June 1, 2004

Megan White, Director
Environmental Services Office
Washington State Dept of Transportation
AWV Project Office
999 Third Avenue, Suite 2424
Seattle, WA 98104

RE: SR 99: Alaskan Way Viaduct & Seawall Replacement Project, Draft Environmental Impact Statement

To Ms. White:

C-020-001

We have reviewed the *SR 99: Alaskan Way Viaduct & Seawall Replacement Project, Draft Environmental Impact Statement (DEIS)*, dated March 2004. We applaud the tremendous amount of staff and contractor effort that has gone into producing the information and analysis, as well as the effort to make the DEIS a public-friendly document.

However, we believe that the DEIS is inadequate because the public and decision-makers are not able to evaluate a reasonable range of alternatives. The five alternatives in the main DEIS document are all variations of the same project and involve significant traffic and environmental and social impacts along Seattle's waterfront. The "no build" alternative was not presented in the main document but in an appendix – implying to the reader that this is not a real alternative. Beyond the concepts presented and the "no build" alternative, it is important that a reasonable range of alternatives be presented to the public for this project. In contrast to the alternatives presented, there are alternatives that will move people and goods through and to downtown, AND create a people and environment-friendly waterfront along the shoreline of Elliott Bay. Capacity improvements in underutilized areas of downtown, such as 1st and 4th streets could be further developed and included in a project that improves downtown, the waterfront and Elliott Bay in a creative and far-reaching way. Economic vitality, transportation solutions, environmental health, and a people-friendly waterfront must be placed on an equal tier.

Alternatives need to be developed that accommodate transportation AND create a great waterfront. We would like to see consideration of additional reasonable alternatives that achieve or approximate the purpose of the project at lower environmental costs. A "no build" alternative could involve removing the unsafe viaduct and developing a less expensive traffic access plan including the restriping of I-5, accommodation of traffic into the city on other arterials, such as reconfigured 1st, 4th and 6th and a major commitment to flexible transportation projects. A smaller tunnel could be accomplished

MAIN OFFICE
911 Western Avenue, Suite 580
Seattle, WA 98104
(206) 382-7007
fax (206) 382-7006
people@pugetsound.org

NORTH SOUND
407 Main Street, Suite 201
Mount Vernon, WA 98273
(360) 336-1931
fax (360) 336-5422
northsound@pugetsound.org

SOUTH SOUND
1063 Capitol Way South, Suite 206
Olympia, WA 98501
(360) 754-9177
fax (360) 534-9371
southsound@pugetsound.org

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Thank you for your detailed review of the Draft EIS. We have responded to each of your detailed comments in the responses that follow with your attachment. Regarding the range of alternatives considered, the Viaduct Closed (No Build Alternative) is described in Chapter 3, Alternatives Description, of the Final EIS and is part of the analysis presented in Chapter 5, Permanent Effects. Because the project has evolved since this letter was written in 2004, please refer to the Final EIS for current information.

Mitigation measures have continued to be developed and discussed in Chapter 8 of the Final EIS. The lead agencies have provided numerous opportunities and venues for public and agency review and discussion of the project.

The Final EIS, Appendix O (Surface Water Discipline Report), and Appendix N (Wildlife, Fish, and Vegetation Discipline Report) provide updated information on how the alternatives affect Elliott Bay. The project includes several features that will help improve the health of Elliott Bay, including capturing and treating surface runoff that currently flows into the Bay without any treatment.

Although costs are an important part of project planning and decision-making, they are purposely not a major part of the environmental review process. As provided in CFR 1502.23, for purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations. Overall project costs are included with the project description and are used for the analysis of economic impacts. Cost estimates for the alternatives evaluated in the Final EIS are:

- Bored Tunnel – $1.96 billion

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on the waterfront (4 lanes total) with a lesser amount of concrete on the surface – no more than 4 total lanes and minimal pavement. Another option would be to create two bore tunnels that could avoid impacting the waterfront directly. Through traffic could go into the tunnels at the stadiums and emerge north of Mercer. Two bore tunnels would be significantly less expensive than one – which had been examined by the Viaduct Team earlier in the process but not presented to the public. These concepts should be incorporated into a range of alternatives that would have fewer adverse impacts to be avoided and mitigated, and would meet the transportation needs of the state and city in a win-win project.

In addition to our main objection to the lack of a full range of alternatives for the project, we have serious concerns about the following issues. These comments and other comments are further detailed in the attachment.

- Mitigation measures are not developed for most aspects of the project. We suspect this is because of the tight time frame of the planning process – requiring the DEIS to be published in the first quarter of 2004, for example. The public, therefore, is not given the opportunity to fully evaluate the merits of the alternatives and mitigation measures. Furthermore, additional public process will be needed for any proposed mitigation actions that are developed at a later date.

- No serious effort is presented in the DEIS to improve the health of Elliott Bay. In fact, the nearshore is discounted as being unimportant. It is not acceptable to state that because an area is already degraded then there is no need to restore the habitat and water quality. The nearshore, of which the waterfront is part, is vital, for example, to help bring back the health of juvenile salmon in Puget Sound. Further, the failure to recognize potential for habitat restoration is itself an adverse impact, as building the project without restoration could permanently preclude it.

- Long-term costs of the project, including environmental impacts, and non-direct construction costs – such as impacts to businesses in the waterfront are not included.

In conclusion, we do not believe that the project fulfills the purposes of the SEPA chapter which are: "(1) To declare a state policy which will encourage productive and enjoyable harmony between man and his environment; (2) to promote efforts which will prevent or eliminate damage to the environment and biosphere; (3) and stimulate the health and welfare of man; and (4) to enrich the understanding of the ecological systems and natural resources important to the state and nation."

If you have any questions, please feel free to call me or Heather Trim of my staff at (206) 382-7007.

Sincerely,

Kathy Fletcher

Kathy Fletcher
Executive Director

Attachment

- Cut-and-Cover – $3.0 to $3.6 billion
- Elevated Structure – $1.9 to $2.4 billion

These cost estimates do include different elements. The Bored Tunnel Alternative cost does not include replacing the seawall, improving the Alaskan Way surface street, or building a streetcar. Costs for the Cut-and-Cover Tunnel and Elevated Structure Alternatives do not include replacing the seawall between Union and Broad Streets.

Specific Viaduct/Seawall DEIS Comments
People For Puget Sound

C-020-002

PEOPLE FOR PUGET SOUND'S VISION FOR THE WATERFRONT

People for Puget Sound is a citizens' organization whose mission is to protect and restore Puget Sound and the Northwest Straits. We focus on water quality and shoreline habitat, advocating that the State of Washington devote more resources to the prevention of further degradation of the Sound and to its recovery as a healthy ecosystem. The SR:99 Viaduct and Seawall Project has the potential to be a win-win undertaking that can help us further improve the condition of Elliott Bay and Puget Sound while creating solutions for transportation, the economy and a human-oriented waterfront.

Features of this win-win vision, that is good for the people and good for the Sound, include:

- Nearshore habitat, both constructed and natural, that allows for fish migration along the waterfront
- Quality nearshore habitat for non-migrating species, including birds
- Clean water entering Elliott Bay from Seattle
- Retention of access and capacity through, to and from downtown.
- Transportation solutions that promote less single occupancy driving at the waterfront
- Elimination of the safety risk of the viaduct and seawall
- Good access from the water for all sizes of boats, including kayaks and canoes
- Opportunities for humans to touch the water, such as beaches and low walkways
- Significant green and open space; continuous and interconnected greenway
- Excellent tourist and destination features
- Connections to the neighborhoods
- Reduction of acreage devoted to parking of vehicles, particularly overwater
- A knitting of the water with the land and the land with the water
- Pedestrian Precinct in Downtown, human health prioritized
- Bicycle paths
- Easy transit options and well interconnected transit hubs
- Spiritual places
- Places that honor the area's history
- Quality access for disabled persons
- Vibrant retail areas, cafes
- Facilities for families and residents
- Maritime and other well paid jobs; a thriving Port of Seattle
- Significant reduction of concrete on the waterfront and
- A waterfront that will improve our quality of life, make Seattle proud and attract economic investment in our state.

We can't solve tomorrow's problems with the transportation solutions of yesterday. If we are going to spend $3 to $4 billion, then we want a waterfront that is better than we have now.

C-020-002

Thank you for sharing People for Puget Sound's vision for the waterfront. Since the Draft EIS was published in 2004, the lead agencies have been working through an extensive public process to develop and refine alternatives as part of a public dialogue that has continued since the project began. The most current information describing the project's purpose and need, proposed alternatives, permanent and construction effects, and proposed mitigation is provided in the Final EIS.

C-020-003

DEIS DOES NOT INCLUDE A REASONABLE RANGE OF ALTERNATIVES

The DEIS does not present a reasonable range of alternatives. Some additional reasonable alternatives that achieve or approximate the purpose of the project at lower environmental cost might include:

A double bore tunnel. We understand (Bob Chandler, personal communication) that a single, large bore tunnel was initially considered for the project. We propose consideration of two smaller bore tunnels from the area of the stadiums to north of Mercer. Two bore tunnels would be significantly less expensive than one massive bore tunnel. Bore tunnels, although costly, would eliminate major costs associated with years of construction impacts, as well as negative environmental impacts, along the waterfront. The duration of construction, 7.5 to 11 years, as stated in the DEIS, does not include 18 months of utility relocation and site preparation, which would involve construction of access roads and staging areas, relocation of the #5 Fire Station, and relocation of utility and rail lines.

