract, or by WSDOT. WSDOT will arrange to have the archaeological work conducted by a qualified professional, consistent with Stipulation I.C.

3. DAHP and the interested and affected tribes will have ten (10) calendar days to review the survey results and either concur with the findings, or notify WSDOT and FHWA that DAHP does not concur.

4. WSDOT will ensure that no more than two (2) project elements are under review at any time by DAHP and the interested and affected tribes.

5. Work will not proceed until a survey has been completed, tribes have been consulted, and SHPO has concurring with the findings of the survey, per provisions of 36 CFR § 800.

E. Staging, parking, or material storage areas, or temporary buildings (hereafter, "staging areas"), may be located on any paved or prepared gravel surface, provided that the use will not require penetrating the pavement or gravel surface. For staging areas not on paved or prepared gravel surfaces, or penetrating through those surfaces:

1. Within the right-of-way, the contractor may locate staging areas in an unrestricted zone regardless of planned ground disturbance, or in a fill zone as long as planned ground disturbance is less than 3/4 of the known depth of the fill. In a restricted zone, the staging area must be reviewed as in Stipulation IV.D.

2. Outside the right-of-way, any staging, parking, or material storage areas, or temporary buildings not located on pavement or prepared gravel surfaces must be reviewed as in Stipulation IV.D.

V. COORDINATION OF REVIEWS

A. Consulting parties and SHPO will have a review period of thirty (30) calendar days for commenting on all documents, resource evaluations of significance, treatment plans and specifications under the terms of this Agreement, except as described in Stipulation IV. D.3. If multiple historic properties are involved, the review time may be extended, as appropriate, by FHWA.

B. SHPO and the other consulting parties recognize the time-sensitive nature of the project work and will attempt to expedite comments or concurrence when requested, if possible. If SHPO or other consulting parties fail to provide comments within the designated
review period, FHWA will assume their concurrence and proceed with the proposed action or activity.

VI. POST-NEPA AND POST-REVIEW DISCOVERIES

A. If an archaeological resource is identified in a Fill or Restricted Zone during subsurface testing associated with design-build project elements, and cannot be avoided by project redesign, it will be considered eligible for listing in the National Register of Historic Places and subjected to mitigation measures (including but not necessarily limited to data recovery), following procedures outlined in 36 CFR § 800.13(b) and § 800.13(c). Mitigation measures will be determined in consultation with the consulting parties.

B. If WSDOT or FHWA, in consultation with DAHP and interested and affected tribes, determines that an archaeological resource is not eligible for listing in the National Register of Historic Places, work may proceed with no further cultural resources investigation.

C. If previously unidentified archaeological resources are identified during ground-disturbing activities during the construction or during post-construction maintenance or improvement, such activities shall cease in the immediate area of the discovery and the WSDOT I-405 Environmental Manager will follow the procedures outlined in the I-405 Corridor Unanticipated Archaeological Discovery Plan (Appendix B).

VII. DISPUTE RESOLUTION

A. Should any consulting party object, in writing, within five (5) calendar days to the implementation of the terms of this Agreement, FHWA and WSDOT shall work with the disputing party to resolve the dispute. If FHWA determines that the objection cannot be resolved, FHWA shall forward all documentation relevant to the dispute to the Advisory Council on Historic Preservation (Council) and request that the Council comment.

B. Any Council comment provided in response to such request shall be taken into account by the FHWA in accordance with 36 CFR § 800.7(c)(4) with reference only to the subject of the dispute. The FHWA responsibility to carry out all other actions and activities under this Agreement that are not the subject of the dispute remain unchanged.

VIII. AMENDMENTS AND NONCOMPLIANCE.

A. If FHWA, WSDOT, or SHPO determines that the terms of this Agreement will not or cannot be carried out or that an amendment to its terms must be made, that party shall provide a written explanation for such a determination to all signatories and immediately consult with the other signatories to develop an amendment to this Agreement. The
amendment will be effective on the date a copy is signed by FHWA, SHPO, and WSDOT.

B. If the signatories cannot agree to appropriate terms to amend this Agreement, any one of these parties unilaterally may terminate the agreement in accordance with Stipulation X, below.

IX. EMERGENCY SITUATIONS

Should an emergency situation occur which represents an imminent threat to public health or safety, or creates a hazardous condition, the FHWA and WSDOT shall immediately notify SHPO and consulting parties of the situation and the measures taken to respond to the emergency or hazardous condition. Should SHPO or consulting parties desire to comment or provide technical assistance to the WSDOT, they shall immediately notify WSDOT via email and telephone of their intent to submit comments and shall submit the comments within five (5) calendar days of WSDOT’s initial notification, if the nature of the emergency or hazardous condition allows for such coordination.

X. TERMINATION

A. If FHWA or WSDOT determines that it cannot implement the terms of this Agreement, or if SHPO determines that this Agreement is not being properly implemented, FHWA, WSDOT, or SHPO may propose to the other parties that the Agreement be terminated.

B. The party proposing to terminate this Agreement shall notify all parties to this Agreement accordingly in writing, explaining the reasons for termination and affording them at least thirty (30) days to consult and seek alternatives to termination.

C. Should such consultation fail and this Agreement is terminated, the FHWA shall either:

1. Consult in accordance with 36 CFR § 800.6 to develop a new Agreement; or

2. Request the comments of the Council pursuant to 36 CFR § 800.7 and take into account such comments in accordance with such section prior to continuing the project.
By:

Federal Highway Administration, Division Administrator

Daniel M. Mathis 04/04/08

Washington State Department of Transportation, Urban Corridors Office, Administrator

Craig Stone 4-2-08

Washington State Historic Preservation Officer

Allyson Brooks 4/9/08

Concur:

Muckleshoot Indian Tribe, Chairperson

Charlotte Williams 3-31-08

Charlotte Williams

Snoqualmie Tribe, Vice Chairperson

MaryAnne Hinzman 3-25-08

MaryAnne Hinzman

Appendices:
Appendix A: I-405 Corridor Program Cultural Resources Assessment Guidelines
Appendix B: I-405 Corridor Program Unanticipated Archaeological Discovery Plan
ATTAChment A
Contact Information

1. Primary WSDOT Contacts

   WSDOT I-405 Environmental Manager  Bill Jordan
           425.456.8647
           425.457.0642 (cell)

   UCO Environmental Services Director  Sasha Visconti
           206.464.1227
           206.713-9406 (cell)

   UCO Deputy Environmental Services Director  Allison Hanson
           206.716.1136
           206.714.1548 (cell)

1. WSDOT Cultural Resources Contacts

   UCO Cultural Resource Specialist  Ken Juell
           206.464.1236
           206.498.0508 (cell)

   WSDOT Cultural Resource Specialist  Barbara Bundy
           206.716.1122
           206.389.8552
           360.915.3429 (cell)

   WSDOT Cultural Resources Program Manager  Craig Holstine
           360.570.6637
           360.701.5955 (cell)

   WSDOT Cultural Resource Specialist  Michael Chidley
           206.440.4525
           206.947.0919 (cell)
WSDOT Tribal Liaison
Colleen Jollie
360.705.7025

3. Agencies to be notified by WSDOT only.

Federal Highway Administration
Steve Boch
206.382.6360

Department of Archaeology and Historic Preservation
Matthew Sterner
360.586.3082
360.480.9654 (cell)

King County Sheriff’s Office
206.296.4155
(Non-emergency)

King County Medical Examiner
206.731.3232

4. Appropriate Tribal Staff to be notified by WSDOT only.

Duwamish Contact:
Honorable Cecile Hansen
206.431.7582

Muckleshoot Contacts:
Laura Murphy
253.876.3272

Warren KingGeorge (human remains)
253.876.3269

Snoqualmie Contact:
Andrea Rodgers
425.888.6551

Tulalip Contact:
Hank Gobin
360.651.3310

Yakama Nation Contact:
Johnson Meninick
509.856.5121 (ext. 4737)
**ATTACHMENT B**

**Acronyms & Abbreviations**

<table>
<thead>
<tr>
<th>CRS</th>
<th>Cultural Resource Specialist</th>
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<tr>
<td>DAHP</td>
<td>Department of Archaeology and Historic Preservation</td>
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<td>FHWA</td>
<td>Federal Highway Administration</td>
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<tr>
<td>MOA</td>
<td>Memorandum of Agreement</td>
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<td>WSDOT</td>
<td>Washington State Department of Transportation</td>
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I-405 Corridor Program Cultural Resources Assessment Guidelines
For Compliance with Washington State Department of Transportation Policy
And Section 106 of the National Historic Preservation Act
July 24, 2007

The WSDOT receives federal highway funds to complete I-405 Program improvement projects and thus must comply with the provisions of 36 CFR 800, the regulations that implement Section 106 of the National Historic Preservation Act (NHPA).

The guidelines for cultural resource assessments presented below represent newly revised agency standards designed to increase the likelihood that all cultural resources in project areas are identified early in the process, to reduce the number of unanticipated discoveries during construction (and the associated increased costs).

The most notable changes in protocol are:
• increasing the intensity of subsurface probing, by increasing the number of shovel probes excavated per unit area,
• increasing the probabilities of detecting deeply buried resources by using heavy machinery to excavate to necessary depths,
• phasing subsurface investigations in some project areas to reduce the number of shovel probes that would otherwise be excavated in previously disturbed locations, and
• requiring more substantive reporting of sedimentary horizons and profiles to ensure comprehensive sampling of the entire Holocene epoch.

Identify Project Elements and Assess Effects
Project elements may include: roadway widening strips, stormwater conveyances, detention ponds, front- and back-slope modifications, retaining walls, noise barriers, ecology embankments, staging areas, and cut and fill areas.

The cultural resources management (CRM) CONSULTANT, should assess project effects by comprehensively identifying areas where ground disturbance will take or likely take place, and where indirect effects such as changes in views or increased noise will occur.

