

180 Nickerson Street, Suite 202  
Seattle, WA 98109  
Phone: (206) 378-0114 x300  
Cell: (206) 588-5960  
Fax: (206) 378-0034  
[morgan.ahouse@cascade.sierraclub.org](mailto:morgan.ahouse@cascade.sierraclub.org)



13 December 2010

Ron Paananen, AWV Project Manager  
Angela Freudenstein  
Washington State Department of Transportation  
999 Third Avenue, Suite 2424  
Seattle, WA 98104

Peter Hahn, Director  
Seattle Department of Transportation  
P.O. Box 34996  
Seattle, WA 98124-4996

Comments on the Supplemental Draft Environmental Impact Statement for the Alaskan Way Viaduct Replacement Project

Dear Ms. Freudenstein, Mr. Paananen and Mr. Hahn,

We appreciate this opportunity to comment on the Supplemental Draft Environmental Impact Statement for the Alaskan Way Viaduct Replacement Project. The Sierra Club is very interested in a sustainable, forward-looking, and responsible transportation solution that prioritizes cost efficiency, social justice and environmental sustainability. We favor transportation options that support state, county and city greenhouse gas (GHG) emission reduction goals.

This project represents a major investment in the future of our urban mobility and the quality of the surrounding places. Sierra Club urges WSDOT to observe the following goals when evaluating alternatives and advancing this project:

1. emphasize the movement of people and goods rather than vehicles;
2. mitigate climate change impacts through reducing GHG emissions;
3. prioritize transit use to prepare for rising energy costs;
4. protect the integrity of the Pioneer Square Historic District during construction and operations;
5. improve the urban and natural character of the waterfront;
6. promote thriving communities while reducing sprawl.

Specific concerns are grouped into categories throughout this letter followed by concluding remarks.

C-020-001

1. **This project should plan for reducing vehicle usage and greenhouse gas emissions, according to by City, County, State and Federal policies and statutory benchmarks.**
  - a) **The City of Seattle** has policies urging transportation agencies to pursue decreased Vehicle Miles Traveled (VMT) over time, and increase the viability of other modes, as part of a larger effort to reduce green house gas emissions from vehicles:
    - The City recently established a goal for Carbon Neutrality as one of its 16 priorities for 2010, knowing that this will demand dramatic efforts to reduce fossil fuel consumption and driving. A citizens' commission is at work defining specific implementation steps.
    - The City's transportation policy as defined by the Comprehensive Plan states: Ensure that transportation decisions, strategies and investments are coordinated with land use goals and support the urban village strategy.
    - The City's Climate Action Plan, launched in 2006, says: "The goal of the Seattle Climate Protection Initiative is to reduce greenhouse gases in Seattle by 7% below 1990 levels by 2012, 30% below 1990 levels by 2024, and 80% below 1990 levels by 2050." Reducing VMT is a key strategy to reduce emissions, as 60% of Seattle's emissions come from vehicles.
  - b) **King County** has made addressing climate change a priority of its comprehensive plan, and is one of three framework policies guiding the entire plan. FW-102 states that "King County will be a leader in prevention and mitigation of, and adaptation to, climate change effects." This overarching policy is carried through the rest of the comprehensive plan, including the following policies on Reducing Climate Pollution:
    - Recommends that the County collaborate with other local governments to reduce greenhouse gas emissions in the region to 80% below 2007 levels by 2050 (Policy E-216)
    - Establishes a goal of reducing County government GHG emissions by 6% below 2000 levels by 2010 (Policy E-204).
  - c) **Washington state** has established statutory benchmarks and policy urging transportation agencies to pursue policies that decrease VMT over time, and increase the viability of other modes, including transit, bicycling and walking, as part of a larger effort to reduce green house gas emissions from vehicles:
    - State law says we shall "By 2035, reduce overall emissions of greenhouse gases in the state to twenty-five percent below 1990 levels, and by fifty percent by 2050." RCW 70.235.020.
    - State law requires agencies distributing capital funds for infrastructure projects to consider whether the entity (WSDOT) has adopted policies to reduce greenhouse gas emissions. The agencies must consider whether the project is

## C-020-001

The law setting the VMT benchmarks directs WSDOT to "adopt broad statewide goals to reduce annual per capita vehicle miles traveled by 2050 consistent with the stated goals of Executive Order 07-02." The state law does not require individual projects to set VMT reductions. WSDOT is working on this task and related tasks in Executive Order 09-05 in conjunction with a working group established for this purpose. The cumulative greenhouse gas impacts of transportation projects are best addressed at a system-wide level where multiple projects can be analyzed in aggregate, such as in regional transportation plans. The Alaskan Way Viaduct Replacement Project is included in PSRC's Regional Transportation Plan, *Transportation 2040*, which considered greenhouse gas emissions along with other transportation objectives.

In February 2010, the state's Office of Financial Management (OFM) provided guidance to agencies for applying RCW 70.235.070 to funding programs. This guidance states that programs using federal funding when the distribution criteria cannot be changed are not subject to this requirement. Because this project is federally funded, it is not subject to this state requirement. Nevertheless, as discussed in responses to previous comments, the project would support increased use of transit and decreased use of single-occupant vehicles, and thereby would reduce GHG emissions in the project area.

Greenhouse gas effects are discussed in Chapter 7 of the Final EIS Appendix R, Energy Discipline Report. Climate changes is discussed in Question 23 of Chapter 7, Cumulative Effects, in the Final EIS.

consistent with the state's limits on the emissions of green house gases and statewide goals to reduce annual per capita miles traveled.

