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June 21, 2011

Harriet Beale
Municipal Stormwater Permit Comments
Washington State Department of Ecology
Water Quality Program
PO Box 47696
Olympia, WA 98504-7696

RE: Comments on Phase I Municipal Stormwater Permit, Preliminary Draft Language, May 16, 2011

Dear Ms. Beale:

King County has reviewed the Preliminary Draft Language on the Phase I Municipal Stormwater Permit, specifically related to Low Impact Development (LID) (S5.C.5 – Controlling Runoff from New Development, Redevelopment and Construction Sites) and on Monitoring (S8); and the supporting documents, issued by your group on February 21, 2007. We wish to thank you for the opportunity to provide comments. King County is an advocate and supportive of the use of the LID approach, where feasible, and wants to promote approaches and structures that are effective and efficient over the long term. King County is also a strong supporter of the regional monitoring approach and believes that it can be the most effective way to determine the status and effectiveness of the region's stormwater management programs.

However the feasibility and applicability of many LID Best Management Practices (BMPs) is still being determined by research programs such Washington State University's LID Stormwater Research Program. The proposed LID requirements are very aggressive in that BMPs are applied in a redundant fashion, requiring the applicant to add more than one BMP after another, without any apparent consideration of what it is going to take to inspect, maintain, and keep the BMPs functioning in perpetuity.

Our comments address five general areas: 1) LID – Codes; 2) LID – Site and Subdivision Proposal; 3) LID – Watershed Scale Stormwater Planning; 4) LID – Permeable Pavement and, 5) Monitoring. Enclosed are three attached documents including a compiled set of detailed comments relating to specific provisions of the draft permit; a memorandum from King County Road Services Division about pervious pavement: and, a marked-up version of Appendix 1.

We have also included specific comments on the draft Appendix 1 and the Draft Funding Agreement included in the compiled set of detailed comments.

1) **LID – Codes.** This portion of the draft permit language describes the schedule and code changes required by Ecology. Achievement of the proposed schedule will be difficult to meet as a consequence of the passage of House Bill 1478 and its potential alteration of the issuance schedule for the next NPDES Municipal Stormwater Permits, which are also very likely to be appealed. Another issue is the language's citation of external documents to set permit requirements for the code changes. These citations, which occur here in the LID code section and also elsewhere in the draft permit, are not yet available for review. Thus our comments may change following future review of these documents.

   The proposed language requires local jurisdictions to allow Ecology review and approve of local ordinances covering a wide range of topics including engineering and street standards, clearing and grading ordinances, parking requirements, subdivision standards, landscape and tree standards, and individual zoning district bulk and dimension regulations. This effectively delegates the responsibility of determining the priority of and standards for, road safety and land use to Ecology. This is an unacceptable delegation of municipal authority.

   While it is important to acknowledge that land use and stormwater management are inextricably linked, it is inappropriate to use the Clean Water Act NPDES municipal permit system to control land use. The permit system (implemented by Ecology) and land use authorities (municipal permit holders) can work together more effectively if the region works to develop a landscape-based prioritization system for retrofitting and treatment that works in tandem with the permit system.

2) **LID – Site and Subdivision Proposal.** This section describes the process that will determine the application and feasibility of selected LID measures in the development and redevelopment of sites and subdivisions. King County supports the LID approach and has implemented a similar program since 2005. But the county has concerns about long-term elements of this program including structural maintenance, BMP effectiveness, jurisdictions roles in inspections and enforcement, protection of the BMPs through source control, and program costs for the private and public sector related to this proposal. This proposal institutes a program that shifts a significant portion of the planning, construction, operations, and maintenance of the regions stormwater flow control and water quality treatment systems from the public sector to private properties, both residential and commercial. These regulations are more complex and will apply to more projects than the previous regulations. This level of complexity will require many small-project applicants to hire engineers or other professionals to comply and will greatly increase the cost of compliance. King County is concerned that the increased level of effort and associated costs that will be required of jurisdictions to review, inspect, and enforce the planning, construction, operation,

and maintenance of these measures. King County is already experiencing some of these program challenges in implementation of our current LID measures which are included in our Flow Control Best Management Practices (FCBMP) program. This program is not nearly as aggressive and redundant as this proposal. The challenges include:

a. Systems not built to design, or not built at all;
b. Neglect of maintenance due to lack of knowledge of the homeowner (not knowing it is there, not knowing what to do);
c. The homeowner's inability to perform maintenance (due to monetary or physical constraints);
d. Incorrect or inadequate maintenance or destruction (altered use) carried out by the homeowner; and,
e. Changing offsite conditions that render the LID measures ineffective, such as actions from upstream property owners that change runoff characteristics.

While we are committed to expanded use of LID techniques, the implementation and feasibility challenges are still significant. King County believes that continued research including pilot and phased applications that address site specifics and maintenance options should be considered for the next permit round.

3) **LID – Watershed Scale Stormwater Planning.** King County strongly supports and has been a constant advocate for long term planning for stormwater programs. We strongly agree that this is best done by basin or watershed planning. However, the watershed scale stormwater planning proposed in this permit appears to be a modeling effort instead of comprehensive basin planning. This portion of the permit, as written, poses difficult challenges to the permit holders including the availability of tools to determine the effect of development activity on the water quality standards of receiving waters and how to meet the high costs of planning.

