NPDES Permit and SMMWW Review Comments

City of Oak Harbor

February 2012

General

1. The public meeting should have been scheduled closer to the release date of the drafts, not shortly before comments are due.

2. Several public hearings were canceled due to snow and not rescheduled. They should have been rescheduled even if it pushed the comment due date back.

NPDES PHASE II Permit Applicability

3. Attempts to exclude the UGA outside of Oak Harbor's City limits from Phase 2 NPDES permitting should be rejected. The UGA outside City limits should be subject to Phase 2 NPDES permitting as is currently proposed by the DOE.

NPDES PHASE II Permit Update (DRAFT PERMIT)

Page 17, Section S5.4:

4. It is recognized that the requirement for a permittee to continue to apply local storm water regulations to new development and redevelopment at sites below the DOE's thresholds is not a new requirement, however it is inflexible, mandates extra requirements above the NPDES permit requirement for some communities, but not others, and should be eliminated.

The new permit will require more staff time, more funding, and more equipment. Requiring the permittee to lock their existing thresholds into perpetuity removes the flexibility of the permittee to adapt their local resources to meet the permit requirements. Occasionally a community becomes overzealous in its intentions and adopts regulations that are excessive. Retaining the ability to readjust is important. This requirement should be eliminated.

Appendix 1 – Minimum Technical Requirements for New Development and Redevelopment

DRAFT REVISIONS FOR INCORPORATION OF LID-RELATED THRESHOLDS, DEFINITIONS, AND REQUIREMENTS

Appendix I, Page 1, Road Maintenance:

5. The road maintenance practices that are considered to not be exempt and are considered as redevelopment trigger minimum requirements numbers 1 through 5. Several of these need t o be reconsidere, particularly replacement of removed materials with pervious pavement. This requirement does not fit well with road maintenance or design and should be eliminated. The following 4 comments pertain to inclusion of these maintenance practices as redevelopment.

- It is not untypical for a street overlay project to have multiple areas of "alligator cracked" pavement which requires excavation to base material or lower to repair. Alligator cracking is caused by water entering the base material or subgrade. Replacing the removed material with pervious pavements will allow more moisture into a pavement section that is already experiencing problems and was not designed for infiltration. This will just exacerbate the pavement failure problem and force an overlay project into a reconstruction project. Since many types of pavement failures other than alligator cracking are caused by water entering the supporting soils and altering the soil properties, no pervious pavements should be required in repair sections.

- Current economic conditions have reduced previously stressed road overlay budgets to inadequate levels. Increasing the cost of road maintenance due to Minimum Requirement Number 5 will result in fewer roads being overlaid and an overall degradation of pavement conditions within a community. Once a pavement condition degrades beyond a certain point, overlaying is no longer a viable option and a significantly more expensive repair must be enacted, further reducing the capability for a community to maintain its street surfaces at a basic service level resulting in an ever accelerating failure of the community's pavements.

- For the vast majority of road maintenance work, placing pervious pavement adjacent to existing impervious pavement will introduce moisture into a pavement section that was not designed or installed for such a scenario and has no aggregate reservoir layer for storage. This is contrary to the method in which impervious roads are designed, in which the soil moisture content is carefully controlled to achieve specific soil properties and then capped for protection from moisture in order to prevent moisture from altering the soil properties.

- If resurfacing by upgrading the pavement wear course triggers resurfacing with pervious pavement, the project will no longer be a resurfacing project, and instead will be a full depth pavement section reconstruction. (Pervious pavements require different aggregate sections than existing impervious pavements.)

Appendix I, Page 7, Vehicular Use:

6. The definition of "vehicular use" requires fencing of fire lanes or the surface will be considered to be pollution generating. The use of the terms "unfenced" or "fenced" are overly restrictive, as most fire lanes are not fenced, and many have restricted access though the use of gates, bollards, curbing, landscaping, signage, or pavement markings. Most fire lanes that are constructed of a structural turf type of product are not physically restricted, yet are not used by vehicles other than emergency equipment and an occasional maintenance vehicle due to the landscaped nature of the lane. The terms used should be "restricted access fire lanes" and "unrestricted access fire lanes" or something similar. Fencing of a fire lane is excessive.

November 2011 Draft Stormwater Management Manual for Western Washington

General

7. Many of the requirements in this document tend to preempt engineers and reduce the individual engineer's design flexibility, replacing it with it with overly conservative prescriptive requirements. Negating the input of engineers for conservative prescriptive requirements while applying the manual to ever smaller projects will cause needless expenses affecting our already weakened economy.

