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SEND TO: Paul W. Krueger	FROM: Christine Holt
ATTENTION	DATE: 10/31/06
FAX NUMBER: 206-381-6442	PHONE NUMBER: 206-860-6795

☐ Urgent ☐ Reply ASAP ☐ Please Comment ☐ Please Review ☐ For Your Information

Total Pages (including cover sheet): ___3_____

Letter from Dr. Usha Varanasi, Science and Research Director of the Northwest Fisheries Science Center, regarding SR520.

10/31/2006 15:15 FAX 2068603217 NOAA-NMFS-NWFSC 001

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Fisheries Science Center
2725 Montlake Boulevard East
Seattle, WA 98112-2097

October 31, 2006

Mr. Paul Krueger
Environmental Manager
SR 520 Project Office
414 Olive Way, Suite 400
Seattle, WA 98101

Dear Mr. Krueger:

NOAA's National Marine Fisheries Service (NMFS) Northwest Fisheries Science Center and NMFS predecessor agencies have been at the forefront of marine fisheries research in the Pacific Northwest for seven decades, and currently is the science lead for Pacific salmon and southern resident killer whale recovery efforts and the science to manage 89 groundfish fishery species. The Northwest Fisheries Science Center is also one of only three NOAA Centers of Excellence in Oceans and Human Health. The headquarters and principal offices of the Center are situated along Seattle's Portage Bay, near the University of Washington campus. This NOAA facility, commonly known as the Montlake Laboratory, houses more than 350 staff and 35 research laboratories, plus the Science Director's office and the directorates for each of five distinct science divisions. In addition, the facility directs the research efforts of its five field research stations located throughout Washington and Oregon. Unique features of the Montlake Laboratory include an innovative freshwater re-circulation system and aquaculture facility for full life-cycle research, sample handling and extraction laboratories for biotoxin and contaminants research, and extensive genetics and physiology laboratories certified for handling radioactive materials. Built in 1931, the Center's "West Building" was the first Federal fisheries building on the U.S. west coast.

F-001-001 The Northwest Fisheries Science Center has performed a preliminary assessment of the impacts of each of the various alternatives identified in your recent Draft Environmental Impact Statement of August 16, 2006. With the exception of the "No Action" alternative, the impacts of the various alternatives could be very severe leading to displacement and disruption, at the very minimum, of critical research activities conducted at the Montlake Laboratory. This includes the Center's important research on the Puget Sound ecosystem, including research on the impacts of toxic contaminants, in addition to Pacific salmon and killer whale recovery research. Impacts to the Center could also reflect in the loss of jobs currently in Washington State, as a result of transferring staff to other sites. Construction associated with the proposed alternatives would also have significant noise and vibration effects on the operations of the Center and all proposed

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F-001-001 alternatives would result in loss of laboratory property and some buildings. Some of these structures would need to be relocated on our Montlake property.

As the Northwest Fisheries Science Center works collaboratively with the University of Washington on many important science issues, and because of the current and historical scientific exchange between the Northwest Fisheries Science Center and the University of Washington, the Center intends to remain on its Montlake campus site. Close proximity to the University of Washington is critical for the success of Center programs and for the many students who work with our scientists at the Montlake Laboratory

Thank you for providing us an opportunity to comment on this project.

Sincerely,

Usha Varanasi

Usha Varanasi, Ph.D.
Science and Research Director
Northwest Fisheries Science Center

10/31/2006 15:16 FAX 2068603217 NOAA-NMFS-NWFSC 003

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

October 31, 2006

Reply To
Attn Of: ETPA-088

Ref: 00-013-FHW

Mr. James Christian
Federal Highway Administration
Washington Division
Suite 501 Evergreen Plaza
Olympia, WA 98501-1284

RECEIVED
NOV 02 2006
WSDOT

Dear Mr. Christian:

The U.S. Environmental Protection Agency (EPA) has reviewed the draft Environmental Impact Statement (EIS) for the SR520 Bridge Replacement and HOV Project in King county, Washington (CEQ No. 20060342), in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Section 309, independent of NEPA, specifically directs EPA to review and comment in writing on the environmental impacts associated with all major federal actions. Under our policies and procedures, we evaluate the document's adequacy in meeting NEPA requirements.

The draft EIS is proposing to replace SR 520's Portage Bay and Evergreen Point bridges and improve the existing roadway between I-5 in Seattle and Bellevue Way on the Eastside. Washington State Department of Transportation (WSDOT) evaluated the no action alternative, a four lane alternative and a six lane alternative. With the six lane alternative, WSDOT developed seven design options. Three of these design options are in the City of Seattle and four are on the east side of Lake Washington. WSDOT has not identified a preferred alternative.

F-002-001

Based on our review and evaluation, we have assigned a rating of EC-2 (Environmental Concerns, Insufficient Information) to this Draft EIS (see Enclosure 1). EPA is particularly concerned about the Pacific Street Interchange option because there is potential for significant impacts to endangered species that might be corrected by either project modification or another alternative. Another major concern is with the South Kirkland Park and Ride – 108th Ave. NE design option; because this option does not appear to be the least environmentally damaging practicable alternative and other feasible alternatives exist. EPA's rating, and a summary of our comments, will be published in the *Federal Register*.

F-002-001

EPA's detailed comments on the draft EIS are attached. In addition to our primary concerns about the Pacific Street Interchange option, the South Kirkland Park and Ride – 108th Ave. NE option, and avoidable impacts to aquatic resources, we are also concerned about indirect and cumulative impacts, inconsistent information in the draft EIS, unequal evaluation of alternatives, and the format and organization of the document.

Thank you for the opportunity to review this draft EIS. If you would like to discuss these comments, please contact Krista Rave-Perkins at (206) 553-6686 or myself at (206) 553-1601.

Sincerely,

Christine B. Reichgott, Manager
NEPA Review Unit

Enclosures

cc: Paul Krueger, WSDOT
Kitty Nelson, NOAA
Emily Teachout, USFWS
Terry Swanson, Ecology
Teresa Eturaspe, WDFW
Stewart Reinbold, WDFW
Jack Kennedy, Corps of Engineers

EPA's Detailed Comments
SR 520 Bridge Replacement and HOV Project
Draft Environmental Impact Statement

F-002-002

Pacific Street Interchange Option:

EPA is concerned that the potential environmental impacts to aquatic resources are greater under the Pacific Street Interchange Option (PSIO) than presented in the draft EIS. Our concerns include the construction, column placement and the normal operation of an additional bridge structure to open water, near shore and wetland habitats, and the potential to significantly affect already struggling fish populations and endangered species, particularly salmon. In addition, EPA is concerned about the possible impacts to the Washington Park Arboretum, which is nationally and internationally recognized as valuable.

WSDOT briefly identifies possible construction impacts on fish species, including noise and vibration from pile driving that can result in outright fish kill (page 8-25). The additional impacts from temporary work bridges and platforms are a common element among the alternatives that include bridge structures. However, given the length and size of the PSIO, the magnitude of impact may be greater. In addition, the PSIO would shade approximately one more acre and would involve more pile driving. Barge mounted cranes would be used for both the PSIO and the Second Montlake Bridge. Again, because there is a significant difference in the length and size of the bridge structures, we would assume that the length of construction time would be much shorter for the Second Montlake Bridge than for the PSIO.

Additional potential wildlife impacts to bird species are briefly mentioned on Page 8-26. Of particular concern is the "Broadmoor" Bald Eagle pair with three nests located in very close proximity to the construction area. While this impact would take place under most of the alternatives, the greatest impact would be from the PSIO. The draft EIS mentions that disturbance could effect the nesting success over 4-5 years. "However, the pair has demonstrated a tolerance to noise and urban conditions, and it is possible that they would tolerate the new disturbance." EPA is concerned that potential impacts to the Bald Eagle may be underestimated. The amount of noise that is generated by pile driving (which can be greatly magnified over water) is not the same type of noise as typical urban conditions.

As stated in an earlier correspondence to WSDOT (attached), EPA believes it is important to rigorously explore alternatives related to the Pacific Street Interchange option that would minimize possible severe adverse impacts to the environment. We are encouraged by WSDOT's recent attempts to begin discussions with government agencies to explore options to reduce impacts to fish, particularly salmon. We recommend that these discussions continue so that WSDOT will work with all resource agencies to develop an alternative that fully minimizes impacts to wildlife species and develop mitigation options to offset any remaining unavoidable impacts.