- d) **The federal government**, including the DOT, the EPA and House of Representatives, have shifted policies away from vehicular capacity and congestion relief, and have prioritized mobility by other modes in order to reduce greenhouse gas emissions, reduce oil dependence and to improve public health:
- At the end of 2009, the U.S. Environmental Protection Agency (EPA) announced that greenhouse gases (GHGs) threaten the public health and welfare of the American people. EPA also announced their finding that GHG emissions from on-road vehicles contribute to that threat.
  - Ray La Hood, Secretary of the US Department of Transportation, announced in March 2010 a dramatic change from existing policy regarding transportation funding. This "major policy revision" aims to give bicycling and walking the same policy and economic consideration as driving. "Today I want to announce a sea change.... This is the end of favoring motorized transportation at the expense of non-motorized." The DOT's current priorities aim to foster livability, sustainable communities, and reduced car dependence. One of its six principles is: "Provide more transportation choices to decrease household transportation costs, reduce our dependence on oil, improve air quality and promote public health."
  - The American Clean Energy and Security Act passed by the House in summer 2009 set the goal of reducing greenhouse gas emissions by 17% from 2005 levels by 2020, and 83% by 2050.

**Summary:**

Global warming induced climate change is the most significant and daunting challenge facing this generation. Many agencies at all levels are working to shift how mobility is understood and delivered to achieve reduced pollution, increased choice, and reduced economic dependence on fossil fuels. Countless scientific and policy analyses of how to meet these goals arrive at the same fundamental conclusions: decision makers and agencies must commit to more alternative transportation, and pro-actively plan for reduced VMT, in order to achieve reductions in greenhouse gas emissions.

The preferred alternative ignores the clear import of local, state, and federal laws requiring the reduction of VMT and greenhouse gas emissions, and the much broader policy rationale underlying them. Environmental review under SEPA requires consideration of how a short-term use of the environment affects sustainability over the long-term. RCW 43.21C.030(c)(iv). Environmental review must adequately inform responsible officials so that they may make a "reasoned and informed" decision about the impacts of a project. See RCW 43.21C.030-031; Citizens Alliance to Protect Our Wetlands v. City of Auburn, 126 Wn.2d 356 (1995). Review must consider impacts that "pose long term risks to human health[.]" WAC 197-11-440(6)(c)(ii). To so callously omit an analysis of VMT and greenhouse gas emissions in light of the policy direction in which all corridors of government are moving is simply unacceptable. SEPA and NEPA require more.

**C-020-001** | **Action:** In light of City, County, State, and Federal policies aimed to reduce greenhouse gas emissions from vehicles, the EIS should aim for reductions in emissions and VMT. We favor GHG assessments that evaluate, rank, and select project elements and design configurations, rather than simply identify mitigation measures for a business-as-usual approach. The analysis should examine the cumulative use impacts created by the decision in this corridor – not just the trips on the facility, but the GHG emissions from construction and the area-wide effects generated by the decision for this SR 99 corridor. Priority should be given to those alternatives that reduce VMT and greenhouse gas emissions, in compliance with local, state and federal guidelines.

**2. All reasonable alternatives have not been included in this SDEIS.**

**C-020-002** | The alternatives analysis is the heart of the Environmental Impact Statement. Under both the National Environmental Policy Act and Washington’s State Environmental Policy Act, the project proponent should analyze a set of reasonable alternatives—those considered to “feasibly attain or approximate a proposal’s objectives”. Sierra Club strongly believes this obligation of the lead agency WSDOT has been impeded through a narrowly defined set of options. A viable alternative that serves mobility of all modes, serves access to downtown Seattle, and also preserves the opportunity for a vibrant Seattle waterfront should be included in this DEIS.

**a) Purpose and Need statement was inappropriately changed**

**C-020-003** | “Statement of purpose and need” is the essential starting point for identification of alternatives, consistent with public expectation and community goals. By the recent alteration of the “Statement of Purpose and Need,” the SDEIS narrows the previous definition, and now excludes viable and cost effective alternatives, to favor the preferred alternative. This contradicts the legal, standard guidelines for environmental impact evaluation, and contradicts the goals established in the viaduct replacement planning process reflecting the understanding of community members over years, and scores of public meetings.

By its fixation on “capacity”, WSDOT has relegated the set of alternatives to a business-as-usual list by excluding solutions including transit, demand management, or available capacity on other facilities. This violates the requirement and intent of SEPA to include all reasonable alternatives. Instead of a focus on congestion mitigation, the project should expand mobility options, including transit improvement projects that minimize greenhouse gas emissions.

**Action:** WSDOT should change the present purpose and need statement back to its 2006 DEIS statement of purpose and need including “mobility and access for people and freight.”

**b) Unreasonable risks with the preferred alternative**

**C-020-004** | Deep bore tunnels are marvels of engineering, but are also among the most difficult

**C-020-002**

FHWA, WSDOT, and the City of Seattle have extensively studied a wide range of possible viaduct replacement options as documented in the 2004 Draft EIS, the 2006 Supplemental Draft EIS, the 2010 Supplemental Draft EIS, and this Final EIS. Alternatives evaluated throughout the process have included an expanded Alaskan Way surface street, replacing the viaduct with aerial structures, and replacing the viaduct with a range of possible tunnel structures, and combinations of these replacement options. This work has been reviewed publicly and the lead agencies have engaged the public on multiple occasions throughout the life of the project. The possible viaduct replacement concepts were most recently reconsidered as part of the development of the 2010 Supplemental Draft EIS. Text on pages 53 to 58 of the 2010 Supplemental Draft EIS documents the results of this process and explains why the three build alternatives (Bored Tunnel, Cut-and-Cover Tunnel, and Elevated Structure Alternatives) were carried forward for evaluation in the 2010 Supplemental Draft EIS and the Final EIS.