Volume I, Page 2-18, Sections 2.5.2 Minimum Requirement # 2:

8. For projects that result in less than 2,000 sf of new plus replaced hard surface area or disturb less than 7,000 sf of land, the requirements to consider all 13 Elements and develop controls for all elements that pertain to the site, along with the definitions of Redevelopment and Land Disturbing Activities appear to apply to the installation of a flower or vegetable garden in a residential yard. It is doubtful that gardners are going to be well informed of the need to implement element Number 5 and stabilize soils within 2 days during the wet season and 7 days during the dry season. A reasonable minimum should be established, and the overreaching nature of minimum requirement number 2 culled to allow for reasonable use of private property.

Appendix I, Page 13, Section 4.1 Minimum Requirement # 1: Preparation of Stormwater site Plans:

9. The sentence *"Stormwater Site Plans shall use site-appropriate development principles to retain native vegetation and minimize impervious surfaces to the extent feasible."* Is preclusive of development since retaining native vegetation and minimizing impervious surfaces to the extent feasible, is to not develop at all. This statement also reduces density ranges to the minimum since exceeding the minimum is in direct conflict with retaining native vegetation and minimizing impervious surfaces. It also infringes upon building size and use. Small homes without garages are feasible, yet not necessarily desirable. This requirement is nebulous and needs to be changed or omitted.

Volume I, Page 2-36 and 2-37, Section 2.5.5 Minimum Requirement #5: On –site Stormwater Management :

10. This requirement requires pervious pavements as second choice where Full dispersion BMP T5.30 is not feasible (In most cases it will not be.) , yet is not a flow control requirement. It is not understood how the pervious pavement sections would be designed and constructed without meeting some sort of flow control requirement since an aggregate storage layer is necessary to allow for percolation to occur and keep the water from staying in the pervious pavement wearing course, and as part of the structural section. This requirement appears to be implementing flow control for the pervious pavement areas and will require civil engineering on projects such as a single family home. The referenced section of Appendix III C of Volume III (Section 7.1) and along with Section 3.4.2 of Volume III, and BMP T5.15 do not appear to provide clarification to this issue other than a recommendation of 4" of clean aggregate as base material. In the absence of section minimums, the failure rate of pervious pavements installed under Minimum Requirement number 5 is likely to be high. Either delete the requirement or set parameters that ensure success instead of failure.

11. Pervious pavement should not be required as part of Minimum Requirement #5 through maintenance triggers. In addition, patios, plazas, sports, and play courts should be exempted for architectural reasons or sports regulations reasons.

Volume III, Page 3-115 Section 3.4.2, Bioretention/Rain Gardens:

12. The requirements for small scale PIT tests are excessive and the "out" based upon soil borings is excessive for small projects. A small dense short plat should not have perform so many PIT tests and

borings are not necessary for foundations of single family homes. Loosen up the requirements and let Civil and Geotechnical Engineers analyze their sites accordingly.

Volume III, Page 3-116 Section 3.4.2, Permeable Pavement :

13. The requirements for small scale PIT tests are excessive and the "out" based upon soil borings is excessive for small projects. A small dense short plat should not have perform so many PIT tests and borings are not necessary for foundation of single family homes. Loosen up the requirements and let Civil and Geotechnical Engineers analyze their sites accordingly.

Volume III, Page 3-116 Section 3.4.2, Permeable Pavement :

14. Projects subject to Minimum Requirements #1 through #5 should not be required to perform field tests to observe groundwater elevations between December 1 and April 1. This requirement is likely to needlessly delay small projects.

Permeable Pavements

15. Runoff and overflow from permeable pavement storage basins should not pass through a bioretention BMP. This requirement raises the standard for treatment as the storms events that require treatment are unlikely to overflow or create runoff from a properly designed and constructed permeable pavement section. In addition, this requirement will require extra pipes, catch basins, and curbs to implement which is counter to the cost comparison claim that LID construction saves money because traditional enclosed drainage can be eliminated.

Volume I, Page F-1 , Section I.A.

16. Part of the 7th infeasibility criteria in Section A. is *"Within 10 feet of small on –site sewage systems and greywater reuse systems."* This is too close for infiltration adjacent to a septic system leach field. The requirement for bioretention should not cause failures of septic systems. A more reasonable distance is 30 feet, but soils should be taken into consideration.

Volume I, Page F-1 , Section I.A.