Reasons to avoid impacting the waterfront with 7.5-11 years (plus an additional 18 months) of disruption:

- The proposed alternatives require the purchase or displacement of 14-33 parcels for needed rights-of-way, including 8-20 structures, displacing 273-581 jobs.
- Noise, dirt, light and glare during construction which would impact 6,183 dwelling units (9,759 persons), including 1336 that are low income, special needs or emergency, that are located within one to two blocks of the construction area (Appendix I, Social Resources Technical Memorandum, page 9).
- Arrival and departure of construction trucks, lack of parking, difficult access, and utility disruptions for 1098 businesses within one block of site – 78.5% of which are small with less than 20 % employees (Appendix P, Economics Technical Memorandum).
- Disruption of rail and freight traffic
- Significant potential water and sediment quality problems during construction. Potential water quality problems outlined for the various alternatives in Appendix U (Hazardous Materials Discipline Report) include a) remobilization of existing soil and groundwater contamination by construction activities or by drawdown of groundwater, b) contamination issues related to dewatering activities, and c) direct impacts to Elliott Bay.

Smaller Tunnel, Moved to the East: Creating bore tunnels or moving the cut and cover tunnel to the east, in order to provide more room for habitat restoration, would eliminate the need for filling in Elliott Bay and allow for a more flexible seawall plan. Pocket beaches, cutouts of the seawall, creation of coves and bird islands, and more, could be created if the tunnel is moved east and separated from the seawall. A smaller tunnel could be accomplished on the waterfront (4 lanes total) with a lesser amount of concrete on the surface – no more than 4 total lanes and minimal pavement.

A Different approach to a "No Build" alternative: A "no build" alternative could involve removing the unsafe viaduct and developing a less expensive traffic access plan including the restriping of I-5, accommodation of traffic into the city on other arterials, such as 1st, 4th and 6th – which would involve some reconfigurations – and a major commitment to flexible

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Since this Draft EIS was published in 2004, the lead agencies have been engaged in a very public process to develop, evaluate, and refine concepts and alternatives evaluated in the Supplemental Draft EISs published in 2006 and 2010 and the Final EIS.

The preferred alternative is a Bored Tunnel Alternative, which is a variation of the ideas you suggest below. An I-5, surface, and transit concept was considered and was dropped for reasons discussed in the Final EIS.

C-020-003

transportation projects. Capacity arguments in the DEIS support using the street grid and making improvements on I-5 and increasing transit. If the City can handle reduced capacity during construction phase, why can't it be handled permanently? Further, the system is constrained by capacity limits to the north and south (Appendix C), which supports the argument for a more encompassing traffic plan that involves multiple entry points into downtown. This "No Build" alternative would also avoid the costs and impacts listed above under *bore tunnels*.

C-020-004

SCOPE OF PROJECT NARROWED

The initial project, as described in 2001 Federal Notice, included a wider range of alternatives. This range was narrowed but the reasons were not fully explained in the DEIS. Some options were, as noted in the DEIS, considered too expensive but no details were provided. It is not clear that adding transit capacity or reconfiguration of the surface street system would not be cost-effective in the long-term.

Scope of project from 2001 Federal Notice of Intent: "The proposed action would provide a facility with improved earthquake resistance that maintains or improves mobility for people and goods along the existing SR 99 Corridor. The proposed action would involve improvements to the existing 2-mile viaduct structure or construction of a new facility. The southern terminus of the project would be the First Avenue South Bridge. The north terminus would be north of the existing Battery Street Tunnel and will be determined after project scoping to (1) not preclude a possible connection to the south Lake Union vicinity (the Mercer Street Corridor connection to Interstate 5), (2) not preclude a possible realignment of the SR 99 corridor, and (3) not preclude using the existing Battery Street Tunnel and existing Alaskan Way Viaduct facilities."

"Although alternatives have not yet been identified, preliminary alternatives under early consideration include: taking no action, seismic retrofit of the existing structure, in-kind replacement of the current structure, replacement with a new elevated structure of a different configuration, replacement with a tunnel, removal of the viaduct and reconfiguration of the surface street system, adding transit capacity, or combinations of these solutions."

Nickel-Funding Restriction: Under the 2004 Supplemental Transportation Appropriations (ESHB 2474: Sec 302 (15)), a proviso was added that limited the state funding to options that replace capacity through the waterfront corridor. The project, however, has also been funded by other entities, including the Seattle ($5 million), Puget Sound Regional Council ($1.2 million), the Corps of Engineers ($100,000), and the federal 2003 budget ($2 million) according to the WADOT web page, and those funds could be used to look at alternatives that use the entire downtown area.

Ideas brought out by the Leadership Team: The Viaduct/Seawall Team created a leadership team to help guide the project. People For Puget Sound strongly supports many of the ideas that are listed on the WADOT web page from this group. Some key concepts include:

- Take advantage of opportunity to add capacity through, about, and around downtown.
- Create multi- modal solutions – transit, single occupant vehicles, freight, bicycle-pedestrian facilities, ferries, light rail, etc.

C-020-004

Since the project began in 2001, several Notices of Intent have been issued in response to various changes to the project's scope. These changes in scope, have often been in response to concerns and opportunities raised the public, agency personnel, and decision-makers, such as the Governor and Mayor of Seattle. As stated in your letter, the 2001 Notice of Intent had a broader scope than the Notice of Intent published in 2003. However, in 2008, Governor Gregoire, former Seattle Mayor Greg Nickels, and former King County Executive Ron Sims committed to a collaborative effort, called the Partnership Process. The Partnership Process looked at how improvements to the broader transportation system (including Seattle surface streets and I-5) could work with various ways to replacement the viaduct. The Partnership Process occurred as part of the NEPA process for the Alaskan Way Viaduct Replacement Project as documented in a Notice of Intent published in the Federal Register on July 16, 2008.

Many of the ideas brought out by the Leadership Team outlined in your comment letter have been incorporated into the project alternatives to the extent feasible. These include developing multi-modal solutions and improving open space, public space, the waterfront, and the relationship of the City to its waterfront.

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- Create an open space along the waterfront, including public space, connections to downtown, and commerce.
- Create a beautiful waterfront and enhance the vitality of the area.
- Preserve relationships of the City with its waterfront.
- Bring the waterfront back into the City.

CONFLICT WITH CITY VISION FOR A GREAT WATERFRONT

C-020-005

The Mayor has publicly stated that he views the waterfront as the city's front porch and that he supports the city's waterfront planning process. The City Council has adopted visions/guidance statements conflict with the Viaduct/Seawall DEIS:

Seattle City Council Viaduct Resolution 30497 (July 15, 2002): City Council and the Mayor passed a joint resolution (#30497 *A Resolution relating to the Alaskan Way Viaduct and Seawall Project,* indicating the high priority of this Project and establishing initial guiding principles for the Project.) on July 15, 2002:

- High Priority Project. The Alaskan Way Viaduct and Seawall Project is one of the highest transportation priorities for the City of Seattle. The Project is necessary to address safety issues and maintain the corridor as a critical component of the local, state and regional transportation system.

- Section 2. Principles. The City intends to use the following principles to guide its actions on the Project, with the understanding that the Project will be further developed through review and analysis of options by the City and WSDOT:

  a. Address Safety Risks. To protect public safety, urgent action must be taken because both the Viaduct and Seawall face a significant risk of failure. Significant damage to either one would very likely result in injury and loss of life, property damage, economic loss, and disruption of the regional transportation system, so any proposed solution must provide for significant improvement or the replacement of both structures.

  b. Phasing. The City recognizes that the magnitude of the overall project will likely necessitate a phased approach for construction. If phased, each phase should have functional utility and should allow the corridor to be used during construction. The initial phase should focus on the areas that pose the greatest safety risk, primarily the central waterfront. But the initial phase must also produce a functional roadway that, to the extent possible, is integrated with the existing street network and begins to address long-term transportation solutions for the South Lake Union area. The City and WSDOT will coordinate construction phasing with other major construction and redevelopment projects.

  c. Funding. Funding for a project of this magnitude, which is a critical component in the City's transportation infrastructure, a key link in the region's freight mobility network and an essential element of the State's highway system, will require a broad partnership between the City, the Port of Seattle, the State, and

C-020-005

The City of Seattle, as one of the three lead agencies, has been working with the project team to comply with all of the applicable plans and policies of the City. The City's Department of Planning and Development has been working concurrently on a new Waterfront Plan that meets the various neighborhood and habitat goals. The project has focused on minimizing Puget Sound habitat impact and on protecting this valuable resource. Design modifications have been made and will continue to be made to minimize or eliminate encroachment into Puget Sound and to minimize impacts of seawall reconstruction (a project necessity) on habitat. Waterfront access has been and continues to be a major City and project team priority, both during and after construction. The project alternatives reflect the importance of the waterfront and have been designed to either remove most functional and aesthetic disruptions (tunnel alternatives), or to minimize those while still meeting current highway design standards (Elevated Structure Alternative).