**C-020-003**

Changes made to the project's purpose and need statement in 2010 did not serve to narrow the scope of concepts that could be considered. Instead the changes that were made allowed for a broader scope of solutions to be considered. The purpose and need statement presented in the 2006 Supplemental Draft EIS stated "the project will maintain or improve mobility, accessibility, and traffic safety for people and goods along the existing Alaskan Way Viaduct Corridor..." This purpose indicated that mobility must be maintained or improved. The project's current purpose and need statement is less restrictive by stating that it will provide a facility that "provides capacity for automobiles, freight, and transit to efficiently move people and goods to and through downtown Seattle". An important difference between the two purposes is that the earlier purpose statement required mobility to be maintained or improved, the updated purpose statement is focused on providing

C-020-004

projects to plan and control financially. This proposed tunnel would be the largest diameter bore ever attempted in the world. The drilling would take place in extremely challenging soil and water conditions, located under our state's most valuable real estate. Abrasive soils, clay, boulders, uncontrollable water flows, or unexpected utilities could stop the boring machine from advancing. The delay and cost consequences of the machine getting stuck are very high. Removing a 56' x 400' machine from underneath downtown Seattle streets or buildings would be a nightmare, and represents a huge financial risk.

- According to a thorough analysis of 258 massive transportation projects by one of the world's foremost authorities on the subject, Bent Flyvbjerg, a professor at the University of Oxford, 9 out of 10 transportation megaprojects run over their cost estimates. For tunnel and bridge projects, Flyvbjerg found, "actual costs are on average 34 percent higher than estimated costs."
- Both tunnel experts hired by the City of Seattle affirmed that costly problems are likely to emerge, despite WSDOT's best intentions. Using WSDOT's own data, these professionals predicted this project is 40% likely to exceed its establish cost cap. Further, David Dye, WSDOT leading project official at that time, said on record at the conclusion of the 2008 stakeholder process, about why they did not select the bored tunnel: "And so it's a cold dose of fiscal reality that I guess I'm the one who has to bring the bucket and pour on this.... But it is out of reach in the current state of affairs to make it happen."
- Significant uncertainty exists around the state's ability to fully fund the bored tunnel alternative. It is essential for this DEIS to consider a viable back up plan that meets goals for mobility and access into downtown neighborhoods -- and protects the full opportunity of the future waterfront. Neither of the two other alternatives in this DEIS, both of which were soundly rejected by Seattle voters in the 2007 advisory ballot, offers this.

C-020-005

- c) SEPA requires not only a detailed statement on the impact of a proposed action, but also a "detailed analysis" of project alternatives. WAC 197-11-440(5)(b). Sufficient language shall be devoted to permit a comparative evaluation of the alternatives. WAC 197-11-440(5)(c)(v)-(vi). Review must not only consider alternatives, but also meaningfully evaluate them: where a description is "brief" and "conclusory" courts find it impossible to allow decision makers to engage in any comparison. See *Weyerhaeuser v. Pierce County*, 124 Wn.2d 26 (1994). The current SDEIS wholly omits discussion of a surface alternative and fails to meet the legal requirements of SEPA and NEPA.

C-020-006

- d) At the conclusion of the 2008 stakeholder process, the leaders of the City, County and State Departments of Transportation recommended two alternatives for viaduct replacement: the I-5/ Surface / Transit hybrid, and the Elevated / Transit hybrid. After a year-long evaluation, these two approaches proved best for meeting the agencies' six goals for viaduct replacement at an affordable cost. These alternatives

Sierra Club page 5 of 13

capacity to efficiently move people and goods to and through downtown Seattle, but it doesn't specify that existing capacity must be maintained.

#### C-020-004

Extensive planning and analysis has been completed to minimize the potential for cost overruns and contingencies are included in the project's cost estimates.

The state legislature authorized funding to replace the Alaskan Way Viaduct in RCW 47.01.402. According to this law;

"The legislature finds that the replacement of the vulnerable state route number 99 Alaskan Way viaduct is a matter of urgency for the safety of Washington's traveling public and the needs of the transportation system in central Puget Sound."

This legislation also authorizes WSDOT to obligate two billion eight hundred million dollars. In order to fund this obligation the legislation further identifies sources of funding: \$2,400,000,000 of state funding; \$400,000,000 of toll funding.

In the absence of toll funding WSDOT would still have the authorization to issue contracts up to \$2,800,000,000 but the mix of funding sources would change. It is assumed that the toll funding would be replaced by new or reprioritized federal, state, or local funding sources.

#### C-020-005

The Final EIS Chapters 5 (Permanent Effects), 6 (Construction Effects), and 7 (Cumulative Effects) do compare and evaluate all reasonable alternatives in accordance with NEPA and SEPA regulations. The 2010 Supplemental Draft EIS compared and evaluated all build alternatives in Chapter 8, Comparison of Alternatives. A surface and transit concept was considered in the 2010 Supplemental Draft EIS, but screened out

C-020-006

are conspicuously absent from the current DEIS. **Each of these two solutions were determined by the City, County and State DOTs as feasible, cost effective, and able to provide greater mobility for all modes. The I-5/ Surface/ Transit hybrid alternative should be evaluated in this EIS.**

- The I-5/ Surface / Transit proposals A and B provide mobility for through-travel and for local access, offer a four lane urban street on the waterfront, and can be achieved at a cost savings of \$700 million to \$1 billion compared to the tunnel. Like the tunnel, these options offer a calm four-lane waterfront street, which is central to the City's plans for the new waterfront. To exclude these from the DEIS analysis creates a false choice for waterfront proponents.
- The I-5/Surface/Transit proposal solves the problems ignored or exacerbated by the deep bore tunnel preferred alternative. It increases mobility for low income residents, adds transit, provides for greater bicycle and pedestrian safety, includes multiple access points to and from downtown Seattle, and saves WSDOT the onerous task of identifying additional funding as well as paying for likely cost overruns.
- The Seattle Urban Mobility Plan report of 2008 identified transit and non-motorized mobility options as a supplement and foundation for evaluation of the viaduct replacement options by the Stakeholders Advisory Committee.
- Further, the City of Seattle Ordinance 12246 states the City's preference for an alternative to the tunnel: "In the event a tunnel proves to be infeasible, the City recommends the development of a transit and surface street alternative that meets the intent of Resolutions 30664 and 30724." This alternative would offer the City one of the key advantages it seeks – reclaiming the downtown waterfront – at a significant cost savings.