Define Area of Potential Effects (APE)
The APE, both below and above the ground surface, is the geographic area or areas within which an undertaking may directly or indirectly cause changes to the character or use of historic properties, if any such properties exist. The CRM CONSULTANT should coordinate with the Project Environmental Manager (PEM) and the WSDOT Cultural Resource Specialist(s) (CRS) to define the APE. The APE should include both the area where ground disturbance is anticipated or possible, and the area where standing structures are recorded for the purposes of acquisition or determining indirect project effects. An important consideration for archaeological sampling design is the depth of Holocene sediment profiles over glacial sediments. The entire vertical APE must be sampled, and WSDOT will work closely with the CRM CONSULTANT to determine the 3-dimensional APE of the project. See the section on Subsurface Exploration, below, for details on sampling.
This task shall be accomplished by means of a review of the proposed project, its boundaries, and identified areas of ground disturbance, if any, in coordination with the Project Environmental Manager (PEM) and CRS. It is assumed that determining the APE will require 3 rounds of map review cycles by the I-405 Team of the materials submitted by CRM CONSULTANT. The PEM will let the CRM CONSULTANT know through correspondence (any verbal correspondence will need to be followed up with an e-mail or written letter) if changes are needed, and will approve up to two additional review cycles, if deemed necessary by WSDOT.

**Define Archaeological Probability Areas**

Probability (high, moderate, low) attribution should be based explicitly on environmental variables, including but not necessarily limited to slope, topographic position, distance to permanent water sources/Channels, and vegetation ecotone. Probability areas, geomorphological work, and project design will dictate pedestrian survey and shovel testing locations.

The research design for sampling project areas should consider environmental factors along with the fact that channel positions of the major rivers are known to have meandered across time during the last 15,000 years.

Gently sloped areas and areas within 200 feet or so of permanent water sources (lakes or streams) are considered high-probability zones for cultural resources. Moderate slopes and areas farther from water courses/natural wetlands are considered moderate probability areas. Steeply sloped areas and areas relatively far from water courses are low probability areas.

**Background Search**

The CRM CONSULTANT should conduct background research at the Washington State Department of Archaeology and Historic Preservation, and at other appropriate repositories, to determine the nature and distribution of known cultural resources within the vicinity of the project area.

Collected information may include:

- recording forms, other descriptions, and photographs of historic structures, landmarks, districts, ethnographic sites, historic and pre-contact archaeological sites, and other culturally significant sites within 1 mile of the proposed APE (if known and available),
- completed assessments for previous I-405 projects located nearby or partially subsumed by the project, such as the I-405 “Nickel” projects, and
- geology, surficial geomorphology, and soil studies of the project area and vicinity.

**Tribal Consultation**

FHWA, through WSDOT, is responsible for tribal consultation, and will identify concerned tribes for the project. With approval from the I-405 Environmental Manager, the CRM CONSULTANT may coordinate with tribes to gain information through the Section 106
process. Absent that approval, all coordination with the tribes will be through the I-405 Environmental Manager.

The CRM CONSULTANT may be asked to participate in Section 106 consultation meetings, which will be considered extra work unless the meetings are already included within the scope of work.

**Pedestrian Survey**
Survey of the entire APE should be completed using adjacent transects spaced at 10 meter intervals (maximum). When reporting the results of pedestrian survey, the transect interval description should reflect where transects were actually walked, and transects should be shown on project maps. All areas not subjected to pedestrian reconnaissance due to artificial surface coverage (pavement or imported fill) should be identified.

**Subsurface Exploration**
The intensity of planned shovel probing should maximize the chances of detecting any buried or obscured resource. This protocol is intended to minimize the chances of encountering a buried cultural resource during construction.

Probes should each be 40 centimeters in diameter and should be excavated to a depth slightly into glacial sediments, anticipated in the I-405 area to be firmly compacted pale light brown to yellow to olive to gray silts with broad variation in rounded clasts.

Shovel depth may be 80 to 120 centimeters below the surface; those requiring deeper excavation should be completed using a 10-centimeter (4-inch) bucket auger. All excavated sediments should be sifted through ½-inch mesh screen.

Artifacts should be placed in polyethylene bags and returned to shovel probes, not collected, during the discovery phase, so that the site’s entire artifact assemblage remains in place. Bagged artifacts should be placed in shovel probes deeply enough to remain non-observable from the surface but also not too deeply to be relocated. Should the site be subjected to NRHP-eligibility testing and/or data recovery, artifacts reburied in shovel probes shall be excavated and collected for analysis and permanent curation.

In some project areas, ground disturbance will be planned, but shovel probe excavation is not indicated because the area is currently paved or geomorphological study (discussed below) has shown the area to be covered with modern fill.

**Geomorphology and Modern Landscape Development**
Because the corridor traverses a highly modified landscape, many places in the APE may be covered in modern artificial fill, or the Holocene sediments may have been removed. If this can be clearly demonstrated using geomorphological techniques or other documentation, those areas need not be investigated but should be pedestrian surveyed. On the other hand, placing a few probes to determine the actual subsurface conditions is important to verify or falsify assumptions about previous ground disturbance. The CRM CONSULTANT must consult with the PEM and the Urban Corridors Office CRS prior to fieldwork and following
the first phase of subsurface investigations to discuss areas to be excluded or sampled at a lower intensity due to indications of previous ground disturbance.

**Shovel Probe Frequency Based on Probability**
The CRM CONSULTANT will excavate shovel probes in areas of proposed roadway widening, conveyances, ecology embankments, noise barriers, and retaining walls at 10 meter intervals in high probability areas, at 20 meter intervals in moderate probability areas and at 30 meter intervals in low probability areas. It is expected that probability will fluctuate along roadway alignments and shovel probe density should fluctuate according to in-the-field terrain conditions actually experienced.

Probes will be excavated at 10 meter intervals in areas proposed for new or expanded water detention facilities (ponds) or wetland creation or enhancement, regardless of defined probability area, because 100% of substrate will be removed and hauled away to another location. The WSDOT wants finer sampling in these areas to obtain greater assurance that these materials are devoid of cultural materials or human remains prior to their removal. However, this work may be phased, as described in the following section.

**Phased Investigation Protocols for Specific Project Elements (Optional as Conditions Allow)**
As a cost-saving measure to WSDOT, shovel probe work may be phased in selected areas suspected to have a high probability of being previously disturbed (i.e., medians, intersection gores and margins). With the phased approach, the CRM CONSULTANT first will provide the PEM and CRS with a table that displays the requisite number of shovel probes (based on expected probability independent of possible disturbance) per project area element or feature - right-of-way widening strips, pond number, and wetland location - for review prior to fieldwork, then will excavate 33% of the indicated shovel probes for each element/feature. Probes should be placed in a spatial distribution that provides a representative sample of the entire project element. The CRM CONSULTANT then will provide the PEM with a representative sediment/soil profile description(s) [Holocene soil horizons, other horizons, and glacial sedimentary unit(s)], a sketch map set of stratigraphic profiles for all excavated probes, a representative number of digital photographs, and a brief statement of stratigraphic interpretation for each work area. The WSDOT PEM and CRS will use this information to determine if the area(s) is, previously disturbed or all culture-bearing stratigraphic layers have been destroyed, or if the area(s) is relatively intact and an additional work phase is needed. WSDOT either will determine that no historic properties could be present at the location, or request another 33% of the indicated shovel probes be completed. After excavating the additional 33%, the CRM CONSULTANT will again provide shovel probe results and stratigraphic information to the PEM. WSDOT will either determine that no historic properties could be present, or request that the remaining shovel probes be excavated.

**Deep Investigation**
In areas with high deposition rates, archaeological materials can be deeply buried. Deep investigation, defined as probing deeper than the effective limit of a shovel and auger, may be necessary to sample the entire vertical APE. Deep investigation may include backhoe trenches, backhoe pits, augured bores, and solid core samples retrieved using rotasonic
coring. Project areas that likely will require deep investigation procedures include bridge crossings over rivers, the locations of elevated structure pillars/supports in floodplains, and some detention ponds.

The PEM and the WSDOT CRS should be consulted prior to the initiation of deep investigation to assess which project elements will require deep testing. If necessary, the CRM CONSULTANT may also consult with the PEM and WSDOT CRS during creation of the scope of work.

**Recording Archaeological Sites**
The CRM CONSULTANT should use the following archaeological definitions: an "isolate" is a single artifact; a "site" is two or more artifacts or a single cultural feature or a combination of artifacts and feature.

All newly identified resources should be investigated with shovel probes (if artifact observed on surface) or additional shovel probes (if an artifact found in a shovel probe) during the initial or discovery phase of fieldwork to obtain a general understanding of character and complexity. The CRM CONSULTANT does not need to establish a reliable site boundary or representative characterization of artifact assemblage or feature association during the initial fieldwork phase; such tasks are considered extra work to be completed during the site evaluation phase.

**Recording Historic Structures**
The CRM CONSULTANT should record and evaluate all historic structures within the APE and prepare Historic Property Inventory Forms for each. Historic structures are defined as being 50 years or older when highway construction is anticipated to begin.

The CRM CONSULTANT will record all historic structures within the adjacent tax parcel to each side of the WSDOT right-of-way or associated urban intersections and streets improved by projects. Based on the circumstances of each project, WSDOT may determine that it is sufficient to record and evaluate historic structures whenever they are within the adjacent tax parcel or within 200 ft. of I-405 right-of-way or urban intersections scheduled for improvements, whichever is the shorter distance.

**Project Specific Issues**
Each of the individual projects within the I-405 corridor improvement project may have project-specific testing issues. The CRM CONSULTANT will work with the WSDOT CRS to produce an appropriate testing protocol for each project.

**Technical Report Requirements**
Technical Memoranda must include reporting of all methods and results presented in this guide, and also must meet all requirements for survey reports as provided by the Department of Archaeology and Historic Preservation (DAHP) (available on-line). The CRM CONSULTANT should ensure reports submitted to WSDOT meet all the DAHP requirements, which do change periodically.
I-405 CORRIDOR
UNANTICIPATED ARCHAEOLOGICAL DISCOVERY PLAN
A Plan and Procedure for Dealing with the
Unanticipated Discovery of Human Remains or Cultural Resources
Last Update: January 15, 2008

1.0 INTRODUCTION

The Interstate 405 (I-405) Corridor Program refers to numerous multi-modal improvements along the I-405 Corridor between Tukwila in the south and Bothell in the north. It will add up to two lanes in each direction, improve key arterials and make many safety improvements.

