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April 14, 2010

Ms. Jenifer Young, Environmental Manager
SR 520 Project Office
600 Steward Street, Suite 520
Seattle, WA 98101

Re: Comments on the SR520 Supplemental Environmental Impact Statement

Dear Ms. Young:

The Recreation and Conservation Office (RCO) has reviewed the Supplemental Draft Environmental Impact Statement (SDEIS) for the SR 520 I-5 to Medina project and offers the following comments for your consideration. As the delegated authority for implementation of the Land and Water Conservation Fund (LWCF) in Washington State, RCO has reviewed the document for compliance with LWCF program requirements for conversion of 6(f) protected park land. Portions of the Arboretum Park are protected park under Section 6(f) of the LWCF Act through a grant awarded to the City of Seattle and University of Washington.

RCO concurs with comments submitted by the National Park Service (NPS) on the SDEIS. Since specific information regarding the Arboretum Park conversion and replacement are not yet available, a parallel environmental review process is needed in order to comply with the National Environmental Policy Act (NEPA) review requirements for the LWCF program. The Washington State Department of Transportation (WSDOT) can complete the FEIS for the SR 520 project independently of the LWCF environmental review and utilize the FEIS as reference documentation. The NPS will make its own NEPA determination for the LWCF action independent from the determination made by the Federal Highways Administration for the SR 520 project.

The LWCF environmental review must include the following:

- A description of the proposed replacement property with specific attention to the public outdoor recreation resources and opportunities it will provide.
- A detailed proposed 6(f) park boundary map for the proposed replacement property.
- A description of other approvals, permits, and other factors needed to implement acquisition and development of the proposed replacement park with a timetable for completion.
- A description of the 6(f) protected park area to be converted at the Arboretum Park including outdoor recreational facilities and opportunities.
- A description of the remaining 6(f) protected park area at the Arboretum Park and the remaining outdoor recreation facilities and opportunities.

Additional guidance on the content of the NEPA documentation required for the LWCF program can be found in the *Land and Water Conservation Fund and State Assistance Program Manual*.

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Ms. Jenifer Young

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The City of Seattle and the University of Washington are the project sponsors of the LWCF grant at the Arboretum Park. WSDOT's collaboration with the project sponsors is critical to the 6(f) environmental review process. We appreciate the work you have done facilitating the Parks Technical Working Group as substantial progress has been made since early 2009. WSDOT should work with Seattle and the University to determine a timeline that meets the project sponsor's needs regarding the Arboretum Park conversion and mitigation. Once a replacement property that meets both of the project sponsors' recreational needs has been identified, the LWCF environmental review process can be completed.

Thank you for the opportunity to comment. Please contact me if you have any questions. I can be reached at (360) 902-3080 or leslie.ryan-connelly@rco.wa.gov.

Sincerely,



Leslie Ryan-Connelly
Grants Manager



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DEPARTMENT OF ECOLOGY

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April 15, 2010

Ms. Jenifer Young, Environmental Manager
SR 520 Project Office
600 Stewart Street, Suite 520
Seattle, WA 98101

Dear Ms. Young:

Jenifer:

Thank you for the opportunity to review the *Supplemental Draft Environmental Impact Statement (SDEIS)* for the *SR 520, I-5 to Medina; Bridge Replacement and HOV Project*. The Department of Ecology has reviewed the SDEIS, and you will find our comments enclosed. Additionally, we are including Ecology's comments on the project's *Aquatic and Wetlands Mitigation Plans* submitted to you in January, 2010 and prepared by Joe Burcar and Caroline Corcoran.

We commend you and the SR 520 team for the high-quality of the SDEIS – it is well-written, clear, and well-organized. As we have noted in the past, the maps, graphics, and charts enable the reader to gain a clear picture and better understanding of the bridge components, statistics, and comparisons of the proposed options.

When you have a chance to review Ecology's comments, you will see that we have emphasized several: those relating to mitigation sequencing and the need for more analysis relating to the bridge-height issue in the Visual Quality and Noise Sections, particularly in Chapters 5 and 6. We cannot emphasize enough how crucial it will be for the project to properly follow the process when determining the preferred alternative and how that process plays a role in setting the appropriate bridge height. These important points are discussed in detail on page one of our comments.

As is Ecology's custom, the comment letter includes input from a variety of technical staff from Headquarters and, for this project, the Northwest Region. Thus, you may find it useful to have their names and contact information: Joe Burcar (joe.burcar@ecy.wa.gov) responded to *Visual, Noise, and Recreation Impacts*; Caroline Corcoran (caroline.corcoran@ecy.wa.gov) to *Ecosystems and Indirect and Cumulative Effects*; Bobb Nolan (robert.nolan@ecy.wa.gov) – *Water Quality*; Millie Piazza (millie.piazza@ecy.wa.gov) – *Social Elements/Environmental Justice*; Annie Szveticz (annie.szveticz@ecy.wa.gov) – *Climate Change and Greenhouse Gases*; and Mike Boyer (mike.boyer@ecy.wa.gov) – *Air Quality*.