F-002-003

Aquatic Resources:

Based on information in the draft EIS, it is difficult to conclude that there is overall benefit derived from either of the South Kirkland Park and Ride design options. Page 7-9 exhibit 7-6 shows an improvement to the 108th intersection and a negative effect on the 92nd Avenue NE/520 intersection. The 108th design option would fill approximately 1.4 additional acres of wetlands with no clear benefit. Therefore, EPA would recommend selection of the 6 Lane Alternative because it appears to be the least environmentally damaging practicale alternative. If additional information is provided that indicates a clear improvement to transit using one of the design options, EPA recommends the Bellevue Way design option because there is no increase in wetland fill..

F-002-004

The Bicycle/Pedestrian Path to the North is identified as having less wetland impacts than the 6 Lane Alternatives. It appears to us that this option would be the least environmentally damaging practicable alternative, because this alternative would decrease the overall impacts of wetland fill while still meeting the project's goal to increase mobility for people and goods.

F-002-005

In the draft EIS, WSDOT states "In Seattle, these effects would occur to high quality, lake fringe wetlands in the Arboretum/Foster Island area. This wetland type is rare in the Lake Washington watershed." (page 4-40) In addition, "The wetlands also filter sediments and pollutants from the water, produce organic matter that nourishes aquatic life and provide habitat for a variety of birds and other wildlife." EPA agrees and considers these wetlands to be critical to Lake Washington and the greater surrounding ecosystem. These wetlands play a crucial role for many endangered species, including Chinook salmon and Bull Trout for habitat and water quality. Because of this, EPA views these wetlands as aquatic resources of importance.

F-002-006

We would like to clarify that the Clean Water Act is administered by the EPA. While some programs, such as the stormwater program, have been delegated to the Washington Department of Ecology (Ecology), EPA retains an oversight role. Also, both EPA and the Corps of Engineers administer the wetlands program. We recommend that the final EIS correct the sections that discuss this information (e.g. page 3-39 and page 5-44).

F-002-007

We are concerned that construction of new bridges and approach structures could affect aquatic habitat for up to 5 years (page 4-39) which would be considered to be long term impacts. Also on page 8-25, WSDOT says that "some wetland vegetation could be removed temporarily during construction...these effects could be long term (although not permanent). " EPA recommends that the final EIS include mitigation for the temporal loss.

F-002-008

Pg 7-31, Wetlands, 'The project team assessed potential wetland mitigation opportunities in the individual basins and determined that there is no undeveloped area of suitable size for mitigation available in any of the individual project basins, nor are there enough suitable areas across the basins to achieve the total acreage needed." However, EPA is aware that there are several potential mitigation sites within the project area, both in Seattle and on the Eastside. We would be happy to work with the project team to include these sites in the mitigation plan.

F-002-009

Indirect and Cumulative Impacts:

F-002-009

In the cumulative effects analysis, WSDOT has concluded that the mitigation required of transportation and development projects through regulations that protect critical areas and water quality would compensate for the impacts due to cumulative effects. However, there are additional impacts such as vegetation loss and non-endangered wildlife habitat loss, that would not be mitigated under this scenario. For this project, 47.7 acres of vegetated habitat will be lost. WSDOT identified the 47.7 acres of upland habitat as "relatively rare in the urban environment (page 4-40). These impacts are magnified due to impacts that have occurred from past, present and future known impacts. Impacts from reasonably foreseeable construction on 520 should be included in a cumulative effects analysis if they impact the same resources as this project. EPA understands is that plans are now being developed to widen SR520 from West Lake Sammamish Parkway to SR202 and improve ramps. We recommend that these plans be included in final EIS cumulative impacts section.

F-002-010

Conclusion Statements and Inconsistent Information in the Draft EIS:

The draft EIS contains conclusion statements that either lack support data or conflict with information found in the technical appendices. Consistency and technically sound information is necessary to provide a thorough and objective analysis. EPA has included several examples below.

On page 3-29, Evaluating the Pacific Street Interchange Option Box, the last paragraph says that WSDOT determined that the interchange south of Marsh Island was the best option. "It would have ....only slightly greater net effects on aquatic habitat compared to the 6 Lane Alternative or the interchange location along the East Montlake shoreline." EPA was unable to locate information in the draft EIS or in the appendices that supports the statement that there will be only slightly greater net effects. In addition, there is information available from other agencies indicating that additional columns would have a significant impact on aquatic habitat and native fish populations.

In the draft EIS (pg 4-35), a conclusion statement says "...in light of the overall benefits to low income populations from substantially decreased transit travel times, we have concluded that the project would not result in disproportionately high and adverse effects on minority or low income populations." The Environmental Justice Technical Appendices (pg 37) and the Addendum (pg 10) show significant adverse effects to low income populations unless mitigation measures are implemented. We recommend that the final EIS bring forward the conclusions and recommendations from the Appendices and Addendum.

The draft EIS, page 4-36, says "With mitigation measures in place, including measures described in the ecosystems sections of the Draft EIS, the project will not cause disproportionately severe and adverse effects on Native American fishing in the project area." EPA found no data that supports this statement. EPA recommends that the project team consult with the Muckleshoot Tribe about the potential impacts of the project to their fishing rights and appropriate mitigation.

On page 4-41, figure 4-17, the Pacific Street Interchange Option (PSIO) would have a combined total buffer effect of 6.6 acres. However, this is inconsistent with the Appendices E Addendum, Figure 7, which indicates buffer effects of 4.8 acres.

F-002-010

Page 7-31 states "In addition to improving water quality, stormwater control and treatment would enhance habitat for fish and other aquatic life." EPA could not find any information that supports this statement. In fact, federal and state agencies tasked with Endangered Species Act jurisdiction believe that additional methods need to be put in place beyond traditional stormwater treatment.

F-002-011

Alternatives Not Equally Evaluated in the Draft EIS:

EPA is concerned that alternatives and the design options are not equally evaluated throughout the draft EIS. We understand that some alternatives may need additional explanation especially when there may be controversy or opposition surrounding an alternative. However, the draft EIS needs to compare all of the alternatives objectively and evaluate them using the same criteria.

On page 4-41, Exhibit 4-17, there is an important Wetland and Buffer Effects comparison table. One of the options, the South Kirkland Park and Ride – Bellevue Way design option is not included in the table. The Second Montlake Bridge option is included as a footnote. Even if these options do not result in additional wetland impact, they should be included in the table so that there is a true comparison chart for the draft EIS reviewer.

Some examples in the draft EIS are misleading, such as the story about the commuter on page 4-5. The scenario is a woman traveling from Seattle I-5 interchange to 124th Avenue NE, with the Pacific Street Interchange design option reducing her commute time to a minute less than it is today. However, a commuter from I-5 would not use Pacific Street Interchange and there is no explanation as to why this interchange would improve the woman's drive time. A one minute difference in travel time may be well within the range of error of a travel time analysis and so may be insignificant. In addition, there is no discussion about this scenario using the other alternatives in the draft EIS, such as taking the bus with the 6 Lane alternative and the improved transit assumed throughout this document.

In Chapter 7: Detailed Comparison of Alternatives – Eastside, the South Kirkland Park and Ride - Bellevue Way option is not included in tables on page 7-30, exhibit 7-17 or page 7-31, exhibit 7-18. The Bellevue Way design option is also not included in either the Addendum to Ecosystems Discipline Report, or the Addendum to the Indirect and Cumulative Effects Discipline Report. Again, if there are no impacts to Ecosystems under this design option, then that should be identified in the report in order to maintain an objective and thorough comparison.

In addition, the Addendum to the Indirect and Cumulative Effects Discipline Report identifies three of the design options to be discussed. The South Kirkland Park and Ride – 108th option is explained and then dropped from the remaining report.

F-002-012

Draft EIS Format and Document Organization:

The purpose of NEPA is not to generate excellent paperwork, but to foster excellent action. (National Environmental Policy Act Regulations, 1500.1 (c)). There is no question that many EISs have become overly long and difficult for readers to understand. In revising the EIS format, there is a balancing act between presenting information in a format to achieve

F-002-012

meaningful public participation and including enough detail and depth for decision makers and agencies with statutory jurisdiction. WSDOT has made a determined effort to make this draft EIS readable, accessible and understandable to the public. We applaud the effort and believe that you have succeeded, especially with the attractive graphics and tables and the question and answer format. Our comments on format are meant to be helpful to you in preparing the final EIS.

