February 7, 2012

Ms. Carrie Graul
Ms. Harriet Beale
Washington Department of Ecology
Water Quality Program
P.O. Box 47696
Olympia, WA 98504-7696

RE: WSDOT Comments on Public Review Draft Municipal Stormwater Permits

Dear Ms. Graul and Ms. Beale:

The Washington State Department of Transportation (WSDOT) appreciates the opportunity to respond to the Washington State Department of Ecology's (Ecology) solicitation for comments on the draft municipal stormwater permit language. These comments are in addition to our February 3, 2012 comment submittal regarding the Stormwater Management Manual for Western Washington. While WSDOT will not receive coverage under these permits, we see value in participating in the dialogue since these future permit requirements might influence the development of the 2014 WSDOT municipal stormwater permit.

The comments below follow the order and organization of the draft permits. We would like to emphasize, however, our most significant concerns. For the reasons detailed below, we think that the draft permit requirements for monitoring and LID implementation, and the use of new and undefined terminology, would pose significant problems for WSDOT if these requirements were incorporated into our next permit.

S4. (all permits)
Please add clarity as to how the triggers under S4.F may differ from those under G3 (i.e., clarify as to whether S4.F pertains to a single event vs. an ongoing situation).

S5. Stormwater Management Program (all permits)
Mapping (S5.C2, Phase 1 permit; S5.C.3.a, Phase 2 permits)

"Mapping" needs to be defined in more detail in order to ensure consistency between permittees in terms of documentation methodology, data integrity and stormwater feature attribute definitions. These elements play a critical role in the communication and coordination of mapping connection points between jurisdictions.
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The actual mapping (i.e., field inventoring and documentation) of the \textit{waters of the State} should not be the permittees’ responsibility.

Define \textit{geographic areas} as it is used in: "\textit{Geographic areas served by the Permittee’s MS4 that do not discharge stormwater to surface water(s).}"

The terms \textit{tributary conveyances}, \textit{tributary type}, \textit{associated drainage areas}, \textit{connections}, \textit{permanent stormwater control plan}, and \textit{facilities} need to be defined to ensure consistency among permittees. For example, while some \textit{connections} are obvious (e.g., pipe intersecting another pipe), others are not (e.g., pipe intersecting a stormwater ditch – is it a \textit{connection}, \textit{discharge}, or \textit{outfall}?). This is particularly confusing since Ecology considers \textit{stormwater conveyance ditches} to be “waters of the state.”

Resolving the definition of \textit{permanent stormwater control plan} could be satisfied by changing the sentence 2 (Phase 1 permit reference) to “Permittees may rely on permanent stormwater control plans (as required by \textit{Stormwater Site Plans, Volume 1, section 3.1.5} of the 2012 \textit{Stormwater Management Manual for Western Washington}) for mapping...”

Coordinating connections mapping between permittees could be complicated when there is incongruity between the MS4 permits. Phase 2 mapping requirements should be compatible with the WSDOT and Phase 1 permits so the interconnected systems can be accurately matched up.

\textbf{Watershed Scale Stormwater Planning} (S5.C.5.c., Phase 1 permit; S5.C.4.h, Phase 2 western WA permit)

Should a state highway fall within the selected planning area, permit language should be more clear on whether Ecology would expect WSDOT involvement in these planning efforts.

For S5.C5.c.(4), (5), (6), and (7) clarify that the impacts refer to “stormwater related impacts”.

\textbf{Conditionally Allowable Discharges} (S5.C.8.b.ii.(4), Phase 1 permit; S5.C.3.b.ii, Phase 2 western WA permit; S5.B.3.b.iii Phase 2 eastern WA permit)

Regarding wash water, please be aware that restrictions could pose a conflict with implementing fugitive dust management plans and Construction Stormwater General Permit requirements.

\textbf{Field Screening} (S5.C.8.c.i.(1), Phase 1 permit; S5.C.3.c.i(1), Phase 2 western WA permit; S5.B.3.c.iii Phase 2 eastern WA permit)

Please define “\textit{conveyances/conveyance systems}” (e.g., do they include \textit{ditches}, or are \textit{ditches} considered “waters of the state”?). We also suggest using \textit{percentage of area} as the unit metric rather than \textit{percent of conveyance system} since the whole system may not be mapped.
S8. Monitoring/Monitoring and Program Evaluation (all permits)

While the draft permits' monitoring language does not explicitly propose a role for WSDOT, we want to share our vision of how we can most effectively participate in the regional monitoring framework.