Ms. Young, Environmental Project Manager
SR 520 Project Office
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Again, kudos to you those who compiled this SDEIS, and we look forward to our continued work with you and WSDOT on this important state project. Should you have questions, comments, or concerns, you can contact me at 360.407.6789 or terry.swanson@ecy.wa.gov.

Sincerely,



Therese M. Swanson
Ecology Transportation Coordinator – SR 520 project

Enclosures (3)

cc: Megan White, Director of Environmental Services, WSDOT
Scott White, Permit Lead for SR 520 project, WSDOT
Gordon White, Manager of Ecology Shorelands and Environmental Assistance Program
Jeannie Summerhays, Regional Director Ecology's NW Region

Department of Ecology Comments SR-520 Bridge Replacement and HOV Lane Project Supplemental Draft Environmental Impact Statement

APRIL 15, 2010

S-004-002

Enduring and Over-arching Concerns and Challenges

Ecology has consistently and emphatically expressed the following environmental concern throughout the past two years, including the planning and mediation processes; through comments in the pDEIS and associated Discipline Reports; and within the various committees, groups, and forums. Recognition is given to WSDOT's knowledge and expertise in the wetlands arena, yet the important SDEIS comment-phase affords Ecology, in its role as the state agency delegated authority under the federal Clean Water Act to protect wetlands, an ideal opportunity to reiterate the point about wetlands impacts and mitigation sequencing.

Ecosystems

When choosing an alternative and planning a project, the applicant must employ **Mitigation Sequencing**, which involves the following step-by-step analysis and consideration: 1) every attempt must be made first to **avoid** damaging or impairing wetlands; 2) for those activities that simply cannot avoid those impacts to wetlands in the project area, then serious measures must be adopted to **minimize** the damage to the wetlands; and, finally 3) project proponents must provide **compensatory mitigation**, which, depending on the type and function of the wetland, can include restoration, enhancement, and other methods for mitigating unavoidable damage to these important state resources.

When choosing a preferred alternative, the project proponent must consider the impacts of each alternative (i.e. option) and run it through the sequencing regimen. Thus, impacts and potential mitigation are parallel considerations when choosing an alternative. WSDOT must find ways to avoid and minimize wetland impacts to show that mitigation sequencing is being followed properly; i.e. demonstrate the sequencing process used when evaluating the options – it is not as simple as committing to mitigating away all the impacts – the sequencing process must be employed. It's clear that Option K has significantly more wetland and buffer fill impacts than do Options A and L, and thus will require **substantially more** wetland area to mitigate for those significant impacts. What is unclear is how the Option will fare through the sequencing process.

S-004-003

Noise and Visual Impacts

Another significant concern is the importance of the final bridge design, especially relating to heights and accompanying support columns. Upon review of the SDEIS, Ecology has determined that further analysis is necessary in both the Visual and Noise Impacts Sections prior to a decision being made on the final design as it relates to bridge heights.

WSDOT's response to Ecology's preliminary SDEIS comments on **Noise and Visual/Aesthetics**, which suggested consideration of higher profile bridge heights, stated that it is limited in its consideration of other design elements that are outside the scope of the three SDEIS mediation design options. Yet, the format of the SDEIS includes a section within each element titled ***What has been done to avoid or***

S-004-003 *minimize negative effects?” and “What could be done to mitigate for negative effects that cannot be avoided or minimized?”* However, the SDEIS does not specifically state that responses to both of these fundamental questions must be confined to only those elements defined within the three SDEIS design options. In fact, the report reads logically, because for each element, overall project efforts to avoid or minimize impacts are followed by description of mitigation to offset un-avoidable impacts, for which no limitations on the scope of avoidance, minimization or mitigation effort are identified. Therefore, it is not clear why the response to Ecology’s previous comments relied on being confined to the design scope of the three proffered options.

The problem with this response and position is that there is absolutely no clear justification for the lower SDEIS mediation-derived bridge/road profiles. Further, the assumption that low profiles are the only possible outcome appears to derive solely from unproven conclusions or beliefs that higher bridge/road profiles will severely affect views. These perceptions have yet to be illustrated or documented in the SDEIS Visual Impact study. Specifically, the SDEIS Visual Impact Study fails to highlight any visual concerns related to sensitive views in this area or any potential affects related to bridge height or noise wall/bridge-roadway bulk. Again, the assumption, thus far, is only that, and until there is a full discussion and analysis of the impacts to view and noise in the appropriate sections of the SDEIS, AND it can be concluded that such impacts are unavoidable except through lower bridges flanked by high concrete walls, then the threshold documentation and analysis required by SEPA and NEPA has not been met.

