

June 16, 2011

Municipal Stormwater Permit Comments
Washington State Department of Ecology
Water Quality Program
P.O. Box 47696
Olympia, WA 98504-7696

**SUBJECT: City of Olympia Comments to the Western Washington
Phase II Municipal Stormwater General Permit**

We appreciate the opportunity to review the preliminary draft of the Western Washington Phase II Municipal Stormwater General Permit. Thank you.

Various City of Olympia staff with municipal expertise in the areas of storm and surface water management, community planning and development, and transportation have reviewed the preliminary draft language, Appendix 1, and the explanatory notes provided by the Washington State Department of Ecology (WDOE). Our detailed comments regarding the preliminary draft language are attached separately.

We also wish to comment more generally on the overall direction of the preliminary draft permit requirements.

Low Impact Development

Olympia has been using various low impact development techniques since the 1990s. Our low impact development efforts range from the use of narrow streets, maximum parking limits, amended soils and roof downspout controls to complex regulatory actions such as residential low impact zoning districts. We are a consistently strong, but sometimes conflicted, advocate for low impact development and other innovative approaches for protecting urbanizing landscapes.

We manage and regulate new and old, private and public, stormwater infrastructure. In recent years, our low impact development work has emphasized effectively treating and infiltrating street runoff, preferably within the publicly dedicated right-of-ways. The right-of-ways may provide a good opportunity for the City to control the application and maintenance of low impact development techniques, while addressing a major source of contaminants. We are increasing our use of permeable sidewalks and pavements, under street infiltration, and technologically advanced water quality treatment systems including bioretention. The work effort is one way we are seeking to transition low impact development from unique applications to the commonplace. However, we are often times experiencing appreciable challenges along the way.

Given our experience, the findings from the Washington Pollution Control Hearing Board regarding low impact development and the subsequent preliminary draft permit requirements calling for the widespread implementation of low impact development techniques generate a mix of responses. Some of the low impact techniques identified in WDOE's preliminary draft are currently required by the City of Olympia. Widespread implementation of other techniques is difficult. While the City supports low impact development, we are also directly responsible for minimizing and managing community and environmental risks, infrastructure failures, and public liabilities. These challenges and risks arise from the numerous design and infrastructure demands associated with contemporary minimal lot size development and marginal soils.

Low impact techniques rightly push urban stormwater infrastructure beyond conventional engineering approaches, but not without considerable effort and resources. Based on our experience, the successful use of some low impact development techniques in urbanizing settings (e.g., permeable pavements, bioretention on small lots, green roofs) requires the resolution of complex interactions between natural, social, and engineered systems. We suggest that as proposed by WDOE, the widespread implementation of low impact development at this time goes beyond the realm of innovative and into the realm of unknown and risky outcomes. Risks arise from natural science uncertainties, engineering limitations, and lack of upfront social acceptance. Our successes with permeable pavements and bioretention are typically associated with site-specific designs benefiting from considerable City and/or grant funding, unusual high levels of design and construction oversight, and extensive maintenance.

From recent presentations provided by WDOE staff, we understand that the satisfactory implementation of low impact development techniques (Section 4. a. iv) will be based on the thoroughness of the code, rules, and standards review process. As stated, the review process needs to involve diverse expertise including at least Public Works, Community Planning/Development, and Fire Departments. These staff will evaluate the feasibility and appropriate applications of low impact techniques in the local community. The NPDES Phase II fourth year annual report will document this review and revision process. We are able to meet this expectation.

While we support the described review process, we may not be able to "make LID the preferred and commonly-used approach to site development" (Section 4.a.iv) within any foreseeable timeframe. Some LID techniques are being implemented in Olympia, others could be, and some will require additional research and evaluation in order to reduce risks and liabilities. In general, Olympia is concerned that some low impact development techniques have not reached a level of sophistication that can support their widespread application. A phased approach utilizing emerging experiences and research may be more successful.

The implementation of low impact development without sufficient knowledge and safeguards carries environmental risks. Project failure could come in numerous forms including engineering failure, lack of maintenance, or property owner abandonment. In turn, failure implies environmental impacts and public liabilities. WDOE's low impact feasibility criteria outlined in Section 8 of Appendix 1 do not acknowledge the complexities in small lot residential and commercial development and therefore suggests that low impact techniques are feasible in typical urban situations with assumed environmental benefits. As indicated, our experience does not always support that conclusion.

Additionally, we remain very concerned about the maintenance associated with some of the techniques. While the functioning of bioretention and other vegetative applications may be somewhat independent of the level of vegetation management and facility aesthetics, our community's enthusiasm for these techniques is closely allied with the potential for improved aesthetics compared to conventional stormwater ponds. Our experience is that the maintenance of bioretention facilities and permeable pavements requires a significant skill set and level of effort.

As a City, we provide maintenance for engineered and landscaped systems as funding allows. With increasingly limited funding, our vegetation maintenance work has decreased appreciably. Transportation funding is also stretched. We are not in a position to ensure that the WDOE maintenance requirements suggested in the preliminary draft or those anticipated by our community can be met.

In summary, we are highly supportive of innovation in the area of urban stormwater and environmental management. We encourage WDOE to continue researching and supporting low impact development techniques. Olympia will continue to encourage and require new approaches to stormwater management. However, we are not convinced that the many and intricate implications of current low impact development techniques are well understood. We recommend a phased approach to low impact development implementation. A more gradual implementation approach would allow time for science and social advancements to better ensure its success.

Watershed Stormwater Planning

While the intent of the proposed watershed modeling is productive, the ability of water quality models to provide the level of accuracy described in the proposal is questionable. Contrary to WDOE statements, we suggest that currently available, as well as emerging water quality, models are not able to provide the indicated instream chemical evaluation. Water quality modeling in urban settings is challenging with often times inconclusive results.

Municipal Stormwater Permit Comments
Washington State Department of Ecology
June 16, 2011
Page 4

Water Quality Monitoring

Olympia in concert with Thurston County, Lacey, and Tumwater supports a regional water quality monitoring program. The program has been in place for many years. We utilize the locally generated data in our environmental decision-making processes. Olympia does not support WDOE's suggestion that we are obligated to join a proposed Puget Sound-wide effort that may not provide evaluation of Olympia streams or other direct benefits. Given limited funding, we are not interested in sacrificing our successful and extensive program for the proposed Puget Sound status and trends monitoring. However, we can commit to continuing our program and providing the data to the Sound-wide effort. We support the regional effectiveness studies and will participate accordingly.

Thank you for considering our comments. Please feel free to contact me at 360.753.8475 with any comments or questions.

Sincerely,



ANDY HAUB
Planning and Engineering Manager
Public Works Water Resources

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Attachment

cc: Laura Keehan
Eric Christensen
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