17. An addition of an infeasibility criteria is necessary. It is not possible to sheet flow all driveways to a rain garden. If a house is significantly higher than the street, the only way to collect the water to convey it to a facility in the yard would be to install a trench drain at the bottom of the driveway. In situations such as this, it is likely that a rain garden would also require a retaining wall. There should be an infrastructure exception for single family residential uses to keep the cost of housing and small projects down. At some point, the necessity to use trench drain, retaining walls, pumps, etc. should deem a rain garden/bioretention facility infeasible.

Volume I, Page F-2 , Section I.A.

18. The last infeasibility criteria in Section A. is *"Where there is a lack of usable space for rain garden/bioretention facilities at redevelopment sites."* What defines "lack of usable space"? Is the project proponent expected to eliminate all unrequired improvements or reduce building size to fit in the mandatory bioretention or rain garden BMP? For example, if a project calls for a grass badminton court, and there isn't room for both it and a rain garden/bioretention facility, is the bioretention considered to be infeasible, or must the badminton court be eliminated to make usable space?

Volume I, Page F-3 , Section I.B.

19. Part of the 9th infeasibility criteria in Section A. is *"Within 10 feet of small on –site sewage systems and greywater reuse systems."* This is too close for infiltration adjacent to a septic system leach field. The requirement for bioretention should not cause failures of septic systems. A more reasonable distance is 30 feet, but soils should be taken into consideration.

Volume I, Page F-3 , Section I.B., Permeable Pavements are considered infeasible: 17th Paragraph:

20. This infeasibility criteria is "Where fill slopes are used that can become unstable when saturated." Why is the concern for soils becoming unstable under saturated conditions limited to fill soils?

Volume I, Page F-3 , Section I.B., Permeable Pavements are considered infeasible: 20th Paragraph:

21. This criteria is "Where infiltrating water below new permeable pavemen area would threaten existing below grade basements. " This criteria should not be limited to existing basements, but needs to be expanded to include new construction of below grade stories. Concrete cracks and it is very difficult to keep water from finding its way into basements through cracks that occur over time or cold joints. New below grade construction should be allowed the same protection as existing below grade construction.

Volume I, Page F-3 , Section I.B., Permeable Pavements are considered infeasible: Last Paragraph:

22. Regarding minimum saturated hydraulic conductivity for permeable pavements, please provide clarification that the minimum rate would allow an "out" of the requirement, but would not preclude an engineer from designing for lower rates if so desired.

Volume I, Page F-3 , Section I.B., Permeable Pavements are considered infeasible: 19th Paragraph:

23. In most applications of maintenance triggered pervious pavement installations, the added permeable pavement will compromise adjacent impervious surfaces.

Volume I, Page F-4 ,Section C. Vegetated Roofs are considered infeasible where:

24. No mention of a fiscal analysis "out" is included in this list. Ed O'Brien has presented that a financial analysis is an infeasibility criteria.

Volume I, Page F-4 ,Section C. Vegetated Roofs are considered infeasible where:

25. Are the green roof feasibility criteria intended to limit architectural/structural design? What building cannot have a flatter roof or the structure/layout modified to support the added load?

Volume I, Page F-4 , Feasibility Criteria for Selected Low Impact Development Best Management Practices, Section II Competing Needs:

26. Add a "competing need" infeasibility criterium regarding the required installation of rain gardens/bioretention for locally specific critical areas such as a protected tree species. The City of Oak Harbor protects Garry Oak trees and rain gardens within the drip zone would be a conflict. In addition, a lot already having reduced useable space due to the protected tree should not have a further imposition of lost useable space for bioretention/rain gardens.

Draft Permit

Page 50, S8. Monitoring

27. The monitoring costs are too expensive and should be borne by the State, not the permittees. In addition, some small municipalities may only drain to one area, not have wadeable streams and the

costs are disproportionate to these municipalities, particularly when the monitoring is primarily in other locations. If the permittees are to be required to bear the cost it needs to be more proportional to their pollutant loads, outfall flow, number of outfalls, or a combination of these items.

Oak Harbor supports some level of monitoring, but given the economic situation facing our City it does not seem realistic that we will be able to manage the costs assigned to us. Oak Harbor does not have much business or industry like other City's our size. Our proportional cost of the sampling and monitoring program was based on population, and a large part of our population is in Navy housing and the Navy property is exempt from the permit. Weekly we have our staff test for fecal Chloroform trying to find spots of pollution, it is our opinion that the City of Oak Harbor is actively trying to resolve any issues we create and should be exempt from the testing at this time.
At a minimum our population levels should be reduced to exclude Navy property in the amount of 5, 000 people.