Essentially, the (logical) overall advantages of a higher road profile without the need for 12-16 feet- high noise walls could result in: **less visual bulk**, **less environmental impacts** (shading, stormwater) and **less recreational impacts** (canoe/kayak or trails on Foster Island) – benefits to the entire community and public. It is apparent that WSDOT should acknowledge and analyze these associated effects, which Ecology finds essential to completely illustrate avoidance/minimization opportunities associated with the higher bridge/roadway profiles.

Specific SDEIS Chapter and Section Comments

Recreation, Visual, and Recreation Impacts: Project Operation and Permanent Effects - Chapter 5

- S-004-004
1. Recreation
 - a. p. 5-57 - As previously commented, Option K impacts to the University of Washington – Waterfront Activities Center (UW-WAC) will be significant. Additionally, the relatively low bridge profiles for all three SDEIS options in the vicinity of Foster Island could significantly affect aquatic recreational use. The UW-WAC provides a unique aquatic recreational opportunity to thousands of students, faculty and staff. A very popular paddling route takes canoers and kayakers who start from the UW around Foster Island, and WSDOT should acknowledge the replacement bridge’s potential negative effects on this unique aquatic recreational opportunity.
 - b. p. 5-62 - Option K’s impacts to aquatic-based recreation (see paragraph 3) render this option the **most inconsistent, among the current SDEIS options, with Seattle’s Shoreline Master Program**

S-004-004

Conservancy Preservation (CP) environment designation. This point should be noted in the text.

- c. p. 5-63 - As previously commented and included above as a "concern and challenge" "cross-cutting" comment, the two sections on this page listing "*What has been done to avoid or minimize negative effects?*" should also consider raising the height of the bridge deck through the Western Approach area to avoid or minimize further effects to aquatic recreational opportunities within this area. Further, raising the profile of the bridge deck above elevations necessary to avoid or minimize recreational impacts could serve as a potential mitigation opportunity for WSDOT that might "enhance" existing park areas.

2. Visual Quality

S-004-005

- a. This Chapter is lacking adequate details and analysis – i.e. Visual and Aesthetic impacts are simply implied or perhaps noted as "potential", and details explaining whose views, and the number of views potentially affected are necessary. Additionally, there are no conclusions about the cause of a particular viewpoint being affected or the bridge element that would cause such an effect. Additional details relating to the approximate number of housing units or pedestrians at affected viewpoints must be provided to evaluate the real impact resulting from each of the three mediated options.
- b. p. 5-72 – (West Approach Landscape Unit) Table 5.5-4 provides a helpful comparison of the three options. However, the following statement needs to be clarified or otherwise deleted: "*Views would be changed from north Madison Park residences; views of the Laurelhurst hills could possibly be blocked, although more open water in Union Bay (Exhibit 5.5-7) would be revealed.*" This statement includes an incorrect reference (should be Exhibit 5.5-8), and it does not reflect this section's previous information which notes that the freeway will be located 190-feet farther from this viewpoint than the existing structure, which should offset some of the visual impact of the larger replacement freeway.
- This section lacks adequate context; e.g. a summary of the number of residences affected at this viewpoint relative to the total number of residences with the West Approach Landscape Unit.
 - The vague language (i.e. "...could possibly be blocked...") provides no useful information to the reader related to elements of the freeway design that might block this viewpoint; e.g. is it the bridge's low profile; its overall bulk and size; and is the uncertainty related to the proposed incorporation of noise walls within this section of the corridor? Unless additional information can be provided, this statement should be deleted.
 - The vague reference to a possible view blockage is inconsistent with the following avoidance/minimization statement from the **Visual/Aesthetic Discipline Report** under the section "**What has been done to avoid or minimize negative effects?**" "*...the increased spacing between bridge columns to open up views under bridge structures*" (see p. 77, last sentence-first paragraph). Therefore, logic suggests that increasing the height of bridge profiles with the added benefit of reducing the pile density support needed (WSDOT statements from RACp meetings) could actually reduce visual impacts when compared to visual impacts from the current pile-supported bridge structure.
- c. p. 5-72 – (Option A)
- The unclear references to "*...somewhat noticeable greater height of the west approach...which will make the bridge slightly more visible from distance viewpoints.*"

S-004-005

are not illustrated in either the SDEIS or Visual/Aesthetic Discipline Report and therefore are not relevant to this section.

- “Distance viewpoints” are not defined in the SDEIS, thus the reader is left with no relevant information regarding who may be affected and, more importantly, how their views might be affected by increasing existing bridge’s height.
- As previously noted in Ecology comments, in both the preliminary SDEIS and Visual/Aesthetic Discipline Reports, neither analysis adequately evaluates or provides any relevant conclusions as to the potential benefits or negative impacts associated with higher bridge profiles through the West Approach Landscape Unit.
- Finally, the last paragraph concludes that Option A’s impacts on views and aesthetics are insignificant because “long-term vegetation growth will serve to diminish any visual effects of the bridge.” This conclusion, when coupled with a recommendation in the Visual/Aesthetic Discipline Report (page 79, 1st bullet), which encourages re-vegetation^{1[1]} adjacent to the bridge; supports higher bridge profiles because they would allow for more robust vegetation to establish beneath the bridge and adequate natural light to promote vegetation growth, which could also serve to further mitigate visual impacts consistent with the referenced recommendation from the Visual/Aesthetic Discipline Report. Put simply – if vegetation reduces visual impacts, and vegetation grows and establishes more quickly and permanently beneath a higher bridge, then views will be enhanced if the bridge is higher.

