



King County

Water and Land Resources Division

Department of Natural Resources and Parks

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October 6, 2014

Municipal Permit Comments
Washington State Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

RE: Permit and Manual Modification Comment Period - 2014

To Whom It May Concern:

Thank you for the opportunity to provide comments on the proposed modifications to the 2013 Phase I NPDES Municipal Stormwater Permit and the 2012 Stormwater Management Manual for Western Washington. We also appreciate the opportunity to review and comment on the draft Definition Guidance Document related to permit modifications. The permit and manual are critical tools in the region's efforts to reverse the environmental degradation caused by stormwater runoff. The Puget Sound region needs effective, integrated stormwater management programs which not only protect the water quality of local streams, lakes, wetlands, and Puget Sound, but also serve to protect the safety and welfare of the region's citizens and properties.

This correspondence transmits King County's comments on the proposed permit and manual modifications in two forms: general comments are discussed below and more specific comments are enclosed in the format provided by the Washington State Department of Ecology (Ecology).

Manual Equivalency

We have been told by Ecology staff that the Ecology documents used to determine equivalency (the permit and the manual) will be those that have been revised and will be finalized following the current public review and comment period. Ecology is accepting comments through October 6, 2014 and the documents under review could be further revised before they are finalized late this year. This finalization is currently targeted for December 17, 2014 but could be delayed depending on the nature of comments and extent of additional revisions. It is not clear whether Ecology can make an equivalency determination prior to finalization of the permit and manual.

King County's legislative and public rule adoption process for its Surface Water Design Manual (SWDM) cannot begin until the SWDM has been deemed equivalent and finalized. We anticipate that, upon review of the draft SWDM submitted to Ecology on June 30, 2014, Ecology will require modifications to achieve equivalency. The timeline for incorporating those modifications will depend on the nature and extent of Ecology's feedback. King County's adoption process takes at least seven months, which means the SWDM must be deemed equivalent and be finalized no later than early November in order for King County to meet the

permit deadline of adopting and making effective an equivalent manual no later than June 30, 2015. This does not appear possible based on Ecology's schedule for targeting finalization of the permit and manual by December 17, 2014.

To address these concerns, King County is requesting that Ecology grant a six-month extension of the permit's June 30, 2015 deadline for adoption of an equivalent manual and its subsequent employment to project applications submitted after June 30, 2015 or before June 30, 2015 if construction has not begun by June 30, 2020. This assumes the draft revised permit and manual will be finalized on or before December 17, 2014. If permit and manual finalization is delayed beyond that date, King County would request that the six-month extension be further extended by the amount of the delay. This same extension is requested for the low impact development code updates required by the permit as the proposed code changes need to be part of the same legislative package.

Watershed-Scale Planning

Ecology's proposed modifications include substantive changes to the watershed-scale planning requirement, including an expansion of the planning process scope. Since the Pollution Control Hearings Board's (PCHB's) ruling that Phase II permit holders must "fully participate" in watershed-scale planning, King County has worked closely with Ecology and the appropriate Phase II permit holders to determine how to implement the PCHB ruling. Collaborating among multiple jurisdictions on this complex task is underway and reaching agreement on the planning process is a work in progress. It is premature to define submittal deadlines related to scope and schedule as well as the implementation plan until a clear understanding of the planning process is attained. King County anticipates this ongoing collaboration will inform realistic and achievable timelines for complying with the watershed-scale planning requirements and we encourage Ecology to accommodate those timelines through modification of existing submittal dates in the permit.

In addition, King County supports Ecology's intent to pursue funding for distribution to Phase II permit holders who are impacted by the PCHB ruling. Those funds would help mitigate the financial burden on municipal governments (and their rate payers) expected to comply with the requirements and allow more focus on producing a watershed plan intended to support protection and restoration of aquatic resources in the Bear Creek watershed.

Compost Application in Stormwater Management

King County offers the following recommendation to Ecology regarding the use of feedstocks to regulate compost application in stormwater management:

In the draft 2014 manual, feedstocks serve as a surrogate to regulate the use of compost in stormwater management. This should serve as an interim standard until scientifically supported numeric criteria (i.e., quantitative parameters for potential pollutants of concern) are developed for compost content and associated leachate. The long-term standard should be protective of surface and ground water quality and the aquatic environment, not cause or contribute to violations of the state's water quality standards, and not add pollutants to stormwater being treated by facilities and best management practices.

October 6, 2014

Page 3

Compost is highly variable, the result being that stormwater treatment effectiveness and leachate in treatment and flow control applications are highly variable. A performance-based approach would provide better assurances of water treatment and effluent quality. The benefit of numeric specifications would be that they could be measured and verified via testing.