The Washington State Department of Transportation (WSDOT) has analyzed the impacts of this project under the National Environmental Policy Act (NEPA). In addition, the agency has applied for, and received, various local, State and Federal permits required for the construction. When projects require Federal funding, permits or approval, they must adhere to provisions of the National Historic Preservation Act of 1966, as amended (NHPA). Because this project is on the US Interstate System, the Federal Highway Administration (FHWA) is the Federal lead agency for further consultation under the NHPA. Potentially concerned parties include: the Department of Archaeology and Historic Preservation (DAHP), WSDOT, and the following Indian Tribes: Snoqualmie Tribe, Muckleshoot Indian Tribe, Tulalip Tribes of Washington, Confederated Tribes and Bands of the Yakama Nation. The non-federally recognized Duwamish Tribal Organization has been consulted as an interested party. During the course of the design, document preparation, and construction, WSDOT consulted with these groups and will continue to do so in accordance with 36 CFR 800.2(a)(4).

WSDOT conducted a cultural resources study for each project within the I-405 Corridor, which included background research, an archaeological survey and subsurface testing supervised by an archaeologist who meets Secretary of Interior standards. Documentation of this effort is available in the project-specific NEPA documentation.

This document serves as the plan for dealing with any unanticipated discoveries of human skeletal remains, artifacts, sites, or any other cultural resources eligible for listing in the National Register of Historic Places (NRHP). This plan is intended to provide guidance to WSDOT personnel and the construction team so they can:
• Comply with applicable Federal and State laws and regulations, particularly 36 CFR 800 (as amended January 11, 2001), the regulations that implement Section 106 of the National Historic Preservation Act of 1966; and the following sections of the Revised Code of Washington: 27.44 Indian Graves and Records, 27.53 Archaeological Sites and Resources, and 68.60.050 Protection of historic graves;
• Describe to regulatory and review agencies the procedures the construction team and WSDOT will follow to prepare for and deal with unanticipated discoveries; and
• Provide direction and guidance to project personnel on the proper procedures to be followed should an unanticipated discovery occur.

This document also includes Attachment A: Contact Information and Attachment B: Acronyms and Abbreviations.

2.0 PROCEDURES FOR THE DISCOVERY OF HUMAN SKELETAL REMAINS

Any human skeletal remains that are discovered during this project will at all times be treated with dignity and respect. The notification contacts provided in Attachment A are to be called immediately. The other required actions are as follow:

A. If any member of the construction team, contractors or subcontractors believes that he or she has encountered skeletal remains of any kind, all work at and adjacent to the discovery shall immediately cease. The area of work stoppage will be adequate to provide for the security, protection, and integrity of the skeletal remains, in accordance with Washington State law. He or she will immediately inform the WSDOT Project Engineer and the I-405 Environmental Manager.

B. Representatives of WSDOT will be responsible for taking appropriate steps to protect the discovery. At a minimum, the immediate area will be secured to a distance of thirty (30) feet from the discovery. Vehicles, equipment, and unauthorized personnel will not be permitted to traverse the discovery site.

C. The I-405 Environmental Manager will contact the WSDOT Urban Corridors Office (UCO) Cultural Resources Specialist (CRS) Ken Juell. The UCO CRS will visit the site of the discovery, make an identification of the remains, and notify the I-405 Environmental Manager of his findings and the basis for the identification. If the I-405 Environmental Manager is unable to reach the UCO CRS, the I-405 Environmental Manager will contact another CRS or the Cultural Resources Program Manager listed on Attachment A, starting with Barbara Bundy and continuing down the list until personal contact is made. The I-405 Environmental Manager will also notify the UCO Environmental Services Director and the UCO Deputy Environmental Services Director that WSDOT Headquarters’ CRS or Cultural Resources Program Manager has been contacted.
E. If the remains are nonhuman bone, but appear to be associated with historic human activity, the procedures described in Section 3.0 will be followed. If the remains are determined to be human, the I-405 Environmental Manager will follow step E, below.

F. Following specific guidance in Appendix 1, the WSDOT Project Engineer will immediately call the King County Sheriff’s Office and the WSDOT cultural resource staff. WSDOT acknowledges that any find of human skeletal remains may be a burial of Native American ancestry. It is further acknowledged that the concerned Indian Tribes are extremely sensitive about ancestral burials, and that the find must be treated confidentially. The Sheriff’s Office will arrange for a representative of the King County Medical Examiner’s Office to examine the discovery. The Medical Examiner, or his or her representative, will determine whether the discovery should be treated as a crime scene, a historic grave of a person or persons of nonnative ancestry, or as a human burial of Native American ancestry in accordance with State law. The remains will be protected from further disturbance until WSDOT, FHWA, DAHP, and concerned Native American Tribes have determined appropriate treatments and ultimate disposition of the remains. No additional excavation will be undertaken prior to tribal consultation, and no exposed human remains will be left unattended during work hours. Concerned Native American Tribes will be given the opportunity to visit and name the site, and conduct ceremonies they deem necessary.

G. WSDOT will notify the DAHP, FHWA, and the concerned Native American Tribes of the unanticipated discovery of human remains. If the remains are not determined to be associated with a crime scene, WSDOT will initiate consultation with appropriate parties to develop a treatment plan. If remains are historic non-Native American in origin, the Tribes may choose to exit consultations.

H. If disinterment of Native American remains becomes necessary, the consulting parties, which will include the DAHP, FHWA, concerned Indian Tribes, and WSDOT, will jointly determine the final disposition of the human skeletal remains for re-interment.
3.0 PROCEDURES FOR THE DISCOVERY OF ARCHAEOLOGICAL RESOURCES

A. If any member of the construction team, contractors or subcontractors, believes he or she has inadvertently uncovered any cultural resource, all work at or adjacent to the discovery shall immediately cease. He or she will inform the I-405 Environmental Manager who will notify the WSDOT UCO CRS (Juell). The area of work stoppage will be adequate to provide for the security, protection, and integrity of the archaeological discovery. A cultural resource discovery could be prehistoric-period or historic-period in age and consist of (but not limited to):

- areas of charcoal or charcoal-stained soil and stones;
- stone tools or waste flakes (i.e., an arrowhead or stone chips);
- bone, burned rock, or mollusk shell, whether or not seen in association with stone tools or chips; and
- clusters of tin cans, ceramics, flat glass, or bottles, concentrations of brick, or logging or agricultural equipment.

B. The WSDOT CRS will visit the work site and determine if the resource is potentially eligible for listing on the NHRP. Any newly discovered archaeological resource will be considered eligible for the NRHP until determined otherwise by WSDOT, DAHP, and FHWA. The I-405 Environmental Manager will notify the UCO Environmental Services Director and the Deputy Environmental Services Director, affected Tribe(s), DAHP, and the FHWA of any unanticipated discovery. If the discovery is determined to be historic or archaeological in nature, or consists of Native American human remains, DAHP, FHWA, and Tribe(s) will be consulted as appropriate to determine the course of action.

C. Construction will be halted within the immediate area of the discovery and the scene will be protected until the WSDOT Project Engineer has arranged for the discovery to be identified by the WSDOT CRS and the WSDOT Cultural Resource Staff, as necessary. Steps will be taken to protect the discovery site. At a minimum, subsurface disturbances will stop and the area adjacent to the discovery will be secured. Vehicles, equipment, and unauthorized personnel will not be permitted to traverse the discovery site. Work in the immediate area will not resume until treatment of the discovery has been completed following the provisions of this section.

D. A WSDOT archaeologist will ensure proper documentation and assessment of any discovered cultural resources. All prehistoric and historic cultural material discovered during project construction will be recorded by the professional archaeologist using standard techniques and in the format requested by DAHP. Site overviews, features, and artifacts will be photographed; stratigraphic profiles and soil/sediment descriptions will be prepared for subsurface exposure. Discovery locations will be documented on scaled site plans and site location maps.
E. Sites discovered during construction will be assumed eligible under Criterion D (a property or resource that has yielded, or may be likely to yield, information important for the understanding of history or prehistory) for inclusion in the National Register of Historic Places (NRHP) for the purposes of Section 106 compliance, in accordance with 36 CFR 800.13(c).

F. If the federal and state agency representatives determine that the discovery is an eligible cultural resource, they and the concerned Indian Tribe(s), as appropriate, will consult to determine appropriate treatment to be presented and agreed upon in a Memorandum of Agreement (MOA) or other appropriate documentation. Mitigation measures will be developed in consultation with DAHP, FHWA, and the affected Tribes (where appropriate), which could include avoidance through redesign, conducting data recovery and/or relocating materials or remains. Treatment measures performed by WSDOT may include protecting in place or data recovery such as mapping, photography, limited probing, and sample collection, or other activity deemed appropriate through a MOA or other appropriate documentation.

G. Where complex or extensive cultural remains are encountered, WSDOT, FHWA, DAHP, and representatives of the identified concerned Tribes (if they choose to participate) will consult to determine the appropriate level of documentation and treatment of the resources.

H. WSDOT, DAHP, and FHWA will decide when construction may continue at the discovery location. Where cultural resources are encountered during construction, but additional project effects to the resources are not anticipated, project construction may continue while documentation and assessment of the cultural resources proceed. If continued construction is likely to cause additional impacts to such resources, project activities within a radius of 30 feet of the discovery will cease until the archaeological monitor has documented the site, evaluated its significance, and assessed potential effects to the site.

I. Cultural features, horizons, and artifacts detected in buried sediments may require further evaluation using hand-dug excavation units to clarify aspects of integrity, stratigraphic context, or feature function. Units may be dug in controlled fashion to expose features, collect radiocarbon or animal/plant macrofossil samples from undisturbed contexts, or interpret complex stratigraphy. A test excavation unit or small trench might also be used to cross-section a feature to determine if an intact occupation surface is present. Test units will be used only when necessary to gather information on the nature, extent, and integrity of subsurface cultural deposits to evaluate the site’s potential to address significant research domains. Excavations will be conducted using state-of-the-art techniques for controlling provenience of recovered remains.

J. Sediments excavated for purposes of cultural resources investigations will be screened through 1/8-inch mesh. Spatial information, depth of excavation levels, natural and cultural stratigraphy, presence or absence of cultural material and depth of sterile soil, regolith, or bedrock will be recorded for each probe on a standard form. Test excavation units will be recorded on unit-level forms, which
include plan maps for each excavated level, and material type, number and vertical provenience (depth below surface and stratum association where applicable) for all artifacts recovered from the level. Radiocarbon and macrofossil samples will be taken from intact subsurface features exposed by shovel/auger probes or test units. A stratigraphic profile will be drawn for at least one wall of each test excavation unit.

