



February 1, 2012

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

The City of Redmond appreciates the opportunity to provide comments on the *Draft 2013 Western Washington Phase II Municipal Stormwater Permit* and the *Draft 2012 Western Washington Phase II Municipal Stormwater Permit*. The City places great importance on protecting and enhancing water quality in local lakes, rivers, streams, and groundwater and has been an avid supporter of regional efforts to do the same.

Concerning the *Draft 2013 Western Washington Phase II Municipal Stormwater Permit*, The City of Redmond offers the following comments:

Comment 1: Concurrent review of the Permit, the Draft Ecology Stormwater Manual, and the Draft LID Technical Manual

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: NA

Legal, Technical, Administrative Basis for Concerns: Concurrent review of the *Draft 2013 Western Washington Phase II Municipal Stormwater Permit*, the *Draft 2012 Stormwater Management Manual for Western Washington (SWMMWW)*, and the *Draft LID Technical Manual for Western Washington* has been a difficult review process, especially during the holiday season and given the expedited schedule. All three documents in and of themselves require a substantial, focused review, and all three are interrelated. The concurrent review and the timeframe for review reduced the resources available to more thoroughly review each of these documents individually.

Suggested Permit Language or Conceptual Alternative: In the future, we suggest that Ecology synchronizes the timing and sequence of permits and manuals in a manner that

provides the reviewer the ability to focus on documents individually, so that we can fully examine related documents and provide substantial, productive comments related to the permit and its related documents. In addition, previous stormwater design manuals have followed the rulemaking process during review. Because the Draft Permit and the Draft 2012 SWMMWW are interrelated documents, such a rulemaking process would have benefited the permit review process. The City of Redmond recommends that a rulemaking process is used in the future for stormwater manual updates.

Comment 2: The need to use consistent language when referring to stormwater facilities

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Example--S5.C.4.a.iii (page 30, line 29)

Legal, Technical, Administrative Basis for Concerns: Ecology offered a new definition within the permit, "stormwater treatment and flow control BMPs/facilities." However, in various locations throughout the permit, Ecology does not use this definition in instances where its use would be appropriate. One such example can be found on page 30, line 29; here Ecology uses the term "private stormwater facilities" instead of this new definition.

Suggested Permit Language or Conceptual Alternative: Ecology should review and amend the permit to ensure that the language throughout the permit consistently uses the term "stormwater treatment and flow control BMPs/facilities" when it is appropriate. On page 30, line 2, for example, this new term should be used instead of "private stormwater facilities."

Comment 3: Using alternative formatting arrangement for the annual SWMP Reports

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: S5.A.2 (page 17, line 2)

Legal, Technical, Administrative Basis for Concerns: In the course of the City's watershed planning process, we found that it would be useful to organize our annual SWMP Reports using a format defined by our watershed plan, instead of a format defined by S5.C. Such an organization scheme will offer the public a clearer sense of what future actions the City will address to protect surface water resources and re-enforce our watershed planning process.

Suggested Permit Language or Conceptual Alternative: The City would like to consult with the permit grant managers in order to create an alternative organization scheme for the annual SWMP Report. To allow this to occur, we suggest that the permit language found on page 17, line 2, be altered to state, "... shall be organized according to the program components in S5.C or using an alternate organization scheme that has been approved by the Washington State Department of Ecology."

Comment 4: Prioritizing outreach actions focused on dumpsters and dumpster areas

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: S5.A.2 (page 17, line 2)

Legal, Technical, Administrative Basis for Concerns: During IDDE investigations, the City has identified garbage compactors, dumpsters, and dumpster areas as potential sources of pollution that can impact water quality. We feel that additional language could be placed in the permit to more fully detail the stormwater pollution issues near and around dumpsters and compactors.

Suggested Permit Language or Conceptual Alternative: We suggest that the targeted outreach subject area noted on page 19, line 31, be altered to read, "Dumpster and trash compactor management and management of the dumpster and trash compactor areas."