C-020-005

other regional representatives, as well as direct Federal support. The City is committed to working cooperatively to establish such partnerships and to support approaches that can jointly address the funding requirements of the project and other regional and state transportation needs.

d. Design. Overall design should address urban design issues unique to each neighborhood, minimize adverse impacts to neighborhoods and local businesses from construction activities, and minimize environmental impacts. Priorities for the three components of the Project are as follows (these are based on current information about the components and options being analyzed, and will be further developed based on ongoing analysis):

1. South. Design should provide improved connections to SR 519, the Spokane Street Viaduct and the stadium area, as well as allowing flexibility for future redevelopment along the waterfront adjacent to Pioneer Square and the stadium area.

2. Central. To the maximum extent practicable and feasible, design should include an underground tunnel and integrated seawall replacement along the central waterfront in order to reconnect downtown neighborhoods with the waterfront and to provide opportunities for open space amenities and an improved pedestrian environment.

3. North. To the maximum extent practicable and feasible, design should include an underground tunnel with a portal north of Roy Street, allowing the surface streets in the South Lake Union/Seattle Center area to be reconnected in order to improve access and mobility, and improved connections between SR 99 and I-5.

Seattle City Council Waterfront Resolution 30664 (April 26, 2004): The City Council adopted *A Resolution adopting Principles for Development of a Central Waterfront Plan* which included the following Framework Principles for Development of a Central Waterfront Plan:

- Balance and Integration.
- Access and Connection.
- Authenticity and Identity.
- Destination and Movement.
- Diversity and Flexibility.
- Economic Development
- Environmental Sustainability. *Develop the waterfront as a model of environmental sustainability through redevelopment and public improvements that enhance marine habitat and migration, improve water and air quality, and reduce noise. Pursue "salmon-friendly" practices and improvements to enhance migratory fish routes and feeding areas.*

We included the text for the Environmental Sustainability bullet to demonstrate the commitment of the City to habitat and water and air quality along the waterfront.

C-020-005

City/State Plans: The Viaduct/Seawall proposed alternatives are not consistent with most of the stated goals of city and state plans and policies which are listed in Appendix G (Land Use and Shorelines Technical Memorandum), such as the Shoreline Master Program, Belltown Neighborhood Plan, and the Commercial Core Neighborhood Plan. ***Specifically, People For Puget Sound disagrees with the DEIS conclusions that the project, as proposed, is in line with the Shoreline Master Program (Appendix G, pages 43-49). The project does not protect areas of the shoreline that are biologically fragile, provide for the optimum amount of public access, relocate transportation facilities that are functionally or aesthetically disruptive to the shoreline, or ensure that all future uses will preserve and protect environmental systems, including wild and aquatic life.***

MITIGATION

C-020-006

The DEIS generally addresses the topic of mitigation by providing "potential mitigation" measures or by stating that mitigation actions will be developed at a later date. There are few specific mitigation measures outlined in the DEIS and appendices. The description of mitigation as "potential" measures leaves no assurance that any mitigation is actually proposed or guaranteed. We understand that a tight deadline was imposed – that the DEIS was required to be published in the first quarter of 2004 - but there is no assured public process to review proposed mitigation measures before the project is finalized. Further, it is difficult to evaluate the proposal when mitigation is not included or is proposed in minimal terms.

As an example, in Appendix T (Geology and Soils Technical Memorandum, Chapters 8 and 9) minimal mitigation measures are described for some aspects of the project, but in other cases mitigation is described as requiring the use of proper design techniques ("Drainage features...should be properly designed..."), as actions that "should" be done ("The stockpiles should be covered with plastic to mitigate erosion due to surface water and rain.") or actions that "could" be done ("Geotextiles could be used to reinforce potential failure zones within the fill."). In sum, there is no clear comprehensive mitigation plan for each alternative that can be evaluated in a systematic fashion.

Further, no mitigation is proposed for mounding of groundwater in the Central Waterfront where groundwater is only 8-12 feet below ground surface: "Potential groundwater buildup of this magnitude would be within the existing groundwater fluctuations resulting from tides in Elliott Bay. Therefore, mitigation measures will not be necessary." (Appendix T, page 102). People For Puget Sound requests that this issue studied further. If groundwater will be re-routed, or mounded up, in the project area due to soil grouting, then will there be areas of preferential flow that will cause undermining of the surface in other areas?

COMPLETE LISTING OF COSTS

C-020-007

It is not clear that all costs have been included, especially long-term environmental costs. Specific concerns are:

- Did project costs include construction-related costs such as relocating businesses during construction, and operating employee shuttles?

C-020-006

The Final EIS outlines the proposed mitigation measures to address project effects. Please see Chapter 8 for the mitigation discussion. Each of the Final EIS appendices contains a section that addresses mitigation for that discipline. The project's Record of Decision also will outline the project's mitigation measures. In some cases, specific mitigation measures will not be identified until final design of the project occurs, when the contractor knows exactly how the project will proceed. The lead agencies will mitigate for project effects as required by environmental regulations.

C-020-007

These construction-related costs (which are neither long-term nor environmental) were included in the project cost estimates.

C-020-008

- *How much funding is included for mitigation?:* The mitigation proposals are sketchy for most aspects of the proposal. Have these costs been included in the overall projected costs for the alternatives? For example, in Appendix B (Alternatives Description and Construction Methods Technical Memorandum, page 71) direct transit enhancements are described. The final sentence, however, states: "Specific options on how the funding would be used are not known at this time and could be identified during the development of the preferred alternative."

C-020-009

- If quality habitat is not provided with this project for the waterfront, will we have to rip it all out and start over again in 20 years? The City is committed to the restoration of salmon and this project should provide progress towards that goal.

REMOVAL OF PROJECTS TO REDUCE COST OF VIADUCT PROJECT

C-020-010

It appears that a number of aspects of the proposal were included in the earlier $11 billion price tag have now been separated out and are not included in the DEIS:

- *Elliott to Alaskan Way Underpass*: A huge issue for future congestion in the waterfront is the increasing number of trains traveling north at Broad Street. Initially, the Viaduct/Seawall Team addressed this problem by creating an underpass as part of the viaduct project. In the DEIS, however, this project is now described in Appendix B (Alternatives Description and Construction Methods Technical Memorandum, page 129) as a City of Seattle project and further, it is unclear if it will be built. Trains are expected to increase from the current 10 per day to 39 per day within the decade (Bruce Agnew, personal communication).
- *Mercer Mess:* Does this project include funds for all of the fixes proposed for the Mercer Mess and other problems north of downtown?
- *Transit Opportunities:* How much funding does this project dedicate towards alternative transportation and transit? The WADOT web page states: "project does not expand capacity for future growth so that growth will need to be accommodated in modes other than single occupant cars. All of the alternatives include a range of flexible transportation programs that will ensure that people and freight continue to move through the corridor far into the future....Currently, 45% of commute trips to downtown Seattle are transit trips. Provisions to ensure that transit can continue to access downtown Seattle from the SR 99 corridor are being considered in each alternative. Measures such as transit priority treatments at traffic signals and provision of temporary transit lanes may be implemented during construction. Some of these measures may be continued permanently, if necessary, to maintain transit mobility. The lead agencies will continue to work closely with local transit agencies to identify the best mix of strategies to give transit vehicles priority on congested roadways where they are most effective." Will funding for these measures be included in the Viaduct/Seawall project?

TRANSPORTATION ASSESSMENT INCOMPLETE

C-020-011

Transportation information is vital to the evaluation of this proposed project. Additional information would assist the public to better review the alternatives.

C-020-008

Specific funding for environmental mitigation has not been developed. For a project of this size, funding will most likely come from a variety of sources. Cost estimates (which should not be confused with funding) for the mitigation measures described with the preferred alternative are included in the overall project cost estimate.

C-020-009

The habitat mitigation and enhancement measures provided by this project make a long-term contribution toward improvement of the marine environment for salmon and other species by improving water quality. Also, careful attention has been paid to avoid precluding habitat improvements by other projects or agencies. For example, the City of Seattle is now studying a variety of surface treatments for the seawall to see what types of features best support marine organisms. The seawall created by this project has been designed to support whatever treatments are developed by the City.

C-020-010

The comment is correct that several aspects of earlier proposals are not included in the Final EIS. The underpass near Broad Street was included in all 2004 Draft EIS alternatives; but upon further study, it was eliminated and replaced with connections to Elliott and Western Avenues. These ramps provide efficient connections to the Ballard-Interbay area without increasing traffic along the northern section of the central waterfront. This also avoids conflicts with train traffic.

Improvements to the West Mercer Corridor are currently under study by the City of Seattle. This is a separate project addressing different needs and is independent of the Alaskan Way Viaduct Replacement project. Both studies are being closely coordinated by the City of Seattle to ensure that proposed actions are consistent with each other. The projects are funded separately.

C-020-011 In Appendix C (Transportation Discipline Report), reference is made to *Task 1 Report* (December 1996) but it is not clear that "insights on travel characteristics of trips made on the Alaskan Way Viaduct" are provided in the DEIS or Appendix C. Specific evidence is lacking for the statement on page 53 of the Appendix that 38% of vehicles that use Viaduct on a daily basis have one trip-end in downtown Seattle

Additional questions that remain unanswered in the DEIS include:

- Where are the commuters coming from and going to within downtown?
- What trucks use the viaduct, where do they come from, where do they go, and what time of day do they travel?
- What trucks use Alaskan Way, where do they come from, where do they go, and what time of day do they travel?
- How many trips on the Viaduct are to and from the airport?
- How many trips on the Viaduct are optional (i.e., if the viaduct was closed, the trips would not occur)
- Where are ferry autos (in-vehicle boarding) headed once they exit Colman Dock?
- What is projected rail traffic at Broad Street?
- What evidence is there that the entire 110,000 vehicle load would transfer to I-5 as stated on page 38 of the DEIS?

