From: Toby Thaler [mailto:toby@ouploup.net] Sent: Monday, August 15, 2011 8:38 PM To: WSDOT AWV 2011 FEIS Comments Subject: AWV 2011 Final EIS Comment

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Deep Bore Tunnel ventilation

I-011-001

Concentration of *unfiltered* vehicle exhaust at the North and South Portals and stacks at the North and South Tunnel Operations Buildings exposes densely populated areas in Seattle to concentrated Mobile Source Air Toxics (MSATs) in addition to increased particulates and CO.

In the FEIS, WSDOT, and FHWA assert that due to engine controls adopted by the EPA and phasing out of older vehicles, the concentration of the pollutants at the portals and tunnel operations building stacks is acceptable, because they expect that the engine controls will mean that MSATs, particulates and CO emissions will be lower in the future than they are today, even if the number of cars using the tunnel increases.

The following statements in Appendix M – Air Discipline Report, pp. 23-24, raise my concerns as a community member about the concentration of MSAT's:

"...currently available technical tools do not allow a prediction of the project-specific health effects that would result from the potential emission changes associated with a project"

"The tools to predict dispersion of MSATs into the environment are limited"

"Exposure assessments are difficult because it is difficult to accurately calculate annual concentrations of MSATs near roadways and to determine the portion of a year that people are actually exposed to those concentrations at a specific location."

Also, in Appendix M on p. 24, it says, ""Based on FHWA's recommended tiered approach the project belongs in Tier 3 (i.e., projects with a high potential for MSAT effects). This category is appropriate because the tunnel alternatives have the potential to add capacity to urban roadways, and the affected roadways are located near populated areas."

Tunnel exhaust filtering has been or is being installed in numerous tunnels in other countries – Norway, Denmark, Australia and Japan, in order to protect human health. I believe that the Deep Bore Tunnel, if built, must incorporate filtering of the vehicular exhaust in order to protect the health of those who live or work downtown, especially near the tunnel portals.

I-011-001

Your concern about air quality at the tunnel portals is acknowledged. As noted in the Final EIS Appendix R, Energy Discipline Report, the exhaust from the ventilation stacks and tunnel portals were modeled in the Final EIS, and, based on this modeling, no exceedance of the National Ambient Air Quality Standards (NAAQS) would occur. Mobile Source Air Toxic (MSAT) emissions were also analyzed in the Final EIS, using FHWA guidelines. FHWA has developed this approach because currently available technical tools do not allow a prediction of the projectspecific health effects (such as health risks) that would result from the potential MSAT emission changes associated with a project.

Deep Bore Tunnel Greenhouse Gas Emissions

I-011-002 In the FEIS Appendix R – Energy Discipline Report, it says on p. 4 that 2030 Viaduct Closed conditions would result in the highest operational energy and greenhouse gas emissions. However, in the calculations for energy and greenhouse gas emissions ("Attachment A" to Appendix R), the 2030 Viaduct Closed conditions is shown to create the fewest daily emissions in the Center City. Which is correct?

Also, to assert that the greenhouse gas emissions for the Deep Bore Tunnel only increase in the City Center City but don't increase the regional total is sticking one's head in the sand. Seattle needs to play a leading role in reducing overall greenhouse gas emissions and so does this highway project.

Malfeasance

I-011-003 Calculations for energy and greenhouse gas emissions and for air quality modeling were not made available to the public as part of the 30-day FEIS review process except by request. The reason was due to "file length or size". However upon receiving the information, I discovered that these files could easily have been linked to WSDOT's FEIS web page, since they were not of excessive length or size. This appears to be an attempt by WSDOT to delay the public's review of the information, the public's ability already curtailed by the maximum 30 days allowed to review in excess of 7200 pages of documentation.

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I-011-002

Page 4 of the Energy Discipline Report, Final EIS Appendix R, summarizes the results of Exhibit 1-2 on page 5. Exhibit 1-2 reports that the total regional operational energy and greenhouse gas emissions are higher for the 2030 Viaduct Closed (No Build Alternative).

With the Viaduct Closed in 2030, traffic volumes (measured in vehicle miles traveled) in the city center would decrease, but traffic volumes in the region would increase; see Exhibit 5-1 in the Energy Discipline Report. Exhibits 5-2, 5-3 and 7-3 in the Energy Discipline Report and the calculations in Appendix A of the Energy Discipline Report show that the operational energy and greenhouse gas emissions are lower in the city center and higher in the region under the 2030 Viaduct Closed (No Build Alternative). Please note, the city center is included in the regional analysis, therefore, overall, the highest calculated operational energy and greenhouse gas emissions were for the 2030 Viaduct Closed (No Build Alternative). As described in section 2.3 of the Energy Discipline Report, the city center area is bordered by Aloha Street on the north, 15th Avenue on the east, S. Holgate Street on the south, and Elliott Bay on the west, as shown on Exhibit 2-3. The region includes all the traffic movements in King, Pierce, Snohomish, and Kitsap Counties; the regional study area is shown on Exhibit 2-4 of the Energy Discipline Report.

I-011-003

The information referred to in this comment consists of voluminous numeric output from analytical models and was provided upon request in time for examination during the Final EIS comment period.