Program Effectiveness Monitoring (all permits)

Of the permits' proposed monitoring frameworks, WSDOT considers program effectiveness monitoring the most valuable element as it provides a feedback loop to refine the effectiveness of a permittee’s stormwater management program. WSDOT can fulfill a very important niche by focusing our primary monitoring role on evaluating the effectiveness of programs geared to major roads and highways. Taking on this important role would support other regional program effectiveness and evaluative efforts and allow others to concentrate on other regional priority studies. WSDOT has demonstrated its ability to successfully carry out stormwater-related roadway research of regional and statewide significance. Notable examples of innovations emerging from our efforts include the development and evaluation of the Media Filter Drain and our more recent investigation into linear soil amendment approaches and steep slopes. Looking forward, WSDOT recommends that our BMP and program effectiveness program constitute our continuing contribution to any regional effectiveness monitoring programs that emerge as it would provide benefits to city and county road departments across the state.

Source Identification and Diagnostic Monitoring (western Washington permits)

WSDOT also considers source identification and diagnostic monitoring an important part of its monitoring framework. As written, the draft language fails to contain sufficient detail on the regional-scale analyses envisioned as part of this undertaking. Unlike other municipal permittees, WSDOT’s permit allows TMDL obligations to accrue beyond Phase 1 and 2 boundaries. As a result, WSDOT finds itself amassing an ever growing number of TMDL-related permit obligations that involve source identification and/or diagnostic monitoring. Given the magnitude of these commitments relative to other permittees, meeting these large-scale requirements should relieve us of any further obligation to contribute funding to regional source identification and diagnostic monitoring efforts.

Status and Trends Monitoring (western WA Puget Sound permittees)

While WSDOT recognizes the value in conducting receiving water status and trends monitoring, we question the appropriateness of making this a municipal stormwater permit obligation (a point raised by Phase 1 permittees in the development of the 2007 permit). Answering questions as to whether conditions in receiving waters are improving or deteriorating as a result of municipal stormwater discharges and stormwater programs would be worthy. However, the multiple stressors that exist beyond municipal stormwater discharges makes it extremely difficult to develop a study design capable of identifying a stormwater-related cause and effect signal in the receiving water (a point acknowledged by Ecology staff). Unlike effectiveness and source identification monitoring, as proposed, this
type of status and trends monitoring will not generate the type of actionable information needed to direct adaptive management of our stormwater management programs.

Given the fiscally constrained environment we find ourselves operating in, the permit’s monitoring obligations need to be “right-sized” so as not to risk draining resources from stormwater management programs that provide direct benefit to improving receiving water quality. Instead of placing this obligation on municipal stormwater permittees, it would seem like a more appropriate role for the state and federal resource protection agencies to regionally collaborate on a status and trends monitoring program as it fits within their agency mandates.

Governance and Administration of the Regional Program (all permits)

WSDOT recognizes the importance of employing regionally consistent methods to collect, store, and analyze comparable and valid data. Developing this foundation is critical to any monitoring program’s credibility and success. These activities should be reflected in the funding agreement between the regional program administrator (i.e., Ecology) and municipal stormwater permittees. The permits’ compliance timelines should reflect the lead time necessary to develop this foundation in advance of deploying data collection efforts.

The permit language itself would benefit from providing additional clarity as to the extent of the permittee’s obligations for regional monitoring efforts. The fact sheets state that:

Timely payment into the cost-share fund fully satisfies a permittee’s obligations under S8.C.1/S8.C.1.a, S8.D.1, or S8.E.1; and partially satisfies a Phase I permittee’s obligations under S8.D.3.

This is consistent with Ecology’s staff explanations given at meetings where “writing the check, constitutes compliance.” With this arrangement, adding clarity to the existing permit language contained in S3.B is necessary to explicitly state that this provision is not applicable to the contractual monitoring funding agreement between Ecology and the permittees. Without such language, a third party may conclude that the permittee can be held in non-compliance if Ecology or its contractors fail to deliver on their regional monitoring program obligations.

G3. Notification of Discharge, Including Spills (all permits)

Please define what constitutes a “threat to human health, welfare, or the environment” and clarify as to whether G3 pertains to a single event vs. an ongoing situation.
G19. Certification and Signature (all permits)
Please define the term “formal submittals” as it is vague and its meaning could be construed differently by different permittees.