C-020-012 *Ferry location and traffic:* The congestion caused in downtown during ferry off-loading periods will become much worse if the Colman expands from 650 to 1100 vehicle capacity. An old Washington State Ferry traffic report (1999 WSF Travel Survey Analysis and Results Report) shows that 51% of the walk-on traffic (weekday pm peak period) from the Bainbridge Ferry goes to the Seattle Central Business District but the destinations for the auto traffic is much more diffuse:

Destination	
Seattle Central Business District	12.7%
Seattle Industrial Area	2.8
South Seattle/West Seattle	7.8
Sea Tac	8.9
Capitol Hill/University District	16.8
Queen Anne/Lake Union/Magnolia	10.0
Ballard/Green Lake/North Seattle, etc	7.6
Bothell/Redmond/ N Bellevue and CBD	5.8
Other Bellevue/Mercer Island	13.3
SW and West King Co/ Renton/Kent	6.7
All other places	7.9

Unfortunately, peak AM data was not included in the study. People For Puget Sound advocates relocating the auto ferry to the south for better connections to I-90, I-5 and SeaTac and retaining and increasing passenger-only ferries into downtown. New technologies and the use of private carriers may be warranted.

C-020-013 *Traffic will move onto arterials or will shift to transit in the future:* As described in Appendix C, traffic demand models forecast that transit mode will shift from 23 to 45% by 2030. If this shift

Regarding funding for transit improvements, the project costs do include funding for the measure cited in the comment. These types of transit improvements are a critical part of maintaining mobility while the project is under construction.

C-020-011

Traffic analyses have been updated in the 2006 and 2010 Supplemental Draft EIS and in the Final EIS. Appendix C, Transportation Discipline Report, of the Final EIS contains detailed information regarding traffic volumes and characteristic travel patterns in the corridor.

C-020-012

AM peak period traffic data has been included in the Final EIS. This provides a better understanding of what traffic conditions can be expected in the vicinity of Colman Dock. Please see Appendix C, Transportation Discipline Report, of the Final EIS for more information. Redesign of the ferry terminal at Colman Dock or related ferry queuing facilities would be led by Washington State Ferries and would not be a part of this project.

C-020-013

Thank you for your comment. The text in the Draft EIS explains possible high and low ranges for traffic volume forecasts on the viaduct and arterial streets. The high end of the range represents the maximum traffic volume that would be expected to travel along the viaduct. Additional increases in traffic along the viaduct would not be possible without first addressing capacity on facilities that connect to the corridor. In essence, upstream and downstream capacity constraints limit the amount of traffic that will be able to travel along the viaduct. The Draft EIS is not attempting to support an argument for directing capacity to side arterials but does suggest that there are upper limits to the amount

C-020-013

does not occur, then the Viaduct Team's model shows that vehicle traffic on arterials in downtown will increase 27-29% and on the viaduct only by 6-7% (Appendix C, page 14). The capacity constraints on the viaduct are due to capacity constraints outside of the corridor and constraints on roadways that feed traffic to SR 99. This appears to support an argument for directing capacity to the side arterials.

C-020-014

How many commuters are there in the proposed rebuild segment? Looking at the DEIS and Appendix C, it appears that the total number of commuters to downtown is relatively limited, in part due to constraints on the current system. For example, southbound commuters using the Interbay area may not go onto the viaduct to downtown because of the lack of easy downtown exits. Other potential commuters may use alternative routes due to the large number of stoplights and significant congestion on SR99 north and south of downtown.

In an attempt to get a picture of the daily commuters to downtown on the Viaduct, one can use the pm peak hour vehicle numbers provided on Appendix C Exhibit 4-9:

2600 Commuters/Travelers come into the Viaduct southbound through Battery Street Tunnel:
300 exit at Western, 700 exit at 1st Street
1250 enter at Elliott, 1300 enter at Columbia
4100 continue on towards West Seattle Bridge where 1750 exit and 2450 continue south
This appears to represent approximately 1000 commuters from the north to downtown, 2550 commuters from downtown to the south and approximately 1600 travelers from north of downtown traveling through to the south.

Northbound, using peak pm hours:
3300 travelers come from the south (Spokane entrance and points south)
1200 enter at 1st Ave, 500 enter at Western
650 exit at Seneca, 1250 exit at Western
3050 continue through Battery Street tunnel
This appears to represent approximately 1900 commuters from south of downtown to downtown or Interbay, 1700 drivers from downtown commuting to the north and approximately 1400 travelers from south of downtown traveling through to the north

Even if you multiply this by 3 (to represent 3 rush hours), these are not huge numbers of drivers. AM peak traffic numbers were not provided but likely a reverse pattern is observed. This contrasts with the daily travel patterns reported in Appendix C (page 59) in which higher percentages overall are through-trips: 45% entering to and from the south are through-trips and 60% of vehicles entering to and from the south are through-trips. Overall, a clearer picture is needed of who uses the viaduct and where they are going.

C-020-015

Trucks: Appendix C notes that truck traffic (page 91-95) is as high as 5200 trips per day, mostly during non-commute times, and consists of more than 50% medium trucks, primarily concrete and delivery trucks. Tankers make up about 2% of the truck traffic. The Port of Seattle, in a letter dated August 27, 2001, (Appendix A, Agency and Public Coordination) clearly states that their freight transportation needs are well served by connections to the south and that it is

of traffic that can be expected along the viaduct in the future.

Note also that parallel arterials do not have much available capacity. Percentage increases are relative to the current amount of traffic carried by these roadways and reflects that they do not have the capacity to carry the same magnitude of traffic as does SR 99 or I-5.

An updated travel demand model has been prepared and was used for the Final EIS analysis and evaluation. The updated model results forecast lower projections of future transit ridership relative to the Draft EIS analysis. See the Transportation Discipline Report of the Final EIS (Appendix C) for more details.

C-020-014

The Alaskan Way Viaduct serves a variety of users and trip patterns. Commuters to downtown are one of many user groups. The daily volumes shown in the updated Transportation Discipline Report (Appendix C) of the Final EIS include all trip types that would be made during the AM and PM peak hours, including commuters, non-work trips (shopping, school, etc.), and commercial trips (freight, delivery). Additionally, the viaduct carries both trips destined to downtown as well as trips between areas located on either side of downtown. In total, the viaduct carries about 20 percent of all north-south traffic traveling in central Seattle. The Final EIS Appendix C, Transportation Discipline Report, includes information regarding travel demand and travel patterns for the Alaskan Way Viaduct.

C-020-015

The lead agencies agree that maintaining freight mobility is vitally important for the region and have coordinated extensively with the Port of Seattle. Project design for each build alternative has considered freight mobility. Please see the Final EIS for current information about the proposed build alternatives and their potential effects on freight.

C-020-015 important that the existing infrastructure to the south is maintained and that a regional view to freight transportation is needed. Reliable and fast freight traffic is vital to our region's economy but clarity is needed on how much impact this project will have on businesses.

C-020-016 *Flexible Transportation Program:* People For Puget Sound advocates that this aspect of the project be enhanced. It is unclear how much the Viaduct/Seawall project will pay of the total cost of the Flexible Transportation Program. FlexPass programs (Appendix C, page 68), for example, include a cost to the company or to the employee. Also, no clear plan is presented to remove traffic volume off the viaduct and onto mass transit.

HABITAT

Habitat along the nearshore of Elliott Bay is high priority for People For Puget Sound. The nearshore habitat has been recognized as a critical element of the life cycle of salmon, especially for juvenile salmon.

Specific habitat-related concerns include:

C-020-017 • The main text of the DEIS (page 33) does not mention the value of the shoreline habitat prior to urban development of the area and does not include the environment as an aspect of the proposal that is considered controversial (page 27). People For Puget Sound believes that environmental aspects, especially habitat, are high priority and are not being adequately enhanced by this project.

C-020-018 • Appendix R (Fisheries, Wildlife and Habitat Discipline Report) notes that the water's edge is "the transition zone between the natural habitat of Elliott Bay and the highly urbanized habitat of Seattle." The new waterfront is an excellent opportunity to change this edge to a more transitional edge that will benefit both sides. The DEIS acknowledges that the Seattle waterfront is a migration corridor and rearing area for two endangered species, the Puget Sound Chinook salmon and the bull trout, which have both been observed. The report states oddly that "Chinook salmon spawn in the Duwamish River upstream from River Mile (RM) 11, which is many miles from the project area. Duwamish River Chinook Salmon are part of the Green River fall Chinook salmon stock. This stock is currently listed as healthy based on escapement levels. Young Chinook from other river systems have been collected along Elliott Bay shorelines." These statements minimize the importance of the Puget Sound nearshore habitat, which has been recognized as key habitat in the life cycle of salmon. Further, the Green River/Duwamish salmon population is projected to go into quasi-extinction levels (QEL) within 40-50 years if major changes are not made in the river and estuary (including the Elliott Bay nearshore) due to seriously declining trend of breeding stock.