K. All prehistoric and historic artifacts collected from the surface and from probes and excavation units will be analyzed, catalogued, and temporarily curated. Ultimate disposition of cultural materials will be determined in consultation with DAHP, FHWA, and concerned Tribes.

L. Within 90 days of conclusion of fieldwork, a management summary describing any and all monitoring activities and resultant archaeological excavations will be provided to the UCO Environmental Services Director, who will forward the report to the WSDOT Cultural Resource Office for review and delivery to DAHP, FHWA, and concerned Tribes.

M. If construction activity exposes human remains (burials, or isolated teeth or bones), construction in the immediate vicinity of the find will be halted. See Section 2.0 Procedures for the Discovery of Human Skeletal Remains.
ATTACHMENT A
Contact Information

1. Primary WSDOT Contacts

WSDOT I-405 Environmental Manager Bill Jordan
425.456.8647
425.457.0642 (cell)

UCO Environmental Services Director Sasha Visconti
206.464.1227
206.713-9406 (cell)

UCO Deputy Environmental Services Director Allison Hanson
206.716.1136
206.714.1548 (cell)

2. WSDOT Cultural Resources Contacts

UCO Cultural Resource Specialist Ken Juell
206.464.1236
206.498.0508 (cell)

WSDOT Cultural Resource Specialist Barbara Bundy
206.716.1122
206.389.8552
360.915.3429 (cell)

WSDOT Cultural Resources Program Craig Holstine
Manager 360.570.6637
360.701.5955 (cell)

WSDOT Cultural Resource Specialist Michael Chidley
206.440.4525
206.947.0919 (cell)

WSDOT Tribal Liaison Colleen Jollie
360.705.7025
3. Agencies to be notified by WSDOT only.

Federal Highway Administration
Steve Boch
206.382.6360

Department of Archaeology and Historic Preservation
Matthew Sterner
360.586.3082
360.480.9654 (cell)

King County Sheriff's Office
206.296.4155
(Non-emergency)

King County Medical Examiner
206.731.3232

4. Appropriate Tribal Staff to be notified by WSDOT only.

Muckleshoot Indian Tribe
Laura Murphy
253.876.3272

Warren KingGeorge (human remains)
253.876.3269

Snoqualmie Tribe
Andrea Rodgers
425.888.6551

Tulalip Tribes
Hank Gobin
360.651.3310

Yakama Nation
Johnson Meninick
509.856.5121 (ext. 4737)

5. Interested Party Staff to be notified by WSDOT only

Duwamish Tribal Organization
Honorable Cecile Hansen
206.431.7582
ATTACHMENT B
Acronyms & Abbreviations

CRS Cultural Resource Specialist
DAHP Department of Archaeology and Historic Preservation
FHWA Federal Highway Administration
MOA Memorandum of Agreement
NEPA National Environmental Policy Act
NHPA National Historic Preservation Act
NRHP National Register of Historic Places
UCO Urban Corridors Office
WSDOT Washington State Department of Transportation
May 8, 2008

Reply to
Attn of: OEA-095

Jason McKinney
Project Environmental Manager
I-405 Project Team
600-108th AVE NE, STE 405
Bellevue, WA 98004

RE: I-405 Tukwila to Renton project approval

Dear Mr. McKinney;

I received information on the roadway improvement project along the I-405 segment from Tukwila to Renton, which is located over the Cedar Valley Sole Source Aquifer. This project is similar in scope and design to the previously approved I-405 Renton to Bellevue project (EPA approval letter dated March 8, 2007). The Tukwila to Renton Project extends approximately four and one-half miles along I-405 from I-5 to SR 169, and approximately two miles along SR 167, from I-405 to SW 43rd St. Per our phone conversation, we understand that the City of Renton is being consulted in all aspects of the project, assuring that their wellhead area will be protected from potential contamination. The City of Renton currently approves of the project.

As currently planned, we do not expect the project to be a significant risk to the Cedar Valley Aquifer, and therefore approve the expenditure of federal funds for the project.

Please feel free to call if you have any questions. We appreciate receiving notification of such projects, and will continue to provide timely reviews when they are received.

Sincerely,

Martha Lentz
Hydrogeologist
July 14, 2008

William Jordan, I-405 Environmental Manager
Washington State Department of Transportation
I-405 Project Office
600 – 108th Avenue NE, Suite 405
Bellevue, WA 98004

Subject: I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 – Phase 2)
Clarifying Comments for the Draft Section 4(f) Evaluation

Dear Mr. Jordan:

This letter is in regards to comments the City provided the Washington State Department of Transportation (WSDOT) on the Tukwila to Renton Improvement Project Environmental Assessment (EA) in a letter dated May 22, 2008. The City would like to clarify its position regarding the Panther Creek Wetland Open Space area and the Cedar River Natural Area.

Upon further discussion with WSDOT, the City has determined that the Panther Creek Wetland Open Space would likely only be developed with a multiuse trail if construction occurs for a regional detention within the complex as stated in our 2003 Parks, Trail, and Open Space plan. At this time, we do not consider the Panther Creek Wetland Open Space Area to meet the criteria for a Section 4(f) Resource.

We have also discussed with WSDOT additional details regarding the Cedar River Natural Area. There are two parcels of land acquired by the City from Puget Sound Energy through a quit claim deed. These parcels are encumbered by utility easements and are not part of the Cedar River Natural Area. The effects on the Narco property and associated mitigation as described in WSDOT’s Draft Section 4(f) Evaluation are accurate. No additional effects on the Cedar River Natural Area are expected.

Sincerely,

Lawrence J. Warren
City of Renton Attorney

Cc: Gregg Zimmerman, Administrator, Planning/Building/Public Works
    Peter Hahn, Deputy Public Works Administrator – Transportation
    Terry Higashiyama, Community Services Administrator
    Leslie Betlach, Parks Director
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Attachment 7:
Final Section 4(f) Evaluation
I-405, TUKWILA TO RENTON IMPROVEMENT PROJECT (I-5 TO SR 169 – PHASE 2)
FINDING OF NO SIGNIFICANT IMPACT

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FINAL SECTION 4(f) EVALUATION
TECHNICAL MEMORANDUM

July 2008
Title VI
WSDOT ensures full compliance with Title VI of the Civil Rights Act of 1964 by prohibiting discrimination against any person on the basis of race, color, national origin or sex in the provision of benefits and services resulting from its federally assisted programs and activities. For questions regarding WSDOT’s Title VI Program, you may contact the Department’s Title VI Coordinator at (360) 705-7098.

Americans with Disabilities Act (ADA) Information
If you would like copies of this document in an alternative format -- large print, Braille, cassette tape, or on computer disk, please call (360) 705-7097. Persons who are deaf or hard of hearing, please call the Washington State Telecommunications Relay Service, or Tele-Braille at 7-1-1, Voice (800) 833-6384, and ask to be connected to (360) 705-7097.
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Appendix C: City of Renton Letter Dated July 14, 2008
Introduction

This document is the Final Section 4(f) Evaluation for the I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 – Phase 2), referred to as the Tukwila to Renton Project. This evaluation is being circulated as part of the Tukwila to Renton Project Finding of No Significant Impact (FONSI) to satisfy the requirements of Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966.

The Final Section 4(f) Evaluation represents the culmination of analysis initiated during the preparation of the I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 – Phase 2) Environmental Assessment and Draft Section 4(f) Evaluation, which are incorporated herein by reference. This Final Section 4(f) Evaluation presents:

- An overview of the Draft Section 4(f) Evaluation\(^1\), including a description of the basis for concluding that there are no prudent and feasible alternatives to the use of Section 4(f) property;
- A description of the basis for concluding that the proposed action includes all possible planning to minimize harm; and
- A summary of appropriate formal coordination with the U.S. Department of the Interior (DOI).

Applicability of Section 4(f)

Section 4(f) of the USDOT Act of 1966, codified in federal law as 49 USC Section 303, declares that “[i]t is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.”

Section 4(f) prohibits the Secretary of Transportation from approving any program or project that:

. . . [requires] the use of any publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state or local significance or land of a historic site of national, state or local significance (as determined by the Federal, State or local officials having jurisdiction over the park, area, refuge, or site) [unless] (1) there is no prudent and feasible alternative to using that land, and (2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use . . .

The FHWA regulations interpreting Section 4(f) state, “any use of lands from a Section 4(f) property shall be evaluated early in the development of the action when alternatives to the proposed action are under study” (23 CFR 774.9(a)). A project “uses” a Section 4(f) resource when: (1) it permanently incorporates land from the resource into a transportation facility; (2) it temporarily but adversely occupies land that is part of the resource; or (3) it “constructively” uses the resource. A “constructive” use occurs “when the transportation project does not incorporate land from a Section 4(f) resource, but the proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired.” (23 CFR 774.15(a)).

Section 4(f) further requires consultation with the DOI and, as appropriate, the involved offices of the U.S. Departments of Agriculture and Housing and Urban Development in developing transportation projects and programs that use land protected by Section 4(f) (49 USC 303(b); 23 CFR 774.5(a)).

Section 4(f) is also applicable to historic properties and archaeological resources when the resource is included in, or eligible for listing in, the National Register of Historic Places (23 CFR 774.11 (e)(1)).

A Final Section 4(f) Evaluation is prepared after public and agency comment on the Draft Section 4(f) Evaluation is received. The Final Section 4(f) Evaluation must contain the conclusions of the Section 4(f) Evaluation, encompassing:

1. A description of the basis for concluding that there are no prudent and feasible alternatives to the use of Section 4(f) property, including a demonstration that there are unique problems or unusual factors involved in the use of alternatives that avoid these properties, or that the cost, social, economic, and environmental impacts or community disruption resulting from the alternatives reach extraordinary magnitudes;
2. A description of the basis for concluding that the proposed action includes all possible planning to minimize harm; and

3. A summary of formal coordination with the DOI.

Formal comments regarding Section 4(f) issues were received on the EA and Draft Section 4(f) Evaluation from the DOI and the City of Renton.
Draft Section 4(f) Evaluation

Section 4(f) Use

The Draft Section 4(f) Evaluation stated that the proposed Tukwila to Renton Project would require the “use” of five Section 4(f) resources.² These five resources include:

- Duwamish-Green River Trail Trailhead
- Cedar River Park
- Liberty Park
- Cedar River Trail
- Narco Property

Duwamish-Green River Trail Trailhead

Approximately 4,500 square feet or 0.1 acres of land from the trailhead would be permanently incorporated into the transportation facility as a result of the construction of the Tukwila Parkway extension. The property that would be affected includes passive recreation uses, landscaping, trail access, and 13 parking stalls.