Glossary (all permits)
Please define qualified personnel and qualified spill responder in more detail as these terms are too vague in the context in which they are used in the permits.

Please define discharge point as it appears in various places in the permit, but is not adequately defined. This is further complicated since the definition for discharge was removed from the Glossary. Please provide a definition for discharge and/or discharge point.

Regarding the definition for heavy equipment maintenance or storage yard, rather than deleting the language “on a long term basis”, we think it would be more appropriate to quantify what was meant by long term basis.

It is unclear whether the new reference to pipe bedding in the amended definition for illicit discharge should pertain only to stormwater conveyance pipe bedding.

Change the definition for low impact development to refer to pre-disturbance rather than pre-development so as to match the definition appearing in Appendix 1, the Fact Sheet, and the draft revision of the Stormwater Management Manual for Western Washington.

Expanding the Clean Water Act’s definition of municipal separate storm sewer system (MS4) to include discharges to the waters of Washington State rather than Waters of the United States significantly expands the scope and liability under the permit. Was this Ecology’s intention? If so, much more detailed guidelines are needed to guide a permittee in determining discharges to ground vs. ground water. This is critically important given the proposed LID-related permit requirements.

WSDOT suggests the permit use the federal regulatory term for outfall specific to NPDES discharges to surface water, regulated under the Clean Water Act:

Outfall means a point source as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

The definition for stormwater treatment and flow control BMPs/facilities is not inclusive of the entire list of types of BMPs/facilities that could be categorized as treatment and flow control. For example it makes no mention of infiltration and dispersion BMPs.

Also sees comments regarding mapping related definition deficiencies described above in S5 - Mapping.
Appendix 1 – Minimum Technical Requirements for New and Redevelopment (Phase 1 & 2 western Washington permits)

We have significant concerns regarding the proposed changes in Appendix 1. In our view, these changes do not represent low impact development principles. A key concern with these changes is the LID performance standard itself. The standard does not represent “low impact” in that it:

- Results in infiltrating more runoff than would occur under pre-European contact conditions since rainfall normally captured by the forest canopy and/or evapotranspired would instead be directed into the ground. In some circumstances, rainwater harvesting could be employed to mimic these aspects, but has not been proposed as one of the LID options.
- Works at cross-purposes with smart growth principles by creating new barriers to fostering redevelopment, thereby incentivizing development at the urban fringe and in Greenfields.

Introducing this new standard would have significant implications. For example, has Ecology run simulations on a representative 10,000 square foot parcel with typical development to figure out how large of a LID facility is needed to meet the proposed LID standard for feasibility? Unfortunately, we could not fully assess the potential implications as our software program MGSFlood is not capable of evaluating the proposed standard. However, using the single-event model to run a worst-case scenario (i.e., the discharge is from an orifice and infiltration is not possible) resulted in detention volumes over four times that of current flow control design standards.

On page 37 of Appendix 1, Ecology solicited comments on the minimum initial saturated hydraulic conductivity of native soils for bioretention or rain garden use. WSDOT recommends that Ecology run simulations using MGSFlood or WWHM3 using various underlying soils saturated hydraulic conductivity amounts (0.15 inch/hour to 1 inch/hour) to see how large a bioretention BMP would be needed for a 10,000 square foot development. WSDOT did the following model run using MGSFlood for purposes of assessing feasibility:

A 10,000 square foot parcel developed to 60% impervious, and 40% grass with a mean annual precipitation of 48 inches. The bioretention area has 18 inches of treatment soil with a storage depth of 3 feet. It was assumed that the bioretention area was higher than the seasonal high ground water table so as to not have an effect on the design. The model run generated the following results:

<table>
<thead>
<tr>
<th>Underlying infiltration rate</th>
<th>Bioretention Footprint</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.15 inches/hour</td>
<td>2,704 square feet (52’ x 52’)</td>
</tr>
<tr>
<td>0.5 inches/hour</td>
<td>1,681 square feet (41’ x 41’)</td>
</tr>
<tr>
<td>1.0 inches/hour</td>
<td>1,369 square feet (37’ x 37’)</td>
</tr>
</tbody>
</table>
So, for a 10,000 square foot parcel, using a 0.15 inch/hour underlying soils infiltration rate, the stormwater facility would take up about 27% of the parcel area. We estimate using the 0.5 inch/hour or 1.0 inch/hour rates would use 13% and 16% of the parcel area, respectively.