C-020-019 • Description of fish and other species, including recent actual counts along the waterfront, are limited. For example, on page 48, the DEIS does not mention that salmon from Long Fellow Creek that enters Elliott Bay, as well as the recent recognition that salmon from other areas of Puget Sound use the waterfront as part of their migration corridor.

C-020-020 • On page 49 of the DEIS, the project is listed as 0.01 % of the overall watershed. This is misleading. The waterfront is a large percentage of the 13-mile long Elliott Bay shoreline (nearshore) and thus is significant.

C-020-021 • The DEIS proposes that urban vegetation be planted in the waterfront corridor. People For Puget Sound requests that native vegetation be incorporated.

C-020-016

Since the Draft EIS was published in 2004, the transportation planning effort for construction has been greatly expanded. Updated information on proposed traffic mitigation strategies can be found in Appendix C, Transportation Discipline Report, of the Final EIS.

Typically, project costs are not included in environmental documents. We suggest you consult the project website (http://www.wsdot.wa.gov/projects/Viaduct/) for more information about project costs.

C-020-017

Existing conditions for the project do not include shoreline habitat prior to urban development. Urban development in the area removed natural shoreline habitat conditions by the early 1900s. The EIS process assesses potential changes to existing conditions and the cumulative effects of the project when added to other past, present, and reasonable foreseeable future projects. This project is not intended to restore the shoreline habitat of the Seattle waterfront, although habitat enhancement and mitigation are being considered as part of the design and environmental review process.

The desirability of restoring natural shoreline habitat was not identified as controversial, because there is a general desire by the lead agencies to enhance habitat conditions where feasible and appropriate. However, there are limited areas along the Seattle central waterfront to accommodate such natural habitat configurations. In addition, the project has also been redesigned, based on comments received throughout the NEPA process, to minimize the potential effects of the project on the marine environment, thereby potentially reducing the need for compensatory mitigation for project effects.

C-020-022 • Appendix M (Archeological Resources and Traditional Cultural Places Technical Memorandum) indicates that the several of the tribes require protection of water and fisheries resources and habitat. We support their point of view.

C-020-023 • The DEIS proposes that a new 33,000 square feet pier be built near Pier 48 to be used as a staging area in addition to proposed intertidal land being used for the tunnel alternatives. People For Puget Sound opposes any new pier construction in Elliott Bay as it shades the water and eliminates habitat. If WA State Ferries proposes building a pier for their expansion plan, that should be covered under a separate public review process. As noted in Appendix R (page 22), juvenile salmon were willing to pass under a detached section of pier but "showed a great reluctance to pass into the dark area beneath the wood pile-supported apron." Finally, moving the tunnel alignment to the east would provide more opportunities for habitat improvements as well as eliminate the need to remove habitat from Elliott Bay.

C-020-024 • Appendix R (page 2) does not mention that construction will start in 2005 for fish passage around Howard Hanson Dam and will be completed by 2007 – which will significantly increase spawning and rearing habitat for salmon and bull trout and thus will, we hope, increase the need for more nearshore habitat in the estuary, including Elliott Bay. Bull trout are targeted for recovery in Green/Duwamish and thus should be considered high priority for the waterfront as well.

C-020-025 • Appendix R (page 2) states "The purpose of the proposed alternatives is to restore reliable transportation along the Alaskan Way Viaduct route and the structural integrity of the seawall to maintain its long-term structural support of the Alaskan Way Viaduct, Alaskan Way, and waterfront buildings." The alternatives clearly do not consider habitat as a priority.

C-020-026 • The proposed seawall will include additional "modified habitat" to be added to Elliott Bay but the project as a whole results in significant loss of habitat in Elliott Bay. Just adding riprap (Appendix R, page 41) as proposed is not adequate for habitat for the nearshore. The quality of this habitat needs to be further studied.

C-020-027 • Will the public be given the opportunity to review the Biological Assessment and the Essential Fish Habitat analysis that is planned as part of the next phase of assessment (Appendix R, page 36)?

C-020-028 • The DEIS proposes the new seawall to support the new viaduct structure and thus has not considered options for the seawall to support the waterfront alone under alternative options that were not considered (Appendix R (page 3)). We request that the construction of the seawall be studied as a stand-alone entity as part of new alternatives.

C-020-029 • According to Appendix R (page 9), permit conditions for ESA listed species will include "gradual intertidal slopes, to the degree possible, fine grain substrate (mixtures of sand-gravel-cobble) and absence of shading on the restored habitat." These are limited ideas and do not consider many other possibilities for providing habitat such as rocky intertidal, constructed bird islands, kelp beds, etc.

C-020-030 • In spite of the current unfavorable habitat along the waterfront, juvenile salmon have been documented on the waterfront by Port of Seattle studies (Appendix R, page 23). The DEIS makes a great case as to the loss of habitat in the Duwamish estuary but does not provide a plan to help reverse that loss.

C-020-031 • *Seawall improvement:* A critical aspect of the project that impacts Nearshore Habitat is the proposed new seawall. In areas where there is Pile-Supported Gravity Seawall,

C-020-018

The statements referred to in the Draft EIS are intended to provide background information on Chinook salmon likely to be present along the Seattle shoreline in order to clarify the issues, not to minimize the importance of Puget Sound shoreline habitat.

The Duwamish-Green River Chinook salmon stock has the highest rates of return of the various stocks within the Puget Sound Chinook salmon ESU (Weitkamp and Ruggerone 2000), indicating that it is less likely to go extinct in the next 200 years than Chinook salmon reproducing in other Puget Sound watersheds. While the nearshore environment is an important transition phase for Chinook and other salmonids, there are many other environmental conditions that affect their survival and the number of returning fish. The preferred alternative, which is the Bored Tunnel Alternative, minimizes effects to the shoreline habitat. Please see the Final EIS and Appendix N, Wildlife, Fish, and Vegetation Discipline Report, for current project information.

C-020-019

Species identified in the available literature and from surveys conducted along the waterfront have been updated and are included in the Final EIS. However, actual counts of fish included in these reports are not included in the EIS, as they were typically collected for purposes other than estimating population sizes or relative abundance.

Salmon produced in Longfellow Creek are not specifically mentioned because this stream is a tributary of the Duwamish-Green River, for which salmon are discussed as a whole. The identified alternatives would neither alter habitat conditions or salmon production in Longfellow Creek nor only affect fish for this creek. The use of the Seattle waterfront by salmonids from areas other than the Duwamish-Green drainage is addressed in Appendix N, Wildlife, Fish, and Vegetation Discipline Report.

C-020-031

Appendix B (Alternatives Description and Construction Methods Technical Memorandum, page 82) states "top portions of the unreinforced concrete gravity wall will be removed and replaced with sloping riprap material to create additional water surface area." In these areas, if the substrate is sound enough to hold riprap, then instead shallow habitat could possibly be constructed. People For Puget Sound requests that as much new habitat as possible be constructed along the seawall. In other areas, a precast concrete fascia panel is proposed to be attached to the seaward side of the newly constructed Type A seawall. This facia panel, as it is just an attachment, could be an innovative treatment with slopes, terraces and other features to create shallow water habitat (4 inches as the tide rises and falls). People For Puget Sound requests that innovative ideas be developed, and perhaps a pilot study completed, to look at ways to create artificial habitat attached to or part of the new seawall.

C-020-032

- Seawall concern: In Appendix U (Hazardous Materials Discipline Report, says that in Type B Seawall, the relieving platform holds up the seawall face, so it is unclear how a new wall could be built on the east side of this without a collapse of the existing wall face leading to serious water quality concerns.

C-020-033

What People For Puget Sound strongly recommends for habitat improvements along the waterfront includes:

- Use of native, including overhanging vegetation along the water's edge to provide insects, leaf debris, woody debris for migrating fish as well as other wildlife.
- Elimination or reduction of overwater coverage of shallow nearshore zones.
- Elimination of overwater parking and associated water quality problems.
- Inclusion of shallow water habitat such as beaches. Pocket and perched beaches, similar to those in Alki, would be appropriate along the waterfront. In Vancouver BC, there are cutouts in the seawall that allow water to flow into perched beaches.
- Inclusion of intertidal rocky habitat, bird islands, and other types of habitat is desirable.
- Innovative treatments along the seawall to create artificial habitat
- Creation of kelp forests and other deeper water habitat
- Clean water and sediment to support quality habitat

WATER AND SEDIMENT QUALITY

Protection of and improvement of water and sediment quality along the waterfront is critical to Elliott Bay. Specific concerns are:

C-020-034

- *Lack of inclusion of all impaired waters:* Appendix S (Water Resources Discipline Report) considered the 1998 303(d) list for water and did not include consideration of the draft 2002/2004 list that will be adopted prior to the Final EIS. In addition, the sediment listings are not clearly included in the DEIS even though many of the sediment problems in Puget Sound waters are due to sources related to stormwater and combined sewers.

C-020-035

- *Groundwater Flow:* Appendix T (Geology and Soils Technical Memorandum) notes that areas along the seawall will be filled with grout. Where will groundwater flow be redirected?