**Action:** A version of I-5/ Surface / Transit alternative that includes an urban, four-lane waterfront street should be included in this EIS. The technical studies in the Urban Mobility Plan should be re-introduced into the viaduct replacement evaluation. Such an alternative would fairly represent the available choices so that decision makers who care about mobility for people and freight, and Seattle's new waterfront have a lower cost, lower risk alternative to consider. This option also meets the goals of reducing VMT and greenhouse gas emissions. It reduces the financial risk to citizens and creates infrastructure that is socially just for all of Seattle's citizenry.

C-020-007

**3. The high cost of tolls will create traffic diversion away from the bored tunnel contributing to significant degradation of transit travel times. This will cause disproportionate hardship for low-income citizens, which must be evaluated as a social justice impact for the preferred alternative.**

Equity is a very important consideration when setting tolling policy. Sierra Club strongly supports the use of congestion management toll revenue for transit operations. By providing better transit options, those travelers who might otherwise find tolls to present a hardship will have suitable alternatives for travel. Given the likelihood of tolling in this

for the reasons discussed on pages 53 through 58 of that document. The Final EIS Appendix W, Screening Reports, includes the updated Surface and Transit Scenario Year 2030 Analysis Results. Chapter 2 of the Final EIS discusses the alternatives development process and screening analysis.

**C-020-006**

Chapter 2, Alternatives Development, of the Final EIS describes the history of the project and how the alternatives developed. Question 5 of this chapter addresses the I-5, Surface, and Transit Hybrid, and subsequent 2009 recommendation by Governor Gregoire, former King County Executive Sims, and former Mayor Nickels to replace the central waterfront portion of the Alaskan Way Viaduct and Seawall with a single large-diameter bored tunnel. Question 6 in Chapter 2 of the Final EIS discusses how the purpose and need was updated and the additional traffic analysis completed for the surface and transit hybrid concept to test the rationale for screening out the alternative. Please refer to the Final EIS for this information. Final EIS Appendix W, Screening Reports, includes the updated Surface and Transit Scenario Year 2030 Analysis Results.

**C-020-007**

The Final EIS evaluates all alternatives with and without tolls based on a single tolling scenario. Tolls can be adjusted in response to travel demand. The "need" for mobility is not eliminated by the existence of tolls. Final EIS Appendix H, Social Discipline Report, discusses the potential effects of toll payment on low-income populations, as well as the potential effects of using alternate routes to avoid the toll.

C-020-007

corridor to finance a replacement facility and manage the traffic using it, the response of the traveling public in both mode and route selection should be a key input to the design and evaluation of alternatives.

- a) **The Bored Tunnel Alternative does not include tolls.** WSDOT then considers tolls as an after thought independent of any specific alternative, despite the inclusion of \$400 million in tolling revenue as a part of the project finance plan. Reasons cited for not including tolls in the preferred alternative include potential for inaccurate distinction among alternatives, relegating the revenue need to a design option for all alternatives, and independently considering the facility need and the effects of tolling.
- Methods and models for projecting traffic volume that do not adequately account for driver response to tolling result in inaccurate characterization of traffic demand. The selection of alternatives evaluated in the EIS suffers from such an inaccurate “need” for mobility.
  - WSDOT views tolls as an operational approach that can be changed as needed (ch. 9, p. 205) yet regards the facility replacement as a decision that can be made independent of a tolling plan and its effects on motorists’ responses.

**Action:** WSDOT must incorporate predicted changes to commuter behavior resulting from tolling in its corridor use projections, evaluations of real capacity “need”, and design work on reasonable project alternatives.

C-020-008

b) **This DEIS reveals WSDOT intends to charge tolls of up to \$4 each way for a trip through the tunnel causing potential hardship to low income citizens:**

- The DEIS states that tolling significantly impairs transit service due to increased congestion. After analyzing tolling impacts on transit riders (Ch 9, pg 215) the conclusion is that “These effects would not be acceptable as part of a long term tolling solution.” In light of VMT concerns highlighted above, it is irresponsible public policy to build a project that reduces transit reliability, particularly when it negatively affects those who can least afford to drive.
- preliminary scenarios evaluated in chapter 9 of the EIS do not invest toll revenue in public transport.
- The “Consensus on the Recommended Alternative for Replacing the Alaskan Way Viaduct and Seawall” letter of agreement signed by Governor Gregoire, County Executive Sims, and Mayor Nickels in January 2009 identified additional transit service as part of the recommended alternative for replacing the Viaduct. These three jurisdictions were to work together to deliver authority to King County to implement a 1% Motor Vehicle Excise Tax to help fund the additional transit service. No such authority has been established and the intent of this provision remains unfulfilled.

Sierra Club page 7 of 13

## C-020-008

Chapter 5, Permanent Effects, of the Final EIS analyzes transportation effects for each of the build alternatives both with and without tolls. Question 26 of Chapter 5 discusses effects to low-income and minority populations. Appendix H, Social Discipline Report, of the Final EIS also discusses the potential effects of toll payment on low-income populations, as well as the potential effects of using alternate routes to avoid the toll.