   This requirement assumes that modeling tools which are currently in development will be able to accurately predict the impact of development actions, resulting in pollutant loading for a range of pollutants and discharging to a range of receiving waters. Allowance for the costs of these planning efforts must be considered as it will be driven by the desired level of certainty and a reasonable level of accuracy. The cost will also be driven by the quality and availability of data sets needed for modeling such as data on drainage networks, land use, soil infiltration and capacity, seasonal water tables, and water quality values for both runoff and the receiving waters, including groundwater. Typically such data sets either do not exist, or exist in substantially incomplete form and the costs to develop such data and the tools to access them are significant and beyond most current revenue streams.

   We would be very supportive of working together with Ecology and other permit holders to develop more robust and broadly applicable methodologies for watershed scale planning during the next permit term that could serve as the basis for permit conditions in later permits. It will be important to fund such work with a combination

of local, state and federal funds since the costs of developing and verifying the broad geographic application of such models is beyond any one jurisdiction's ability. We anticipate that future methodologies will be informed by current research efforts, for example, the EPA funded work that King County and WRIA 9 are currently doing in the Duwamish/Green watershed to evaluate watershed level priority areas for retrofitting.

4) **LID – Permeable Pavement.** Please see the attached detailed comments regarding concerns about the feasibility of extensive requirements for the use of pervious (permeable) pavement on heavily traveled roadways and concerns regarding on-going maintenance of such surfaces. While King County and the King County Road Services Division is very supportive of the use of LID BMPs on road and drainage projects, we are concerned about the proposal to require the placement of permeable pavement wherever a new or replaced roadway surface is being created by roadway projects subject to drainage review. These concerns are supported by studies that have been performed and what has been learned through the research to date, regarding permeable pavement. King County could support further evaluation of the feasibility of permeable surfaces during the next permit phase through studies in partnership with WSDOT and other municipalities and jointly funded by federal, state and local governments. However there are many conditions (detailed in the attachment) in which the use of permeable pavements is not feasible and we recommend that Ecology exempt such conditions.

5) **Monitoring.** King County is a strong advocate for a regional approach for determining the effectiveness of permit requirements and the impacts of stormwater programs on the long term water quality of the Puget Sound Basin. The approach developed by the Stormwater Monitoring Workgroup and adopted by the Puget Sound Partnership provides the region the best opportunity to determine the most effective stormwater management approaches to protect the health of the Puget Sound Basin. However the approach is new and largely untested; and we recommend that it be phased in during the next permit term across multiple jurisdictions in the region. In addition, the preliminary cost models depend only on population which may not be adequately representative of the ability to pay, geographic coverage, or the total potential impact. It is unclear how credit for past investments in monitoring will be determined. King County also believes that the stormwater monitoring intended to characterize stormwater runoff in the 2007 permit (S8.D) should end at the expiration date of the current permit (February 2012) since any other option will result in costly redundant expenditures which in this time of economic uncertainty cannot be justified. King County believes that the requirements in the July 2012 permit that speak to actions from the expired February 2012 permit and call for actions outside the July 2012 permit coverage period are inappropriate and should be eliminated.

House Bill 1478 has mandated that Ecology issue two Municipal NPDES permits to the Phase II jurisdictions, one, effective July 2012, will contain no changes and the second will also be

issued July 2012 with an effective date of July 2013. Ecology has requested input from the Phase I jurisdictions in how Ecology the permit issuance to the Phase I jurisdictions. King County would prefer to be issued a single five-year permit but the importance of staying synchronized with the Phase II permit is the overriding critical factor in ensuring coordination of stormwater management across multiple jurisdictions in a single watershed. One solution would be to issue a four-year permit to the Phase II's, with an effective date of July 2013, which will maintain the synchronicity and issue the Phase I's a five-year permit with an effective date of July 2012.

We wish to express our thanks and appreciation for the opportunity for this review this preliminary draft language and will continue to work with Ecology's staff in refining the Phase I Municipal NPDES Permit, the Western Washington Stormwater Manual, and the other relevant documents and modeling tools. We encourage Ecology to take advantage of the pooled experience of the region's permittees and provide collaboration opportunities that can create a more effective permit. We look forward to working with you on the implementation of this permit in a way that provides protection to the environment, using solutions that are effective and feasible by our programs and funding capacities. If you have any questions, please feel free to contact Doug Navetski, Supervising Engineer in the Water and Land Resources Division (WLRD), at 206-296-8311 or Joanna Richey, Assistant Division Director of the WLRD, at 206-296-8056.

Sincerely,

Mark Isaacson
Division Director

Enclosures

cc: Christie True, Director, Department of Natural Resources and Parks (DNRP)
Joanna Richey, Assistant Division Director, Water and Land Resources Division, (WLRD), DNRP
Curt Crawford, Manager, Stormwater Services Section (SWSS), WLRD, DNRP
Doug Navetski, Supervising Engineer, Water Quality Compliance Unit, SWSS, WLRD, DNRP
David Batts, Senior Engineer, SWSS, WLRD, DNRP
Paulette Norman, Interim Division Director, Roads Services Division (RSD), Department of Transportation (DOT)
Lydia Reynolds-Jones, Managing Engineer, Engineering Services Section, RSD, DOT
Jennifer Keune, Environmental Scientist, Roads Maintenance Section, RSD, DOT