C-020-036

- *Problems with soil grouting*: Grouting might result in gaps and irregularities in soil area (especially as obstructions are encountered (Appendix T, page 111)), might flow into

C-020-020

This statement in the EIS provides information on the drainage area within a discussion of existing water quality conditions in the Duwamish River, Elliott Bay, and Lake Union. This section is not intended to address shoreline habitat or its significance. Please see the Final EIS for an updated discussion about the existing conditions of the shoreline habitat in the project area.

C-020-021

The lead agencies agree that it is desirable to plant native vegetation where practical; however, no upland habitat restoration or enhancement is currently included in the project, and most vegetation planted as part of the project will be ornamental. Plant species will likely be selected for properties such as form, color, flowers, and height/spread at maturity that is appropriate to the needs of specific environments. Plants will also be selected as part of the city's ongoing effort to create sustainable landscapes, with emphasis on low water use, tolerance for urban conditions, and ability to provide environmental benefit, such as shading. Many native plants possess these qualities, and they will be considered as part of the project's ongoing urban design process.

C-020-022

Your support of tribal protection for water and fisheries resources is acknowledged. The project has and will continue to consult with the interested tribes about cultural resource issues and natural resource issues.

C-020-023

The project no longer proposes to construct a permanent 33,000-square-foot pier near Pier 48.

C-020-036 Elliott Bay, and could cause additional loads on seawall, leading to failures. How will this be prevented?

C-020-037 • *Stormwater concerns:* The chemicals of concern outlined in Appendix S are zinc, lead, copper, PAHs, and TSS. Phthalates should have been included on this list as they are a problem in Elliott Bay, as noted in the Appendix. Recent work by the City of Seattle has shown that traffic and roadways are an important source of this emerging contaminant of concern.

C-020-038 • *PAHs:* More work is needed to show that the project will be able to mitigate for PAHs – a contaminant of concern. Appendix S states "The removal rates for PAHs is not available at this time."

C-020-039 • *Best Management Practices:* No specific stormwater treatment Best Management Practices are listed in the document and so the public has no way to access if these Best Management Practices are appropriate for this site and the level of their potential effectiveness.

C-020-040 • *Construction staging:* Planned staging areas, where spills, soil stockpiles and more will occur, will be over the water according to the DEIS. People For Puget Sound strongly opposes using an overwater location for staging.

C-020-041 • *Impacts on Duwamish River:* The DEIS includes a plan to accelerate the construction of Royal Brougham Treatment Plant. If this project is not funded by Viaduct/Seawall funding, then King County might fund this project sooner and thus postpone construction of the important Hanford Combined Sewer Project that will allow for continued water quality problems in the Duwamish River (page 101 of Appendix S). People For Puget Sound opposes any projects that will delay cleanup of the Duwamish River.

C-020-042 • *Sediment Quality:* People For Puget Sound believes that cleanup of contaminated sediment in Elliott Bay, particularly along the waterfront, should be a priority. This area is a fish migration corridor for endangered species and is habitat for a number of other species. Any site proposed for inclusion in this project located within Elliott Bay must include a cleanup of the site-specific sediments.

C-020-043 • *Stormwater Management*: It is unclear that the combined sewer system will be able to handle 38 million gallons more stormwater gallons per year. The statement in Appendix S that "the proposed project will treat stormwater, either approach will reduce the total amount of pollutant load from the project area relative to existing conditions" does not take into consideration the potential negative impact of combined sewer overflows that occur because of an extra load on the system. For flows south of Columbia Street, Appendix S states that the Royal Brougham Treatment Plant will be constructed "earlier than planned and enlarged by 11 percent" to handle this flow. It is currently not planned for construction until 2030." The DEIS does not provide the guarantee that it will be constructed, the proposed date, and the funding. People For Puget Sound strongly supports treating contaminants at the source - not continuing to increase loads into the Combined Sewer System, which involves significant capital expenditures. North of Columbia, a higher volume of stormwater flow will be directed to existing Combined Sewer systems with no upgrade proposed. As stated in Appendix S, Best Management Practices have removal efficiencies of 58-65 % for copper and zinc. This does not constitute adequate treatment. Overall, we do not see innovative or far-reaching proposals for management of stormwater in the DEIS.

The preferred alternative analyzed in the Final EIS has an alignment to the east and eliminates the need to remove habitat from Elliott Bay.

C-020-024

The construction of fish passage facilities at Howard Hanson Dam is an independent action that would provide access to additional anadromous salmonid habitat within the Duwamish-Green River basin. The additional spawning and early rearing habitat may increase the number of juvenile anadromous salmonids produced in the river system and therefore the number using Puget Sound shorelines, including Elliott Bay.

The Seattle waterfront is unlikely to provide habitat of particular importance to bull trout, particularly along the vertical seawall. Anadromous bull trout in Puget Sound appear to congregate where forage fish are available. These areas include eelgrass beds and upper intertidal sandy beaches where the forage fish spawn. No habitat of this nature currently exists, or is likely to be constructed in the future, along the Seattle waterfront where the vertical seawall is present. However, other portions of the Elliott Bay shoreline currently provide or could provide these desirable habitat characteristics, and they present habitat restoration or mitigation opportunities for this project and other actions in the area. With the preferred Bored Tunnel Alternative, the replacement of the seawall is being addressed by the separate Elliott Bay Seawall Project being led by the City of Seattle.

C-020-025

The purpose and need statement has been updated since the publication of the Draft EIS in 2004. The revised purpose for the project is to provide a replacement transportation facility that, among other things, meets current seismic standards and improves traffic safety. As such, the primary purpose of the project is related to providing a safe transportation facility. However, the purpose and need statement in no way precludes enhancing habitat as part of the project. Habitat

HUMAN HEALTH AND ENVIRONMENTAL JUSTICE
Human health and environmental justice must be addressed in the new waterfront:

C-020-044

Environmental Justice Appendix: Federal Law and US Department of Transportation requires that environmental justice principles be incorporated into this project. According to Appendix J (Environmental Justice Technical Memorandum), 25% of the population in the project area is below the poverty line and 49% have no vehicle available to the occupants of the dwelling. With statistics of that nature, it is clear that the proposed alternatives will create a significant disproportionate negative impact on the local population compared to the benefit of more distant residents and commuters. Local residents will be impacted by the noise of pile driving and other construction impacts as well as long-term air quality and other negative health impacts. In this appendix, noise not listed as a major impact during construction. Recent sheet piling installation at the Port of Seattle's Terminal 90-91 had a huge negative impact on the surrounding neighborhoods and similar impacts would be expected from the viaduct project, especially if work will be on a 7-day, 24-hour basis. Were the organizations interviewed not informed of the significant noise, dust and other construction impacts that will occur? In Appendix J, only *perceived* impacts were listed, whereas in Appendix I (Social Resources Technical Memorandum) *actual* impacts, such as noise levels were described. In the final EIS, these two appendices should be combined so that more on-the-ground impacts can be included in the Environmental Justice analysis.

C-020-045

Environmental Justice and Seattle Highways: Graduate student, Gail Sandlin at the University of Washington is researching land use patterns within the context of environmental justice with a particular interest in populations that reside within proximity to limited access freeways. Freeways with heavy traffic act as pollutant line sources and there is a growing body of epidemiological evidence that suggests that populations at risk to exposure to mobile source pollutants tend to be low-income and minority populations. A preliminary examination of the U.S. Census Bureau demographic block group level data indicates that there is a high distribution of low-income and minority populations that reside within the epidemiological surrogate exposure distance of 100 to 400 meters from the Alaskan Viaduct. This finding suggests that a more thorough environmental justice assessment may be warranted.

C-020-046

Human Aspect of Waterfront: A high quality pedestrian environment is needed for a vibrant, safe, and thriving waterfront. The waterfront is the 2nd most visited attraction in Seattle (approximately 4.2 million visits in 1999) (Appendix D, Visual Quality Technical Memorandum, page 53) and the potential for an excellent connection between Pike Place Market and the waterfront near the existing Aquarium Building could create the core of a vital new waterfront.

A new study that shows that people who live in areas where they have to rely on their car tend to weigh significantly more than people in areas with easy access to stores. (The Seattle Times, May 31, 2004, Study Links sprawling suburbs, sprawling waistlines). We need to get people out of their cars and walking.

enhancements have been considered throughout the life of the project for the build alternatives that would include replacement of the seawall, and the lead agencies have involved and included resource agency staff in project discussions since the project began in 2001. Resource agencies have been involved in developing and approving the project's purpose and need statement, reviewing the alternatives, and approving proposed habitat mitigation and enhancement measures for the project.

C-020-026

This comment is not a correct characterization of the alternatives assessed in the 2004 Draft EIS. Four of the five alternatives assessed increase the amount of aquatic habitat along the Elliott Bay shoreline. Only the Bypass Tunnel Alternative resulted any loss of Elliott Bay habitat (1,549 square feet). All existing shoreline habitat in the project area is highly modified concrete, steel, Ekki wood seawall, riprap, or dredged waterway. Most alternatives discussed in the 2004 Draft EIS actually produce a substantial increase in the quantity of aquatic habitat. Only alternatives that include construction seaward of the existing seawall result in the loss of habitat, primarily in the small area between Pier 48 and Colman Dock. However, based on comments received on the 2004 Draft EIS and the 2006 and 2010 Supplemental Draft EISs, the alternatives assessed in the Final EIS (including the preferred alternative) eliminate in-water construction activities that would result in the permanent loss of shallow water habitat in the area.