The alternatives Section, as the CEQ regulations conceived them, is the heart of the EIS, sharply defining the issues and providing a clear basis for choice. This draft EIS presents the alternatives, however it quickly becomes confusing. One solution is to develop a master table, or matrix, to provide a comparative overview of each alternative and design options. This would have been particularly helpful for this draft EIS because of the number of design options within the 6 Lane Alternative. We recognize that a summary matrix to show the differences between alternatives should never be used as the primary source of information about each alternative. But, it helps the reviewer organize and stay clear about each alternative and the tradeoffs associated with it.

EPA could not determine whether the Montlake Freeway Stop design option is a "stand alone" option under the 6 Lane Alternative. On page 3-29, in the description of this option, it is linked directly to both the Pacific Interchange design option and the Second Montlake Bridge design option. EPA was not able to find any additional information that discussed this option without including the other two Seattle design options. If this option would not happen without either one of the other two design options, then it should be eliminated as a stand alone option. If it does have the potential to be implemented on it's own, then that should be clarified.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

April 17, 2006

Reply to
Attn Of: ECO-088

MEMORANDUM

SUBJECT: SR 520 Bridge Replacement and HOV Project
Advisory Comments for Concurrence Point 2

FROM: Christine B. Reichgott
Manager, NEPA Review Unit

TO: Paul Krueger
WSDOT Project Manager

F-002-013

The following advisory comments are based on EPA's review of the information provided in the SR 520 Bridge Replacement and HOV Project Concurrence Point 2 Submittal of Feb 14, 2006 and two emails (4/11/06 and 4/6/06) from Paul Krueger. Should you have any questions or would like to discuss these advisory comments, please contact Patty Betts at 360-407-6925 or Krista Rave-Perkins at 360-553-6686.

Please also refer to EPA's advisory comments at the two previous Concurrence Point on Range of Alternatives. They are still relevant and should continue to be considered.

Range of Alternatives

1. EPA is concerned about the potential environmental impacts to aquatic resources associated with the Pacific Street Interchange option. Our concerns include construction and operation impacts to open water, near shore, and wetland habitats and species. Montlake Cut and its connection to adjacent bays are a sensitive area for fish migration. Work and infrastructure in this area has the potential to significantly affect already struggling fish populations. We believe the construction and operation impacts to these resources need to be understood and mitigated to the fullest extent possible. Marsh Island is another area with important ecological and social functions and values (e.g. wetlands, near shore habitats, aesthetics, and recreation).

   As the agencies work to select appropriate alternatives for analysis in the DEIS, we believe it is important to rigorously explore alternatives related to the Pacific Street

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F-002-014

5. In order to be ready for CP#3, EPA will want to have pre FEIS information, in the form of either a PFEIS to review or the PFEIS information and responses to relevant DEIS comments. CP#3 includes concurrence on the preferred alternative and is based on the revised analysis. DEIS comments normally influence the environmental information, resulting in revised or new environmental information that is used to determine the preferred alternative and mitigation plan.

F-002-015

6. The CP#3 Mitigation Plan is an aquatic resource mitigation plan that should address short term, long term, direct and indirect impacts to aquatic resources and the functions that they provide.

   We would be interested in a mitigation plan that supports improving and protecting the overall watershed condition. As part of the impact analysis, we encourage consideration of the impacts and possible mitigation in context with overall watershed health.

F-002-016

A. Section 1502.14 requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.

2b. Must the EIS analyze **alternatives outside the jurisdiction** or capability of the agency or beyond what Congress has authorized?
A. An alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable. A potential conflict with local or federal law does not necessarily render an alternative unreasonable, although such conflicts must be considered. Section 1506.2(d). Alternatives that are outside the scope of what Congress has approved or funded must still be evaluated in the EIS if they are reasonable, because the EIS may serve as the basis for modifying the Congressional approval or funding in light of NEPA's goals and policies. Section 1500.1(a).

6a. **Environmentally Preferable Alternative.** What is the meaning of the term "environmentally preferable alternative" as used in the regulations with reference to Records of Decision? How is the term "environment" used in the phrase?
A. Section 1505.2(b) requires that, in cases where an EIS has been prepared, the Record of Decision (ROD) must identify all alternatives that were considered, ". . . specifying the alternative or alternatives which were considered to be environmentally preferable." The environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources. The Council recognizes that the identification of the environmentally preferable alternative may involve difficult judgments, particularly when one environmental value must be balanced against another. The public and other agencies reviewing a Draft EIS can assist the lead agency to develop and determine environmentally preferable alternatives by providing their views in comments on the Draft EIS. Through the identification of the environmentally preferable alternative, the decisionmaker is clearly faced with a choice between that alternative and others, and must consider whether the decision accords with the Congressionally declared policies of the Act.

6b. **Who recommends or determines** what is environmentally preferable?
A. The agency EIS staff is encouraged to make recommendations of the environmentally preferable alternative(s) during EIS preparation. In any event the lead agency official responsible for the EIS is encouraged to identify the environmentally preferable alternative(s) in the EIS. In all cases, commentors from other agencies and the public are also encouraged to address this question. The agency must identify the environmentally preferable alternative in the ROD.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
WASHINGTON HABITAT BRANCH OFFICE
510 Desmond Drive SE/Suite 103
LACEY, WASHINGTON 98503

October 30, 2006

Paul Krueger
WSDOT Environmental Manager
SR 520 Project Office
414 Olive Way, Suite 400
Seattle, WA 98101

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Nov 01 2006
WSDOT

Dear Mr. Krueger:

Thank you for the opportunity to provide comments on the draft environmental impact statement (DEIS) for the State Route (SR) 520 Bridge Replacement and High Occupancy Vehicle (HOV) Project, as provided by the Federal Highway Administration (FHWA) and the Washington State Department of Transportation (WSDOT) on August 18, 2006. And thank you also for the ongoing discussions with the resource agencies involved in the pre-consultation of this vitally important transportation project. The National Marine Fisheries Service (NMFS) has reviewed the DEIS and is providing the comments, below, consistent with our statutory responsibilities under the Endangered Species Act (ESA) and the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Our comments focus on the potential direct and indirect effects to federally listed Puget Sound (PS) Chinook (*Oncorhynchus tshawytscha*) and their critical habitat and to the effects to Essential Fish Habitat (EFH) for PS steelhead (*Oncorhynchus mykiss*) and PS coho (*Oncorhynchnus kisutch*).

F-003-001

Impact Disclosure in the DEIS and Appendices

The DEIS is written in a question- answer format which allows for easy reading of the document. However, detailed information is spread throughout the document, and at times is hard to locate and in some cases presents conflicting information (e.g. the number of columns proposed for the Pacific Interchange Option is unclear ranging from 4-10 depending on the appendix). In addition, the DEIS provides a qualitative rather than a quantitative analysis of the potential impacts of the project. For example, no analyses are provided for the effects from the existing or proposed floating bridge on lake functions, wave action, circulation and water quality; for the effects to the substrate by the anchoring system; and for the overall effects of construction activities on PS Chinook and their habitats.

NMFS therefore believes the analyses of habitat modifications in the DEIS are insufficient to analyze the potential impacts from this project. NMFS recommends that WSDOT follow the Council on Environmental Quality (CEQ) format that is designed to encourage a thorough analysis of the impacts of each alternative (see 40 CFR 1500-

F-003-001

1508). To help address this concern, please provide a complete table or series of tables of impacts from the proposed SR520 project alternatives in the text of the document.

F-003-002

Potential Effects to Species and their Habitats

The Lake Washington Ship Canal (LWSC) already presents physical challenges and stressors on fish traveling through this waterway. It is highly impacted by structures and surrounding development including the Hiram M. Chittenden Locks, commercial and industrial development, and boat maintenance and mooring operations. Fish leave the LWSC and enter salt water without the benefit of an estuary to acclimate to a higher or lower salinity before entering or leaving Puget Sound. Higher water temperatures and pollutants pose additional stress on juvenile and adult Chinook in this waterway. Lake Union currently exceeds the Department of Ecology water quality criterion for the pesticide dieldrin and is listed as an impaired water body on the 303(d) list for contaminated sediments.

