

Department of Ecology Comments on the Clark County July 2008 Submittal of Draft Ordinances and Manual

August 14, 2008

DRAFT Clark County Response, October 16, 2008

I. Chapter 13.26A: Water Quality

I. Section 25.B: Allowable Discharges

Potable water and potable water line flushing are only allowable under the conditions stated in the NPDES permit. Those conditions, similar to what is already included for swimming pool water, must appear in this ordinance.

Discharges from potable water sources will be added as prohibited discharge unless permit stated BMPs are followed.

Residential car and boat washing are not allowable discharges. Please eliminate them from this section. Clark County's public education program must include efforts to eliminate these sources.

Residential car and boat washing will be removed from the allowable discharges.

"Common practices for water well disinfection" must be subject to the same limitations noted for swimming pool water.

Add to potable water requirements.

2. Section 25.C: Exceptions

Please eliminate the reference to a "local" regulatory or resource management program. Local programs, other than programs approved by the state for Clark County, do not establish acceptable methods of pollution control.

Strike local

3. Section 35.B. Exemptions

In subsection 1, eliminate the reference to a local regulatory or resource management program.

Strike local

4. Section 040 Maintenance of stormwater facilities

In subsection B, any alternative maintenance practice that the director allows on a general basis must be incorporated into the county's maintenance provisions. The county must document, and make available for Ecology inspection, the basis for the decision that the alternative practice provides an equivalent level of pollution control as the maintenance provisions in the SMMWW.

Revise language to state that alternative maintenance standards must be approved by the director as providing pollutant controls equivalent to maintenance standards of the Washington Department of Ecology Stormwater Management Manual for Western Washington (2005).

II. Clark County Ordinance 40.380

I. Section 010. Exemption C.1.d

Section 010. Exemption C.1.d. is not approvable. If a development proposal has oil or gas facilities draining into the municipal separate storm sewer system, they must be subject to the County's requirements. The proposal as written seems to exempt all temporary access roads, not just those associated with oil and gas facilities. That exemption is not approvable either.

The language included in Exemption 010.C.1.d came from pg A-1 of the Phase I Municipal Permit. This language can be revised to match the permit language.

Revised Language

~~Drilling sites, waste management pits, temporary access roads, pipelines, natural gas treatment plants, natural gas pipeline compressor stations, and crude oil pumping stations.~~

Oil and Gas Field Activities or Operations including construction of drilling sites, waste management pits, and access roads, as well as construction of transportation and treatment infrastructure such as pipelines, natural gas treatment plants, natural gas pipeline compressor stations, and crude oil pumping stations are exempt. Operators are encouraged to implement and maintain Best Management Practices to minimize erosion and control sediment during and after construction activities to help ensure protection of surface water quality during storm events.

2. Section 010. Exemption C.2.a.

Would seem to exempt individual single family homes and duplexes from Minimum Requirement #5. M.R. #5 applies to individual home sites. A subdivision developer cannot comply with M.R. #5 because they are not developing each lot. This exemption should be re-written to not exempt SF homes and duplexes from M.R. #5.

This exemption will be revised.

Revised Language

The construction of single-family homes, duplexes, and their accessory structures may be exempt from Minimum Requirements ~~#3~~#6 through #10, provided the following conditions are met:

- ~~(1) The project site is included in a stormwater plan previously approved by the county.~~
- ~~(2) The system provides for detention or retention of runoff from residential lots; and~~
- ~~(3) A stormwater pollution prevention plan (SWPPP) is prepared and implemented meeting the standards in Minimum Requirement #2.~~

3. Section 010. Exemption C.2.b

Please provide explanation/examples of "drainage projects" that qualify for an exemption from treatment. Please provide further explanation for the possible exemption from M.R. #1.

This exemption applies to retrofit projects per condition S5C6 of the permit. Retrofit projects do not have to achieve the standard of quantity and quality control required of new development or redevelopment. However, S5C6 does require that for individual retrofit projects we must identify the estimated pollutant load reduction expected, the expected flow control outcome; and any other expected environmental benefit.

4. Section 010. Exemption C.2.f

Section 010. Exemption C.2.f. is not approvable. The County does not have the option of deleting the 0.1 cfs increase threshold as it is a permit requirement. Does the County understand that the 0.1 cfs increase is applied by comparing the existing site land cover to the proposed land cover?

As directed by the Board of County Commissioner's, this language will not be revised..