Cedar River Park, Liberty Park, Cedar River Trail, and the Narco Property

A concept to integrate Liberty Park, Cedar River Park, and the Narco property into one large complex emerged from a collaborative process between the City of Renton and WSDOT. WSDOT and the City of Renton undertook a design charrette process as described in the Tukwila to Renton Draft Section 4(f) Evaluation. The conclusion to the charrette process was used by the City of Renton to develop a Tri-Park Master Plan. The resulting Tri-Park Master Plan, formally adopted by the Renton City Council on September 25, 2006, would redevelop the existing Cedar River Park and Liberty Park, develop the Narco site with sports fields, and acquire an additional property to develop baseball fields. The City and WSDOT explored opportunities to avoid or minimize effects to the resources, arrived at a consensus on necessary and desirable park improvements, and determined which of these improvements would be considered mitigation for unavoidable effects as a result of the I-405 project and which would be City-desired recreation improvements. A letter of concurrence dated January 9, 2008 between WSDOT and the City of Renton documents these agreements between the two parties. This letter is contained in Appendix A of the Draft Section 4(f) Evaluation for the Tukwila to Renton Project.

Also as part of the Tri-Park Master Plan, a portion of a small City owned parcel, which is bounded by the Cedar River to the north, the Cedar River Trail to the south, and I-405 to the west, will be converted to park use as part of the Cedar River Trail realignment. The charrette

process resulted in a design for I-405 that will acquire a portion of the parcel referenced above to expand I-405 to the east and accommodate a new off-ramp to SR 169. The remainder of this parcel has been evaluated as a Section 4(f) resource because it will be converted to park use. It will accommodate a new trail alignment for the Cedar River Trail and associated pedestrian bridge over the Cedar River as described in the Tri-Park Master Plan.

As a result of the avoidance and minimization of effects accomplished by WSDOT and the City of Renton, no land would be permanently acquired from Liberty Park, Cedar River Trail, and the Narco property. Permanent acquisition of Section 4(f) protected resources at Cedar River Park would include 35,752 square feet or 0.82 acres.

**Cedar River Natural Area**

Based on additional analysis and evaluation following the issuance of the EA and Draft Section 4(f) Evaluation on April 4, 2008, the Cedar River Natural Area has been determined eligible for protection under Section 4(f).

The Cedar River Natural Area is approximately 270 acres. Parcels within this area have been acquired over time by the City of Renton as open space. Some privately owned parcels remain within the Natural Area boundaries. See Exhibit 1. The Natural Area encompasses the Narco property. Therefore the Natural Area, while not specifically called out, is a component of the Tri-Park Master Plan adopted by the City of Renton and shown in Exhibit 5-7 in the Draft Section 4(f) Evaluation. The City of Renton considers the Cedar River Natural Area a significant passive recreation area that is open to the public, is substantially publicly owned, and is planned for park use within the Tri-Park Master Plan.

The analysis contained in the Draft Section 4(f) Evaluation for the redeveloped Cedar River Park, Liberty Park, Cedar River Trail, and the Narco property applies to the Cedar River Natural Area. There will be no direct use of the Natural Area. Any adverse uses to the recreation environments at Cedar River Park, Liberty Park, Cedar River Trail, and the Narco property that apply to the Natural Area have been addressed by WSDOT and the City of Renton to identify what would be considered mitigation for effects as a result of the I-405 project and what would be City-desired recreation improvements.
Exhibit 1: Cedar River Park, Narco Property, Cedar River Natural Area, and Liberty Park

Note: The Cedar River Natural Area encompasses approximately 270 acres, including the Narco Property, and extends for several miles along the Cedar River outside of the study area.
\textbf{Section 4(f) Temporary Occupancy}

The Draft Section 4(f) Evaluation stated that there would be a temporary occupancy at two Section 4(f) resources:

- Duwamish-Green River Trail/Christensen Greenbelt
- Interurban Trail

\textbf{Duwamish-Green River Trail/Christensen Greenbelt}

The Duwamish-Green River Trail/Christensen Greenbelt was constructed by the City of Tukwila and is 8.4 miles of 12-foot-wide paved trail with soft shoulders for jogging. Based on coordination with the State of Washington Recreation and Conservation Office (RCO) and the National Park Service (NPS), it was determined that the protected Section 4(f) and Section 6(f)\(^3\) trail comprises a width of 14 feet.

Many construction activities proposed by the Build Alternative would occur in the vicinity of the Duwamish-Green River Trail/Christensen Greenbelt. While no land would be permanently incorporated into the transportation facility, the trail’s slope would be modified to ensure adequate clearance for the trail beneath the bridges over the Green River. The trail would be lowered by up to eight feet to maintain a minimum 10-foot vertical clearance between the proposed Tukwila Parkway bridge and the trail. There would be no direct use under Section 4(f) because the proposed new bridge and reconstructed bridges would span the trail and the piers for the bridges would not be located within the 14-foot-wide trail property. Constructive uses would not occur. Currently, five existing bridges cross over the trail within the study area. Conditions experienced by the trail user would remain relatively unchanged with respect to noise, air quality, and visual quality. FHWA and WSDOT determined the proposed construction would result in a temporary occupancy of the protected Section 4(f) resource. Short-term, temporary occupancy or impact does not constitute a use under Section 4(f) as long as all of the conditions in 23 CFR 774.13(d) (1), (2), (3), (4), and (5) are met. These conditions include:

- Occupancy is temporary and ownership does not change;
- Changes are minimal;
- No permanent adverse physical effects result and there is no interference with the activities or purposes of the resource on either a temporary or permanent basis;
- The land being used is restored to a condition which is at least as good as that prior to the project; and

\footnote{Section 6(f) of the Land Water Conservation Fund Act (LWCFA) directs the Department of the Interior, National Park Service to assure that replacement lands of equal value, location, and usefulness are provided as conditions to approve conversions of lands that were acquired with LWCFA funding.}

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I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 – Phase 2)  
Final Section 4(f) Evaluation  
July 2008
Documented agreement(s) exist between relevant jurisdictions regarding temporary use of the resource. All conditions will be met.

**Interurban Trail**

In the vicinity of the Interurban Trail, WSDOT proposes to add one lane in each direction, build new bridges over SR 181 and the railroads, and reconstruct a section of I-405. WSDOT coordinated with the City of Tukwila Parks Department during the development of the Build Alternative. This coordination resulted in a design that proposes to realign the trail and create a smoother-flowing route that would cross under I-405 parallel to the Union Pacific Railroad. The segment being realigned is currently constructed within the WSDOT right-of-way.

No land would be permanently acquired from this trail. There would be temporary occupancy during construction; however, the occupancy would not rise to a use under Section 4(f).
Avoidance Alternatives and Alternatives Considered and Withdrawn

The EA and Draft Section 4(f) Evaluation contain detailed descriptions of proposed project alternatives that would avoid “use” or would have less impact to the resource.

**Duwamish-Green River Trail/Christensen Greenbelt, Duwamish-Green River Trail Trailhead, and Interurban Trail**

To meet project objectives for improved operations consistent with the project purpose, WSDOT identified the need to improve access from Tukwila Parkway to northbound I-405 and improve the interchange at SR 181. These two improvements are integral because of their very close proximity to each other. I-405 currently crosses over the Green River and the Duwamish-Green River Trail/Christensen Greenbelt, Trailhead, and Interurban Trail. WSDOT studied eleven avoidance and minimization alternatives for improving access from Tukwila Parkway to northbound I-405 and for improving the interchange at SR 181. No feasible and prudent alternatives exist to connect Tukwila Parkway to northbound I-405 without extending Tukwila Parkway east across the Green River. Because the Duwamish-Green River Trail/Christensen Greenbelt, Trailhead, and Interurban Trail roughly parallel the Green River, none of the alternatives studied can avoid these three Section 4(f) properties. The effects on the Section 4(f) resources are fairly similar across the alternatives. Given the fact that the impacts of the preferred alternative are no worse than any of the other alternatives, it was selected because it is the alternative that best meets the WSDOT project objectives.

**Veterans Memorial Park**

Two design options were developed for the Veterans Memorial Park vicinity to accommodate local traffic access following removal of the Houser Way bridge. These options, Mill Avenue (the preferred option) and Main Avenue, are discussed in the EA and the Draft Section 4(f) Evaluation. The Mill Avenue design option would avoid use of Veterans Memorial Park. The results of the alternatives analysis demonstrate the Mill Avenue design option would be both feasible and prudent and would avoid permanent direct use of Veterans Memorial Park. The Main Avenue design option was withdrawn.

**Cedar River Park, Liberty Park, Cedar River Trail, and the Narco Property**

The City of Renton proposes to integrate Cedar River Park, Liberty Park, and the Narco Property into one large integrated park complex. These three properties plus the Cedar River Trail share common borders, and their close proximity to each other and to I-405 enabled FHWA, WSDOT, and the City to analyze project alternatives collectively for these resources. The City of Renton and WSDOT undertook a design charrette to identify how the City of Renton recreational facilities at Liberty and Cedar River Parks, Cedar River Trail, and the Narco property and an improved (widened) I-405 could co-exist in a physically constrained area. This
charette examined alternatives for improving the SR 169 interchange, access routes to and from Renton Hill, and access to the park complex. The resulting design scheme would redevelop the existing Liberty Park and Cedar River Park facilities, realign the Cedar River Trail, develop recreation facilities at the Narco site, and acquire an additional property for recreation use. This integrated park system would be functionally improved and would accommodate the proposed I-405 improvements with less effect than would result under other reasonable alternatives.
Mitigation and Measures to Minimize Harm

The Tukwila to Renton Project includes the following mitigation and measures to reduce and minimize harm to Section 4(f) properties.

**Duwamish-Green River Trail/Christensen Greenbelt**

- During construction, a segment of the Duwamish-Green River Trail/Christensen Greenbelt would be closed for public safety where it crosses beneath the Southcenter Boulevard bridge, the I-405 bridges, and the Tukwila Parkway bridge.
- A signed detour would be provided during the closure.
- The trail and disturbed trail edges would be restored following construction pursuant to the I-405 Context-Sensitive Solutions Master Plan.⁴

**Duwamish-Green River Trail Trailhead**

- During construction, the trailhead would be closed for public safety. The trail would be accessed from other points.
- Notices would be posted to keep the public informed about alternative trail access points and about the construction.
- The trailhead would be restored by replacing existing picnic tables, signs, trash receptacles, and landscaping.
- Displaced parking would be replaced adjacent to the proposed stormwater detention site immediately west of the existing parking.