Juvenile and adult PS Chinook (Cedar River and Sammamish River populations) migrate along the shorelines of Lake Washington and pass directly through the LWSC as they migrate to and from Puget Sound. Unfortunately, the SR520 Bridge is located across their main migratory corridor, and most of the corridor contains numerous Chinook predators such as small and large mouth bass and pikeminnow (formerly called northern squawfish). Recent research by Roger Tabor and others have begun to increase our understanding of how juvenile Chinook move through Portage Bay and Lake Union. However, little is known about the amount and extent of how predators utilize the system, especially pikeminnows. It is our understanding that with additional in-water structures in the Lake and the LWSC, the abundance and predation opportunities for bass and pikeminnows on juvenile PS Chinook would increase over time, thereby reducing the number of outmigrants.

F-003-003

NMFS has reviewed the impact analyses for each significant project activity, as outlined in the DEIS. To help refine the EIS, we provide the following comments and recommendations:

1. Construction Impacts

It is our understanding that the 4- or 6-lane alternatives are estimated to take at least eight years to complete construction and the temporary work and detour bridges will be in place 4-5 years depending on the alternative selected. This work could span up to two complete life cycles of PS Chinook. Unfortunately, it is also not clear from the DEIS which activities will be conducted during what time frames and what the on-going impacts of the project will be once the replacement bridge is built.

Because construction impacts could harm the Cedar River and Sammamish River wild Chinook populations during the construction phase, NMFS wants to work with you to finds ways to reduce the length of construction. We recommend that a thorough analysis of the temporary and permanent construction-related impacts be identified so we can

F-003-003

assist you with ways to avoid, minimize, and mitigate those effects. One suggested way to address this concern would be to work together on an acceptable work window and to identify performance standards for contractors regarding construction-related activities.

F-003-004

2. Pile Driving

The DEIS does not contain sufficient detail to analyze the effects of pile driving activities. We recommend the use of a performance standard for sound attenuation coupled with a detailed monitoring plan to ensure that effects to PS Chinook are avoided or minimized. NMFS is in the process of developing sample terms and conditions and design specifications for sound attenuation devices. Upon completion of that task, we will share our results with the Project Team in the hope of incorporating those parameters into the project design.

F-003-005

3. Water Quality: Stormwater

The DEIS states that pollutant loading from the proposed project will be the same or reduced from existing conditions using the presumptive design approach from the 2004 Highway Runoff Manual (HRM). In addition, the DEIS contains average values for pollutant loading calculations rather than using existing monitoring data from the floating bridge collected by King County, and appears to use optimistic removal efficiencies for pollutant removal methods. There is also no indication that annual average daily traffic (AADT) on SR520 has been accounted for in the pollutant concentrations.

NMFS has reviewed and provided comments to WSDOT and the Department of Ecology on the use of the 2004 Highway Runoff Manual for stormwater treatment. We have determined that for projects of this scope, the proposed treatment, if implemented, may not adequately protect PS Chinook and their habitats. Furthermore, even if existing state water quality standards were met per the HRM, our recent analyses have indicated that those standards do not provide sufficient protection from the sublethal effects of dissolved metals to Chinook.

For example, the project proposes to meet state water quality standards for treated stormwater from the east and west approaches and the floating bridge by complying with the Washington State water quality criteria of 4.9 microgram per liter for dissolved copper. Current data indicate sublethal effects to juvenile salmonid's olfaction and subsequent alarm response behavior manifests at low micrograms per liter (Sandahl et al. 2006 submitted to the journal Environmental Science and Technology). The results of the study show that juvenile salmon exposed to sublethal dissolved copper concentrations as low as 2 micrograms per liter and concentrations likely even lower, might not recognize and respond to a predation event, and therefore have an increased risk of being eaten by other fishes or birds. Other experiments indicate that the salmonid's olfactory response to dissolved copper is not affected by hardness or alkalinity, therefore dissolved copper is bioavailable to salmon olfactory receptors (McIntyre et al. 2006). Additionally, typical dissolved organic carbon levels detected in Pacific Northwest streams and

F-003-005

nearshore estuarine environments may not confer adequate protection against copper olfactory toxicity (McIntyre et al. 2006).

NMFS recommends that additional stormwater analyses be conducted per the recently approved Interim Stormwater Approach-an agreed-upon analytical approach for stormwater treatment developed by the Program Management Team (FHWA, WSDOT, U.S. Fish and Wildlife Service, NMFS). We also continue to support the use of high-efficiency sweeping along that portion of SR520 that discharges to Lake Washington, Lake Union and Portage Bay and to develop a rigorous maintenance regime to provide assurance that projected effluent pollutant concentrations will be met for the life of the project.

F-003-006

Finally, the DEIS proposes the installation of wetland plants for water quality treatment within the coffer dams of 14-15 of the columns of the bridge in Union Bay. NMFS supports incorporating this innovative method for treating stormwater in the bridge design, although maintenance of the system has not been defined and efficacy of pollutant removal has yet to be determined.

F-003-007

4. Water Quality:Turbidity

Recent research has indicated that elevated levels of turbidity and suspended sediments affect juvenile behavior and render juvenile Chinook salmon more conspicuous and therefore more susceptible to avian and aquatic predators (Korstrom and Birtwell 2006). Unfortunately, the DEIS does not contain any performance standards for turbidity and suspended sediments that will be generated by construction or long-term operation of the facility.

F-003-008

NMFS recommends that in addition to the development and implementation of erosion and spill control plans, detailed performance standards be developed to help avoid and minimize potential effects from significant construction activity (culvert replacement and excavation) on the east side of Lake Washington in Fairweather Creek Basin, Cozy Cove Basin, Yarrow Bay Basin and West Kelsey Creek Basin and on the west side (piling installation and temporary bridges) within Portage Bay, Union Bay and Lake Washington.

F-003-009

5. Shading

The DEIS proposes the construction of a pier for boat moorage on the east side of Lake Washington under the east approach to the floating bridge in an area where PS Chinook migrate along the shoreline. To help minimize these effects, NMFS recommends that the proposed dimensions of the new pier not exceed the guidelines for new and remodeled piers in Lake Washington, as described in the Corps of Engineer's Regional General Permit #3.

F-003-010

Some of the alternatives construct additional overwater structures above Lake Washington. Depending on the height of these structures, additional shading may

F-003-010

provide refuge for salmonid predators like bass and pikeminnow. It is our understanding, based on recent discussions with the Project Team, that a shade model is being developed by Battelle Labs to analyze these potential effects. We look forward to the results of that analysis to better understand effects to listed species.

F-003-011

6. Wetlands

The DEIS lacks sufficient detail to analyze the overall effects to existing wetlands and their functions. NMFS recommends the addition of a matrix that clearly outlines the amount, extent, and functions that will be affected and what mitigation will be implemented to replace any lost wetland functions.

F-003-012

Proposed Mitigation

The DEIS contains a preliminary mitigation proposal for fisheries impacts that consists of a shallow sloped bench with small substrate along the north coasts of Foster and Marsh Islands. Our analysis has indicated that this created habitat will probably improve predator opportunities rather than establish suitable habitat for migrating juvenile PS chinook, as intended, because in the water temperatures in these shallow areas tend to promote the growth of invasive Eurasian milfoil which serves as a refuge for bass and pikeminnow.

Subsequent to the release of the DEIS, the Project Team has met on a regular basis and has committed to meet with the resource agencies and regional fish experts to identify all of the potential aquatic impacts of the proposed alternatives and to develop a comprehensive list of avoidance, minimization, and mitigation measures for the effects to listed species and their habitats. NMFS looks forward to this collaborative process and will provide technical assistance, as needed, to help create a comprehensive mitigation plan.

F-003-013

Connected Actions

Pontoon construction, transport and moorage have been identified as connected actions of the proposed project. Please provide the direct and temporal effects of these actions.

F-003-014

The DEIS estimates the use of 1.1 million to 1.6 million net tons of soil and rock to construct the roadway foundations and embankments for SR520. This amount of aggregate represents between 1 and 2 percent of the annual production of aggregate in Washington State. Please provide an analysis of the potential effects to Chinook habitat from the removal of this quantity of aggregate at the specified locations.

F-003-015

Indirect and Cumulative Effects

The DEIS provides a population growth forecast under different alternative build scenarios based on the Puget Sound Regional Council's Destination 2030 report, which predicts an increase of 1.5 million people in Central Puget Sound over the next 30 years.