S-004-006

d. p. 5-73 – (Option ‘A’ Sub-options) similar comment as stated above.

- The following statement within the second bullet does not provide enough information to inform the reader as to either the basis or significance of “...slight visual changes...”; “Changing the profile of Option A to a constant-slope profile in the west approach would result in slight visual changes compared to the effects described above...” Please clarify whether this statement is intended to imply positive or negative results from the “slight visual change.”

S-004-007

e. p. 5-79 - Under the section title; “**What has been done to avoid or minimize negative effects?**” Consistent with the previous comment, has WSDOT considered raising bridge profiles as a way to minimize visual impact? Some of the benefits have been referenced in comments above (i.e. reduced bridge support column density – opening views below the new bridge deck, increased opportunity to re-establish mature vegetation providing sound attenuation, natural habitat, and visually screening the roadway). In fact, this benefit is mentioned within the “mitigation” section on pages 5-80 & 5-81, but does not appear to be incorporated into the project design or future mitigation plans. Alternatively, if higher bridge profiles do not minimize Visual/Aesthetic impacts, then this should be clearly stated within the SDEIS in reference to the specific viewpoints (including a description) of who would be effected by higher bridge profiles than currently described for all three mediation design options.

1. Visual Aesthetic Discipline Report (page 79, 1st bullet) under the section titled: **What would be done to mitigate negative effects that could not be avoided or minimized?** “Revegetate areas where natural habitat, vegetation, or neighborhood tree screens would be removed. These areas are under Portage Bay Bridge; through Montlake, Montlake Park and the Arboretum. Mature vegetation could generally be used to revegetate parks and re-establish three screens in these areas...”

S-004-007

- f. The SDEIS should also consider the Visual/Aesthetic impacts associated with proposed noise walls along the corridor. The Visual/Aesthetic Discipline Report specifically highlights Visual/Aesthetic concerns associated with noise walls in the reports summary of "Key Points" (page 3, last bullet) and in discussion of "Avoidance and Minimization" efforts (page 77, second paragraph). Therefore, the Visual/Aesthetic Discipline Report conclusion that noise walls can significantly affect views should be carefully and thoroughly considered.
- g. Further, as concluded in the Noise section (see comments below) of the SDEIS, the height of a noise wall is determined by the relative difference in elevation between the roadway and the noise receiver (residences adjacent/above the roadway), thus lower bridge profiles will require higher noise walls to mitigate noise impacts on neighboring receivers. However, higher noise walls will increase Visual/Aesthetic impacts to surrounding views, so higher bridge profiles should be considered as an offset to both Visual/Aesthetic and Noise (lower noise wall required) impacts (while also allowing vegetation to establish and mature along the roadway).
- h. At p. 2-27, the mention of the view from the land bridge under Option K raises a question about relevance – i.e. is this considered to be mitigation for the higher bridge profile of K?

3. Noise

- a. WSDOT's somewhat narrow, constrained response to Ecology's previous comments seriously limits, for all intents and purposes, recognition and consideration of other design solutions that have been noted as potentially effective in the previous Noise Mitigation Guidance.
- b. p. 5-108; Section: "**What has been done to avoid or minimize negative effects?**" As previously commented, WSDOT has not adequately considered all potential Highway Design Measures, including raising the 520-bridge profile through the West Approach area east of Montlake. If raising the bridge profile would mitigate noise impacts, then such measures should be examined in the SDEIS. Alternatively, if WSDOT's noise analysis concludes that raising the profile would lead to significant noise reductions, then that finding should also be stated in the SDEIS. Further, related impacts or benefits from changes to bridge height such as potentially lower noise walls or increased vegetation associated with higher bridge profiles should also be referenced in this section of the SDEIS.
- c. In the "Western Approach Area" (east of Montlake) it appears that lower SDEIS bridge profiles require 12-16 feet- high noise walls along the roadway to mitigate noise impacts to adjacent neighborhoods located at higher elevations (which WSDOT confirmed). Again, the question arises why noise impacts could not be "avoided or minimized" (i.e. Mitigation Sequencing) by raising the entire bridge/road profile, thus reducing the need for such high noise walls. WSDOT has confirmed that raising the roadway could result in lower noise walls, but stated that raising the road profile was outside of scope/authority of their noise mitigation and would not be fiscally feasible to justify through noise mitigation.
- d. Further, based on the information provided in the SDEIS, it is not clear how many residents within the West Approach (east of Montlake) can actually see the bridge or how the replacement bridge will negatively affect them through noise or blighted views. While