The agreement signed by the Governor, County Executive, and Mayor in January 2009 described a program of independent yet complementary projects for replacing the Alaskan Way Viaduct, and providing a strategy for overall mobility in Seattle. The State is responsible for replacing the Viaduct, the City for the seawall and central waterfront, and the County accepted responsibility for additional RapidRide and express bus service, with some identified as construction mitigation during the central waterfront phase of the viaduct program. These future transit service improvements have benefits independent of replacing the Alaskan Way Viaduct. WSDOT recognizes the funding anticipated in the agreement has not been realized, and that the recent economic downturn has reduced other funding sources King County currently relies on for providing transit service throughout King County.

Currently WSDOT is providing funding for King County on the S. Holgate to S. King Street Viaduct Replacement Project to provide additional transit service hours to help mitigate the effects of construction. This program is on-going and regularly monitored to evaluate its effectiveness. For the Alaskan Way Viaduct Replacement Project, WSDOT will continue to evaluate the need for increased bus service in the West Seattle, Ballard, Uptown, and Aurora Avenue corridors during the initial portions of the construction period, as well as the need for a bus travel time monitoring system. WSDOT will also work with the

County to identify funding sources for the service originally contemplated in the January 2009 agreement.

**C-020-008** **Action:** This DEIS must analyze how the combination of high tolls, the absence of the additional transit service, and impairments to existing transit from congestion will affect lower income people. The DEIS must answer how affordable proposed tolls are for low and average income earners. In addition, it must reconcile the fact that the plan for high tolls and the impaired transit service is in contention with the State's goal of improving mobility for everyone, regardless of economic class or transportation mode.

**C-020-009** **c) Tolling of only one highway as proposed for the bored tunnel alternative will divert traffic to city streets and non-tolled highways**

- Traffic modeling associated with tolling scenarios results in more diversion from SR 99 to slower facilities, such as city streets, and, therefore is expected to cause more delay.
- WSDOT estimates roughly 40,000 to 45,000 of more than 86,000 total daily trips projected to use the bored tunnel in the untolled 2015 Bored Tunnel alternative would remain on that route (ch. 9, p. 209) under a toll scenario that has a chance of raising the intended revenue.
- Nearly 65% of traffic projected to use the Viaduct in the present configuration 2015 design year does not travel through a bored tunnel under tolling scenarios intended to help finance this alternative. The perceived needed capacity is not fixed, but intimately linked to the operation of the roadway system (including tolls) and the viability and ease of use for alternatives to driving on very expensive highways.

**Action:** The city of Seattle and WSDOT must evaluate tolling of the replacement project as part of a comprehensive regional pricing and demand management strategy to ensure city streets are not flooded with an additional 40,000 to 45,000 vehicles per day as is estimated in the SDEIS under revenue-adequate tolling scenarios. Additional transit service must be included in any tolling plan for this corridor and related north-south routes that are part of an integrated system approach. Toll proposals must maintain a socially and economically equitable transportation system that does not cater solely to motor vehicle drivers.

**C-020-010** **4. Decision makers and the public deserve transparency on the promised project scope, budget, and security of funding.**

**a)** With the data that exists now, it is practically impossible for decision makers to get a firm fix on full cost of the preferred alternative and its funding sources. It is not clear what elements of the project scope are funded and what might be cut, the full cost of protecting against or mitigating for expected harm is not known, and contingency reserves necessary for potential future problems seem to have been mostly drained. The total funding is unclear:

- There is a firm budget cap of \$2.4 billion on the state's resources. That leaves \$700 million in unsecured commitments.
- The Port of Seattle's promised \$300 million has not been allocated, and may not.

Sierra Club page 8 of 13

### **C-020-009**

The analyses regarding how tolls might be implemented as part of the proposed action were preliminary for the 2010 Supplemental Draft EIS but have been updated for the Final EIS. They will be further refined during final design through a joint planning effort (described below) should the state legislature authorize tolls on the SR 99 Bored Tunnel. The analysis in the Final EIS represents a conservative estimate of the impacts of tolling the SR 99 Bored Tunnel. We anticipate that any effects due to applying tolls to the SR 99 Bored Tunnel will be notably less than those described in the Final EIS analysis.

Prior to a final decision about how the SR 99 Bored Tunnel would be tolled, the Washington State Department of Transportation will be working with the Seattle Department of Transportation and other agencies to refine and optimize how to toll the SR 99 tunnel while minimizing diversion of traffic to city streets and minimizing potential effects to transit, bicycle, and pedestrian travel. WSDOT, with cooperation from the City of Seattle, the Port of Seattle, and King County, will establish a Tolling Advisory Committee to provide strategies for minimizing diversion impacts. Chapter 8 of the Final EIS further discusses the role and objectives of the Tolling Advisory Committee.

As part of the Bored Tunnel project and related projects, WSDOT and partner agencies have or will implement several strategies that should reduce the effects of potential diversion. For example, both the south and north portal configurations include bus priority lanes to provide reliable travel times for SR 99 transit service into and out of downtown. The streets that transition between SR 99 and the downtown street grid are designed in a manner that meets the City's Complete Street goals and include treatments for pedestrians, bicycles, freight, and adjacent

C-020-010

- \$400 million from future toll revenues may not be realistic. Initiative 1053 also casts doubt on whether WSDOT can impose tolls without action by the Legislature, which is uncertain.
- There is significant doubt as to whether the state will be able to float bonds on future tolling revenue because the state is at the limit currently for debt capacity, and both SR-520 and SR-99 projects are dependent on raising \$2.4 billion in new bonds.
- Finally, there is firm resistance from all parties – City, County, and State -- to accept liability for the cost overruns, overruns that are likely to occur with 40% probability.

b) SEPA requires a level of detail consistent with the importance of the environmental impacts of the proposed project. WAC 197-11-402(2); see *Klickitat County Citizens Against Imported Waste v. Klickitat County*, 122 Wn.2d 619 (1993). Where lingering issues about cost remain unclear, and major impacts to the environment are only broadly and vaguely considered, it is hard to imagine a court deeming the current SDEIS sufficient to reasonably inform decision makers about the adverse consequences of this project.

