



State of Washington

Department of Fish and Wildlife

Mailing Address: c/o DOE, 3190 160th Ave SE, Bellevue, WA 98008, (425) 649-4423, TDD (360) 902-2207

October 24, 2006

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



Dear Mr. Paul Krueger,

**SUBJECT: WDFW review of the SR 520 Bridge Replacement and HOV Project Draft Environmental Impact Statement, WRIA's 08.6007, 08.0028, 08.0252, 08.0253, 08.0254, 08.055, 08.un-named, 08.0257. Project location: SR 520 from Seattle to Bellevue, Washington.**

S-002-001

I would like to thank you for the opportunity for letting the Washington Department of Fish and Wildlife (WDFW) comment on the SR520 DEIS. I also would like to reiterate WDFW commitment to working with the WSDOT on this project and to that end I would like to drive right in and run thru some comments and questions I have.

**Alternatives and impacts:** As we discussed at the October 11 meeting at the NOAA facility all of the alternatives need to be represented in the DEIS. The lack of a central table of impacts showing the permanent and temporary fill and shading amounts for the all of the alternatives is very basic and critical for anyone reading the DEIS to get a clear view of the impacts. The fact that the 2<sup>nd</sup> Montlake Bridge would result in the same amount of permanent fill and shading impacts as the standard six lane needs to be clearly shown in a table not as a side note. Due to the likelihood of building one or more of the six lane alternatives, such as the six lane with pacific street option, north bike path and 108<sup>th</sup> Street Park and Ride, the central table will need to show varying combinations of all the possible alternatives. It is not clear what the permanent and temporary impacts would be if more than one of the alternatives were constructed. Also the eastside 6-lane Bellevue Way Park and Ride and Evergreen Point alternatives were not presented at all leaving only the 108<sup>th</sup> Street and Ride alternative. Temporary construction impacts for filling, shading and clearing of the buffers need to be addressed as well.

S-002-002

**Work windows:** Due to the shear size of this project (one example: estimated 1600 – 1800 temporary piles are to be installed) and the lack of hard information in the DEIS determining the proper work windows for this project is very difficult. The work windows that the WDFW and federal services (US Corp, NOAA and USFWS) have used in the past for the Lake Washington and Ship Canal systems are for smaller project, such as a single-family pier or bulkhead, not for a

S-002-001

**Comment Summary:**

Format and Content

**Response:**

See Section 23.1 of the 2006 Draft EIS Comment Response Report.

S-002-002

**Comment Summary:**

Fish Effects

**Response:**

See Section 16.2 of the 2006 Draft EIS Comment Response Report.

**S-002-002** project of this size. WDFW Mitigation Policy POL-M5002 states avoiding impacts as the highest mitigation priority. Which in the case of an allowable work window would limit work below the Ordinary High Water Line (OHWL) and potential some over-water work, due to lighting issues, to a period when the proposed work will not affect the juvenile out migration and returning adults salmonids. After talking with local fisheries experts (Kurt Fresh, Roger Tabor, etc...) December 1 thru April 1, potential the last half of November as well, of each year would be the best work window that we could currently offer for the Ship Canal, Union Bay, and potential part of the western Lake Washington sections, the floating bridge section would depend on the work that needs to be done, eastern Lake Washington section would be July 16 - September 30, potential part of October, and the Medina - Bellevue creeks would be June 1 - September 30 for the non-fish bearing sections and July 1 - August 31 for the fish bearing sections. Due to the likelihood that work, such as multiple pile drivers, will be occurring in same or different sections at the same time proper Best Management Practices (BMP's) will need to be implemented and closely monitored.