F-003-015

The DEIS forecasts a 1 percent growth redistribution due to the SR520 bridge and concludes that is a minor redistribution of the population. However, if up to 15,000 people are shifted from urban to rural areas, the impacts to fisheries could be significant when the effects of development and new infrastructure (roads) are analyzed.

NMFS recommends the DEIS analyze the redistribution of growth effects in terms of percent change in impervious surface by sub-basin, as outlined in earlier drafts of the DEIS. A change in impervious surface may or may not be a significant change depending on where it occurs in the landscape (i.e. which sub-basin, or how far from riparian areas).

A planned redevelopment of the Microsoft Campus in Redmond, adding 3.1 million square feet of new office space and accommodating 12,000 new employees over the next three years, will probably increase AADT over SR520. Please analyze the potential effects to listed salmonids and their habitats from this proposed increase in traffic on the SR 520 Bridge.

F-003-016

Finally, the DEIS states that the pontoons will be oversized to accommodate high capacity transit (HCT) in the future. Please include an analysis of the additional effects, including indirect effects on land use that will result from the future widening of the 520 Bridge for HCT.

F-003-017

The Range of Alternatives

The DEIS contains a suite of alternatives for the proposed project. However, there is not sufficient detail to determine the comparative extent of impacts to the environment for each alternative. Please provide detailed analyses of the effects to listed species and their habitats for each alternative and associated options.

After numerous discussions with the Project Team, one alternative, the Western Shift Option, appeared to have less environmentally impacts than the other 6-lane options, but was dropped from the range of alternatives because of impacts to parks under Section 4(f) of the Department of Transportation Act of 1966. We recommend further analysis of the Western Shift Option to include consideration of the function and value of the areas of 4(f) resources that would be impacted by each alternative. In addition, we recommend the Western Shift Option be included in the range of alternatives because the preliminary design appears to keep pilings out of the LWSC and Lake Washington, thereby reducing in-water impacts, as outlined above.

F-003-018

Finally, it should be noted that subsequent to the publication of the DEIS, WSDOT has met with NMFS to consider multiple design options for the 6-lane alternatives that would place the piers either completely out of the water or at a minimum, out of the migratory pathway of juvenile and adult salmonids and would reduce the pier sizes to minimize habitat opportunities for predators. NMFS will continue to work with the Project Team as the design options are being analyzed to ensure the alternative selected will place the

F-003-018

piers out of the migratory pathway of listed salmonids and minimize the opportunities for predators.

F-003-019

The Environmentally Preferred Alternative

As stated above, the information presented in the DEIS and appendices lacks the detail necessary to adequately determine which of the alternatives is the Least Environmentally Damaging Preferred Alternative for the proposed project. However, given the information presented, NMFS' ranking of the alternatives in order of the least effects to listed salmonids and their habitats are as follows:

1. The 4-lane Alternative.
The 4-lane design has the least amount of impervious surface of all the alternatives presented, and in turn produces the least amount of stormwater; the least amount of over-water coverage (shade), and as such requires less pilings in the LWSC and Lake Washington; and requires no new piers near the navigation channel in Union Bay. The 4-lane Alternative can be built within a shorter time frame than the 6-lane options which will reduce temporal construction- related impacts to Chinook in the LWSC.

It should be noted that if the design were to be revised to add lids over the 4-lane Alternative at Montlake and/or to add a second Montlake Bridge, neither of these design changes would affect NMFS' preference for this alternative. These design changes could help address other neighborhood issues identified in the public hearing process.

2. The 6-lane Alternative (excluding the Pacific Interchange Option)
This alternative has a larger impervious surface footprint than the 4-lane Alternative and will have increased Annual Average Daily Traffic (AADT). Both the increased footprint and AADT may result in higher water quality impacts (e.g. dissolved metals) to Lake Washington and the LWSC under current mitigation proposals as compared to the 4-lane Alternative. The 6-lane Alternative will have the largest amount of shading in the Portage Bay area but listed salmonids are probably not in this part of the Bay because of other environmental conditions such as milfoil and higher water temperatures.

Positive aspects of this alternative include the treatment of stormwater and the lack of additional pilings across Union Bay.

3. The 6-lane Alternative with a Second Montlake Bridge Option.
The second Montlake Bridge will not be grated like the existing bridge but stormwater will be treated, to some extent. However, additional shade will be produced over the LWSC by the second Montlake Bridge.

Positive aspects of this alternative include the placement of piers and foundations on land on either side of the Montlake Cut, which precludes the need for structures in the LWSC. This option also reduces the number of lanes over Portage Bay to eight rather

F-003-019

than nine as proposed for the straight 6-lane Alternative, resulting in a smaller impervious surface footprint and less shading.

4. The 6-lane Alternative with the Pacific Interchange Option (PIO).
As currently configured this is the most environmentally damaging alternative proposed in the DEIS with regard to effects to listed salmonids. The PIO is the only option that places large pilings in the western part of Union Bay where migrating juvenile Chinook converge to enter the LWSC, thereby increasing risks of predation. Also the PIO is the only option where construction would occur directly in and over the entrance to the LWSC for 4-6 years, a significant potential impact to all anadromous salmonids that pass through this area.

As stated above, NMFS will continue to discuss different designs for this option to move the placement of the piers out of the migratory pathway for listed salmonids and to reduce their size to minimize potential habitat for predators.

We hope these comments are helpful to WSDOT and FHWA as you work to refine the EIS. NMFS will continue to work with your Project Team to identify a preferred alternative. We are confident, that with continued collaboration, the project will be designed to meet the transportation needs of the region, while avoiding, minimizing and mitigating any adverse effects to the environment and specifically to any tribal trust resources and species and their habitats listed under the ESA and MSA.

Should you have any questions or concerns about our review, please contact Mike Grady, at: (206) 526-4645.

Sincerely,

Steven W. Landino
Washington State Director
For Habitat Conversation

CC: HQ (Cristi Reid)
USFWS (Ken Berg)

References Cited

King County. 2006. Highway 520 bridge storm water runoff study. Dean Wilson, Water and Land Resources Division. Seattle, Washington.

Korstrom, J.S. and I.K. Birtwell. 2006. Effects of suspended sediment on the escape behavior and cover-seeking response of juvenile Chinook salmon in freshwater. American Fisheries Society, Vol 135, Issue 4.

McIntyre, J., D. Baldwin, J. Meador, D. Beauchamp, and N. Scholz. 2006. Influence of water hardness, alkalinity, pH, and DOC on olfactory neurotoxicity of copper in juvenile salmon. University of Washington SAFS poster.

Sandahl, J., D. Baldwin, J. Jenkins, and N. Scholz. 2006 (in press) A sensory system at the interface between urban stormwater runoff and salmon survival.

From:	daniel.drais@dot.gov
To:	SR 520 DEIS Comments;
CC:	
Subject:	Federal Transit Administration Comment Letter
Date:	Tuesday, October 31, 2006 4:32:35 PM
Attachments:	WA WSDOT SR 520 DEIS Comments 10-31-06.pdf

Dear Mr. Krueger:

Attached please find FTA's comments on the project.

Thank you for considering them.

Sincerely,

Dan Drais

Daniel G. Drais
Environmental Manager
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October 31, 2006

Paul Krueger
Environmental Manager
SR 520 Project Office
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Seattle, WA 98101

Re: Federal Transit Administration Comments Regarding SR 520 Bridge Replacement and HOV Project Draft Environmental Impact Statement

Dear Mr. Krueger:

Thank you for the opportunity to review and comment on the Washington State Dept. of Transportation (WSDOT) Draft Environmental Impact Statement for the SR 520 Bridge Replacement and HOV Project. One of the greatest challenges facing our region, the replacement of this vital facility epitomizes the ongoing conflicts between some of the fundamental values of our community: community cohesion and neighborhood quality of life, transportation efficiency, significant parks and open space, historic and cultural resources, dwindling high-value aquatic and terrestrial habitat, and safety, to name a few.

We appreciate the difficulty of your team's task, and hope that our comments will be useful.