**Action:** WSDOT must prepare a table comparing full project costs (including reasonable contingency reserves), and a full funding plan, (including back up plans if the unsecured funds fall through, and willing sources for potential overruns) and present it to the public and decision makers. Also in a time of budget shortfalls, during which the State is asking for great sacrifices in other sectors, including the closure of State Parks and user fees, every department, including WSDOT, should be enacting policy that is fiscally responsible. Building the most expensive replacement of the Alaskan Way Viaduct is not fiscally responsible.

C-020-011

**5. The preferred alternative represents an unacceptable risk to Historic Resources – Pioneer Square Historic District and buildings. The viaduct replacement project must guarantee protection of these historic resources from harm.**

The protection of our historical heritage is important to the Sierra Club as well as protecting our natural environment for future generations. The deep bore tunnel creates unwarranted risk to Seattle's historic heart. Pioneer Square's historic buildings are fragile and sit upon brittle infrastructure, a high water table, and unstable soils. Boring a tunnel beneath is, admittedly, a steep engineering challenge:

- a) This DEIS describes the risks of digging and boring in this location (Ch 5 pg 126), possible damage to 12 historic structures (Ch 2 pg 31), and possible collapse or dramatic damage to two buildings (Ch 6 pg 142) because of difficulty controlling soil loss or preventing over-excavations or sinkholes. WSDOT will not know if there is an adverse effect to an at-risk building due to their boring activities until they start tunneling under it.

Sierra Club page 9 of 13

land uses.

In advance of construction, WSDOT funded Intelligent Transportation System (ITS) investments that provide improved signal operations and travel time information on SR 99 and city streets such as 15th Avenue NW that were likely to see increased volumes due to SR 99 construction activities. These investments will have lasting value. Supplemental transit services and transportation demand management were also implemented with assistance from the City of Seattle and King County, and these strategies can form the blueprint for future strategies.

**C-020-010**

The state legislature authorized funding to replace the Alaskan Way Viaduct in RCW 47.01.402. According to this law;

"The legislature finds that the replacement of the vulnerable state route number 99 Alaskan Way viaduct is a matter of urgency for the safety of Washington's traveling public and the needs of the transportation system in central Puget Sound."

This legislation also authorizes WSDOT to obligate two billion eight hundred million dollars. In order to fund this obligation the legislation further identifies sources of funding: \$2,400,000,000 of state funding; \$400,000,000 of toll funding.

In the absence of toll funding WSDOT would still have the authorization to issue contracts up to \$2,800,000,000 but the mix of funding sources would change. It is assumed that the toll funding would be replaced by new or reprioritized federal, state, or local funding sources.

The legislation authorizing WSDOT to proceed with the project also has a provision that those in Seattle who benefit from the project should be responsible for cost overruns. WSDOT interprets this as a statement of

C-020-011

- The DEIS says this of the Western building, a 'contributing' building in the Pioneer Square Historic District: "Mitigation measures to protect the building may not prevent the need for demolition to avoid the possibility of collapse."
- Further, the DEIS says of the Polson Building, another 'contributing' building: it "may also experience settlement, if unmitigated."
- The DEIS also states that twelve buildings within the Pioneer Square Historic District or listed on the National Register of Historic Places - including the Historic Federal Building -- may be affected by settlement, structures could crack, and utilities may be disrupted or damaged.
- While the DEIS claims measures will be implemented to avoid or minimize damage, it adds that despite these measures, unavoidable damage might still occur with the preferred alternative.

**Action:** WSDOT must provide more information and answer the following questions:

- How and when damage is likely to occur?
- What damage could soil settlement from tunnel boring cause, specifically?
- Will Pioneer Square's unique but delicate areaways and historic underground be put at risk?
- What are the total impacts to Pioneer Square, including possible closures to public right-of-way?
- What actions will be taken to prevent, repair, or mitigate damage?
- Is WSDOT planning to purchase and demolish any of these buildings?
- What is the likelihood of unavoidable damage to the fourteen buildings at risk?
- Will residents and users of those buildings be at risk of harm?

C-020-012

**b)** Some of the 'solutions' proposed to prevent structural damage actually exacerbate other problems:

- Given that water table is quite close to the surface, there is risk that the solidification of soils -- due to tunnel walls, retained cuts at the portals, and the injection of jet grout under buildings -- might alter natural water flows, create a water barrier, and cause water to back up in the Pioneer Square Historic District. (Ch 5 pg 127.)
- Many basements at risk in Pioneer Square are occupied, either by active retail or other business uses. Many are part of the historic underground, which is a popular visitor attraction, and occupied at times by hundreds of people.

**Action:** WSDOT must answer questions as to the mitigation of potential construction caused flooding events:

- What exactly is the risk of potentially submerging subsurface structures?
- What structures are vulnerable?
- Will decayed and fragile underground water and sewage infrastructure be at risk of failing if the ground becomes over-saturated due to altered water flows?
- What is the risk of basements flooding?

Sierra Club page 10 of 13

legislative intent that would need clarification to become operative.

The estimated project costs for the build alternatives are identified in the Summary of the Final EIS.