The preferred alternative in the Final EIS, the Bored Tunnel Alternative, does not include replacement of the seawall. If the preferred alternative is selected, the seawall would be replaced under a separate project, the Elliott Bay Seawall Project, led by the City of Seattle. If another build alternative is selected, the seawall would be replaced as part of that alternative. See the Final EIS for current information about the proposed seawall design for the Cut-and-Cover Tunnel Alternative and Elevated Structure Alternative.

C-020-047

Deficiency in Parks: In downtown Seattle, there is a deficiency in parks and in green space, particularly in Bell Town, Pioneer Square and the Commercial Core. As noted in Appendix H (Parks and Recreation Technical Memorandum), "estimated growth in population and employment will result in a 26-acre deficiency in parks in downtown" by 2014. The mayor wants to double the population of downtown from 33,000 to 66,000 people in the next twenty years. That increased population will need green space for refuge from urban life, playgrounds and other facilities for children, a reduction in the urban heat island effect, as well as increased alternative stormwater treatment in order to protect the health of Elliott Bay.

C-020-048

Noise: Noise from the above ground alternatives is a major negative impact on humans at the waterfront. Appendix F (Noise and Vibration Discipline Report) projects that peak traffic noise at the Seattle Aquarium in 2030 for the surface, rebuild, and aerial alternatives would be 74-75 dBA at Colman Dock, 70-71 at Waterfront Park and 73-73 at Seattle Aquarium. Exhibit 2-4 shows that 70 dBA is the sound level of highway traffic at 50 feet (equivalent to a Lawn mower at 50 feet) and 75 dBA is the sound level of a train at 50 feet (equivalent to a blender at 3 feet). Currently, it is extremely difficult to hear others speak at the waterfront when in the vicinity of the viaduct (for example, Mayor Greg Nickel's speech at the waterfront in the summer of 2003 – we could barely hear him and he was speaking into a microphone). Tests of noise levels with the viaduct open and closed (exhibit 3-1) show that the noise at the waterfront is at least 10 dBA lower when the viaduct is closed:

Location of test	Decrease in noise level when Viaduct closed
Sidewalk east of Viaduct between Seneca and Spring:	17 dBA
Seneca Street between Western Ave and Viaduct:	12 dBA
Waterfront Park boardwalk:	12-13 dBA
Waterfront Park sidewalk:	6 dBA
Harbor Steps:	6 dBA
Waterfront Landing Condos:	13 dBA
Victor Steinbrueck Park:	19 dBA

To the human ear a 10 dBA decrease is as if the noise has been halved (Appendix F, page 5).

During construction, one can expect constant (24 hours, 7 days a week) noises that will include extreme noises such as 95-99 dBA (driven piles at 50 feet) and 115 dBA (driven sheet pile at 50 feet).

People For Puget Sound strongly recommends that the solution for the waterfront eliminate the noise of the viaduct and that construction noise be carefully mitigated.

C-020-049

Air Quality: Appendix Q (Air Quality Discipline Report) calculates predicted 2030 1-hour average intersection CO concentrations for intersections but does not present similar calculation for portal exits or ventilation stacks (only 8 hour average, page 53) and does not clearly state the comparison in the Appendix (exhibit 6-5 shows emission rates). Why was the peak hour data not presented? Appendix Q states that the lowest height (page 47) for the ventilation stacks - that would not result in exceedence of air quality standards - is 12 feet above the 30 feet high ventilation buildings. Does this mean that standards would be exceeded at a lower elevation?

C-020-027

Endangered Species Act (ESA) documentation, including Biological Assessments, become available to the public following completion of the Section 7 ESA consultation process. ESA documents are not part of the NEPA documentation, and thus they are not distributed to the public in the same manner. If you would like to request a copy of the Biological Assessment, please contact the project office. Final EIS Appendix U, Correspondence, includes the Biological Opinion letter from the National Marine Fisheries Service and ESA consultation letter from the U.S. Department of the Interior, Washington Fish and Wildlife Office.

C-020-028

The preferred Bored Tunnel Alternative does not include the replacement of the seawall. If selected, replacement of the seawall would occur under the separate Elliott Bay Seawall Project led by the City of Seattle. With the Cut-and-Cover Tunnel and Elevated Structure Alternatives, the seawall would be replaced as part of the project.

C-020-029

The habitat characteristics discussed in the 2004 Draft EIS Appendix R are simply general habitat characteristics likely to be employed in developing habitat mitigation and enhancement and not intended to be specific proposals. However, Attachment D to Appendix R listed conceptual alternatives previously identified for habitat improvement through the environmental analysis.

The proposed build alternatives have been modified since the publication of the 2004 Draft EIS to further minimize effects to aquatic habitat. Please see the Final EIS and Appendix N, Wildlife, Fish, and Vegetation Discipline Report, for current information about potential project effects on aquatic habitat and proposed mitigation measures.

C-020-049 What is the total pollutant load for the area? More information is needed for the public to assess the impacts of air pollutants from the proposed portals and the vents.

SUSTAINABLE ASPECTS OF THE PROJECT NEED TO BE STRENGHTENED

The City of Seattle strongly supports sustainable principles to guide its future growth. Many aspects of this proposed project could be strengthened to help conserve resources and support sustainable practices:

C-020-050 *Energy Consumption:* Appendix V (Energy Technical Memorandum) does not explore sustainable methods for energy conservation for the project. For example, the DEIS assumes the use of supply and jet fans for ventilation for tunnel alternatives. No mention is made of designing the overall project to take advantage of natural airflow in the area or configuring the tunnel and intake or out-take locations to maximize the natural attributes of air flow at the site. Careful planning and study, similar to that being done for the Freedom Tower in New York City, by Guy Battle, could reduce energy costs and could also minimize air pollution from vent stacks to downtown. People For Puget Sound advocates the use of bigger picture, sustainable planning for the entire project to increase conservation, improve efficiencies, and minimize or eliminate human and wildlife impacts.

C-020-051 *Air Pollution:* The DEIS does not state that low sulfur or biodiesel fuels must be used during construction.

C-020-052 *Big Picture Transportation Solution:* Appendix V indicates that the vehicle miles traveled in Puget Sound region increased nearly three times faster (71%) than population (15%) and employment (34%) from 1981 to 1989, due in part to rise of two-worker families, and has grown at a rate (26%) more similar to the rise in population (19%) and jobs (27%) during the 1990's. People For Puget Sound would make the argument that the rise in vehicle miles traveled is due to urban sprawl. The project alternatives, including the surface option, allow for increasing capacity in the downtown corridor. A significant big-picture effort is not made to completely revamp how commuters get to downtown, especially from distant suburbs.

C-020-053 According to a recent article in *The Stranger*, in a study of "transportation costs in 28 metropolitan areas, Seattle households spend more on transportation (17.1 percent of the family budget) than on food, utilities, or healthcare, more in fact than on any other line item except housing." The City of Seattle and the State can take steps now to address this problem.

C-020-054 *A Waterfront For The Future:* People For Puget Sound requests that restoration of the waterfront become a priority for the project. We cannot afford to pass our degraded waterfront along to the next generation.

C-020-030

The preferred alternative does not include the replacement of the seawall. However, for the other build alternatives, the seawall replacement portion of the project is located outside the Duwamish River estuary; therefore, it does not specifically address habitat restoration needs in the Duwamish River estuary.

The effects of the project build alternatives were evaluated based on changes from existing habitat conditions and not based on differences from historic conditions. The unfavorable Seattle waterfront conditions identified in this comment have been used by juvenile salmon for nearly 100 years and are the result of extensive commercial uses of the waterfront. While it is desirable to improve the habitat conditions in the area, the Alaskan Way Viaduct Replacement Project will not result in altering the primary commercial focus of the Seattle waterfront. The potential effects of the project, especially with the preferred alternative, do not warrant mitigation levels that would approach reversing the habitat losses resulting from previous habitat modification projects in the area. Habitat restoration and mitigation measures for the preferred alternative are provided in Appendix N, Wildlife, Fish, and Vegetation Discipline Report, of the Final EIS.

C-020-031

The preferred alternative does not include the replacement of the seawall. However, the seawall would be replaced with the Cut-and-Cover Tunnel Alternative or the Elevated Structure Alternative. The project alternatives have evolved since the publication of the Draft EIS in 2004. See the Final EIS and Appendix B, Alternatives Description and Construction Methods Discipline Report, for current information about seawall construction.

Specific mitigation and habitat enhancement options will be identified

through additional agency coordination, the evaluation of potential project effects, and development of the project design.

C-020-032

Additional measures would be required to provide stability and support of the existing seawall during construction. These measures could be external bracing and a prescribed wall construction that supports the existing wall. See Appendix B, Alternatives Description and Construction Methods Discipline Report, of the Final EIS for current seawall construction information for the Cut-and-Cover Tunnel Alternative and Elevated Structure Alternative. The Bored Tunnel Alternative, which is the preferred alternative, would not replace the seawall.

