

City of Bellingham
Comments, Questions and Information on Phase 2 Permit
WMR 2/1/12

Main Body of Permit

Page 26, Lines 3-6

* It is indicated that field screening of 40% of the outfalls and conveyances shall occur by 2016 with 20% per year thereafter. How is this requirement supposed to mesh with 2007 permit requirement? Should the areas not addressed under the 2007 permit be prioritized above other more sensitive waters that were assessed in the prior permit. Ecology should provide information on the frequency of screening and re-screening of outfalls. If an outfall within a fully developed basin has been tested more than once with no negative results should it still need to be assessed every 5 years?

Page 27, Line 36,

* The ability to eliminate all illicit discharges is not possible and should not be indicated as an absolute. For instance, homes built in the past include basement drains that go to stormwater. Such discharges do not comply with current plumbing codes or illicit discharge requirements. If a basement drain is in part for protection of the home from ground water leakage, it is difficult to mandate removal. Education can be provided to minimize the chance of an illicit discharge but it continues to be a potential point of contamination. Per the proposed code, municipalities would be held accountable for discharges of substances from these drains. If we require removal of the drains that were installed under old codes or lack of codes we may be creating liability for internal damages. This is only one example but others exist.

Page 29, Lines 7-10

*The City of Bellingham supports the removal of the one acre threshold from the NPDES permit. We have been in compliance with the standards promulgated under the 1992, 2001 and 2005 stormwater manuals as best science for the management of stormwater. Both the Puget Sound Water Quality Authority and the Department of Ecology heavily promoted compliance with Ecology based manuals since 1990. The current practice of using the anti-degradation standard to require municipalities to retain requirements for smaller thresholds under the NPDES permit should be ended. with this permit. Should Ecology decide to allow retention of the one acre threshold for certain municipalities or counties in Western Washington, the equitability of the anti-degradation standard should be further examined.

Page 29, Line 26

* It would appear that the language regarding the construction date of August 1, 2021 is predicated on a pseudo vesting period of 3 years from the end of the proposed permit. Ecology should, if not already done, provide the basis for this decision. Since vesting has been the subject of much debate, does this decision come with case law or explicit compliance with federal codes. A white paper by Ecology regarding the subject of Federal permits and vesting expectations would be most welcome.

Page 29, Line 23

* Call out should be S5.C.4.a. i thru iii

Page 32. Lines 8-11

* The language in this section lacks clarity whether LID BMP's are subject to annual inspection. While such inspections may be necessary to maintain viability of these practices the inclusion of BMP inspection for multiple facilities on a single family home site will exponentially increase inspection costs. Many single family properties already do or will include mitigation through multiple facilities. Some of these facilities deal with areas less than 500 square feet in area. Modified maintenance standards for LID facilities is needed prior to finalization of the permit or the permit needs to contain explicit language on LID inspection and maintenance requirements.

Page 32, Lines 19-24

* The requirement for inspection of stormwater facilities and catch basins every 6 months until 90% of lots are developed is overly onerous in this time of slow development. This condition could result in the requirement extending for many years. Adequate inspection of single lot development should make this requirement unnecessary. Instead, an improved strategy for dealing with the requirements of NPDES Construction permits should be provided. Simply moving the compliance for NPDES Construction permits from Ecology to local government without providing a share of that permit funding is inequitable to permit holders. Also development currently pays double fees for construction permitting and inspection. If municipalities need to increase inspection fees as a result of taking on NPDES Construction issues the impact to development increases.

Page 34, Lines 21-32

*The City of Bellingham supports the use of LID practices. Despite that, the present lack of knowledge on the financial impacts and ability to adequately inspect and maintain LID facilities is concerning. It is suggested that a study be provided that evaluates the financial impacts of using small scale distributed stormwater management versus more conventional practices.

Much has been written on the environmental benefit from LID but much less is known about the maintenance needs to assure continued performance. The study should look at maintenance needs, the level of inspection and enforcement required along with infrastructure and land costs. This should then be compared to the costs associated with more conventional, centralized, stormwater facilities. Perhaps reduced costs of infrastructure and land will outweigh the long term costs of inspection, enforcement and maintenance. Even if it does, the change in cost centers presents issues to local government and most likely the end user.

It is known that inspection and enforcement on existing stormwater facilities can be an arduous task taking hours of time per facility per year. If a residential subdivision of 200 lots goes from having 3 onsite facilities to having 203 facilities does the time for compliance go from 3 hours to 500 hours? What is the annualized cost for maintenance of those 203 facilities versus the original 3? This is the scale of concern on many minds. If we simply say that we cannot afford to do the work necessary to assure these facilities work, and only hope that they do, then are we achieving true long term benefits of LID?

Page 69, Lines 26 and 27

*The statement that vector waste solids may be reused is confusing and no relevant information is provided in Appendix 6 as is indicated.