Based on our analysis, we recommend setting the minimum initial saturated hydraulic conductivity at >0.5 inches/hour.

The PCHB ruling never suggested that defining such a performance standard was necessary. Given the potential adverse implication described above (e.g., feasibility, unintended environmental consequences, and costs), an adequate case hasn’t been made to warrant the introduction of this new performance standard.

Furthermore, the mandatory list of BMPs fails to recognize that many LID approaches developed for suburban settings do not work in urban densities. As infiltration rates decrease, facility failures are expected to increase dramatically unless very complex and expensive geotechnical work is done during the design phase.

The approach put forth in the preliminary draft language for Appendix I introduces new terminology and an additional level of complexity to an existing framework considered by many to be overly confusing and cumbersome to apply. For example:

- The definition of receiving waters was expanded to include groundwater. This raises questions as to whether Ecology intended this concept to extend to the permit’s S4.F compliance language. Would the soils receiving the infiltrated runoff be considered part of the receiving waters? WSDOT recommends removing “groundwater to which surface runoff is directed by infiltration” from the receiving waters definition.
- Appendix I, page 9, Figure 3.2: “New impervious” was replaced with “new plus replaced hard surface area.” This may result in a significant new obligation for WSDOT, mostly in rural areas, since in a highway setting the roadway may not cover 35% of the project area. Any project that just replaces roadway without adding any ‘new impervious surfaces’ will trigger all the Minimum Requirements (MR) instead of only MR2 as is currently the case. Was this the intent? By definition add “pavement rehabilitation projects” as redevelopment projects.
- Appendix I, page 20, 11.b: This statement refers to removing all temporary erosion and sediment control BMPs; however there are some temporary, bio- and/or photo-degradable BMPs that are designed to be left in place (e.g., compost socks, compost berms, and erosion control blankets). Some compliance officers could interpret this requirement literally and insist on removal of these types of BMPs even though taking them out will disturb the site more than leaving them in place. This section should mention that some “temporary” BMPs are designed to be left in place and do not need to be removed after the site is stabilized.
- Appendix I (page 23) requires projects that only trigger Minimum Requirements 1-5 to use LID BMPs for the project’s new and replaced hard surfaces. For paver projects, which may have a significant amount of replaced hard surfaces (e.g., concrete panel replacements) but little new hard surfaces, this new obligation would represent a significant economic
hardship. WSDOT recommends projects that trigger only Minimum Requirements 1-5 be required to use LID BMPs to address only the project’s new hard surfaces to the maximum extent feasible. Due to the types of road projects subject to Minimum Requirements 1-5, WSDOT recommends including a feasibility consideration for cost as BMP design, placement, conveyance infrastructure, and right-of-way could easily drive the cost of these types of projects to the point of infeasibility.

- **Appendix I**, page 24: As noted above, it appears that the new LID performance standard will add considerably to the size of WSDOT treatment facilities. A quick analysis indicates that this standard would increase the size of our detention ponds by 2-4 times. Ecology acknowledges that a project proponent will probably not be able to meet the requirement by increasing the pond size alone; however, because of the nature of our projects, the infeasibility for permeable pavements and bioretention areas outlined in this document, and the need to provide safe highways, we may not be able to utilize many of the more traditional LID BMPs and thus have to use ponds. It will also be difficult for WSDOT to utilize the “Mandatory Lists” in this section. As part of WSDOT’s MS4 permit reissuance, we would like to work closely with Ecology to develop an approach that is appropriate in a highway setting.

- **Appendix I**, page 24 and Section 2: Since the low impact development (LID) standards are written to focus on the flow attenuation aspects, WSDOT suggests that LID standards do not apply to projects with direct discharge to flow control exempt receiving waters as identified in Appendix I-E-Flow Control-Exempt Receiving Waters. Ecology should allow an exemption to implementing LID standards for projects with direct discharges to flow control exempt receiving waters as identified in Appendix I-E-Flow Control-Exempt Receiving Waters.

- **Appendix I**, page 27, #3: During the TAPE revision, Doug Howie mentioned that Enhanced Treatment was going to be renamed “Dissolved Metals” treatment. Number 3 on this page still refers to Enhanced Treatment. Is this going to change? (Same for any reference to “Basic Treatment” as we thought this was going to be changed to “TSS reduction”). We suggest changing “Enhanced Treatment” to “Dissolved Metals reduction” and “Basic Treatment” to “TSS reduction”.