Comment 5: Adding Fire Sprinkler Discharges to the list of Conditional Allowable Discharges

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: S5.C.3.b.ii (page 23, lines 21-27)

Legal, Technical, Administrative Basis for Concerns: During IDDE investigations, the City has identified building fire sprinkler/suppression system discharges as a conditional allowable discharge that should be addressed. We feel that additional language could be placed in the permit to help draw attention to this issue.

Suggested Permit Language or Conceptual Alternative: Please consider adding "building fire sprinkler/suppression system discharges" to the list of potential conditional discharge details on page 23, lines 21-27.

Comment 6: Inserting the word “known” in language regarding the elimination of illicit connections

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: S5.C.3.d.iv (page 27, line 36)

Legal, Technical, Administrative Basis for Concerns: The draft permit currently states, "All illicit connections to the MS4 shall be eliminated." As written, this requirement makes the City liable for correcting issues that it has no knowledge of.

Suggested Permit Language or Conceptual Alternative: The language on page 27, line 36, concerning the elimination of illicit connections should read, "All known illicit connections to the MS4 shall be eliminated."

Comment 7: Response time for illicit detection and discharge responses

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: S5.C.3.d.iv (page 27, line 36)

Legal, Technical, Administrative Basis for Concerns: Currently the permit language states that IDDE response shall occur within "7-days on average." We feel that the term "on average" provides the potential for an unacceptable delay in response.

Suggested Permit Language or Conceptual Alternative: We suggest that the permit language delete the phrase "on average."

Suggested Permit Language or Conceptual Alternative: We feel this language should be changed back to that found in the *2007 Western Washington Phase II Municipal Stormwater Permit*, which states inspections shall occur “...every 6-months during the period of heaviest house construction (i.e., 1 to 2 years following subdivision approval)...”

Comment 8: Inserting the word “feasible” in the permit’s language regarding the integration of LID into City procedures

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: S5.C.4.g.i (page 34, lines 21-24)

Legal, Technical, Administrative Basis for Concerns: The draft permit language concerning the integration of LID into the City operations should more accurately reflect the potential technical challenges associated with using low impact development (LID) principles and best management practices by including the word "feasible" into this requirement. The inclusion of this word more accurately reflects the decision provided by the August 2008 State Pollution Control Hearing Board ruling.

Suggested Permit Language or Conceptual Alternative: Page 34, lines 21-24, should be altered to state, "No later than December 31, 2016, Permittees shall review and revise their local development-related codes, rules, standards, or other...to incorporate and require LID principles and LID Best Management Practices (BMPs) where feasible."

Comment 9: Remove the reference to polyacrylamide as erosion control BMP

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: S4.2.5 (page 17, lines 2-3)

Legal, Technical, Administrative Basis for Concerns: City construction inspectors have found the misapplication of polyacrylamide (PAM) can cause more severe pollution issues than those it attempts to mitigate. It is our feeling that by referencing PAM as an erosion control BMP, the permit language could inadvertently encourage the use of this chemical. If PAM were omitted from the current list of erosion control BMPs, the language in the permit would still enable the use of this chemical when permittees deem its application to be safe and appropriate.

Suggested Permit Language or Conceptual Alternative: Remove "polyacrylamide (PAM)" from the list of potential erosion control BMPs on page 17, lines 2-3.

Comment 10: Local approval of chemical de-watering

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: S4.2.10.d.iii (page 20, lines 22-23)

Legal, Technical, Administrative Basis for Concerns: The City feels the language in this provision should reinforce the permittee's ability to control when and how de-watering chemicals are used in their municipality.

Suggested Permit Language or Conceptual Alternative: Alter page 20, lines 22 and 23, to state, "Ecology-approved onsite chemical or other suitable treatment as approved by the Permittee."

