



City of Battle Ground

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Comments on Draft Western Washington Phase II Municipal Stormwater Permit

Thank you for the opportunity to provide comments on the draft of the NPDES Phase II permit and for incorporating comments from the preliminary draft permit into this latest draft. Upon review of the draft Western Washington Phase II permit the City of Battle Ground has prepared the following list of comments. We look forward to these issues being addressed in the final permit.

Draft Western Washington Phase II Municipal Stormwater Permit Language

1. Controlling runoff from New Development, Redevelopment and Construction Sites
Comment: Removal of the 1 acre threshold will further stifle development in an already extremely difficult economic climate. This provision should be left in place to allow at least some development to occur in small Phase II jurisdictions.
2. Low Impact Development
Comments: Reviewing and revising Municipal Codes to remove barriers and to promote the use of LID is a good idea, and is required under the current permit. More discussion and clarification of what LID practices may be required in areas that are not suitable for common LID best management practices (i.e. high groundwater, poorly infiltrating soils) is needed before the permit calls for codes to require LID.

Further consideration must also be made for inspection of LID facilities. By its very nature LID will create several times the number of stormwater facilities that need to be inspected when compared to “traditional” stormwater management. These facilities will also often be located on private property that City staff may not be able to freely access. Furthermore, with the increased number of facilities there will be a corresponding increase in the staff time required to inspect these facilities. This is a difficult proposition in a time when most jurisdictions are operating at or below minimum staff capacity.

3. Monitoring

Comments: Because the City of Battle Ground is not included in the Puget Sound Status and trends monitoring I have limited these comments to the Effectiveness Studies requirement.

The alternatives to the pay-in option for the Effectiveness Studies are not comparable or realistic. If the City of Battle Ground were to opt to implement Option #2 as described in section S8.D.2 of the draft permit the costs of conducting stormwater discharge monitoring on the two required sites would be in the neighborhood of 15 times the cost of the pay in option. Obviously this is not a realistic alternative option. Furthermore appendix 10 states that “at least four to six studies and perhaps as many as 15-20 studies will be conducted” as part of the Ecology run effectiveness monitoring. Assuming the maximum of 20 sites are studied this works out to be 1 study for every 224,374 people in the permitted areas of Western Washington. This is clearly not comparable to the requirement for Permittees to provide monitoring at one site for populations under 10,000; two sites for populations between 10,000 and 50,000; three sites for populations between 50,000 and 100,000 and at four sites for populations over 100,000.

The permit needs to include an alternative to the “Pay-in” option that is more in line with the costs and study density of the Department of Ecology option.

4. Stormwater Management Manual for Western Washington

Comments: As defined in Definitions and Acronyms of the Draft permit the Stormwater Management Manual for Western Washington is the 2005 edition. Throughout the permit and appendices, however, the 2012 version of the Stormwater Management Manual for Western Washington is specifically referenced. Because the public comment period is still ongoing for the Manual, and a final draft has yet to be issued, it is inappropriate to directly reference the 2012 version of the Manual.

Appendix 1 Draft Revisions

5. 3.2 New Development and 3.3 Redevelopment

Comment: The elimination of the word “native” when describing the removal of vegetation in the thresholds for triggering minimum requirements #1 through #9 needs to be reconsidered. The previous permit language made it clear that retention of native vegetation on development sites is extremely important, and the revised language diminishes this emphasis. Additionally some projects may be unintentionally caught by this new language. For example under the new permit a ¾ acre wetland restoration would trigger minimum requirements 1-9.

6. 4.5 Minimum Requirement #5: On-site Stormwater Management

Comments:

For projects required only to comply with minimum requirements #1 through #5 how will inspection and operation and maintenance of the required permeable pavement , rain-gardens and dispersion systems areas be handled? These projects are not subject to minimum requirement #9: Operations and Maintenance. This further highlights the issues discussed in comment 2 regarding inspection of LID facilities.

The Low Impact Development Performance Standard requirement to match pre-developed durations from 8% to 50% of the 2-year peak flows will likely be difficult to model without changes to the Western Washington Hydrology Model. If LID best management practices such as rain gardens/bioretenion areas and pervious pavement are going to be required a better method of modeling them must be created. The “work-arounds” included in the Low Impact Development Technical Guidance Manual for Puget Sound are unacceptable for features that will be modeled and reviewed by Permittees on nearly every project.

The cost analysis for green roofs that is mentioned in the “Mandatory List #2” of minimum requirement #5 needs to be further detailed.

7. 4.6 Minimum Requirement #6: Runoff Treatment

Comment: The project thresholds make it unclear if and what type of runoff treatment is required by pervious pavement and green roofs. Both can be considered to be a “pollution generating hard surface” (despite the fact that this term is not defined in the permit) and would therefore require runoff treatment due to the first bullet point, however the second bullet point grants an exception to pervious pavement. The permit needs to clearly specify that the LID practices that are required by the permit meet the requirements for runoff treatment.

8. Section 8. Feasibility for Selected Low Impact Development Best Management Practices

Comments:

The language for mandatory lists #1 and #2 is confusing and needs to be revised. Currently it reads “For each surface, consider the BMP’s in the order listed for that type of surface. Use the first BMP that is considered feasible. No other On-site Stormwater Management BMP is necessary for that surface.” This language could easily be misinterpreted, with the reader believing that the requirements of minimum requirements #6 and #7 have been met for the surface if a LID BMP off of the list is used for that surface. To avoid this confusion the language could be changed to read “For each surface consider the LID BMPs in the order listed for that type of surface. Use the first BMP that is considered feasible. No other LID BMP is necessary for that surface.”

The feasibility for the LID BMPs required by the permit needs to be further evaluated in areas that have poor infiltration or high groundwater.

The draft language states that rain gardens and bioretention areas are infeasible for smaller drainage areas when a one foot separation to the seasonal high groundwater table cannot be achieved. Previous Department of Ecology guidance suggested a minimum separation distance of 3-feet. This is a more realistic requirement given the fact that the seasonal high ground water level can vary from year to year, and it can often be difficult to determine the level of the seasonal high ground water level accurately if geotechnical evaluation does not take place during the wettest month of the year. The one foot separation requirement does not leave any room for error if the seasonal high ground water elevation is underestimated, and these facilities will be rendered ineffective with higher groundwater levels.

The draft language also requires bioretention areas, rain gardens and pervious pavement to be constructed when native soils have a tested saturated hydraulic conductivity of greater than 0.30 inches per hour. This rate is then reduced by safety factors as described in the Stormwater Management Manual for Western Washington to obtain the design infiltration rate. In areas with a design infiltration rate of less than 0.30 inches per hour, infiltration dependent LID should be deemed infeasible. In these soils the benefits of these types of facilities are negligible when compared to the high costs of the facility and the ongoing maintenance that they require.

In areas with consistent poorly infiltrating soils jurisdictions should be allowed to grant infeasibility to projects for infiltration based BMPs such as rain gardens, bioretention areas and pervious pavement without requiring each project to conduct expensive and time consuming soil analysis. The permit needs to have a provision to allow jurisdictions to identify areas that have documented poorly infiltrating soils, and grant LID infeasibility in these areas.

Further feasibility criteria is also needed for green roofs. Operation and maintenance and inspection of green roofs also needs serious consideration. It will be very difficult to ensure that commercial developments are properly maintaining their green roofs.

Again, thank you for allowing Permittees to review and comment on the preliminary draft. I look forward to continuing to work with the Department of Ecology to create a permit that protects our water quality and allows responsible growth in our community.

Sincerely,



Bryan Kast, P.E.
City of Battle Ground