King County strongly encourages Ecology to continue to conduct or sponsor research to collect data necessary to develop such standards. King County also strongly supports ongoing and future studies on bioretention media that address potential pollutants such as metals, nutrients, organic compounds, priority pollutants, and emerging pollutants of concern.

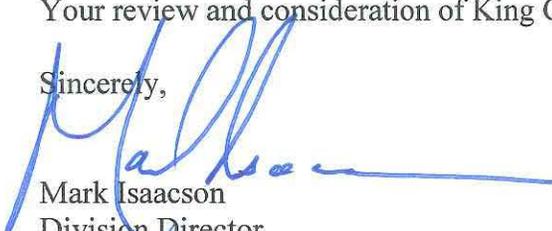
In addition, King County would welcome the opportunity to participate in a science-based approach to developing standards for use of compost in stormwater management, including but not limited to compost made with feedstocks such as with biosolids and/or manure. The goal should be standards for compost and bioretention mixes that ensure that the composition and use of these materials protect water quality.

Additional Comments

As referenced above, additional comments are enclosed with this correspondence. We invite Ecology to review and consider those comments in addition to the ones discussed in this letter.

Thank you once again for the opportunity to participate in this public comment process. If you have questions regarding the comments contained herein or King County's stormwater management program in general, please contact Doug Navetski at 206-477-4783 or doug.navetski@kingcounty.gov or me at 206-477-4601 or mark.isaacson@kingcounty.gov. Your review and consideration of King County's comments are appreciated.

Sincerely,



Mark Isaacson
Division Director

Enclosure

cc: Lydia Reynolds-Jones, Managing Engineer, Program and Project Support Services,
Road Services Division, Department of Transportation
Joe Rochelle, Senior Deputy Prosecuting Attorney, Civil Division, Prosecuting
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Phase I Permit Modification Comments

Response #	Permit	Section	Page	Comment
1	Phase I	S5.C.2.b.iv	13	"Co-applicant" is explained in the Statement of Basis, but nowhere in the permit. Please consider adding definition of clarification of the intent of this term within the permit itself.
2	Phase I	--	16	Header contains "0's" where it should cite permit section.
3	Phase I	Definitions	70	KC supports Ecology's decision to implement consistent definition changes in both the Phase I and Phase II permits.
4	Phase I	S5.C.5.c.ii	21	The 3rd bullet reads that the watershed plan needs to be managed by consensus. Does the documentation of how stakeholder's comments are accounted for need to be part of the watershed plan, or can they be part of the annual reporting?
5	Phase I	S5.C.5.c.ii.(1).b	22	The feasibility of accurately monitoring continuous stream flow upstream and downstream of MS4s within Woodinville and Snohomish County is questionable. Since those two permittees have jurisdictional areas in the headwaters, those MS4s are considered the upstream condition of the watershed. SOW submitted by KC does not suggest or include flow gauges above MS4's in those headwaters.
6	Phase I	S5.C.5.c.ii.(4)	22, 23	It is unclear what is specifically being asked for in this paragraph. It can be interpreted as saying to use the DeGasperi hydrologic metrics, but also it reads as if based on the journal's data set as well (i.e., 16 locations).
7	Phase I	S5.C.5.c.v.(9)	25	"...model predicts...conditions...fully support 'existing' and 'designated' uses throughout the stream system." This is a very absolute set of terms that may not be achievable-- especially "throughout" the system. This could potentially require individual modeling of every catchment, which would require significant financial resources. How is "fully support" defined in terms of quantifiable metrics?
8	Phase I	S5.C.5.c.v.(3)	24	"...establish correlations with flow data." It doesn't explicitly state a statistically significant correlation. Is this an intentional omission? If so, it seems like it would be difficult to impose a specific regression method if there is no significance. If Ecology requires more than HPC as a metric, the possibility of this situation occurring does go up.
9	Phase I	S5.C.5.c.ii	21	Last paragraph prior to S5.C.5.c.ii.(1). The submittal date for SOW will need to be extended to allow for time to reach a consensus among the partners, possibly execute ILAs and IAAs, and revise the SOW for a re-submittal.
10	Phase I	S5.C.5.c.iv.	24	The revised watershed plan submittal date will need to be further extended to allow for the re-submittal of the SOW. An alternative deadline is difficult to determine until more collaboration with the Phase I & II partners takes place.
11	Phase I	S5.C.2.a.vi, vii, viii; S5.C.2.b.ii, iii, iv	13, 14	See Definition Guidance Document comments for reasons to include a definition for "connections" as it is used in these portions of the permit.