Comment 11: LID should not cause pollution

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: S8.B (page 24, line 3)

Legal, Technical, Administrative Basis for Concerns: Improperly selected low impact development practices may result in pollution to streams or to the groundwater. The requirement to retain stormwater runoff onsite to the extent feasible without causing flooding or erosion impacts should also address pollution.

Suggested Permit Language or Conceptual Alternative: Revise the language in line 3 as follows, "stormwater runoff onsite to the extent feasible without causing flooding, erosion, or water quality impacts to surface water or groundwater."

Comment 12: LID in Flow Control Exempt Areas

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: S8.B (page 25, line 8)

Legal, Technical, Administrative Basis for Concerns: Page 24, line 22, requires projects that must meet MR7 to meet the LID performance standard. Projects located in flow exempt areas should not be required to model hydrology, as the flow regime is not an issue.

Suggested Permit Language or Conceptual Alternative: Add the following language to page 24, lines 20-21, "Projects triggering Minimum Requirements 1-9, must apply onsite stormwater management in accordance with the table below. For sites that discharge runoff to a flow-exempt receiving water, using LID performance standards is not necessary; use the appropriate Mandatory List. For sites that trigger Mandatory List 2 and discharge to a flow-exempt receiving water, the Permittee may allow the use of rain gardens instead of bioretention."

Comment 13: LID Mandatory Lists imply that other LID BMPs are not required

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: S8.B (page 25, line 10 through page 26, line 40)

Legal, Technical, Administrative Basis for Concerns: The mandatory lists and this permit do not require all LID where feasible. It ignores some LID practices that are feasible on many sites. Some examples include: tree retention, native soil preservation, reduce the development envelope, retain and incorporate natural drainage and topographic features, locate development away from areas that infiltrate well, minimize effective impervious surfaces, roof water harvesting, etc. Yet these elements are described within the LID Manual that is referenced by the Draft 2012 SWMMWW. With no guidance of how these elements should be incorporated into development, they will not be. If this is the intent, then it should be stated with plain language.

Suggested Permit Language or Conceptual Alternative: Add the following sentence to page 24, line 1, "Minimum Requirement 5 specifically requires select low impact development strategies where feasible. This does not preclude other strategies that may be feasible for a project. See the Stormwater Site Planning Process requirements within Minimum Requirement 1 and Chapter 3 of Volume 1 of the Stormwater Management Manual for Western Washington (2012)."

Comment 14: Pollution generating porous pavements should not be used

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: S8.B (page 30, lines 32-36)

Legal, Technical, Administrative Basis for Concerns: This language states that porous pavements that are pollution-generating may be used to discharge untreated stormwater into groundwater. Since porous pavement doesn't provide treatment, this is not protective of groundwater.

Suggested Permit Language or Conceptual Alternative: Revise the language as follows, "The discharge of untreated stormwater from pollution-generating hard surfaces must not be authorized by the Permittee, except for the discharge achieved by infiltration or dispersion of runoff through use of Onsite Stormwater Management BMPs or by soils

that provide basic treatment."

Comment 15: Diverting excessive flows from streams

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: S8.B (page 31, lines 11-14)

Legal, Technical, Administrative Basis for Concerns: The language prohibits direct discharge from diverting drainage from a stream. In some cases, it is desirable to divert some drainage from a stream to reduce erosion impacts in the stream and to reduce flooding.

Suggested Permit Language or Conceptual Alternative: Revise the language as follows, "Direct discharge to the exempt receiving water does not result in the diversion of drainage from any perennial stream classified as Type 1,2,3, or 4 in the State of Washington Interim Water Typing System, or Types "S", "F", or "Np" in the Permanent Water Typing System, or from any Category I, II, or III wetland (except where existing flooding or erosion within streams or wetlands support some diversion as per the supplement guidance found in the *Stormwater Management Manual For Western Washington (2012)*, Volume 1, Chapter 2, Section 2.5.7); and..."