**S-002-003** As a side note I would like to say the WDFW is very aware of the existing problems with the Lake Washington Ship Canal: low dissolved Oxygen levels, high temperature levels, abundance of artificial lighting at night, and circulation issues go well beyond WSDOT responsibility. However due to these problems potential work that could delay the juvenile out migration or returning adults salmon even for just the period of a workday could result in the loss of salmon. To assist the regulatory agencies in confirming these windows and potential widening them I would recommend: first identify what are the potential impacts of the different alternatives, second collaborate with the regulatory agencies and local fisheries biologist to determine which of these impacts are limiting the possible work windows, and third work out potential studies with the regulatory agencies and local fisheries biologist that could analyze these impacts. Potential studies could include using multiple pile drives in the same and different sections at the same time to evaluate potential salmon passage delays related to construction noise, this could be applied to work inside cofferdams as well, how salmonids move along the existing SR 520 bridge (elevated and floating sections) and the Montlake Cut, how salmon predator fish use the existing SR 520 bridge, and the potential short and long-term effects of using different types of artificial lighting. One other avenue with very high mitigation potential would be to model, evaluate, and then implement a project that would significantly reduce the water temperature in the Ship Canal. One potential example could be artificially cooling the Ship Canal water with colder water from the bottom of Lake Washington.

**S-002-004** **Piling:** Page 4-39 of the DEIS mentions that fewer however larger piling would be installed in the proposed bridge. What are the numbers and sizes of the existing piles, located below the OHWL, that are to be removed? What are the numbers and sizes of the permanent and temporary piling to be installed below the OHWL for the four lanes, six lanes with the second Montlake Bridge and six lanes with the Pacific Street options? A best estimate will work however due to the shear number of permanent and temporary piles please reference how many of these piles will be in the Portage Bay, Union Bay, East and West Lake Washington Basin sections.

### S-002-003

#### Comment Summary:

Fish Effects

#### Response:

See Section 16.2 of the 2006 Draft EIS Comment Response Report.

### S-002-004

#### Comment Summary:

6-Lane Alternative

#### Response:

See Section 1.2 of the 2006 Draft EIS Comment Response Report.

**S-002-005** Concerning the removal of existing bridge piles. WDFW requires abandoned piling to be removed when possible and the holes to be filled and capped with appropriate material. If the pile has to be cut off then it should be done below the sediment line and capped with appropriate material.

**S-002-006** **Bridge widths:** I realize the bridge widths vary from option to option however it would be very helpful to show what the design widths would be like at a few sections in the near shore areas of Portage Bay, Union Bay and East Lake Washington sections with the different options.

**S-002-007** **Float anchors:** Page 3-14 of the DEIS refers to the use of fluke and gravity anchors for the proposed and existing floating bridge sections. What are the sizes of the gravity anchors proposed and the existing ones to be abandoned? I have heard estimates for NOAA that the existing gravity anchors could be up to sixty feet high by eighty feet wide. Due to the potential size of these structures could they affect lake circulation and if so would it be possible to reuse these anchors rather than installing more or potential removing all or part of the existing gravity anchors?

**S-002-008** **Eastside Sockeye Spawning Area:** Page 6-7 discusses the potential effects that the new bridge and proposed facility pier might have on the identified lakeshore sockeye spawning area. Consideration should be given to make sure the pilings for the bridge are not install in upwelling pockets. When possible existing fluke and/or gravity anchors should be removed and sockeye-spawning gravel (2-inch minus well rounded clean gravel) installed to restore previously lost spawning habitat. Also would it be possible to remove part or the entire hardened bulkhead at this site and replace it with a bio-engineered bank protection structure?

The WDFW understands the need for a maintenance facility pier however current state and federal pier requirements will need to review. Upon the understanding that vehicles will need to operate on the pier for maintenance use the current ambient light requirement can be waived however the pier should be no wider than ten feet (recommend eight feet), piling spaced every eighteen feet and no skirting should be installed. The WDFW is aware that two existing residential docks will be removed as mitigation for the maintenance pier. Please provide the dimensions of these piers with your JARPA application to receive credit. The WDFW does have a planting plan requirement for new piers.

**S-002-009** **Eastside Culvert replacement:** From the information I have gathered at the technique meeting WSDOT will be using WDFW stream simulation model to calculate the replacement culverts widths. I didn't see this stated in the DEIS and want to make sure this is correct? Due to the potential of increasing flow rate from filling in wetlands and storm water increase WDFW is expecting this model to be used as stated in the technique meetings. Also what would the culvert lengths be with the different options compared to the existing conditions? Please remember to include the Bellevue Way Park and Ride and Evergreen Point alternatives as well.