S-004-007 | Laurelhurst, and a small portion of Madison Park, residents can see the bridge, yet reside some distance away, and therefore these areas would seem less affected from an increase in bridge/roadway height. Unfortunately, the Visual Impact Study neither confirms nor denies the potential effect of higher bridge/road profiles to these communities. Despite our repeated suggestions, WSDOT has not analyzed the potential visual effects and/or noise mitigation opportunities of higher bridge/roadway profiles through this section of the corridor.

e. Regardless, and somewhat ironically, the SDEIS low bridge/road profiles including the (estimated) 12'-16' high noise walls (required to offset noise impacts) dramatically increasing the overall visual bulk of the roadway, counter to the communities' stated visual concerns. Therefore, it seems logical that a higher bridge/road profile that did not include 12'-16' high noise walls could create less of a visual impact to the neighboring community? (We again encourage WSDOT to analyze higher bridge profiles to inform this important decision.)

S-004-008 | f. In Chapter 2 at p. 2-3 to 2-4, a description of how the final design of the bridge will be determined, but it remains unclear to the reader how this actually will be decided and what the process is.

4. Land-Use

S-004-009 | Thank you for incorporating Ecology's previously-suggested changes to the SDEIS.

Ecosystems

S-004-010 | 1. Project Operational and Permanent Effects – Chapter 5

- p. 144 - 145 Mitigation ratio assumptions are noted. Ratios provided in the Joint Guidance are based on wetland mitigation occurring concurrently with wetland impacts. Mitigation ratios may be adjusted depending on the timing of mitigation construction in relation to project wetland impacts. If mitigation is done in advance of project impacts, ratios may be lowered. If mitigation is done after project impacts, ratios may be raised.

2. Effects during Construction of the Project – Chapter 6

- p.124- Mitigation for ecosystems, including wetlands, should include compensatory wetland mitigation for long-term temporary effects; i.e. those.

S-004-011 | 3. Indirect and Cumulative Effects – Chapter 7

- a. Pages 103 and 106 The document states that, "Wetland fill from Option K would be three times more than from Option L and nine times more than from Option A." This is incorrect. Wetland fill from Option K would be five times more than from Option L and eighteen times more than from Option A. Please correct this error – it is significant and should be addressed earlier than issuance of the FEIS as decisions and opinions may be based on on the incorrect information.

S-004-011 | b. The document states that, "Option K would have the greatest shade effects from project operation, and Option A would have the least." This is incorrect. Option L would have the most shade effects from project operation and Option A would have the fewest.

S-004-012 | c. The document states that "The wetlands assessment did not identify any expected indirect effects of the proposed project on wetlands (WSDOT 2009f)." I did not see any mention of indirect effects in the Ecosystems Discipline Report. Also, Option K proposes to fill 5.4 acres of wetland buffer fill, which may have an indirect impact on wetlands.

S-004-013 | d. The document states that "Where avoidance was not possible, effects were minimized by raising bridge heights, treating stormwater, and improving water quality functions of aquatic wetlands." Bridge height should increase for all Options to further offset shading impacts.

Environmental Justice/Social Elements

1. Executive Summary

S-004-014 | ➤ The summary mentions only a tribal impact under the Environmental Justice discussion (p.41), while the SDEIS Environmental Justice (EJ) analysis also identifies an impact on low-income populations: "The environmental justice analysis concluded that the SR 520, I-5 to Medina: Bridge Replacement and HOV Project would result in a disproportionately high and adverse effect on low-income populations. The disproportionate effect would be because of tolling only and is discussed in Section 5.3 and in the Environmental Justice Discipline Report (Attachment 7)." For balance, this additional EJ impact on low-income populations should be included in the Executive Summary.

2. Public Involvement – Chapter 2

S-004-015 | ➤ p. 1-40 - This chapter would be strengthened by including mention of the EJ analysis as it relates to low-income populations and people of color. Currently only Tribal outreach is listed as relating to the environmental justice outreach for this project.

3. Social Elements – Chapter 4

S-004-016 | ➤ p. 4-23 - The SDEIS mistakenly attributes the establishment of the concept of environmental justice to "Executive Order 12898." The concept's origin should be attributed to Dr. Benjamin Chavis, the previous director of the United Church of Christ's Commission for Racial Justice.