C-020-033

Thank you for these suggestions. The project team biologists and engineers have considered these suggestions for increasing habitat value and functions along the seawall in the design process. These concepts were also incorporated into the discussions with the resource agencies and other interested parties for developing the mitigation measures (see Chapter 8 of the Final EIS). Note that since the publication of the 2004 Draft EIS, the lead agencies have refined the proposed build alternatives to greatly minimize effects on shoreline habitat. The proposed mitigation measures reflect this reduced level of effect.

C-020-034

The Final EIS Appendix O, Surface Water Discipline Report, includes the impaired water bodies in the study area that are listed in Ecology's *2008 Washington State's Water Quality Assessment [303(d)]*. Nearshore sediments and sediment quality in Elliott Bay are described in Chapter 4 of Final EIS Appendix O. All of the alternative would potentially result in a benefit to surface water and sediment quality in the study area receiving

waters because they would decrease the pollutant load relative to existing conditions.

C-020-035

Shallow groundwater would flow laterally along the grouted portions of the seawall to areas where groundwater can discharge into Elliott Bay. Deeper groundwater would flow in a similar manner or, if the soil conditions allow, flow underneath the grouted portions and flow into Elliott Bay.

C-020-036

Please note that seawall replacement is not part of the preferred Bored Tunnel Alternative. Where seawall replacement is required for the project and in areas with grouting, it is possible some gaps and irregularities may occur. The extent of such gaps will be determined during test sections and during construction monitoring. Based on this information, the construction methods will be adjusted to meet design criteria for seawall stability. Potential for grout flow into Elliott Bay could be mitigated by:

1. Use of directional grout nozzles in areas adjacent to the seawall.
2. Use of appropriate setback from seawall.
3. Sealing of know seawall defects and utility penetrations.
4. Use of sheeting and/or silt curtains to contain potential grout flow.

C-020-037

WSDOT's Environmental Procedures Manual was used for the pollutant loading analysis. This method evaluates loads for TSS, Total Copper, Dissolved Copper, Total Zinc, and Dissolved Zinc, because they are representative of pollutants found in stormwater runoff. Phthalates were not evaulated for the Final EIS.

C-020-038
WSDOT's Environmental Procedures Manual was used for the pollutant loading analysis. This method evaluates loads for TSS, total copper, dissolved copper, total zinc, and dissolved zinc, because they are representative of pollutants found in stormwater runoff. PAHs were not specifically evaluated for the Final EIS.

Polycyclic aromatic hydrocarbons (PAHs) that settle on the roadway from atmospheric deposition may become part of stormwater runoff. However, in a study conducted by Caltrans, PAHs were a low monitoring priority because they were either never detected or had an estimated percent exceedance with California standards of <0.01% in untreated stormwater (http://www.dot.ca.gov//hq/env/stormwater/special/newsetup/_pdfs/new_technology/CTSW-RT-01-050.pdf).

PAHs that become part of runoff are expected to adsorb to suspended solids and sediment. In general, PAHs with higher molecular weights are almost completely adsorbed onto fine particles and are expected to be immobile in soil. BMPs that filter or settle out particulate matter may be effective at removing PAHs from runoff.

C-020-039
Stormwater will be managed in accordance with the applicable stormwater management regulations as described in the Final EIS. Specific BMPs will be identified during the design phase of the project.

C-020-040
There are very limited opportunities in the tightly constrained corridor where construction staging can be located. Please see Chapter 3 in the Final EIS and Appendix B, Alternatives Description and Construction Methods Discipline Report, for a description of the proposed construction staging areas for the build alternatives. Most of the staging areas and

activities will not be overwater; however, for all of the build alternatives there may be some activities that occur overwater such as storing construction materials on Pier 48 and loading excavated material onto barges at Terminal 46. Permits would be required for any overwater areas, and the responsible agencies would require mitigation, such as construction debris or sediment containment methods, to avoid potential effects to water quality.

C-020-041

A treatment facility at Royal Brougham Way S. is not proposed as part of this project. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach presented in the 2004 Draft EIS.

C-020-042

Where the project build alternatives involve the potential disturbance of contaminated sediment, appropriate best management practices will be implemented to minimize the potential effects on aquatic species. The improvements to stormwater treatment proposed with the project will improve general water quality conditions in Elliott Bay by further reducing contaminants discharged to the bay.

C-020-043

A treatment facility at Royal Brougham Way S. is not proposed as part of this project. Based on detailed modeling, continued design, and coordination efforts, a single approach to stormwater management is now being proposed for all of the alternatives evaluated in the Final EIS. This alternative is described in Appendix O, Surface Water Discipline Report, of the Final EIS and is most similar to the BMP Approach

presented in the 2004 Draft EIS.

Specific BMPs will not be determined until later in the design and permitting process. Both the WSDOT and Ecology Manuals have several BMPs that meet the requirements of Basic Treatment; however, wet vaults and StormFilters(TM) are the most feasible options due to space and engineering constraints. In addition to basic treatment, oil control will also be provided along Alaskan Way between King and Yesler Streets because of the predicted ADTs (Average Daily Traffic volumes).

C-020-044

Construction impacts were the major topics of discussion with the community service organizations. The Social Discipline Report, Appendix H of the Final EIS, concludes that there is the potential for disturbance impacts, such as noise, on nearby residents, but that these do not appear substantially adverse. The project will continue its coordination with these organizations throughout construction.

As this comment requests, Appendix I and Appendix J of the 2004 Draft EIS were combined into one discipline report for the Final EIS. This appendix is Appendix H, Social Discipline Report, mentioned previously in this response.

C-020-045

The nature of populations along the project corridor is discussed in the Final EIS Appendix H, Social Discipline Report, and information on Mobile Source Air Toxics is provided in Appendix M, Air Discipline Report. Both low-income and minority populations are present, and potential effects on these populations have been considered. In the Final EIS, Chapter 5 discusses permanent effects and Chapter 6 discusses construction effects for low-income and minority populations as well as for air quality.

C-020-046

The project has worked closely with the City of Seattle as one of the project's lead agencies, and recognizes that a quality pedestrian environment is one of the major objectives of the City of Seattle's waterfront planning initiative, which is an ongoing effort.

A lid was incorporated into the design of the 2006 Cut-and-Cover Tunnel Alternative and evaluated in the 2006 Supplemental Draft EIS. It was included in the project, due in part to numerous 2004 Draft EIS public comments requesting the lead agencies to consider a lid in the Pike Place/Belltown area. The proposed lid would extend north from where SR 99 emerges from the tunnel’s north portal near Pine Street to Victor Steinbrueck Park near Virginia Street. The design for this lid structure with the current Cut-and-Cover Alternative is described in this Final EIS and in Appendix B, Alternatives Description and Construction Methods Discipline Report.

C-020-047

Meeting the City of Seattle goals for parks and open space is outside of the scope of this project. The Alaskan Way Viaduct Replacement Project does not include specific plans for new park and recreation facilities or specific waterfront amenities, because the purpose of the project is first to provide a transportation facility with improved earthquake resistance.

The Final EIS and Appendix H, Social Discipline Report, discuss the existing park and recreation facilities and assess the potential impacts of the alternatives on existing facilities in the project vicinity. With the preferred alternative, the Bored Tunnel Alternative, the exact configuration and types of activities provided on the waterfront will be decided over the next several years by the City-led Central Waterfront Project.

C-020-048

The lead agencies have identified the Bored Tunnel Alternative as the preferred alternative. This alternative would remove the elevated viaduct structure and result in less noise along the waterfront corridor.

Also, to reduce construction noise at nearby receptors, mitigation measures such as those discussed in the Final EIS Appendix F, Noise Discipline Report, would be incorporated into construction plans, contractor specifications, and variance requirements.

C-020-049

The Final EIS includes the maximum 1-hour CO concentration near the tunnel portals and tunnel operations buildings, which include the ventilation stacks, for the build alternatives.

"12 feet above the 30 feet high ventilation buildings" refers to the results of the ventilation stack analysis, which is that air quality standards would not be exceeded at any ground level or elevated receptor sites, as long as the exhaust air is released from a height that is at least 12 feet above the roofs of the (30-foot-tall) ventilation buildings. This analysis was conducted to determine minimum stack height requirements.

C-020-050

The analysis of energy consumption focuses on the amount of energy that would be consumed during construction and operation of the build alternatives. However, some of the key considerations of the lead agencies when identifying the preferred alternative were the degree to which the build alternatives would provide opportunities to minimize or eliminate effects to the human and natural environment.

C-020-051

The lead agencies will encourage the contractor to use low- or ultralow-

sulfur fuels in construction equipment. Please see Chapter 8 of the Final EIS for the proposed mitigation measures to reduce effects on air quality during project construction.

C-020-052

This proposed build alternatives do not propose to add capacity to the existing SR 99 corridor. Current information about the build alternatives and how they would operate is provided in the Final EIS. Transportation study and planning for how commuters from the suburbs enter downtown is outside the scope of the Alaskan Way Viaduct Replacement Project.

C-020-053

Making transportation affordable and maintaining mobility effectively is a priority for the lead agencies.

C-020-054

With the Cut-and-Cover Tunnel or Elevated Structure Alternatives, the lead agencies would improve and enhance habitat where practicable and feasible along the new seawall. With the preferred Bored Tunnel Alternative, the seawall would be replaced by a separate project (Elliott Bay Seawall Project) led by the City of Seattle. The lead agencies recognize that habitat mitigation and enhancement measures make a long-term contribution toward improvement of the marine environment.