**Interurban Trail**

- The trail would remain open during construction except when safe travel may be compromised. A trail detour would be in place to accommodate trail users during short-term closures.
- As needed, trail traffic would be controlled by a flagger.

**Cedar River Park, Liberty Park, Cedar River Trail, Cedar River Natural Area, and the Narco Property**

WSDOT and the City of Renton arrived at a consensus on necessary and desirable park improvements and further concurred on whether each park improvement would be considered mitigation for impacts as a result of the I-405 project or would be City-desired recreation improvements. Exhibit 2 summarizes the key decisions concerning avoidance and

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minimization of impacts, proposed mitigation for I-405 effects, and the City-proposed master plan improvements for park and recreation development at each Section 4(f) resource.

### Exhibit 2: Key Decisions Regarding Cedar River Park, Cedar River Trail, Liberty Park, and Stoneway and Narco Properties

<table>
<thead>
<tr>
<th>Design Feature</th>
<th>Avoidance &amp; Minimization</th>
<th>Mitigation for I-405 Impacts</th>
<th>City Master Plan Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cedar River Park and Cedar River Trail</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reconstruct pedestrian bridge and trail over Cedar River</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquire right-of-way from park for construction of northbound off-ramp</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>• Affects baseball/soccer multi-use field. WSDOT will replace with comparable baseball/soccer multi-use field.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Acquire air-rights for ramp</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Replace park access from north (under I-405 near the Cedar River) with new secondary access to park (over Cedar River from Narco property)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Reconfigure service access and parking to west side of community center. Replacement parking may be located under new ramp.</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Avoid effect to Carco Theater</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Avoid effect to community center</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Provide activity meadow</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Provide shelter near activity meadow</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Expand pool and water activity area</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Provide visual screening landscape at northwest corner of park</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Landscape the north bank of the Cedar River</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Relocate the park entrance off of SR 169 about 250 feet east</td>
<td></td>
<td>2/3</td>
<td>1/3</td>
</tr>
<tr>
<td>Shift flyover alignment to SR 169 median</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Avoid impact to park property footprint</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>• Reduce visual encroachment to park (aquatic facilities)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Determine and address potential noise and aesthetic effects through the environmental process</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td><strong>Liberty Park</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create new park access off of Bronson Way with the elimination of the Houser Way/Bronson Way intersection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Replaces access from the south to Liberty Park</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>• Relocates access to teen center</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>• Eliminates ball park stadium</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>• Converts abandoned Houser Way parking to recreation use</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Upgrade trail system to accommodate maintenance and emergency vehicles</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Convert abandoned Houser Way to service access road</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Relocate tennis courts</td>
<td></td>
<td>½</td>
<td>½</td>
</tr>
</tbody>
</table>
### Liberty Park (continued)

<table>
<thead>
<tr>
<th>Design Feature</th>
<th>Avoidance &amp; Minimization</th>
<th>Mitigation for I-405 Impacts</th>
<th>City Master Plan Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relocate skate park</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Provides area for maintenance access to wells 1, 2, and 3</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Replaces drive-by security lost with closure of Houser Way</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reconfigure picnic/tot-play area</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Relocate “small” ball field</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Expand teen center</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Relocate basketball courts</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Create “meadow” area to replace stadium and skate park</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Create “meadow” area to replace “mini” ball field</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Extend railroad structure span north to reduce embankment and provide connectivity to adjacent parks</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

#### Stoneway Property⁵

<table>
<thead>
<tr>
<th>Design Feature</th>
<th>Avoidance &amp; Minimization</th>
<th>Mitigation for I-405 Impacts</th>
<th>City Master Plan Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquire Stoneway property to support:</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Two athletic fields - to replace “Big Liberty” ball field and Cedar River combination (soccer/baseball) field</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• One athletic field - to replace “Little Liberty” ball field</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construct two athletic fields to replace the “Big Liberty” ball field and Cedar River combination (soccer/baseball) field, along with restrooms, concessions, and parking sufficient to support these two fields</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Construct one athletic field to replace the “Little Liberty” ball field, along with restrooms and parking facilities incremental to those facilities needed to support the athletic field replacements for the “Big Liberty” ball field and Cedar River combination field noted in the above item.</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

#### Narco Property (and Cedar River Natural Area)

<table>
<thead>
<tr>
<th>Design Feature</th>
<th>Avoidance &amp; Minimization</th>
<th>Mitigation for I-405 Impacts</th>
<th>City Master Plan Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construct soccer fields</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Construct parking for fields</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Construct pedestrian access from Renton Hill</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Improve existing access road under I-405 to the Narco property. It will also serve as secondary emergency access to Renton Hill.</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Extend new structure over Cedar River to grade-separate trail/pedestrian crossing from vehicles.</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

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⁵ Because the Stoneway property is in private ownership, it is not a Section 4(f) resource. It is included here because it is part of the “Tri-Park Master Plan.”
Coordination

The DOI provided the following comments regarding the Draft Section 4(f) Evaluation for the Tukwila to Renton Project in a letter from William R. Taylor, Director, Office of Environmental Policy and Compliance, Office of the Secretary, DOI, to William Jordan, Environmental Manager, I-405 Project Team. (The DOI letter dated May 19, 2008 is contained in Appendix A.) The responses to the DOI comments on Section 4(f) issues are provided in Exhibit 3.

Exhibit 3: Response to the Department of the Interior Comments on Section 4(f) Issues

<table>
<thead>
<tr>
<th>Department of the Interior Comment</th>
<th>Response to Comment</th>
</tr>
</thead>
</table>
| 1a. **Duwamish-Green River Trail/Christensen Greenbelt**  
The NPS cannot concur that there is no “use” of Duwamish-Green River Trail/Christensen Greenbelt, particularly in this case where the bridge will be low enough so that the trail will have to be lowered by approximately 8 feet to provide adequate clearance for trail users. The NPS considers the new bridge to be a “use” under Section 4(f). | FHWA believes a use does not exist, because the trail will not be incorporated into the transportation facility. The construction of the new bridge does not substantially impair the continued use of the property as a trail in the future.  
While the trail will be lowered, the experience will not change for the trail user. Even if this was deemed a use under 4(f), there are no feasible and prudent avoidance alternatives and the project currently incorporates all possible planning to minimize harm. |
| 1b. **It is also a conversion under Section 6(f)(3) of the LWCF Act.** | Please see response to Comment No. 3 for Section 6(f) resources. |
| 2. **Cedar River Natural Area**  
On page 4-2 and 4-3, Exhibits 4-1 and 4-2, respectively, Cedar River Natural Area is not considered a 4(f) resource, because it is not considered significant as a park. It appears that the City of Renton Parks Department concluded it was not significant as a park, because it was not included in the 2003 Park, Recreation, and Open Space Implementation Plan. We are perplexed that this area is not considered significant, since the open space appears to be contiguous to the Narco Site and the Cedar River Trail, and part of the larger complex of parks (i.e., Liberty Park, Cedar River Park, and the Narco Site). We believe that these sites should be viewed jointly and that this larger area seems to represent an excellent opportunity to preserve contiguous park land and open space in an increasingly urbanized area. | After additional coordination with the City of Renton, FHWA has determined that the entire Cedar River Natural Area is considered a Section 4(f) resource. However, the Draft Section 4(f) Evaluation is still accurate with regard to how effects and mitigation are characterized. Please also see letter from the City of Renton dated July 14, 2008 in Appendix C. |
| 3. **Duwamish-Green River Trail/Christensen Greenbelt**  
Construction of the new Tukwila Parkway bridge and the I-405 northbound on-ramp from State Route 181 will result in a 6(f) conversion. | The Draft Section 4(f) Evaluation is not intended to discuss Section 6(f) resources. Please see Chapter 5 and Chapter 6 of the EA for more discussion on Section 6(f) resources.  
WSDOT will ensure compliance with requirements from both the National Park Service and the State Recreation and Conservation Office prior to project construction, which may affect Section 6(f) resources. |
Exhibit 3: Response to the Department of the Interior Comments on Section 4(f) Issues

<table>
<thead>
<tr>
<th>Department of the Interior Comment</th>
<th>Response to Comment</th>
</tr>
</thead>
</table>
| 4. Duwamish-Green River Trail Trailhead  
The project will result in a conversion of the Duwamish-Green River Trail Trailhead under Section 6(f).  
In summary, the conclusion in the Draft Section 4(f) Evaluation that 6(f) conversion issues have been avoided is in error. There are two conversions that will result from the project: one for the new bridge over Duwamish-Green River Trail/Christensen Greenbelt, and one for the highway expansion where it impacts Duwamish-Green River Trail Trailhead. | WSDOT will ensure compliance with requirements from both the National Park Service and the State Recreation and Conservation Office prior to project construction, which may affect Section 6(f) resources. |

The City of Renton provided the following comments regarding the Draft Section 4(f) Evaluation for the Tukwila to Renton Project in a letter from Keith Woolley, I-405 Project Coordinator for the City of Renton Department of Public Works Transportation Division to William Jordan, Environmental Manager, I-405 Project Team. (The City’s letter dated May 22, 2008 is contained in Appendix B.) The responses to the City’s comments on Section 4(f) issues are provided in Exhibit 4.