4. Social Elements – Chapter 7

S-004-017 | ➤ p. 7-21 - The cumulative impacts of increased "heavy traffic include noise, air emissions, and lowered transportation efficiency due to idling or slow-moving vehicles" on low-income populations located in the alternate route neighborhoods should be included as an "Indirect Effect" on an environmental justice population

5. Appendix: Environmental Justice

S-004-018 |

- S-004-018
- a. The **SDEIS thoroughly addresses** Ecology's previous EJ comments on the pDEIS and Discipline Reports. The report clarifies the community involvement in the scoping process and clearly identifies the community concerns that were raised.
 - b. The potential impacts to low-income populations and people of color **are more clearly presented**.
- S-004-019
- c. The Appendix references EO12898 and USDOT's Order 5610.2 requirements for requiring federally-funded projects to address EJ in Minority and Low-Income Populations and the explicit consideration of human health and environmental effects. Given these requirements, a summary or evaluation of potential adverse health effects related to the 520 project should be included in the EJ Discipline Report (e.g., air quality impacts).
- S-004-020
- d. It would be helpful if the report clarified how the project will mitigate for the financial burden of tolling (p. 61, 88) on low-income residents. And if no mitigation is proposed, the report should clarify why mitigation options are not being pursued.
- S-004-021
- e. The definition of "variable tolling" needs to be clearly presented on p. 17. It may be misinterpreted that variable tolling refers to a sliding scale income-based tolling program. The definition of variable tolling used for this project does not appear until the "Environmental Justice Survey Final Report" in Attachment 1 at the end of the discipline report.
- S-004-022
- f. The issue of subsidized tolling for low-income drivers should be addressed in the report.

Water Resources-Discipline Report

- S-004-023
- 1. Project Operational and Permanent Effects – Chapter 5
 - Pg. 5-122:- Ecology has not yet reviewed the final AKART study nor approved WSDOT's proposed treatment strategy (i.e. high efficiency sweeping and catch basins) but will begin the process upon receipt of the AKART document. Approval should not be presumed until Ecology issues a formal approval letter. The standard for approval is based on Ecology's need to have reasonable assurance that the proposed treatment strategy will meet state water quality standards. Depending on the final Study's conclusions, which should reflect comments that Ecology made on the draft, Ecology may require WSDOT to develop a monitoring plan for specific treatment components.
- S-004-024
- 2. Effects during Construction of the Project – Chapter 6
 - Pg. 6-134:- How will the project meet water quality standards in the event of an extended time period between phased construction of the four-lane floating bridge and the final six-lane bridge configuration? Is high-efficiency sweeping planned for the four lane phase? Because the four-lane bridge requires significantly fewer supplementary stability pontoons (SSPs), most of the run-off will not will not be routed into the SSPs for dilution and spill containment. Thus, water quality standards cannot be met.

Appendix: Energy and Greenhouse Gases Discipline Report

This SDEIS could benefit from an improved assessment of impacts and discussion of reasonable alternatives for effects associated with greenhouse gas emissions and the "vulnerability" associated with the changing climate combined with the proposed project.

1. Greenhouse Gas (GHG) Emissions Evaluation

a. The analysis of Vehicle Miles Traveled (VMT) and the conclusion of reduced emissions is based on an assumption of no tolling on I-90 (and the existing SR 520 as the "no action alternative") and no light rail between Seattle and the East side. These two measures are now either funded or recommended by the Puget Sound Regional Council (PSRC), thus they are not "remote or speculative" and should be included in the analysis and comparison of alternatives and options.

b. The "operational" GHG analysis is flawed because it addresses only vehicle trips across the bridge. The real analysis of VMT emissions is absent because of a purported decrease in vehicle demand on SR 520 as a result of the proposal.

c. The disclosed increase of VMT on I-90 and SR 522 (to avoid tolling) was not included in the evaluation. Additionally, the indirect and cumulative land-use impacts associated with the proposal could result in additional emissions. The larger transportation system must be included in the analysis of VMT and anticipated GHG reductions because moving VMT from SR 520 to another road will not decrease GHGs.

d. The GHG emissions associated with construction and operational waste management should be addressed, as these could be substantial sources of emissions that could be mitigated without major changes in the options.

e. Other sources of emissions such as extraction, processing, and transportation of purchased materials (also referred to as "embodied emissions") must be evaluated and assessed for available reductions as well. WSDOT's internal "*Interim Approach for Project-Level Greenhouse Gas and Climate Change Evaluations*" (December 30, 2008) indicates that a qualitative analysis of embodied emissions is appropriate in an EIS.

2. Emissions Avoidance and Reduction

➤ Specifics appear to be lacking on if and how reduction of GHG emissions from both the operational and construction activities would occur. A more robust analysis is needed other than simply stating that they "will continue with existing statewide work to reduce transportation GHG emissions" and possibly "undertake measures to conserve energy during construction . . ."

3. Impacts of Climate Change on the Proposal

a. The SDEIS considers (very briefly with no analysis) the impacts of potential sea level rise and increased storm activity to the bridge structure. However, the cumulative impacts of both the proposal and the changing climate warrant consideration. A complete analysis includes not only

- S-004-030 | climate change implications for the state's transportation system but also the cumulative impacts associated with changes in the climate combined with the transportation project on the both the natural and built environment.
- b. For example, a more complete analysis might conclude that climate change impacts coupled with the expansion of the bridge approaches likely will result in additional impacts to wetlands and other nearshore habitat. Plus, local air pollution and air temperature changes combined with the proposal would exacerbate the impacts to human health in nearby communities.