WWA Stormwater Manual Modification Comments

Response #	Volume	Chapter	Page	Comment
1	V	5	5-21	<p>Ecology's proposed modification include the following:</p> <p><i>Roads and areas that bear more than very low traffic volumes or very low truck traffic. Road classified as arterial or collector (See RCW 35.78.010, RCW 36.86.070, RCW 47.05.021, and the WSDOT Functional Classification Map) generally receive more than very low traffic volumes or very low truck traffic. Residential access roads generally receive only very low traffic volumes and very low truck traffic. Note: This infeasibility criterion does not extend to sidewalks and other non-traffic bearing surfaces. associated with the collector or arterial.</i></p> <p>King County requests deletion of the sentence that reads: "Residential access roads generally receive only very low traffic volume and very low truck traffic."</p> <p>Rationale for Request: This statement has not been substantiated by the evidence before the Pollution Control Hearings Board, is gratuitous, and is not required or called for by the Board's ruling. Short cul-de-sac streets in residential neighborhoods may be subject to this general qualification, but residential through-streets may not. School buses and garbage trucks, as well as delivery and heavy duty pickup trucks use residential through-streets and can adversely affect permeable pavement in the roadway. The statement creates an unwarranted presumption, is overly broad, and so King County requests its deletion.</p>

WWA Stormwater Manual Modification Comments

Response #	Volume	Chapter	Page	Comment
2	I	Appendix G	G8-G9	<p>Definitions of “Compost” and “Composted Material”</p> <p>The term “composted mulch” was replaced with “composted material” in the proposed revisions to Volume 1. While the term “composted material” is now consistent with the definition of “composted material” in WAC 173-350, it appears that the term “compost” is now redundant, while the term mulch is left undefined. We recommend adding the term compost to the definition of “Composted Material” because these terms are used interchangeably throughout the manual.</p> <p>Additionally, the manual references use of biosolids compost, and biosolids are not defined as solid waste by Ecology, but are regulated under a separate rule. We further recommend the definition be revised to include biosolids compost and a reference to WAC 173-308, such as:</p> <p>“Composted Material (compost). Organic solid waste that has undergone biological degradation and transformation under controlled conditions designed to promote aerobic decomposition at a solid waste facility in compliance with the requirements of Chapter 173-350 WAC or, where allowed, biosolids composted in compliance with Chapter 173-308 WAC. Composting is a form of organic material recycling. Natural decay of organic solid waste under uncontrolled conditions does not result in composted material.”</p> <p>We recommend that Ecology add the definition of “biosolids” to add clarity to the Stormwater Management Manual for Western Washington (SMMWW), consistent with WAC 173-308: “Biosolids” means municipal sewage sludge that is a primarily organic, semisolid product resulting from the wastewater treatment process that can be beneficially recycled and meets all applicable requirements under WAC 173-308.</p> <p>The term mulch is no longer defined (previously, “composted mulch”), and is used inconsistently in the manuals. Vol II, Table 4.1.8 Mulch Standards and Guidelines, appears to define mulch as “Composted Material” but with a “coarser size gradation”, while Volume V describes mulch as coarse compost, as hog fuel (which is defined in Vol 1 as wood-based mulch), and also indicates that arborist mulch, or wood chips, are also acceptable for use as mulch, and Table 9.4.1 (Vol V) indicates straw mulch can be used. We recommend that a definition of mulch be added, which includes all of the acceptable materials that may be used. The definition should make it clear that these materials do not need to be composted for effective use as mulch.</p>
3	V	7	7-18	<p>BMP T7.30 describes specifications for compost used in bioretention. We recommend changes to the pH specification. The current text states: “If the pH falls outside of the acceptable range, it may be modified with lime to increase the pH or iron sulfate plus sulfur to lower the pH. The lime or iron sulfate must be mixed uniformly into the soil prior to use in the bioretention area”. Chemical addition to a soil mix can be used to adjust the pH, however, we recommend omitting this language pertaining specifically to compost. The reason is that pH is an indicator of compost stability and maturity. Adjusting the pH of a compost with chemical addition would only mask any maturity/stability problems. Stable, mature compost typically has a pH between 6.0 and 8.5, which would meet the specification.</p>