**C-020-011**

Final EIS Appendix I, Historic, Cultural and Archaeological Discipline Report, addresses the risks to historic buildings. In the Final EIS, Chapter 6 discusses construction effects and Chapter 8 discusses mitigation. The board tunnel alignment skirts the western edge of the Pioneer Square Historic District, away from the older buildings and areaways. Buildings and structures (both historic and non-historic) along the alignment have been inspected and evaluated by structural engineers; each one will be inspected by engineers again before tunneling begins. The construction process includes extensive monitoring of each building and structure before, during and after tunneling. This will enable any settlement impacts to be detected immediately so that they can be prevented or minimized. If damage does occur to historic buildings, it will be repaired according to the Secretary of the Interior's Standards for Rehabilitation of Historic Properties.

**C-020-012**

Measures that can be employed to mitigate the risk of groundwater mounding behind tunnel walls or ground improved areas are outlined in the Earth Discipline Report, Appendix P, and is summarized in Chapter 5 of the Final EIS. The level of detail provided in the Earth Discipline Report is appropriate for environmental review purposes. The risk of groundwater mounding and associated mitigation will be further evaluated during final design of the project.

The Bored Tunnel alignment is some distance from Pioneer Square's

C-020-013

- c) Pioneer Square Historic District is listed in the National Register of Historic Places. Why is it not being protected via Section 4(f)?

**Action:** This DEIS should provide Pioneer Square Historic District full protection under section 4(f). It should identify and evaluate alternatives that avoid the possible harms to the streetscape, the buildings, and the underground that together comprise the unique quality of this district.

C-020-014

**6. The focus must be on mobility, not vehicle capacity, due to the projections of declining oil supplies and increasing economic distress**

The SDEIS uses a traffic forecasting methodology that ignores both current trends in Seattle area driving and the projections of skyrocketing oil prices or rationing over the next generation as world oil supplies go into decline and the historic era of economic growth comes to an end. It is critical that our remaining resources go into infrastructure for the future, not the past. Already traffic on the Alaskan Way Viaduct is flat and the trend among young people is strongly toward less driving.

**a) Oil Supplies & Traffic Forecasting**

The traffic forecasting methodology in chapter 2 of the "Transportation Discipline Report" is deeply flawed as it fails to reflect geopolitical reality – that global economic growth is slowing because the net energy produced from fossil fuels is about to or has already peaked. Higher costs for renewable energy and the remaining fossil fuel supply will translate into less future traffic due to higher costs—both in absolute terms and relative to income—for driving and owning a motor vehicle (<http://www.theglobeandmail.com/report-on-business/commentary/jeff-rubins-smaller-world/>).

Yet section 2.3 "Travel Demand Estimates and Forecasts" uses assumptions for regional population and employment growth from PSRC's regional plan, *Destination 2030*, and several updates, all of which use outdated methodologies. These methodologies rely on statistical extrapolation from time series data on population and employment and how these have related historically to traffic. Factors well known to petroleum geologists and natural resource specialists that are rapidly changing the underlying dynamics are not taken into account.

Reports of these trends in global energy are commonly available ([www.odac-info.org/reports-resources](http://www.odac-info.org/reports-resources)), such as *The Oil Crunch - A wake-up call for the UK economy* by The Industry Taskforce on Peak Oil and Energy Security (ITPOES), February 2010. Even the US military is worried that "by 2012 surplus oil production capacity could entirely disappear, and as early as 2015, the shortfall in output could reach 10 million barrels a day" ([www.peakoil.net/headline-news/us-military-warns-oil-output-may-dip-causing-massive-shortages-by-2015](http://www.peakoil.net/headline-news/us-military-warns-oil-output-may-dip-causing-massive-shortages-by-2015)). The German military has similar concerns ([www.consumerenergyreport.com/2010/09/02/leaked-study-peak-oil-warns-severe-global-energy-crisis](http://www.consumerenergyreport.com/2010/09/02/leaked-study-peak-oil-warns-severe-global-energy-crisis)). A wide variety of current reports are available at [www.energybulletin.net](http://www.energybulletin.net), [www.odac-info.org](http://www.odac-info.org), and [www.theoilcrunch.com](http://www.theoilcrunch.com).

areaways and no impacts on them are anticipated. The areaways are included in the monitoring program; they will be monitored if needed. The areaways are discussed in Chapter 6 of the Final EIS and in more detail in Chapters 4 and 6 of Appendix I, Historic, Cultural and Archaeological Discipline Report, of the Final EIS.

**C-020-013**

The Section 4(f) Evaluation in the Final EIS and Appendix J, 4(f) Supplemental Materials, recognize that the Pioneer Square Historic District is a protected 4(f) resource and discuss the effects of the build alternatives on this resource.

**C-020-014**

The travel forecasts prepared for the Final EIS use fully vetted standard modeling techniques that have been reviewed by experts in the industry and applied consistently to similar projects throughout the region for decades. The methodology and tools used in travel forecasting are based on the regional model developed and maintained by the Puget Sound Regional Council, our regional Metropolitan Planning Organization, and are consistent with procedures recognized by the Federal Highway Administration. Additional detail regarding the travel forecasting methodology can be found in Final EIS Appendix C, Transportation Discipline Report.

C-020-015

**b) Current Trends**

Empirical data make the PSRC forecasts dubious:

- According to the City's annual counts, usage of the Alaskan Way Viaduct has been flat over the past twelve years.
- Research from Sightline Institute ([http://www.sightline.org/research/energy/res\\_pubs/braking-news-gas-consumption-goes-into-reverse](http://www.sightline.org/research/energy/res_pubs/braking-news-gas-consumption-goes-into-reverse)) reveals car travel has been declining the past 13 years in our region.
- A new study by Advertising Age reveals that young people (16-20 years old) are driving 20 to 25% less than their parents' generation. ([http://adage.com/digital/article?article\\_id=144155](http://adage.com/digital/article?article_id=144155)).
- Forty percent of regional trips are less than 2 miles in length, which means it would be viable to serve a significant portion of SOV trips by biking, walking, or transit.