Discipline Report: Air Quality

- S-004-031 |
- Based on the air quality analysis included in the SDEIS, this project meets all transportation conformity requirements for the federal and state Clean Air Acts and the Central Puget Sound Carbon Monoxide Maintenance Plan. WSDOT provides a clear, thorough, and easy to read description of the project along with the appropriate air quality analysis.

Other Topics and Issues

- S-004-032 |
1. Medina Bridge Maintenance Facility
 - Based on the most recent maintenance facility building and dock designs shared with Ecology at a February 4th 2010 Technical Working Group meeting, Ecology would like to acknowledge WSDOT's substantial progress in reducing nearshore/aquatic impacts from the facility by generally reducing overwater structure to the absolute minimum based on the necessary maintenance capabilities. Ecology **anticipates ongoing coordination** to continue to refine this design to minimize aquatic impacts and comply with the City of Medina Shoreline Master Program.

- S-004-033 |
2. Agency Correspondence Section
 - What category of correspondence is this section intended to include? Ecology's comments on the pDEIS, while not in "letter-form" should perhaps have been included in this section.

- S-004-034 |
3. Phasing
 - If the project is constructed in phases, with the 4-lane bridge deck taking priority, will the years w/o the HOV benefit of the built-out 6-lane be evaluated and the impacts revealed?

- S-004-035 |
4. Comparison b/t 2006 EIS alternatives and 2010 SDEIS mediation options

The table at p. 2-41 is somewhat misleading as it equates option K with the Pacific St. Interchange, but only as it relates to traffic movement issues. In other ways, options A and L are more similar to the PIE as depicted on the chart on p. 2-43.

 <h1 style="margin: 0;">SR 520 Bridge Replacement and HOV Program</h1> 							FOR INTERNAL USE ONLY		Task Order #			
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Report Author(s)		Pat Togher					Comments:					
Name of Reviewer(s)/Agency(ies)		Caroline Corcoran, Ecology										
Date of Request		Thursday, October 15, 2009		COMMENTS DUE BY		Friday, January 29, 2010		<input type="checkbox"/> Pass		<input type="checkbox"/> Resubmit		
No.	Page*	Line No.	Exhibit No.	Priority**	Comment	Reviewer Initials	Response	Status Code**	Responder Initials	QC Back-check	QA Check	
Opt	iii	4-7		1	This is a substantive comment about your report.	XXX	<Comment is incorporated.>	A	AAA			
1	3-2	8		1	Not all of the shaded wetlands would continue to function if there is enough shade to prevent all plant growth.	CC						
2	3-2		Table 2.	1	The table shows that mitigation wouldn't be needed for impacts that were less than 0.1 acre. If the impacts are too small to be quantified in the total, please state this.	CC						
3	3-3	6-8			Thank you for stating that the ratios only reflect one type of wetland effect and one type of activity.	CC						
4	3-3	1-5		1	Why is it anticipated that shading impacts would be mitigated on-site before using off-site	CC						

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		18			mitigation? What is the justification for this?						
S-004-041	3-4	5		3	What is footnote "c" linked to?	CC					
S-004-042	3-5	17-19			This is correct.	CC					
S-004-043	4-1			1	Did the Mitigation Team look at areas within WRIA 8 that had the greatest need for restoration, regardless if they were located on the west side of Lake Washington?	CC					
S-004-044	5-3		Figure 1.	1	Why didn't the study area include the east side of Lake Washington? I would recommend expanding the study area to at least include the Kenmore and East Lake Washington-Renton	CC					

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					areas.						
S-004-045	9	5-7	Table 4.	1	Was size of site a consideration during the paring process? Was space for wetland buffers at the mitigation site a consideration as well?	CC					
S-004-046	10	6-9	23	1	How do you expand seep areas on a hill slope? Would this be through the removal of the stormwater facility?	CC					
S-004-047	11	6-9	29-32	1	Wouldn't public access to mitigation areas in the Arboretum be another site constraint or limitation?	CC					
S-004-048	12	6-13	1-2	1	Enhancement is not a preferred mitigation activity. Also, the enhancement area already looks densely vegetated with shrubs and trees.	CC					

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		0									
S-004-048	13	6-17	1-7-32	1	Enhancement is not a preferred mitigation activity. Another constraint would include public access to mitigation areas, since this is a city park.	CC					
S-004-050	14	6-21	2-6	1	Mitigation ratios will be higher if mitigation construction doesn't begin until bridge replacement is complete.	CC					
S-004-051	15	6-25	1-5-32	1	It's good to have so much restoration potential. Wouldn't pedestrian access be a site constraint?	CC					
S-004-052	16	6-29	1-4	1	Enhancement is not a preferred mitigation activity.	CC					