F-004-001

Overall comments about the alternatives

The Federal Transit Administration generally prefers increased system efficiency to improvements that solely benefit general purpose traffic. FTA also favors capital projects that create or improve mobility options for travelers instead of adding general-purpose lanes that will inevitably become congested. We believe that a continuous HOV lane across the lake will be critical to meeting the increased demand for reliable transit services in this corridor.

F-004-002

We are similarly interested in further refinement of the Pacific Street Interchange option because of the potential transit benefits it provides. We have grave concerns, however, about the impacts and the degree to which they can be mitigated. These include the construction and design impacts around Husky Stadium, the University Link station, and

F-004-002 the Pacific Street Transfer Station; the impacts associated with closing the Montlake Freeway Station; and the environmental impacts associated with construction of a new freeway bridge over Marsh Island and Union Bay.

F-004-003 With respect to the Eastside, we believe either improvement to the South Kirkland Park-and-Ride would improve reliability and reduce travel time. We also favor the better Eastside-Seattle bike connection created by the Bike/Pedestrian Path to the North option.

F-004-004 We have serious concerns about the removal of the Evergreen Point Freeway Transit Stop. If that option becomes part of the preferred alternative, FTA expects substantially more detail about how to mitigate the impact to bus riders.

F-004-005 **Discussion of cumulative impacts**

We do not believe that the analysis or discussion of cumulative impacts is adequate. While in most cases the DEIS mentioned the possibility of cumulative impacts, we believe it downplayed the likely intensity and duration of those cumulative impacts. Disruption and delays to "traffic," of course, mean disruption and delay to transit service. At a time when transit will be urgently needed to help commuters deal with changes and/or barriers to their regular commutes, the project proponents must recognize and adequately mitigate the short-term impacts that might otherwise render transit ineffectual.

F-004-006 a. The discussion of cumulative construction impacts from Sound Transit's (ST) University Link project is too cursory. Regarding *construction* conflicts, the DEIS suggests that construction of the SR 520 project would last 7 to 8 years (p. 8-1). WSDOT materials at open houses suggest construction will begin in 2009. The DEIS correctly observes that the ST work is likely to extend from late 2008 through 2013 or 2014, making construction conflicts a certainty (especially under the Pacific Street Interchange option, but also under others). The discussion of cumulative construction impacts on pages 9-6 and 9-7 and elsewhere in the DEIS should receive more prominence in the FEIS, and the probability of overlapping construction should be highlighted rather than downplayed. We also expect to see a robust, detailed mitigation plan, developed in collaboration with the appropriate transit agencies, as part of the FEIS in the event the Pacific Street Interchange option advances as the Preferred Alternative.

F-004-007 b. With respect to *design* conflicts, the University Link project has already received its federal NEPA Record of Decision and is about to begin final design. Sound Transit has funding identified and secured for University Link project execution. Should the SR 520 project timeline slip due to funding or other reasons, the University Link station will be well underway or completed by the time the SR 520 project begins construction and unlikely to be in a position to "design around" conflicts with SR 520. FTA believes that the potential design conflicts in this scenario deserve more attention than they have

F-004-007 received in the DEIS. With respect to both construction and design conflicts, FTA expects that WSDOT would need to budget appropriate funding to mitigate the impacts to the light rail station.

F-004-008 c. The cumulative impacts section should not have omitted WSDOT's planned improvements to the I-5 corridor:

WSDOT is developing a plan to reconstruct and rehabilitate the 40-year-old concrete pavement on I-5 from Boeing Access Road to Northgate. As part of his effort, WSDOT is also examining possible operational improvements to I-5 from I-405 in Tukwila to I-405 in Lynnwood. Improvements may include removing and replacing the existing concrete pavement, reinforcing joints, improving lane continuity at bottleneck locations, and shifting left on- and off-ramps to the right side of the roadway. The plan and schedule are expected to be completed by the summer of 2007. (Alaska Way Viaduct Supplemental Draft EIS (July 2006), p. 112.)

F-004-009 d. The cumulative impacts section should have highlighted the University of Washington Medical Center's plans to begin construction on an additional 260,000 square feet of space in 2008, and the likely challenges and conflicts presented by that project.

F-004-010 e. With respect to all of the concurrent construction projects, the section appears to hide behind timing uncertainties: "…**if** the work took place during the construction of other planned projects… the **exact timing** is of these construction projects is not known…**if** two or more were built at the same time… the potential for cumulative effects would be greatest **if** the Pacific Street Interchange option were built at the same time [as University Link]…Depending upon timing…" (pp. 9-5 to 9-7, emphasis added). In fact, it is virtually certain that the UWMC project, the University Link project, the I-405 project, the I-5 project, and the Alaskan Way Viaduct project will all overlap significantly with the SR 520 project. The document should not understate the certainty of severe cumulative short-term impacts. We believe the combination of construction work closing parallel portions of SR 99, I-405, and I-5, even without the University Link and University of Washington construction, should be more prominently discussed. Again, we hope a robust and detailed approach to mitigation, including actual mitigation measures, will be published before or coincident with the FEIS.

F-004-011 f. In analyzing potential cumulative impacts, the DEIS states, "Travel times are only one of several factors that play a large role in determining whether people will find an area desirable as a place to live or work, but they are the only factor we are able to model quantitatively" (p. 9-2). Were other factors examined qualitatively?

F-004-012

Discussion of tradeoffs between the short-term uses of environmental resources and long-term gains (or productivity) from the project:

The DEIS states, "The long-term cost of not replacing the bridge would be staggering: intolerable traffic congestion, regional economic losses, reduced quality of life in project area neighborhoods, and – most important of all – the ever-present likelihood that high winds or an earthquake could suddenly cripple the Portage Bay and/or Evergreen Point bridges." Page 9-10. FTA finds this misleading. The deteriorating bridges certainly cannot last much longer, and they must be replaced now. But none of the alternatives will allow the region to eliminate "intolerable traffic congestion"; at best, with wise investments, we can manage the congestion.

F-004-013

Impacts to transit

The need to close the westbound HOV lane east of Lake Washington for two years raises serious concerns. The shortages of roadway will heighten transit's utility during the construction period; obliterating transit's advantage during that period, as closing down the HOV lane will do, should be a last resort. The FEIS should provide greater detail about how it will mitigate this severe impact, and explain more clearly why there is no alternative to staging from this lane.

F-004-014

"Sound Transit, Metro Transit, and Seattle DOT have been involved in discussions with WSDOT throughout the development of the 6-Lane Alternative options; however, the project team understands that additional work will be required by all four agencies to determine how to address the travel needs of transit riders affected by the removal of the Montlake Freeway Station, if that option is chosen. While the new light rail service proposed by Sound Transit will meet some of this need, this restructuring of bus service is likely to result in additional costs for transit service providers" (4-13). This subject requires substantially more analysis and discussion in the FEIS. Some 30 bus routes use the Montlake Freeway Station.

The DEIS suggests that bus service removed from the Montlake Freeway Station as part of the Pacific Street Interchange option would all be simply transferred north to the Pacific Street Transit Center (p. 5-15) How would that affect transit times for riders coming from the south and going to the east side of Lake Washington, and east-west transfer connections? Riders currently board (or transfer) at the Montlake Freeway Station to go to downtown Seattle via SR 520 and I-5; how would those passengers be accommodated at the Pacific Street transfer station?

The DEIS identifies the construction of a parking structure as possible mitigation for impacts to University area parking supply (p. 5-17). FTA believes that it would be equally appropriate to identify the capital costs of acquiring new buses and bus facilities to mitigate for new transit service that would be required due to closure of the Montlake or Evergreen Freeway stops.

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F-004-015 Will there be impacts to University of Washington and/or University of Washington Medical Center shuttle services under the Pacific Street Interchange option? Could UW or UWMC transit help mitigate impacts to the Pacific Street area?

Is the Pacific Street Transfer Point adequate to absorb the relocation of many of the 30 routes currently served by the Montlake Freeway Station? If not, does the Pacific Street Interchange option include an expanded area for bus service? Given the University Link ridership, Husky Stadium expansion, and UW Medical Center expansion, will there be physical space for an expanded transfer station?

F-004-016 Construction of the SR-520-to-I-5 Express lane ramp appears to eliminate one of the four I-5 express lanes. Taking a lane from the I-5 express roadway would have a major impact on the many transit riders who use I-5 buses. Has the impact to transit operations on I-5 been evaluated?