A combination of changes in demographics, societal values, the energy economy, and land use and transportation patterns in Seattle point to less need for mega projects that serve only motor vehicle travel in urban areas.

C-020-016

**Action:** WSDOT should use traffic modeling approaches based on different scenarios of possible rise in petroleum prices. The resulting changes in total traffic would include scenarios such as: no change in Seattle-area traffic by 2030, a 10% drop, a 20% drop, and so on. This project should be organized around an increase in use of transit, biking, and ride-sharing and provide corresponding infrastructure. Evaluation measures should compare access and mobility for people and freight without a fixation on vehicle capacity, and develop solutions that provide viable alternatives to SOV travel.

**Conclusion**

C-020-017

Sierra Club is committed to a future of smarter energy and transportation choices. The choices we make today will determine whether or not the region can navigate a path toward sustainability tomorrow. The public will be best served when our resources are spent in the most environmentally effective, least damaging manner. Consistent with these values and objectives, Sierra Club emphasizes the following points concerning the SR 99 project and its 2010 SDEIS:

1. In the 21<sup>st</sup> Century, we should be investing in infrastructure that advances transportation demand management and future use of modes other than single-occupant vehicles. Projects should meet the greenhouse gas emission reduction goals of State, City and County governments. The preferred alternative degrades existing transit on the corridor, and gives priority to SOV through traffic. A deep bore tunnel, as the most expensive option that serves the smallest number of users, is an extremely inefficient use of transportation investment dollars.

**C-020-015**

The statement that traffic on the Alaskan Way Viaduct has been flat over the past twelve years is not supported by City of Seattle data. Traffic volumes on the Alaskan Way Viaduct in downtown have varied from 1996 to 2008, and did remain flat over a 6-9 year time period, but this result may also be due to the fact that this segment is approaching capacity during peak travel periods. On the other hand, volumes in the Battery Street Tunnel, which are more indicative of travel patterns with the proposed Bored Tunnel Alternative, show a 19 percent growth rate over the 12-year period from 1996 to 2008. Growth in traffic volumes is lower but still notable north of the Battery Street Tunnel as well. It is clear that growth generally stagnated around the period from 2000 to 2005, but the traffic numbers do not reflect the stated claim.

Even though per capita gas consumption has been declining in the region over the last 13 years, as noted in the Sightline Institute Report, total vehicle travel in the region has not gone down, due to a combination of improved fuel efficiency and regional population and employment growth. Also, while it is true that youth may be less likely to obtain a driver's license today than a generation ago, the effect on travel is not explicit, nor does travel patterns the 16-20 year age group reflect the typical traveling population.

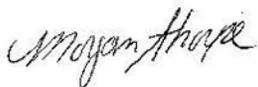
The travel demand model typically shows an average trip length of around 9 miles in the Puget Sound Region. While it is true that the median trip is shorter due to the skewing of trip length by some long-distance trips, the average trip length for Alaskan Way Viaduct users is greater than the 9 mile average for the region. Thus, while transit, biking, and walking are suitable replacements for short-distance trips, trips currently using the viaduct are unlikely to be replaced by walking and biking to any appreciable degree.

C-020-017

2. The tunnel alternative only answers part of the viaduct replacement challenge. This alternative fails to serve users currently reliant on the existing viaduct. Only trips that bypass downtown Seattle are well-served. Access into downtown Seattle and adjacent neighborhoods for vehicles, freight and transit users are not well served by the deep bore tunnel. This results in egregious negative impacts to local streets and low income residents. When the diversion effects of tolling are included, these negative impacts are compounded, and cast doubt on whether the current alternative meets the statement of purpose and need.
3. The evaluation of alternatives in this SDEIS has been skewed by adoption of an inappropriate purpose and need statement. A fixation on "capacity" instead of "mobility" has unnecessarily constrained the options while excluding solutions that rely on transit, demand management, or capacity of other facilities. WSDOT has side-stepped the requirement and intent of SEPA to include all reasonable alternatives.
4. The public and elected decision makers at the City and State deserve a clear picture of total project costs (item 4 above) compared to the full funding plan. WSDOT should explain how it will address any shortfalls, and what elements of the overall program scope are vulnerable to being cut. The City of Seattle, local neighborhoods, the federal GSA, or private property owners cannot be held liable for costs of the State's project.
5. An EIS must provide a discussion of impacts *impartially* and not serve as a mere means to justify "decisions already made." WAC 197-11-402. Washington courts require a project proposal's environmental consequences to be thoroughly discussed and analyzed. We request that you do so here.

Thank you for your consideration of these comments.

Sincerely,



Morgan Ahouse  
Chapter Chair, Sierra Club Cascade (WA) Chapter

For further details, please refer to the Transportation Discipline Report, Appendix C of the Final EIS.

#### C-020-016

The travel forecasts prepared for the Final EIS use fully vetted standard modeling techniques that have been reviewed by experts in the industry and applied consistently to similar projects throughout the region for decades. The methodology and tools used in travel forecasting are based on the regional model developed and maintained by the Puget Sound Regional Council, our regional Metropolitan Planning Organization, and are consistent with procedures recognized by the Federal Highway Administration.

#### C-020-017

These points have all been addressed in response to previous comments in this letter. The lead agencies want to thank the Sierra Club for the substantial effort you have invested in this project, both during the Partnership Process in which you played a direct role and for your continued work on transportation issues in our community. Your thoughtful comments help ensure a healthy discussion and help us develop a better transportation system that serves the needs of all users.