Exhibit 4: Response to the City of Renton Comments on Section 4(f) Issues

<table>
<thead>
<tr>
<th>City of Renton Comment</th>
<th>Response to Comment</th>
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</thead>
</table>
| 1. The Panther Creek Wetlands Open Space, as identified in the City of Renton 2003 Long-Range Park, Recreation, and Open Space Plan, shows this area to be developed in the future to include a boardwalk with interpretive materials, viewpoints and trails systems. In addition, the City’s adopted Trails Master Plan designates this area as a trail location connecting west to the Springbrook Trail and east to the Cascade Trail. While not currently open to the public, this will be a major connection to trails to the east and west. The City requests the EA identify this connection under SR 167. This should be designated as a 4(f) property. | The 2003 Park, Recreation, and Open Space Plan indicates the City’s Public Works Department has plans to develop this site as a water retention area. The plan further states this development “…creates several opportunities for passive recreation. Proposed facilities at the site could include:  
• Boardwalk/interpretive trails  
• Viewpoint areas/vistas  
• Trail systems”  
After additional coordination with the City of Renton, FHWA has determined that due to the lack of public access and a lack of a specific development plan for this property, this site is currently not a Section 4(f) resource. The City of Renton has agreed with this determination in its July 14, 2008 letter in Appendix C. |
| 2. The Cedar River Natural Area was acquired with WWRP (Washington Wildlife and Conservation Program) funding administered by the RCO along with the NARCO property. This was completed as one acquisition. $500,000 was granted by the RCO. This property should be listed as a 4(f) parcel throughout the EA. | After additional coordination with the City of Renton, FHWA has determined that the entire Cedar River Natural Area is considered a Section 4(f) resource. However, the Draft Section 4(f) Evaluation is still accurate with regard to how effects and mitigation are characterized. Please also see City of Renton letter dated July 14, 2008 in Appendix C. |
### Exhibit 4: Response to the City of Renton Comments on Section 4(f) Issues

<table>
<thead>
<tr>
<th>City of Renton Comment</th>
<th>Response to Comment</th>
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<tbody>
<tr>
<td>3. The EA defines a &quot;constructive use,&quot; and on page 5-48 indicates that noise, visual</td>
<td>The project's noise analysis demonstrates that while these resources are currently above the FHWA noise abatement criteria, noise barriers are either not feasible or are not reasonable. The museum and the library receive most of their noise from local surface streets and are at a distance away from I-405 that makes noise reduction techniques less effective. The Tri-Park area does receive noise from I-405. However, as referenced in the Noise Discipline Report included in the EA as Appendix N, a noise barrier is not reasonable under WSDOT's feasible and reasonable criteria as defined by WSDOT's Traffic Noise Analysis and Abatement Policy and Procedures, which is consistent with FHWA noise policy.</td>
</tr>
<tr>
<td>quality, and air quality studies were completed for the Tukwila to Renton Project EA</td>
<td></td>
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<tr>
<td>and the studies found that the project would not have constructive uses at any of the</td>
<td></td>
</tr>
<tr>
<td>recreational properties. The City disagrees with this conclusion. The City requests</td>
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</tr>
<tr>
<td>noise barriers to be constructed to reduce the increased impacts and noise to the City's</td>
<td></td>
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<td>Tri-Park complex, museum, and library.</td>
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</table>
Conclusion

In accordance with 23 CFR 774.3, the following is a summary of the findings of the Final Section 4(f) Evaluation:

- The purpose of the Tukwila to Renton Project is to improve safety, reduce congestion, and add travel capacity.

- Despite an extensive alternatives process, no prudent and feasible avoidance alternatives have been identified by the agencies or the public that would achieve the project’s purpose and need while avoiding use of five Section 4(f) resources: Duwamish-Green River Trail Trailhead, Cedar River Park, Cedar River Trail, Liberty Park, and the Narco property.

- Two project design alternatives were identified in the vicinity of Veterans Memorial Park. The Mill Avenue design option was advanced as a feasible and prudent avoidance alternative. This alternative avoided the direct use of Veterans Memorial Park.

- Mitigation and minimization measures have been identified that reduce the effects on the recreation qualities to an acceptable level.

Based on the above considerations, FHWA has concluded that there are no prudent and feasible avoidance alternatives to the use of Duwamish-Green River Trail Trailhead, Cedar River Park, Cedar River Trail, Liberty Park, and the Narco property, and the proposed action includes all possible planning to minimize harm resulting from such use of these Section 4(f) resources.
## Acronyms and Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ADA</td>
<td>Americans with Disabilities Act</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>dBA</td>
<td>Decibels in the A-weighted scale</td>
</tr>
<tr>
<td>DOI</td>
<td>U.S. Department of the Interior</td>
</tr>
<tr>
<td>EA</td>
<td>Environmental Assessment</td>
</tr>
<tr>
<td>FHWA</td>
<td>Federal Highway Administration</td>
</tr>
<tr>
<td>FONSI</td>
<td>Finding of No Significant Impact</td>
</tr>
<tr>
<td>I</td>
<td>Interstate (as in I-405)</td>
</tr>
<tr>
<td>LWCF</td>
<td>Land and Water Conservation Fund</td>
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<tr>
<td>LWFCA</td>
<td>Land and Water Conservation Fund Act</td>
</tr>
<tr>
<td>NAC</td>
<td>Noise-abatement criteria</td>
</tr>
<tr>
<td>NPS</td>
<td>National Park Service</td>
</tr>
<tr>
<td>RCO</td>
<td>Washington State Recreation and Conservation Office</td>
</tr>
<tr>
<td>SR</td>
<td>State Route</td>
</tr>
<tr>
<td>USC</td>
<td>U.S. Code</td>
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<tr>
<td>USDOT</td>
<td>U.S. Department of Transportation</td>
</tr>
<tr>
<td>WSDOT</td>
<td>Washington State Department of Transportation</td>
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<tr>
<td>WWRP</td>
<td>Washington Wildlife and Recreation Program</td>
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Appendix A: Department of the Interior Letter Dated May 19, 2008
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Mr. William Jordan
I-405 Project Office
Washington State Department of Transportation
600 – 108th Avenue NE, Suite 405
Bellevue, WA 98004

Dear Mr. Jordan:

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Assessment (DEA) and the Draft Section 4(f) Evaluation for the I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 – Phase 2), King County, Washington. The Department offers the following comments:

Section 4(f) Comments

The Draft Section 4(f) Evaluation was very well-written and contained helpful maps and aerials. The document illustrated proposed impacts very clearly. The consultant who worked on this document did an excellent job of clearly incorporating 6(f) issues. To make the Final Section 4(f) Evaluation even more helpful than the draft, we recommend showing the existing right-of-way and any proposed new right-of-way on most of the map exhibits.

Duwamish-Green River Trail/Christensen Greenbelt

Part of the proposed project involves constructing a new bridge over the Duwamish-Green River Trail/Christensen Greenbelt, which is adjacent to the Green River. The Draft Section 4(f) Evaluation does not consider this a “use,” because no land will be permanently incorporated into the transportation facility. See Page 5-5.

This statement is consistent with Federal Highway Administration’s (FHWA’s) position of not recognizing “air rights” to be a “use,” unless it substantially impairs the protected attributes of the 4(f) resource. See FHWA’s Section 4(f) Policy Paper, available at http://www.environment.fhwa.dot.gov/projdev/4fpolicy.asp#1.
However, the National Park Service (NPS) disagrees with FHWA’s position insofar as “air rights” include occupancy of areas above land that require an easement. We believe FHWA’s treatment of Section 4(f) regarding air rights is inconsistent with its statement in the Section 4(f) Policy Paper that “[l]and will be considered permanently incorporated into a transportation project when it has been purchased as right-of-way or sufficient property interests have been otherwise acquired for the purpose of project implementation.” Furthermore, this represents a conversion of use under Section 6(f)(3) of the Land and Water Conservation Fund (LWCF) Act.

The NPS cannot concur that there is no “use” of Duwamish-Green River Trail/Christensen Greenbelt, particularly in this case where the bridge will be low enough so that the trail will have to be lowered by approximately 8 feet to provide adequate clearance for trail users. The NPS considers the new bridge to be a “use” under Section 4(f). It is also a conversion under Section 6(f)(3) of the LWCF Act.

Cedar River Natural Area

On page 4-2 and 4-3, Exhibits 4-1 and 4-2, respectively, Cedar River Natural Area is not considered a 4(f) resource, because it is not considered significant as a park. It appears that the City of Renton Parks Department concluded it was not significant as a park, because it was not included in the 2003 Park, Recreation, and Open Space Implementation Plan. We are perplexed that this area is not considered significant, since the open space appears to be contiguous to the Narco Site and the Cedar River Trail, and part of the larger complex of parks (i.e., Liberty Park, Cedar River Park, and the Narco Site). We believe that these sites should be viewed jointly and that this larger area seems to represent an excellent opportunity to preserve contiguous park land and open space in an increasingly urbanized area.

Section 6(f) of the LWCF Act

Duwamish-Green River Trail/Christensen Greenbelt

The Draft Section 4(f) Evaluation does a good job of discussing 6(f) issues. However, some of the discussion should be clarified. Construction of the new Tukwila Parkway bridge and the I-405 northbound on-ramp from State Route 181 will result in a 6(f) conversion. This should be clearly stated throughout (see pages x to xi, 2-6, 4-7 to 4-8, and 5-4 to 5-5) and addressed.

Duwamish-Green River Trail Trailhead

The project will result in a conversion of the Duwamish-Green River Trail Trailhead under Section 6(f).
In summary, the conclusion in the Draft Section 4(f) Evaluation that 6(f) conversion issues have been avoided is in error. There are two conversions that will result from the project: one for the new bridge over Duwamish-Green River Trail/Christensen Greenbelt, and one for the highway expansion where it impacts Duwamish-Green River Trail Trailhead.

Please continue to coordinate with the Washington Recreation and Conservation Office and NPS on 6(f) conversion issues.

Section 7 of the Endangered Species Act (ESA)

The proposed action was the subject of a formal ESA Section 7 consultation conducted over the period June 2007 – March 2008 (FWS Ref. No. 13410-2007-F-0416). On March 3, 2008, the U.S. Fish and Wildlife Service (Western Washington Fish and Wildlife Office - Lacey) and National Marine Fisheries Service (Washington State Habitat Office - Lacey) (Services) signed a joint Biological Opinion (BO) concluding Section 7 consultation with the FHWA.

The proposed action’s unavoidable impacts to instream habitat and habitat connectivity, and potential direct and indirect effects to watershed functions and surface water quality, and their effects on bull trout and Puget Sound Chinook salmon were the focus of the section 7 consultation. During the course of consultation, the FHWA and Washington State Department of Transportation (WSDOT) committed to implementation of measures described in the Services’ joint BO. We offer the following comments as they relate to the Section 7 ESA consultation:

- The FHWA/WSDOT committed to capturing and treating stormwater runoff from an area equivalent to the net-new impervious surface associated with the highway and related improvements, plus stormwater runoff originating from approximately 64 acres of existing, currently untreated impervious surface. The DEA and supporting documentation accurately reflect these agreed-upon measures.