- **Appendix I** introduces the term effective pervious surfaces (page 31) without defining it.

- The definition of LID Best Management Practices (page 3 & 4) includes the mention of bioretention/rain gardens, permeable pavements, roof downspout controls, dispersion, soil quality and depth, minimal excavation foundations, vegetated roofs, and water re-use. WSDOT recommends expanding this list to include the following Ecology-approved BMPs included in the Highway Runoff Manual: natural and engineered dispersion, compost amended vegetated filter strip, bioinfiltration pond, bioinfiltration swale, infiltration pond, infiltration trench, and media filter drains. The definition also contains the language “LID BMPs include, but are not limited to...” Is there a definition by which a BMP could be evaluated to determine if it is LID or not? This would make it easier to determine if a project was indeed using LID BMPs. We recommend that you either provide a definition that describes and provides a way to evaluate BMPs, or provide a list of approved LID BMPs.
• For long and linear road and highway projects, WSDOT often utilizes the HRM’s equivalent area option. We recommend allowing use of equivalent area trading between threshold discharge areas (TDAs) to meet any new LID requirements.

General Comments Regarding Proposed Low Impact Development (LID) Approach

We recognize that the draft LID language for western Washington permits attempts to put forth an approach requiring the application of LID principles to the extent feasible for development and redevelopment at the site and subdivision scale. However, applying the approach would be problematic, in general, and very difficult in the highway environment (as detailed above in our comments on Appendix 1). We encourage Ecology to consider pursuing an approach similar to what WSDOT already employs for highway settings.

WSDOT oriented its Highway Runoff Manual (HRM) to apply LID principles to the maximum extent feasible even prior to the Pollution Control Hearings Board’s (PCHB) ruling on the matter. Section 2-5.2 in the manual describes the stormwater facility design strategy which is accomplished by following the below steps in order:

Step 1  Avoid and minimize impacts on hydrology and water quality.
Step 2  Compensate for altered hydrology and water quality by mimicking natural processes.
Step 3  Compensate for altered hydrology and water quality by using end-of-pipe solutions.

This section of the manual goes on to explain that:

Steps 1 and 2 can be achieved by minimizing impervious cover; conserving or restoring natural areas; mimicking natural drainage patterns (for example, using sheet flow, dispersion, infiltration, or open channels); disconnecting drainage structures to avoid concentrating runoff; and using many small redundant facilities to treat, detain, and infiltrate stormwater. This approach to site design reduces reliance on the use of structural management techniques. Step 3 refers to the use of traditional engineering structural approaches (for example, detention ponds) to the extent that Steps 1 and 2 are not feasible.

The methods listed for achieving Steps 1 and 2 above are commonly referred to as low impact development (LID) approaches. By using the project site’s terrain, vegetation, and soil features to promote infiltration, the landscape can retain more of its natural hydrologic function. Low-impact development methods will not be feasible in all project settings, depending on the physical characteristics of the site, the adjacent development, and the availability and cost of additional right of way (if needed). However, the designer must always investigate the feasibility of using low-impact development methods. Low-impact development methods require understanding of soil characteristics, infiltration rates, water tables, native vegetation, and other site features. For this reason, it is important to gain the participation of design support services and others from the beginning through the end of the project development process.
In addition, the HRM’s BMP selection process (Section 5-3) guides designers through a procedure that favors LID techniques over other options. For instance, the BMP selection flow charts (Figures 5.3.1 and 5.3.2) direct designers to first consider the feasibility of natural and engineered dispersion and infiltration BMPs on a project. LID techniques are also incorporated in WSDOT’s policy to minimize vegetation disturbance and to restore vegetation on disturbed areas in accordance with WSDOT’s Roadside Classification Plan. Feasibility determinations occur using the HRM’s Engineering and Economic Feasibility (EEF) Evaluation Checklist. This too provides a method to assist designers in determining and documenting when site-specific factors make constructing stormwater management facilities (LID or conventional end-of-pipe approaches) within or adjacent to the highway right of way infeasible.

WSDOT’s HRM currently directs designers to use the HRM’s LID approaches to meet project stormwater requirements. In situations where LID approaches can only partially meet project stormwater requirements, the process depicted in the flowchart below guides designers to incorporate LID approaches to the maximize extent feasible.