F-004-017 **Modeling/forecasting**

The number of peak period bus trips needed to meet the additional demand for transit in the project area would be 30 percent higher (4-Lane vs. No-Build). But for the 6-Lane alternative, the added demand is only 31 percent higher. (Page 5-15). Why does the 6-Lane option not generate significantly more transit demand than the 4-Lane option, given how much better transit should operate with a dedicated lane all the way through the project corridor?

In Chapter 4 generally, the shifting among different measures of traffic and transportation is occasionally confusing. One example: Exhibit 4-4 shows "Predicted change in SR 520 Afternoon Traffic" in percentages. The previous few pages have discussed "traffic" in terms of vehicle trips, person-trips, and travel time, and the previous exhibit divided "traffic" into person-trips and vehicle-trips. The text says Exhibit 4-4 shows "the amount of traffic," but what that means is unclear.

The use of peak-period *bidirectional* travel time is a little unusual. It necessarily understates the most aggravated conditions, always averaging them with the more favorable (or less bad) opposite direction. Why would that be useful? Why not use metrics like Table 7-12 in the Discipline Report (p. 7-17)? Qualitatively, what would the reader expect to see reflected in the bidirectional analysis that would not be as clear from a unidirectional analysis? What important information might be masked by using a bidirectional approach?

F-004-018 The Technical Appendix Addendum appears to include HOV lanes as part of the Pacific Street Interchange (pp. 1-5, 7-1). The DEIS says that no HOV lane is included (p. 3-25). Did the modeling assume HOV ramps?

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F-004-019 DEIS traffic modeling assumes that 30 percent more transit service would be provided in 2030 than is provided today, enough to satisfy the increased demand in the project year. "If the demand is not met, volumes and travel times could change from those described in the traffic analyses... This increased level of service is not currently planned or funded" (p. 5-15). Given that the increased transit service is a fundamental assumption behind the DEIS's presentation of corridor capacity, FTA believes the capital and operating cost of providing this level of service should be included in the project cost estimates. FTA also requests an indication of whether area transit providers agree with the estimate, and whether they are committed to meeting it.

F-004-020 The Alaska Way Viaduct DEIS relied upon Puget Sound Regional Council data in developing its traffic model. It then discovered that for some reason the predicted increase it found in transit ridership was not credible. It is now re-running the model with different assumptions. The SR 520 DEIS also predicts large increases in transit ridership. For example, even under the No-Build Alternative, more than twice as many people (25 percent vs. 11 percent) will use transit to cross the lake as today, in addition to 9 percent carpooling (p. 4-2); under the 6-Lane Alternative, 30,000 more people will cross the lake using only three percent more cars (p.4-5). Similarly, the number of daily person-trips by carpools jumps from about 11,000 under the No-Build scenario to almost 56,000 under the 6-Lane Alternative (p. 4-12). Is the project team confident that its mode-split forecasting is reliable?

F-004-021 **Other issues**

"Full closure is evaluated here as a 'worst-case' scenario, consistent with the intent of NEPA." P. 4-16. NEPA does not require evaluation of a worst-case scenario.

F-004-022 The project proposes no direct multi-modal connections (park-and-rides or drop-off points) with the University Link station (p. 4-13). Would not such connections be both natural and beneficial?

F-004-023 In discussing the impacts of a toll, the DEIS states, "[T]here are several viable choices for avoiding the toll entirely, including riding in a bus or taking an alternative route around the lake" (p. 4-35). FTA believes the mitigation measures on p. 4-36 are far more likely to be "viable" than "taking an alternative route around the lake."

* * *

FTA Comments
SR 520 Project
October 31, 2006

Again, we appreciate your team's work on this challenging project and hope our comments are helpful.

Sincerely,

R.F. Krochalis
Regional Administrator

cc: Kevin Desmond, King County Metro
Bob Drewel, Puget Sound Regional Council
Judy Giniger, WSDOT

United States Department of the Interior

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Kelly Powell
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FAX: 206-557-4246

Date: November 21, 2006

Pages: 9, including this cover sheet.

From: ***ETHEL SMITH***

Subject: SR-520 Bridge Replacement, King County, WA [ER 06/932]

Attached is the Department's response re subject project.

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, D.C. 20240

9043.1
PEP/NRM

ER 06/932

NOV 20 2006

Mr. Paul Krueger
Environmental Manager
SR 520 Project Office
Washington State Department of Transportation
414 Olive Way, Suite 400
Seattle, WA 98101

Dear Mr. Krueger:

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS), Draft Section 4(f) Evaluation, and Addendum to Section 4(f) Evaluation, for the **SR-520 Bridge Replacement** and HOV Project, Seattle, King County, Washington, and offers the following comments.

The primary alternatives for this project are the 4-Lane Alternative and 6-Lane Alternative (including the Pacific Street Interchange and Second Montlake Bridge options. While Washington State Department of Transportation (WSDOT) explored the feasibility of an 8-Lane Alternative, it concluded that its implementation would lead to severe effects on I-5 and I-405, and should therefore not receive detailed study in the DEIS.

F-005-001

GENERAL COMMENTS

The Department's United States Fish and Wildlife Service (USFWS) has been involved with the SR 520 Bridge Replacement and HOV Project for several years through the Signatory Agency Committee (SAC), which is the implementing body for the National Environmental Policy Act and 404 merger process. The USFWS has provided extensive input on this project in the past, and will continue to work through the SAC process with the transportation agencies on fish and wildlife issues of concern related to this project.

There are many important parks in the project vicinity that have helped to contribute to the scenic, natural, cultural and recreational environment of Seattle and distinguish it as a city. The Department encourages WSDOT, Federal Highway Administration (FHWA), and Sound Transit to honor the spirit of Section 4(f) and to make a special effort to preserve the natural beauty of these public park and recreation lands.

We do not believe that all possible options have been thoroughly examined. Therefore, the Department cannot make a 4(f) determination at this time.

F-005-002 We look forward to seeing what public comments come forward, and what other options the public might suggest. For example, we are aware of interest in a suggested alternative that shifts the SR 520 alignment further north, as it approaches the west side of Lake Washington. Notably, this would avoid a significant number of 4(f)-protected properties, including Bagley Viewpoint, McCurdy Park, East Montlake Park, and Washington Park Arboretum. Based on the DEIS, this option does not appear to have been considered by WSDOT and FHWA. Certainly, more study regarding possible effects for this option—or any other option proposed by the public—would be required. However, at least conceptually, this specific example presents itself as a possibly prudent and feasible alternative that either avoids the "use" of 4(f) resources entirely, or alternatively, results in a lesser 4(f) impact than is currently proposed.

SECTION 4(f) COMMENTS

F-005-003 **Specific Comments**

The Department offers the following specific comments regarding the DEIS. In sum, the Department disagrees with some of the conclusions that proximity impacts are not so severe as to substantially impair park use and enjoyment (i.e., that there is no "constructive use" of some of the 4(f) properties).

F-005-004 4-Lane Alternative
McCurdy and East Montlake Parks

Draft Section 4(f) Evaluation, page 36, McCurdy and East Montlake Parks, Direct Effects—The DEIS seems to indicate that, because a portion of McCurdy Park could be returned to park use after being initially acquired for the project, only 59 percent of the park would therefore be "used." However, in fact, 100 percent of the park would have to be acquired for the project up front. Therefore, it seems that, in order to satisfy the "all possible planning to minimize harm" prong of Section 4(f), more definitive plans are needed. In other words, a tentative suggestion that some of the land could be returned to park use is not enough, particularly if there is no contract or legal obligation to do so. Moreover, if legal ownership remains with WSDOT or other transportation agency while being "returned" to park use, there is no guarantee that this land will not later be conveyed or used for another transportation project (but in this scenario, Section 4(f) would likely not apply, because the project is now within state or local right-of-way). If the parks should instead be required to be conveyed to the City, the Arboretum Foundation, or other park agency, this would be a more appropriate mitigation measure.

Washington Park Arboretum

Draft Section 4(f) Evaluation, page 39, Washington Park Arboretum, Direct Effects—The Department has similar concerns, as those noted above, for the Washington Park Arboretum, where it is proposed that some acreage could be returned to the City of Seattle for park use. The Department supports full conveyance to the City, rather than leasing to the City for use as a park, and a formal agreement that WSDOT will do so.