#### **S-002-005**

##### **Comment Summary:**

Schedule

##### **Response:**

See Section 4.1 of the 2006 Draft EIS Comment Response Report.

#### **S-002-006**

##### **Comment Summary:**

6-Lane Alternative

##### **Response:**

See Section 1.2 of the 2006 Draft EIS Comment Response Report.

#### **S-002-007**

##### **Comment Summary:**

Fish Effects

##### **Response:**

See Section 16.2 of the 2006 Draft EIS Comment Response Report.

#### **S-002-008**

##### **Comment Summary:**

Fish Effects

##### **Response:**

See Section 16.2 of the 2006 Draft EIS Comment Response Report.

#### **S-002-009**

##### **Comment Summary:**

Eastside Concerns

**S-002-010** | **Eastside Wetland/Basin modification:** Page 7-31 states in addition to improving water quality, storm water control, and treatment “this project” would enhance habitat for fish and aquatic life. Installing fish passage culverts is a valued aspect of this project however WDFW concern is that by filling in some of the wetland and wetland buffer areas this will affect the amount of water these very small systems can naturally store thus distorting the normal flow even more. WDFW has worked with the Nature Conservancy and private homeowners trying to stabilize existing conditions and will recommend if part or all of the wetland mitigation needs to occur offsite then flow and stream bank stabilization projects, such as large woody debris, should be installed to help maintain these systems. Large woody debris collected from the acres of forested areas that are to be removed for the construction of this project could be used for this purpose.

**S-002-011** | **Storm water treatment wetland:** Page 3-41 shows Exhibit 3-12 the Storm water treatment wetland at Bridge Columns – please provide a diagram showing the locations of the treatment wetlands with the different alternatives. Also are any of the Storm water treatment wetlands being proposed in existing wetlands?

**S-002-012** | **Wetlands:** Page 5-45 and 5-47 discusses enhancing and replanting low-quality wetlands as mitigation for temporary construction and shading mitigation. Has WSDOT categorized the wetlands that are to be impacted in terms, such as forest wetlands, that will allow this?

**Wetland replacement mitigation:** I just wanted to reinforce what we had agreed upon at the October 11 NOAA facility meeting that when possible wetland mitigation should occur onsite or near the project area. The original proposed mitigation was not received well by any of the regulatory agencies and we recommended WSDOT focus on the sites the Cities of Seattle and Bellevue have proposed. I would also recommend contacting the University of Washington and Arboretum society for potential projects.

**S-002-013** | **Construction impacts:** Due to the size of the project and projected construction period of seven to eight years this is an area where particular attention will need to be placed. The more information WSDOT is able to give the regulatory agencies on the construction phases (number, place and time when the permanent and temporary piling are to be installed, cofferdam installation and work, barges -how many, general areas they will be used, and when, use of artificial lighting, culverts replacement method, etc...) and the BMP’s that will be implemented the easier it will be to commit on this project.

As the Assist Regional Habitat Program Manager for this area I believe we have the opportunity to enhance fish life and habitat while allowing the people of Puget Sound to have a more extensive transportation system. Please provide a written response to my questions and comments so that I may properly review this project. Providing a central table is highly recommended. If you have any questions, please contact me at (425) 649-4423. Thank you for your time.

**Response:**

See Section 24.0 of the 2006 Draft EIS Comment Response Report.

**S-002-010**

**Comment Summary:**

Eastside Concerns

**Response:**

See Section 24.0 of the 2006 Draft EIS Comment Response Report.

**S-002-011**

**Comment Summary:**

Pier Treatment Wetlands

**Response:**

See Section 15.0 of the 2006 Draft EIS Comment Response Report.

**S-002-012**

**Comment Summary:**

Wetland Mitigation

**Response:**

See Section 16.1 of the 2006 Draft EIS Comment Response Report.

**S-002-013**

**Comment Summary:**

Schedule

**Response:**

See Section 4.1 of the 2006 Draft EIS Comment Response Report.

Paul Krueger  
October 24, 2006  
Page 5 of 5

Sincerely,



Stewart G. Reinbold  
Habitat Program

SGR:sgr: SR 520 DEIS letter 102406  
cc: David Brock, Mill Creek