- The FHWA/WSDOT committed to instream habitat and watershed functional enhancements associated with a related activity; the proposed Panther Creek Watershed Rehabilitation Plan. The proponent also committed to in-kind mitigation for unavoidable impacts to the Green and Cedar Rivers. The DEA accurately reflects these measures.

- The FHWA/WSDOT committed to enhancing fish passage at culverts replaced or modified by the project in compliance with the current Memorandum of Agreement between WSDOT and the Washington State Department of Fish and Wildlife. They also agreed to construct other,
concurrent, instream habitat enhancements “in lieu of replacing a fish passage barrier(s)”. While content from the DEA accurately reflects the commitment to further assess and prioritize fish passage enhancements, it does not identify whether and how the proponent will replace lost or impaired functions in the event one or more fish passage corrections are deemed impracticable.

In comments offered previously for the I-405, Renton Nickel Improvement Project (Letter Correspondence with Ms. Allison Ray, WSDOT/ I-405 Corridor Program; dated 11/9/06), U.S. Fish and Wildlife Service (USFWS) expressed similar concerns related to the prioritization of fish passage enhancements:

The EA and supporting documentation should include more information to explain which structures were assessed, what is their current fish passage status and reason(s) for deficiency, and what criteria were used to examine the costs, benefits and feasibility of retrofit for improved passage. Where the project will modify but not correct existing deficient structures, the decision and supporting rationale should be explained in clear and transparent terms.

The U.S. Fish and Wildlife Service remains concerned the WSDOT and FHWA lack a strategy for identifying, prioritizing, and reaching consensus on the necessary and appropriate fish passage corrections, or “in lieu” habitat enhancements, to be undertaken as part of the proposed action (and/or the related “nickel improvements”). We also note the proponent’s plans for correcting (or not correcting) fish passage barriers within the project limits remains a significant issue for the Muckleshoot Tribe tribal interests.

**Contact Information**

If we can be of further assistance, please contact us.

For Section 4(f) questions:

Ms. Kelly Powell  
Realty Specialist & Regional Environmental Coordinator  
National Park Service  
168 S. Jackson St.  
Seattle, WA 98104-2853  
(206) 220-4106  
kelly_powell@nps.gov
For Section 6(f) questions:

Ms. Heather Ramsay
LWCF & UPARR Project Manager
National Park Service
Pacific West Region, Partnership Programs
909 First Avenue, Floor 5
Seattle, WA 98104-1060
(206) 220-4123
heather_ramsay@nps.gov

For Section 7 questions:

Mr. Ryan McReynolds
Transportation Liaison
United States Fish and Wildlife Service
510 Desmond Dr. SE, Suite 102
Lacey, Washington 98503
(360) 753-6047
ryan_mcreynolds@fws.gov

Ms. Emily Teachout
Fish and Wildlife Biologist
United States Fish and Wildlife Service
510 Desmond Dr. SE, Suite 102
Lacey, Washington 98503
(360) 753-9583
emily_teachout@fws.gov

Thank you for the opportunity to provide these comments.

Sincerely,

[Signature]
Willie R. Taylor
Director, Office of Environmental Policy and Compliance

cc: (next page)
cc:
Ms. Leslie Betlach
Director
Renton Parks
Renton City Hall
1055 S. Grady Way
Renton, WA 98057

Mr. Bruce Fletcher
Parks Director
City of Tukwila
6300 Southcenter Blvd.
Tukwila, WA 98188
Appendix B: City of Renton Letter Dated May 22, 2008
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May 22, 2008

Mr. William Jordan
I-405 Environmental Manager
Washington State Department of Transportation
I-405 Project Office
600 108th Avenue NE, Suite 405
Bellevue, WA 98004

Subject: I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 - Phase 2)
Environmental Assessment (EA) Comments

Dear Mr. Jordan:

Previously, the City of Renton provided scoping comments, dated June 2006, for consideration when preparing the subject Environmental Assessment (EA). As noted in our scoping comments, the City of Renton and WSDOT have signed several letters of concurrence regarding the I-405 Master Plan for the segment between I-5 and SR 169.

Continuing in our collaborative efforts on the planning and design of improvements to the I-405 corridor, the City of Renton submits the following comments for consideration with regard to the I-405, Tukwila to Renton Improvement Project (Phase 2) Environmental Assessment.

APPENDICES

We recommend that the letters of concurrence noted above be included or referenced in Appendix B – Agency and Tribal Correspondence.

CHAPTER 3 – DEVELOPING THE ALTERNATIVES

The EA notes the cantilever of I-405 over Main Avenue South. The City would like the EA to note what, if any, unique impacts this may cause to the ownership, operations, and maintenance of different rights-of-way stacked in airspace. It is expected that during future project development, the City and WSDOT will need to develop ownership, operations, and maintenance agreements.
CHAPTER 5.2 – NOISE

The City recommends that noise walls be included to mitigate impacts to the City’s Tri-Parks complex, the City’s historical museum, and the City’s main library. The EA identifies that these parks, the museum, and library already exceed the noise level, and in the case of Cedar River Park, the noise level will increase.

Development of the Cedar River Vicinity Charette was based on the understanding that in order for the northbound I-405 to SR 169 off-ramp to be moved significantly closer to the Renton Community Center, this ramp would include a noise wall.

CHAPTER 5.3 – COMMUNITIES, BUSINESSES, AND PUBLIC SERVICES

The EA should address impacts to private houses on Mill Avenue South where the proposed stacked Mill Avenue is proposed, such as subterranean impacts.

CHAPTER 5.4 – RECREATIONAL AND CULTURAL RESOURCES

The Cultural Resources discipline report should have an additional description regarding the protection of the Renton Coal Mine Hoist Foundation, located between Benson Road and the I-405 southbound off-ramp to SR 515. The text should not indicate that the mine hoist foundation will be removed.

The City requests the Cultural Resources discipline report evaluate the Longacres horsetrack monuments located underneath I-405 just east of the BNSF railroad tracks. Regardless of the results of this analysis, the City would like WSDOT to commit to coordinating with the City in the future regarding the protection or relocation of these monuments.

The Panther Creek Wetlands Open Space, as identified in the City of Renton 2003 Long-Range Park, Recreation, and Open Space Plan, shows this area to be developed in the future to include a boardwalk with interpretive materials, viewpoints and trails systems. In addition, the City's adopted Trails Master Plan designates this area as a trail location connecting west to the Springbrook Trail and east to the Cascade Trail. While not currently open to the public, this will be a major connection to trails to the east and west. The City requests the EA identify this connection under SR 167. This should be designated as a 4(f) property.

The Cedar River Natural Area was acquired with Washington Wildlife and Recreation Program (WWRP) funding administered by the Resource and Conservation Office (RCO) along with the NARCO property. This was completed as one acquisition; $500,000 was granted by the RCO. This property should be listed as a 4(f) parcel throughout the EA.

The EA defines a “constructive use,” and on page 5-48 indicates that noise, visual quality, and air quality studies were completed for the Tukwila to Renton Project EA and the studies found that the project would not have constructive uses at any of the recreational properties. The City
disagrees with this conclusion. The City requests noise barriers to be constructed to reduce the increased impacts and noise to the City’s Tri-Park complex, museum, and library.

CHAPTER 5.5 – VISUAL QUALITY

The EA should also include text regarding the significant effect on visual quality caused by the cantilever of I-405 over Main Avenue South.

CHAPTER 5.6 – WATER RESOURCES

WSDOT needs to work out a schedule to provide the City with the requested information and relevant studies depending on project funding.

The City’s existing underground utilities in the Tri-Parks vicinity will be severely impacted by the project, especially by the new ramp and support structures. The EA should identify these impacts and WSDOT’s commitment to relocate the City’s existing utilities, including but not limited to: water mains, sanitary and storm sewer mains, chemical lines for water treatment, telemetry and power conduits, and vaults. The EA should identify that WSDOT will commit to relocation of these utilities prior to any condemnation and/or conversion of acquired City-owned property to limited access right-of-way. As part of the EA, WSDOT should identify the need for the acquisition of a new utility corridor for the relocation of the existing City utilities impacted by the project.

Should you have any questions or concerns, please contact Keith Woolley, the City’s I-405 coordinator, at (425) 430-7318.

Sincerely,

[Signature]

Gregg Zimmerman, P.E.
Administrator

cc:    Peter Hahn, Deputy Public Works Administrator – Transportation
      Terry Higashiyma, Community Services Administrator
      Lys Hornsby, Utility Systems Director
      Leslie Betlach, Parks Director
      Jim Seitz, Transportation Planning and Programming Supervisor
      Abdoul Gafour, Utility Engineering Supervisor
      File
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Appendix C: City of Renton Letter Dated July 14, 2008
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July 14, 2008

William Jordan, I-405 Environmental Manager
Washington State Department of Transportation
I-405 Project Office
600 – 108th Avenue NE, Suite 405
Bellevue, WA 98004

Subject: I-405, Tukwila to Renton Improvement Project (I-5 to SR 169 – Phase 2)
Clarifying Comments for the Draft Section 4(f) Evaluation

Dear Mr. Jordan:

This letter is in regards to comments the City provided the Washington State Department of Transportation (WSDOT) on the Tukwila to Renton Improvement Project Environmental Assessment (EA) in a letter dated May 22, 2008. The City would like to clarify its position regarding the Panther Creek Wetland Open Space area and the Cedar River Natural Area.

Upon further discussion with WSDOT, the City has determined that the Panther Creek Wetland Open Space would likely only be developed with a multiuse trail if construction occurs for a regional detention within the complex as stated in our 2003 Parks, Trail, and Open Space plan. At this time, we do not consider the Panther Creek Wetland Open Space Area to meet the criteria for a Section 4(f) Resource.

We have also discussed with WSDOT additional details regarding the Cedar River Natural Area. There are two parcels of land acquired by the City from Puget Sound Energy through a quit claim deed. These parcels are encumbered by utility easements and are not part of the Cedar River Natural Area. The effects on the Narco property and associated mitigation as described in WSDOT’s Draft Section 4(f) Evaluation are accurate. No additional effects on the Cedar River Natural Area are expected.

Sincerely,

Lawrence J. Warren
City of Renton Attorney

Cc: Gregg Zimmerman, Administrator, Planning/Building/Public Works
Peter Hahn, Deputy Public Works Administrator – Transportation
Terry Higashiyama, Community Services Administrator
Leslie Betlach, Parks Director