F-005-005

6-Lane Alternative
McCurdy and East Montlake Parks

Draft Section 4(f) Evaluation, page 38, McCurdy and East Montlake Parks, Proximity Effects—The DEIS concludes that, while removing the trees and the Museum of History and Industry (MOHAI) would degrade the southward view for park users of East Montlake Park, it would not substantially impair the continued use and enjoyment of the park. The Department disagrees with this statement. In fact, not only will the MOHAI building and trees be removed, but under both the 4-Lane or 6-Lane Alternatives, the expanded freeway will encroach further to the east, and be in closer proximity to park users. Yet, as the DEIS notes, "[c]urrently, SR 520 is virtually unseen from areas within East Montlake Park." Such a drastic change in the landscape of the park combined with reduction of park size by nearly half due to a closer freeway seems to be a substantial impairment.

F-005-006

6-Lane Alternative with Pacific Interchange Option
Washington Park Arboretum

Addendum to Section 4(f) Evaluation, page 25, Washington Park Arboretum, Proximity Effects—WSDOT draws a no-substantial-impairment conclusion, even though the proposed Pacific Street Interchange Option would rise roughly 80 feet above Foster Island and be visible from several vantage points along Arboretum Waterfront Trail and elsewhere in the park, and even though the Union Bay Bridge, rising approximately 100 feet above, would become the dominant visual feature looking to the north from the islands. WSDOT recognizes that, even with reductions in noise because of sound walls, and new and contiguous areas for recreational use, the visual intrusion would still further degrade Foster and Marsh Islands for park and trail users. The Department recognizes WSDOT's efforts to keep the freeway elevation under all alternatives below the tree line. However, the higher and wider freeway footprint, combined with the presence of the Union Bay Bridge, should be considered a substantial impairment.

University of Washington Waterfront Activities Center

Addendum to Section 4(f) Evaluation, page 26, University of Washington Waterfront Activities Center, Proximity Effects—WSDOT notes that the overall character of the WAC would change from one with pristine views, currently bearing little or no trace of disturbance on the water side, to one where broad views and an unobstructed sky overhead are now blocked and the facility and its activities are now permanently shaded. The Department encourages WSDOT's plans to work with the University of Washington to enhance the recreational facilities and operations at the WAC.

F-005-006

Burke-Gilman Trail

Addendum to Section 4(f) Evaluation, pages 28-30, Burke-Gilman Trail, Proximity Effects—WSDOT states that Montlake Boulevard would shift to the west, and come within 10 feet of the Burke-Gilman Trail, for a distance of approximately 2,600 feet. Currently, there is a 30-foot-wide buffer between the roadway and the trail with trees that give the trail a "much sought-after natural appearance." WSDOT concludes, however, that no substantial impairment will occur, even though "this natural and protected trail segment would be highly diminished."

WSDOT suggests that, because other segments of the trail outside of the project area "exhibit a more urban character with minimal buffering," adding a 2,600-foot-long stretch of the trail to this category is therefore justified. WSDOT does not indicate how much of the trail shows this more urban character. Regardless, exposing 2,600 feet of a currently "much sought-after natural appear[ing]" trail seems to be a substantial impairment, particularly in light of the additional noise.

Notably, WSDOT states that the Montlake Boulevard alignment could be shifted to the east at specific locations along the trail, to avoid impacts. It appears that, based on Exhibit 10, most of Montlake Boulevard could be shifted to the east, especially since a significant portion of land to the east consists of campus parking. This would seem preferable to acquiring trail right-of-way, shifting portions of the trail, or shifting only small portions of the Montlake Boulevard alignment to the east.

F-005-007

<u>De Minimis and "Net Benefit" Application</u>

Addendum to Section 4(f) Evaluation, page 45, "How will FHWA [Federal Highway Administration] determine effects on Section 4(f) properties?"—WSDOT notes that a *de minimis* impact finding may apply to certain properties, including Bagley Viewpoint, East Montlake Park, and the Burke-Gilman Trail. This finding would be made with the concurrence of the officials with jurisdiction. However, the Department fails to see, given the possible effects WSDOT has provided in the DEIS, how Bagley Viewpoint, East Montlake Park, and the Burke-Gilman Trail could qualify.

A *de minimis* determination can be made after consideration of any impact avoidance, minimization, and mitigation or enhancement measures, shows no adverse effect on the activities, features, and attributes that qualify the resource for protection under Section 4(f) will occur. Avoidance alternatives are then not required.

Notably, language included in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Conference Report states as follows:

> The purpose of the language is to clarify that the portions of the resource important to protect, such as playground equipment at a public park, should be distinguished from areas such as parking facilities. While a minor but adverse effect on the use of playground equipment should not be considered a *de*

F-005-007

minimis impact under section 4(f), encroachment on the parking lot may be deemed *de minimis*, as long as the public's ability to access and use the site is not reduced. Conference Report of the Committee of Conference on H.R. 3, Report 109-203, page 1057.

Applying *de minimis* to Bagley Point does not seem to be appropriate when it will be reduced by approximately half its size under all alternatives (40% under the 4-Lane Alternative, 60% under the 6-Lane Alternative).

Regarding the Burke-Gilman Trail and the 6-Lane Alternative with Pacific Interchange Option, simply avoiding acquisition of a small portion of the trail right-of-way and replanting vegetation in the significantly-reduced buffer strip, would not see to mitigate enough to result in no adverse effect and should therefore not result in a *de minimis* finding.

Finally, under the 4-Lane Alternative, 3.25 acres of the 7.1-acre East Montlake Park will initially be acquired. As mentioned above, while 2.19 acres could be returned to park use after the project is complete, it is unclear precisely what this means. The Department is specifically concerned that WSDOT (or other transportation agency) will retain ownership. If so, the Department does not consider this true mitigation, as WSDOT could use the area for another future transportation project or convey it to a third party. Additionally, the MOHAI, which helps to make the existing freeway virtually unseen, will be removed. Combined with the reduction in park size, without more mitigation measures, the Department does not believe that a *de minimis* finding is appropriate. The Department has similar concerns under the 6-Lane Alternative. While there will be slightly less net loss of the park, again, the MOHAI will be removed, and the overall secluded feel of the park will be lost.

F-005-008

Section 6(f)(3) of the Land and Water Conservation Fund Act

The 6(f)(3) boundary illustrated in Exhibit 5 of Appendix P is incorrect. Appendix P concludes that because Land and Water Conservation Fund (LWCF) funds were not used to acquire the adjacent park lands, they are not themselves protected by 6(f)(3). In fact, when a resource in a park is funded through LWCF, typically the entire park is protected under 6(f)(3). When this grant was signed, 153 acres were put under the protection of LWCF including portions of the Ship Canal Waterfront Trail, McCurdy Park, Washington Arboretum Park, East Montlake Park, Foster Island and Marsh Island. Some of these properties may no longer be protected by 6(f)(3) in keeping with the lease policies in effect at the time of the grant. The Department recommends coordinating closely with the Washington Interagency Committee for Outdoor Recreation to determine the correct 6(f)(3) boundary.

Properties under the protection of 6(f)(3) of the LWCF Act may not be converted to other than public outdoor recreation use. There is no *de minimis* impact. Proximity impacts may be considered a conversion under 6(f)(3) even if they are not considered a

F-005-008 constructive use under 4(f). The Department disagrees with the conclusion that there will be no conversion as defined by section 6(f)(3) of the LWCF Act.

Appendix P states that some of the WSDOT land proposed for conversion replacement has been managed by the City of Seattle for recreation purposes. This property would not be eligible as 6(f)(3) conversion replacement. Any land that has previously been dedicated or managed for recreational purposes while in public ownership is ineligible as replacement for 6(f)(3) conversions. Land that was acquired with Federal assistance is also ineligible as replacement.

Coordination

The Department has a continuing interest in working with FHWA, WSDOT, Sound Transit, and other resource agencies and local jurisdictions. For continued consultation and coordination, please contact Kelly Powell, Environmental Compliance Specialist, National Park Service, Planning and Compliance, at 206-220-4106 or kelly_powell@nps.gov. For questions specifically related to Section 6(f), please contact Heather Ramsay, LWCF & UPARR Project Manager, National Park Service, Pacific West Region, Partnership Programs, at 206-220-4123 or heather_ramsay@nps.gov.

The Department appreciates the opportunity to provide these comments.

Sincerely,

Willie R. Taylor
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cc: (see attached list)

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