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17	6-33	14-16		1	Enhancement is not a preferred mitigation activity.	CC					
18	6-37	14-16		1	Enhancement is not a preferred mitigation activity.	CC					
19	6-41	13		1	Enhancement area is so small that it doesn't provide a great benefit as a mitigation site.	CC					
20				1	I strongly recommend planning on having a mitigation package that has no net loss of function and area for wetland impacts. This means that re-establishment/creation should occur at a minimum of a 1:1 impact to	CC					

S-004-053

S-004-054

S-004-055

S-004-056

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					mitigation ratio (for fill and potentially for some shading impacts).						
21				1	Though certain requirements for wetland mitigation will need to be met, there is flexibility in being creative and potentially packaging wetland and aquatic mitigation together.	CC					

S-004-056

S-004-057

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Opt.	iii	4-7		1	This is a substantive comment about your report.	XXX	<Comment is incorporated.>	
	2-1 5-1	71-76 513-517		1 1	It is understood that this report is focused on off-site mitigation opportunities and project effects vary by design option. However, the report should emphasize fundamental Mitigation Sequence principles prioritizing project impact Avoidance opportunities as a first priority, followed by project impact Minimization prior to the last step in the sequence of compensatory Mitigation . If the project team intends to evaluate the first two steps (i.e. Avoidance, Minimization) in the Mitigation Sequence through a separate document, then clear reference should be included within this document. At a minimum, Ecology recommends that this document acknowledge the complete Mitigation Sequencing steps as well as describe how this documents mitigation evaluation integrates within the (overall) project effect evaluation.	ECY		
	5-1	518-539		1	The section describes potential effects providing a general distinction between permanent and temporary (construction related) effects. As discussed within Agency Coordination meetings associated with this project, temporary effects will vary from months to years. This large variation in potential temporal impact should be either acknowledged within this section or a reference/summary provided to supporting analysis provided in another project impact report	ECY		
	5-1 & 5-2	540-557	Table-2, Table-4	1	This discussion related to shading is too general and does not adequately distinguish between shading related to the bridge-deck footprint v. height. Particularly between lines 550-557 on page 5-2, the discussion of offsetting impacts of bridge height (existing v. proposed) is too general and does not correspond to the information contained in the tables. Is this discussion and conclusion that offsetting higher and lower portions of the replacement bridge-deck will result in an even trade-off in relation to aquatic shading impacts? Is this conclusion based on any relevant studies or publications? Is this conclusion consistent between all the design options? Further, table 2 is misleading in its label of "Shading Effects". Based on the footnotes below the table it does not appear that the areas within the table are based on shadow generated shade as a function of the bridge height, but are simply the footprint of the permanent bridge-deck regardless of the height	ECY		

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					above the aquatic environment. Along these lines, noise wall height extending above the bridge-deck increasing the shadow and aquatic shading impact of the structure should also be considered within this section.		
	5-4	576-584	Table 4	1	The last sentence of the second paragraph on this page references the variation in bridge-deck height, but does not provide any conclusions related to aquatic resource impacts. Some general conclusions related to project effect and subsequent mitigation requirement should be added to this section.	ECY	
	5-3 & 5-4		Table 2	1	The last sentence of the last paragraph using the word "some" grossly under-emphasizes the significance of the large (tens of thousands of cubic yards) of excavation that would be required under the Option K design. Table 2 does not appear to acknowledge the "90,500 square feet (2.1 acres)" of lost (filled) shallow-water habitat as the table only lists "Area of Overwater Structure...", Table 1 does appear to account for the 2.1 acres of fill, which maybe the appropriate location to list this impact, but could be clarified to the reader. Just reviewing Table 2 would not illustrate the significant difference between these West-side design options and the subsequent mitigation requirements.		
	5-8 & 6-2	672-699 & 820-837		1	It does not appear that the project team reviewed any local Restoration Plans created by Lake Washington Jurisdictions as part of their Shoreline Master Program (SMP) Updates. Locally created Restoration Plans are based on comprehensive Shoreline Inventory and Characterization reports prepared to identify both baseline ecological functions (habitat, hydrology, shoreline vegetation) and Restoration Opportunities within a jurisdictions shoreline area. A local SMP must create regulations that ensure future development within shoreline areas will not result in a net loss of ecological function (i.e. No Net Loss). As part of this process, local jurisdictions also create Restoration Plans that based on the Shoreline Inventory/Characterization prioritize restoration opportunities (projects) to improve (raise baseline) shoreline ecological functions. The Restoration Plan is not a regulatory component of the SMP update, but is intended to serve as guidance for jurisdictions to use to prioritize the most important projects/actions to the local jurisdiction when/if an opportunity comes up. The WSDOT should review these local Restoration Plans to see if any local projects or actions align with WSDOT's mitigation goals.	ECY	
	6-3, 8-2	853-885,	Table 6 & 7	1	The Parcel Classification (vacant or unoccupied) and Parcel Size/Shoreline Length (200 linear feet of shoreline) are too limited considering the urban context of the surrounding area. As summarized in Table 7, Public Parks are	ECY	

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