WWA Stormwater Manual Modification Comments

Response #	Volume	Chapter	Page	Comment
4	V	7	7-18	<p>BMP T7.30 describes specifications for compost used in bioretention. We identified some areas where more clarification is needed, reference language should be corrected, or we recommend changes.</p> <ul style="list-style-type: none"> • Physical Contaminants: We agree that film plastics should not exceed 0.25 percent by weight. • Soluble Salt: Please clarify that the laboratory sheet will read "EC". Language in the SMMWW will be much clearer if written as "Soluble salt content (EC)". • Maturity: The current text reads "Maturity greater than 80% (TMECC 05.05-A "Germination and Vigor")." Clarification is needed as to what 80% means. Also the test name for TMECC 05.05-A is actually "Seedling Emergence and Relative Growth", and results are reported as "emergence" and "seedling vigor". Alternative language for the specification might read "Maturity indicators from a cucumber bioassay (TMECC 05.05-A "Seedling Emergence and Relative Growth") must be greater than 80% for both emergence and vigor." • Stability: The text reads "Stability of 7 or below (TMECC 05.08-B "Carbon Dioxide Evolution Rate")." Units are needed for the specification. We believe the intention is for the units to be (mg CO₂/g OM/day). • C to N ratio: The text reads "Carbon to nitrogen ratio (TMECC 04.01 "Total Carbon" and 04.02D "Total Kjeldahl Nitrogen")." Total Kjeldahl Nitrogen should be replaced with Total Nitrogen by Oxidation to accurately reflect TMECC 04.02-D.
5	V	5	5-10	<p>In BMP T5.13 the compost specification references BMP T7.30, but describes some deviances from that spec, including the amount of organic matter content in the compost. BMP T5.13 states that organic matter must be between 40 and 65%, whereas T7.30 simply requires a minimum of 40%. What is the reason for this difference? For consistency we recommend using a minimum of 40% and omitting the cap.</p>

Definition Guidance Document Comments

Response #	Section	Page	Comment
1	8.14.14	3	Please define "connections" as used throughout S5.C.2. It seems that flows exiting a permittee's MS4 are well defined, but incoming connections are undefined.
2	8.14.14	4	Within the Outfall definition (1st bullet), should "discernible, confined and discrete conveyances." be changed so that it reads " the end of discernible, confined and discrete conveyances."?
3	8.14.14	4	Within the Outfall definition (2nd bullet), should "no outlet (such as dispersion BMPs)" be changed to "no point source outlet (such as dispersion BMPs)."?
4	8.14.14	4	Within the Outfall definition (6th bullet), should "facilities" be changed to "features" in "'designed to infiltrate stormwater' excludes facilities that inadvertently infiltrate (such as ditches)." so that it reads "'designed to infiltrate stormwater' excludes features that inadvertently infiltrate (such as ditches)."?
5	8.14.14	5	For clarity, the Discharge Point definition should read, "Discharge Point means the location where a discharge leaves the permittee's MS4 to another permittee's MS4 or to a private system, or to a public system. " Also, "public stormwater conveyance" could be changed to "system" as shown above, so that it does not exclude discharges to flow control and water quality features.
6	8.14.14	8,10	It would be helpful to include "connections" as described in S5.C.2 to Figures 1 & 3.

Definition Guidance Document Comments

Response #	Section	Page	Comment
7	8.14.14	9	Figure 2 seems to make it appear that the MS4 ends when it flows into the ditch. Figure 4 makes it more clear that the ditch is actually MS4 through the text label. The comment "In Figure 2, the permittee would not need to map the open drainage ditch as a Discharge Point." is confusing given that Figure 2 does not label the open drainage ditch as MS4. One could interpret the comment to mean that no discharge point is required at the connection between the MS4 (assumed closed conveyance with the arrow) and the ditch. However, we believe the intent of the sentence "In Figure 2, the permittee would not need to map the open drainage ditch as a Discharge Point." is to explain that a permittee is not required to map a linear discharge point that is identical to the linear ditch. More clarity in Figure 2 and the sentence mentioned above would be helpful.
8	8.14.14	10	The current permit requires permittees to map incoming connections as described in S5.C.2. The sentence, "The point where the private stormwater pipe enters the city's MS4 is not required to be mapped as a Discharge Point," creates confusion because 1) the point described would be an incoming connection, so it doesn't meet the "Discharge Point" definition outlined in the document and 2) it implies that incoming connections are not required to be mapped by the permittee.
9	8.14.14	11	The sentence, "The private infrastructure would not be required to be mapped per the Permit, although this may be helpful for a permittee's program," implies that incoming connections are not required to be mapped by the permit. If these incoming connections are required to be mapped, it would be helpful if they were given a clear definition, as with Discharge Points.