Alaskan Way Viaduct and Seawall Replacement Project

Department of Ecology, September 22, 2006

Comments on the Supplemental Draft Environmental Impact Statement (July, 2006)

Stormwater and Water Quality Impacts

The following comments were developed by Eric Luengo, Ecology's Transportation Stormwater Engineer for the Liaison Team:

S-006-001 **1)** *Page 70 of the SDEIS second paragraph*: Indicates that impervious surface would not increase but existing impervious surface would be replaced. Does the project team expect that, based on the amount of replaced impervious surface, the threshold would be met or exceeded causing the minimum requirements to be applied to both new and replaced impervious surfaces?

S-006-002 **2)** The continuous runoff models when used to design detention facilities to meet the flow duration standard are designed to prevent stream degradation such as channel scour, stream bank instability, and high sediment transport rates. How are the detention systems (specifically the controlling outflow rate component of the system) going to be designed or feasible outflow rates going to be determined to ensure that peak flows or high flow events do not lead to more frequent or higher volume combined sewer overflows? What kind of variances from the Seattle Ordinance Detention Requirements will be used?

S-006-003 **3)** What type of BMPs are being implemented in the basins that drain to impaired water bodies, more specifically to address fecal coliform, which is a pollutant of concern in the listed water body Lake Union?

S-006-004 **4)** What measures will be put in place during construction to ensure that sediment that is accumulated or created from the tunneling process (if this alternative is selected) will not end up in stormwater runoff?

S-006-005 **5)** Does the project team anticipate any problems with relocating the Whatcom Rail yard (located in the southern portion of the project area)? Can there be assurance that the 14 acres of impervious area will be replaced as a result of this relocation (if the corresponding alternative is selected)?

S-006-006 **6)** If the treatment efficiency decreases with increased flow to the West Point Sewer Treatment Plant (WPSTP), what kind of improvements might be proposed

S-006-001

As described in Appendix O, Surface Water Discipline Report, of the Final EIS, stormwater will be managed in accordance with the applicable stormwater management regulations. The overall land-disturbing activity is expected to exceed the threshold of 7,000 square feet; therefore, Minimum Requirements #1 through #4 of the WSDOT Highway Runoff Manual would likely apply to both the new and replaced impervious surfaces. The remaining Minimum Requirements depend on the amount of new impervious surface that would be created. Calculations regarding the amount of new impervious surface will be made later in the project during the permitting phase, when more design information is available. At that time, the project team will identify additional Minimum Requirements that would apply.

S-006-002

The Convey and Treat Approach has not been carried into the Final EIS. 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. The proposed stormwater management approach is based on a presumptive approach to compliance using the WSDOT and City of Seattle Stormwater Manuals. To the extent possible this approach does not change sub-basin areas or the volume of water discharged to the combined sewer system.

S-006-003

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. Mitigation measures are described in Chapter 8 of the Final EIS.

S-006-006

at the treatment plant to mitigate for the increased flows that will be generated as a result of the construction of this project?

7) If the pollutant removal efficiency is the greatest when implementing BMPs rather than conveying additional flows to the WPSTP, where the pollutant removal efficiency can decrease as a result of increased flows, has the project team considered using only BMPs in the north end of the project area to avoid possible higher pollutant loading into the receiving water bodies in the project area?

8) The Water Resources Discipline report indicates that there will be more areas draining into the combined sewer system in the tunnel alternative in comparison to the rebuild alternative. Does that mean that areas that were once on separate, or converted to separate, sewer systems are being converted to combined? If this is the case, why is the project team choosing to add additional flow to the combined sewer system if the capacity of the Elliot Bay Interceptor has already reached its capacity? This could open the door for more possible combined sewer overflow events and reduce the overall pollutant removal efficiency of the WPSTP.

Ed Abbasi, the lead stormwater engineer at the Ecology Northwest Regional Office, also expressed his concerns that stormwater generated within the project area that was previously separated from the combined sewer system should not be reintroduced back into the combined sewer system. The following are his comments in regards to this issue:

According to the supplemental DEIS, apparently the revised project is increasing the drainage area that would result in an increase of CSO discharges into Elliot Bay, and it seems the City of Seattle has plans to provide a treatment system for the expected CSO generated as a result of increased impervious areas. This is from the report:

> In August 2005, SPU produced a technical planning study, "Drainage and Wastewater Feasibility Study for the Alaskan Way Viaduct/Seawall Final Report" (Seattle 2005b). The study considered permanent replacements of the combined sewer and stormwater utilities along the Seattle waterfront, between S. Royal Brougham Way and Bay Street. The feasibility study included a planning level hydraulic analysis of the combined sewer system that tied the project area (approximately 90 acres) to the upstream area tributary to the major sewer interceptor (approximately 2,000 acres). The study identified that additional untreated combined sewer outfall (CSO) discharges were potentially occurring along the waterfront. The study recommended a combined sewer system treatment facility and associated conveyance and detention as the best apparent alternative.

What if the City decides not to proceed with the recommendation? Is it not the project's responsibility to treat the generated runoff rather than depend on the

S-006-004

Handling of tunnel spoils will be addressed through the development and implementation of management plans and the selection and implementation of appropriate construction BMPs. Details of mitigation for potential construction-related effects, including those from surface water exposure to tunnel spoils, are discussed in the Final EIS Appendix O, Surface Water Discipline Report, Chapter 6.

S-006-005

The Whatcom Railyard will not be relocated by the Alaskan Way Viaduct Replacement Project. Please see the Final EIS for a description of the current alternatives.

S-006-006

The Convey and Treat Approach has not been carried into the Final EIS. 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. To the extent possible, this stormwater management approach does not change sub-basin boundaries or receiving waters or cause increase in the volume of stormwater discharged to the combined sewer system.

S-006-006

City? Where is the project commitment and discussion of this issue? Additionally how about the question Ecology raised earlier during 2004 DEIS. The federal law prohibits discharge of stormwater to a separate sanitary system. It is technically against the federal law and it is Ecology's strong recommendation that any stormwater previously separated from the system should not be reintroduced into it. Ecology made this comment last time and is making it again this time. WSDOT must address this issue and provide a full discussion. The SDEIS has not done an adequate job in this regard.