The HRM’s approach could also be successfully applied at the site and subdivision scale as a means of meeting the PCHB’s directive to:

“...require non-structural preventive actions and source reduction approaches, including Low Impact Development techniques (LID), to minimize the creation of impervious surfaces, and measures to minimize the disturbance of soils and vegetation where feasible.”
Can primary LID BMPs be located within the proposed ROW to fully meet project stormwater requirements?

Yes → Apply primary LID BMPs

No → Can primary LID BMPs be paired with secondary BMPs to fully meet project stormwater requirements within the proposed ROW?

Yes → 1. Calculate to the extent project stormwater requirements can be met by applying primary LID BMPs within the proposed ROW.

No → 2. Apply secondary BMPs to achieve the remaining balance of project’s stormwater requirements within proposed ROW.

Can secondary BMPs be located within the proposed ROW to fully meet project stormwater requirements?

Yes → Apply secondary BMPs

No → Document site constraints using the Engineering Economic Feasibility Checklist to develop alternative approaches to fully meet project stormwater requirements.

Primary BMPs = Dispersion, bioinfiltration pond/swale, bioretention soils, compost-amended vegetative filter strips, media filter drain, and infiltration pond/trench.

Secondary BMPs = All the remaining HRM “non-primary BMPs.

Appendix 10 – Equivalent Programs for Runoff Controls for New and Redevelopment and Construction Sites (Phase 1 permit)

Please correct so Section G. refers to the most recent version of the Ecology-approved Highway Runoff Manual (HRM). This appendix would be useful in the Phase 2 permits also, especially since many city and county road departments use the HRM.
Appendix 11 – Structural Stormwater Controls Project List (Phase 1 permit)

Rather than estimating TSS reduction (which can be highly variable), it would be more beneficial to report acres treated as well as the pollutant categories targeted (i.e., TSS, dissolved metals, oil and grease, and phosphorous). Similarly, rather than reporting estimates of average hydro benefit, it would be more beneficial to report acres receiving flow control. Also, a more appropriate label for the “retrofit incentive” column would seem to be project objective. However, reporting on this would not be necessary if you were to make the changes described above.

Appendix 12 – Funding Agreement between Ecology and Municipal Stormwater Permittees (Phase 1 permit, Appendix 12/Phase 2 permit, Appendix 10)

As administrator of the funds and program, Ecology oversight needs to go well beyond its “participation in an oversight committee.” While we welcome Ecology’s convening of a committee to support these oversight functions, relinquishing these responsibilities entirely to a committee (most likely made up of volunteers) falls short of our expectations given the scope and magnitude of the program. Given our existing permit obligations, WSDOT has limited capacity to dedicate to participate on such a committee to help assure the success of the regional monitoring program. We suspect other permittees would find themselves in a similar situation.

As program administrator, we would expect Ecology to assume lead responsibly for fiscal oversight, field and data audits, and review of deliverables to ensure that the regional monitoring program’s expectations are met. Based on our experiences, annual cost estimates for program administration of $150,000 is insufficient to cover all of these responsibilities. In addition to a contract administrator, technical staff would be needed to conduct field audits of the contractors to ensure the goal of using “regionally consistent methods to collect comparable and valid data” is realized. Similarly, WSDOT wonders if the cost estimates for effectiveness studies are overly optimistic as they seem low based upon our experiences in developing and implementing a stormwater monitoring program. How were these estimates derived? Do they factor start-up tasks such as QAPP, SOP, and database development? If a study requires site construction and installation of equipment, have these costs been factored in? Beyond project management and administration, have ongoing costs for labor, equipment/infrastructure repair and replacement, laboratory analytical services, vehicles and travel been considered? Details like this are difficult to evaluate since the specifics of the proposed studies and contractors have yet to be decided. However, the proposed agreement language relieving Ecology of all responsibilities for cost overruns causes concern given the details outlined above.
In closing, I want to reiterate WSDOT's commitment to ensuring our transportation facilities support clean water. I hope that the feedback provided above is helpful in your deliberations in developing the next round of municipal stormwater permits. Should you have any questions about these comments, please do not hesitate to contact Larry Schaffner, NPDES Municipal Stormwater Permit Coordinator at (360) 570-6657, email schaffl@wsdot.wa.gov, or me at (360) 705-7480.

Sincerely,

Megan White, P.E., Director
Environmental Services Office

MW:pf