STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

June 30, 2010

John White, P.E., Director
Floating Bridge and Landings
Washington State Department of Transportation
Plaza 600 Building
600 Stewart St, Ste 520
Seattle, WA 98101-1217

Dear Mr. White:

RE: **Ecology's Conditional Approval of WSDOT's AKART and Water Quality Studies Report**

This letter is in response to the Washington State Department of Transportation's (WSDOT) revised *"All Known, Available and Reasonable Technologies (AKART) and Water Quality Studies Report"* for the SR 520 Bridge Replacement and HOV Program – I-5 to Medina project. WSDOT's approach for treating stormwater on the project's floating bridge portion is to use high efficiency sweepers and oversized catch basins. Additionally, stormwater will be directed into supplemental stability pontoons for spill control and dilution into the Lake to meet water quality standards. Ecology has reviewed the Final April 2010 Report and gives its conditional approval of WSDOT's approach to stormwater treatment on the floating bridge portion of the project.

In 2002, Ecology requested that WSDOT prepare a water quality study to examine potential water quality impacts to Lake Washington from stormwater discharges from the replacement bridge and an AKART study that would document the feasibility of and justification for WSDOT's proposed water quality protection measures. Throughout the years' development of the Report, WSDOT and Ecology have worked together to ensure that the final version meets the needs of both agencies: a safe and reliable highway system that protects water quality in Lake Washington and surrounding water bodies.

The final *Water Quality Study* evaluated the water quality of the stormwater runoff from the replacement bridge and then demonstrated how the stormwater discharges would meet state water quality standards. The *AKART Study* included: 1) a literature search to identify known stormwater treatment technologies and highway water quality information; 2) a screening process to identify feasible technology; 3) an evaluation and ranking of the four screened alternatives; and 4) a selection of the proposed technology for the floating bridge. WSDOT has selected *Alternative 4*: High-efficiency sweeping and modified catch basin/cleaning because that treatment approach "*appears to offer the most reasonable technologies for addressing water quality on the floating bridge based on technical feasibility and cost effectiveness.*" It provides a moderate amount of Total Suspended Solids (TSS) and metal

removal, a high degree of technical feasibility, and appears the most cost-effective for TSS and metals. Additionally, unlike the other alternatives, operation and maintenance of Alternative 4's level of risk is *"not unreasonable or unknown."*

The *Report's* conclusion notes that WSDOT will develop *"a site-specific sweeping program"* for the bridge based on *"operational elements of sweeping frequency, sweeper driving paths and speeds to meet the AKART predictions."* The strategy will include a monthly sweeping frequency *"that may need to be adjusted depending upon local seasonal precipitation patterns, pollutant loads and monitoring results."* Ecology's approval of the *Report* is conditional, rather than complete, because the language is somewhat ambiguous and needs clarification.

Therefore, Ecology will consider the following clarification, along with the *Report's* information, to make a decision about sweeping frequency:

> *The "site-specific sweeping program" will include an Ecology-approved monitoring plan that will be implemented once the new floating bridge is open to daily traffic. The new plan may call for initial sweeping more or less than once a month -- that factor is yet to be determined. Thus, the Report's recommendation of once per month is not yet substantiated, and it should be viewed only as a place-holder, rather than an agreed-upon starting place or default frequency. If the monitoring plan is in place prior to WQ Certification issuance, then it can be referenced in a 401 condition; otherwise the WQ Certification will require a monitoring plan upon which sweeping frequency can be determined.*

Ecology does not expect WSDOT to submit an addendum to the Report; rather, the above language will remain as part of Ecology's conditional approval. Unless Ecology and WSDOT later arrive at another understanding, WSDOT should proceed within the confines of that approval.

Should you have questions or comments about this approval letter, please do not hesitate to contact me at 425.649-7033 or kfit461@ecy.wa.gov or Terry Swanson, Ecology Transportation Liaison, at 360.407-6789 or tswa461@ecy.wa.gov.

Sincerely,

Kevin C. Fitzpatrick
Water Quality Program Section Manager

ecc: Ed Abbasi, DOE-NWRO
Bob Nolan, MAPS
Bill Moore, DOE-HQ
Terry Swanson, DOE-HQ
paulburichp@consultant.wsdot.wa.gov