Page 72

The City of Bellingham is within Whatcom County. Whatcom County is not required to adopt the proposed Stormwater Management Manual for all areas. Inconsistent stormwater standards across a region has the unfortunate effect of pushing development into areas not covered under the permit. The effect of stormwater regulations is believed to have a substantial affect on Growth Management..

Appendix 1

Page 5, Lines 25-30

*It is indicated that the WSU Rain Garden Handbook should be used for design of rain gardens. Bellingham has, with the approval of Curtis Hinman, created a modified version of this manual for use in the phosphorus limited area of Lake Whatcom. Will this version be allowed to be used in that context? Bellingham has issues with the widespread use of general composts and mulches, some of which have very high soluble reactive phosphorus levels and high fecal coliform. Testing is scheduled as part of WSU study to take Bellingham's work on phosphorus and to come up with soil mixes that are more suited in phosphorus challenged watersheds. Allowance should be provided in the permit for modification to standards for phosphorus limited water bodies.

Page 22

*The permit specified that projects greater than 2,000 sf hard surfacing or 7,000 sf soil disturbance must be inspected weekly. Bellingham would prefer to leave this requirement open ended, or if needed, for the interval to be at least two weeks. This standard may also be one that could be seasonally variable.

Page 24 and 25

*The requirement in minimum requirement #5 mandatory list 1 and mandatory list 2 to be used for all projects regardless of drainage basin is overly onerous. Flows to marine waters should be exempt from these requirements. Since flow attenuation is not needed for marine discharges the requirements for non-pollution generating surfaces provide no discernable benefit. Secondly, the need for multitudes of facilities to provide water quality treatment to the level required for marine discharge is an unknown. While LID should be considered as a treatment option it should not be mandated knowing the maintenance, inspection and enforcement costs that would result.

Page 24, Line 14-16

*Within Bellingham mandatory list 1 may be largely negated by the feasibility criteria. Those sites that will meet the feasibility criteria, in general, will be properties where site specific runoff issues may not exist. Whereas, properties that are challenged by poor soils, excessive slopes, etc will get a pass on mitigation. In some ways this will create an encouragement to develop on poor sites. Ecology may want to look at some default on-site mitigation involving on site storage, if, no LID can be provided. For properties with impervious between 2,000 and 5,000 square feet, the requirement for a simplistic storage/discharge device would be helpful in at least limiting flows. This may help protect slope areas from degradation and provide a financial disincentive to illegitimately failing the feasibility criteria.

Page 25, Line 29

*The requirement for a PIT test to be completed for pervious pavement projects between 2,000 and 5,000 square feet is excessive. The cost of testing may exceed the value of the pavement. An alternate method is needed to provide determination of applicability of the BMP and default sizing of the water storage layer for the permeable pavement. This alternative sizing methodology should also be considered for projects over 5,000 sf where the pavement portion of said project is below an established size threshold.

Page 26, Lines 23-26

*The requirement for a vegetated roof on commercial structure should come with thresholds of size. We would not want to require a vegetated roof on a small shed. Language also needs to be more inclusive of industrial, multifamily or other zoning categories that you wish this to be applied to.

Page 26, Line 12

*The call out for full dispersion indicated BMP T5.30 but does not also reference Volume III, Appendix C for further requirements for full dispersion of roadways dependant on collection system type and soils type. Alternatively a cross reference between the two sections dealing infiltration requirements could be provided in the new stormwater manual.

Page 26, Line 31

*The requirement for pervious pavement to be designed in conformance with Appendix III-C along with the feasibility criteria puts into play requirements for residential streets that are new or replaced to be constructed using permeable pavement. It is believed that there is inadequate information at this time on additional construction cost, maintenance cost and the life cycle of such pavements. Additionally the design costs and time constraints for seasonal monitoring and PIT prior to construction is overly burdensome. It is requested that Ecology reconsider this element as a mandate for the present permit.

Page 26, Line 31

*Footnote indicated but not provided. Repeat from previous page.

Page 32, Line 15

*It is indicated that a change has been made from "converted pervious surfaces" to "effective pervious surfaces".

The definition for CPS is provided but no definition for EPS.

Page 34, Lines 6-14

*The original guidance for wetlands allowed the use of wetlands to some degree for water management as long as the hydroperiod was maintained. It would seem with a matching input strategy, the ability to make use of wetlands for attenuation will substantially be unavailable. The loss of this benefit will result in more land supply being devoted to stormwater facilities.

Page 37, Lines 40-44

*It is inferred that sites that exceed the 5,000 square foot threshold can use multiple bio-retention facilities to avoid the need to have 3 feet of soil separation. It would seem that this would be using a technicality to not provide the same level of protection on larger development sites. This would appear to allow large commercial parking lots to circumvent the water quality protection for groundwater. This would seem to be unwise given the much higher pollution concentration that could be occurring. Would we want a large chain store discharging all of its water to ground with only 1 foot of protection?

Pages 37,38 and 39

*The use of one feasibility criteria applying to mandatory list 1 and 2 will be confusing. It is suggested that a feasibility list be provided that is pertinent to each of the mandatory lists.