Comment 16: Bioretention Infeasibility Criteria and Wellhead Protection Areas

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: S8.I.A (pages 37-38)

Legal, Technical, Administrative Basis for Concerns: The feasibility requirements for bioretention areas should provide allowance for wellhead protection areas. These criteria do not adequately address wellhead protection areas and conflicts with the Draft 2012 SWMMWW, Volume 3, Chapter 3, Section 3.3.7 Site Suitability Criteria (S.S.C.).

Suggested Permit Language or Conceptual Alternative: The criteria should state that bioretention is not feasible "Where site conditions that do not meet the Site Suitability Criteria found in the *Stormwater Management Manual For Western Washington (2012)*, Volume 3, Chapter 3, Section 3.3.7, or as determined necessary by local governments in order to provide additional protection to a municipal drinking water source."

Comment 17: Bioretention Infeasibility Criteria and separation from groundwater

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: S8.I.A (pages 37-38)

Legal, Technical, Administrative Basis for Concerns: As shown in the Department of Ecology's 2006 *Guidance for Underground Injection Control (UIC) that Manage Stormwater*, the current and Draft 2012 SWMMWW, and countless other manuals, 5-feet of separation is appropriate, or 3-feet with a mounding analysis. There is no data to support only 1-foot of separation from groundwater. For smaller areas of less than 500 square-feet, a mounding analysis is not required.

Suggested Permit Language or Conceptual Alternative: The feasibility criteria for bioretention should be altered:

- Page 37, line 37, Appendix 1 should read, "...*minimum vertical separation of 3-feet to the seasonal high water table...*"
- Page 37, line 42, Appendix 1 should read, "... *vertical separation of 5-feet (3-feet with a mounding analysis) to seasonal high water table...*"

Comment 18: Bioretention feasibility criteria and phosphorus control areas

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: S8.I.A (pages 37-38)

Legal, Technical, Administrative Basis for Concerns: The bioretention feasibility criteria do not exclude phosphorus control areas. Infiltrating into phosphorus laden soils near lakes may increase the concentration of this nutrient in the lake; creating or contributing to water quality issues.

Suggested Permit Language or Conceptual Alternative: We suggest the following language should be added to the end of this section, "At sites that drain to phosphorous impacted lakes, within 1/4 mile of the lake or in soils that require underdrains."

Comment 19: Non pollution-generating impervious surfaces in arterials and collectors

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: Section 8.B. (page 38, lines 23-24)

Legal, Technical, Administrative Basis for Concerns: As written in Draft Appendix 1, porous pavement is infeasible where the road type is classified as arterial or collector rather than access. This could be interpreted to include sidewalks or other non-pollution generating surfaces associated with arterials or collectors.

Suggested Permit Language or Conceptual Alternative: Revise the language on page 38, lines 23-24, to state that permeable pavement is infeasible, "Where the road is classified as arterial or collector rather than access, not including sidewalks or other non-pollution generating surfaces."

Comment 20: Contaminated Groundwater Isolation

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: S8.B (page 38, line 39)

Legal, Technical, Administrative Basis for Concerns: Infiltration near contaminated sites can cause the migration of a plume of contamination in groundwater. Infiltration near known contaminated sites needs to be approached with caution.

Suggested Permit Language or Conceptual Alternative: Modify as follows, "Within 100- feet of a known contaminated site or abandoned landfill; or within the proximity of such a site with known groundwater contamination if the proposed infiltration may cause the migration of a contaminated plume."

Comment 21: Use of pervious pavers on slopes

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: S8.B (page 39, lines 1-5)

Legal, Technical, Administrative Basis for Concerns: Currently the feasibility criteria state that impervious pavers are infeasible, "Where the site cannot reasonably be designed to have ... pervious paver surfaces (where appropriate) at less than 10 percent slope." The use of pavers should be considered infeasible at greater than 5 percent slope to prevent resurfacing of water downslope.

Suggested Permit Language or Conceptual Alternative: We suggest that page 39, line 3, should be altered to state, "at less than 5 percent slope."

Comment 22: Pervious pavement feasibility criteria and separation to groundwater

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: S8.B (page 39, lines 26-27)

Legal, Technical, Administrative Basis for Concerns: Currently the feasibility criteria for pervious pavement state that it is infeasible when "Seasonal high water within 1-foot of the bottom of the lowest gravel course." As shown in the Department of Ecology's *2006 Guidance for Underground Injection Control (UIC) that Manage Stormwater*, the current and Draft 2012 SWMMWW, and countless other manuals, 5-feet of separation is appropriate, or 3-feet with a mounding analysis. There is no data to support only 1-foot of separation.

Suggested Permit Language or Conceptual Alternative: The feasibility criteria should state pervious pavement is infeasible, "Where separation of less than 5-feet (3-feet with a mounding analysis) from the seasonal high water table."

Comment 23: Pervious pavement feasibility and Wellhead Protection Areas

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: S8.B (pages 38-40)

Legal, Technical, Administrative Basis for Concerns: The pervious pavement feasibility criteria do not adequately address Wellhead Protection Areas and conflicts with the Draft 2012 SWMMWW, Volume 3, Chapter 3, Section 3.3.7, Site Suitability Criteria.

Suggested Permit Language or Conceptual Alternative: The criteria should state that pervious pavement is not feasible "Where site conditions that do not meet the Site Suitability Criteria found in the *Stormwater Management Manual For Western Washington (2012)*, Volume 3, Chapter 3, Section 3.3.7, or as determined necessary by local governments in order to provide additional protection to a municipal drinking water source."

Comment 24: Six-inch treatment layer under porous pavement

Draft 2013 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: Appendix 1: S8.B (page 39, lines 12-15)

Legal, Technical, Administrative Basis for Concerns: This language states that if native soils do not provide treatment, then a 6-inch layer of soil that does provide treatment is an option that should be considered by local governments as a way of providing that treatment beneath a pollution-generating permeable pavement. Such a design option is not described in the Draft 2012 SWMMWW, and we have not seen evidence that this provides treatment to protect waters. A designed sand filter calls for 18-inches of sand, and maintenance. Adding 6-inches of soil in an area that cannot be maintained (as described here) does not seem protective of waters of the State of Washington (RCW 90.48.020). Besides the obvious risk to groundwater, since porous pavements can be constructed with an underdrain, this language would also seem to permit using porous pavement with a 6-inch soil layer and underdrain as treatment prior to a surface water discharge. The list of what makes a BMP infeasible should not be the place where new design concepts of how to make something feasible or how to treat stormwater are introduced.

Suggested Permit Language or Conceptual Alternative: Remove the second sentence that begins, "Note: In these instances . . ."

Concerning the *Draft 2012 Western Washington Phase II Municipal Permit*, The City of Redmond offers the following comment:

Comment 1: Needed language changes for the 2012 reissued permit

Draft 2012 Western Washington Phase II Municipal Stormwater Permit

Permit Citation and page number: S5.C.5.d (page 29, lines 32-37)

Legal, Technical, Administrative Basis for Concerns: The *Draft 2012 Western Washington Phase II Municipal Stormwater Permit* still contains language that requires "Inspection of all catch basins and inlets owned and operated by the Permittee at least

once before the end of the permit.” In the context of the reissued permit, municipalities would be required to complete this task in one year. This is an unreasonable expectation, and it is our thought that this language has been included in the reissued permit by mistake.

Suggested Permit Language or Conceptual Alternative: Please remove this language from the reissued permit.

Thank you again for the opportunity to comment.

Regards,

A handwritten signature in blue ink that reads "William J. Campbell". The signature is written in a cursive style with a large, sweeping "W" and "C".

William J. Campbell, P.E.

Public Works Director

City of Redmond