The County does understand the land cover comparison requirements for this threshold. And, the County will confirm the accuracy of the 0.1 cfs after the WWHM model is recalibrated for our soil types. The exemption is intended to promote infill and redevelopment projects which the County believes will be a net benefit to the natural resources of the County in the long term.

5. Section 010.D. Definitions

The definition for low impact development (LID) is not the same as given in the LID Technical Guidance Manual for Puget Sound. Given the recent Pollution Control Hearings Board decision concerning incorporation of LID into the NPDES permit, please consider using the same definition. It may help avoid conflicts and confusion with the future permit modification.

The definition will be revised to match the definition in the LID Technical Guidance Manual for Puget Sound

Revised Language

~~*“Low impact development” means an approach to stormwater management that emphasizes the use of on-site natural and built features to reduce the impacts of increased flow rates and volumes associated with increases in impervious area.*~~

“Low impact development” is a stormwater management strategy that emphasizes conservation and use of existing natural site features integrated with distributed, small-scale stormwater controls to more closely mimic natural hydrologic patterns in residential, commercial, and industrial settings.

6. Section 010.D. Definitions

The inclusion of the phrase “within the same threshold discharge area” in the definition of replaced impervious surface is not consistent with the text of Appendix 1 of your permit. Please delete the phrase.

This phrase will be deleted.

Revised Language

“Replaced impervious surface” means:

for structures, the removal and replacement of any exterior impervious surfaces or foundation; or
for other impervious surfaces, the removal down to bare soil or base course plus the and replacement within the same threshold discharge area.

7. Section 020.A.5.a.

The reference to Section 40.380.030 is not appropriate. Sub-section 030 is not M.R. #2. **Section 40.380.030 provides additional requirements specific to Clark County.**

Revised Language

All new development and re-development shall comply with the following:
a. Minimum Requirement #2 and ~~(Section 40.380.030).~~

8. Section 020.A.7.

Not all infiltration facilities are UIC wells. Those that are not, must use the SMMWW for design, or an equivalent design method. Also, note that subsection A.7 conflicts the statements in C.3.a. **This statement will be deleted.**

Revised Language

~~Design of infiltration BMPs shall be in accordance with the Washington Department of Ecology Guidance for UIC Wells that Manage Stormwater-~~

9. Section 020.A.10.c.

Section 7 of Appendix 1 of your NPDES permit lists conditions that must be met for a basin plan to serve as a means for modifying the minimum requirements. Those should be added to this section. **The conditions in Appendix I of the NPDES permit will be added to this section.**

Revised Language

- c. To be valid, a ~~basin plans~~ must:
- (1) be stamped, signed and dated by a registered professional engineer licensed in the State of Washington;
 - (2) be adopted by the board;
 - (3) meet the requirements of RCW 36.94 and the SMMWW;
 - ~~(4) be incorporated by reference into this section.~~
 - (4) be formally adopted by all jurisdictions with responsibilities under the plan; and
 - (5) be approved by the Department of Ecology; and
- In addition, all ordinances or regulations called for by the plan must be in effect.
- d. ~~Where conflicts occur,~~ The policies and standards in an adopted basin plan shall supersede the requirements of this chapter.

10. Section 020.B.5

The correct Volume V reference for treatment design is Chapter 4, not Chapter 2. **This correction will be made.**

Revised Language

Hydrologic analysis for runoff treatment design shall be in accordance with Volume III and Volume V, Chapter 2 4 of the SMMWW, with the following exceptions

11. Section 020.B.6

Swales cannot be placed within detention facilities. Because detention facilities are sized using continuous runoff modeling, it is neither appropriate nor applicable to estimate the stage elevation within the basin during the water quality design storm event. This section must be deleted.

This language will be revised or eliminated.

Revised Language

~~*6.—Swales shall have a free discharge. When placed within a detention basin, calculations shall be provided that demonstrate that the peak stage during the water quality design storm is lower than the minimum swale elevation.*~~

12. Section 020.C.2.a.2

The application of this provision, as allowed in Appendix 1 of the NPDES permit, can only be implemented through the County's submission of a proposal to the Dept. of Ecology. This provision is not intended for project applicants. If Ecology approves of any areas that meet this provision, those areas could be directly referenced in the ordinance, or can be referenced in the County's manual. Based upon interpretation of satellite images that estimate impervious cover for basins in Clark County, there are no areas that meet this provision.

No areas within unincorporated Clark County meet the 40% criteria. The language will be deleted.

Revised Language

~~*(2) The drainage area of the immediate stream and all subsequent downstream basins has had at least forty percent (40%) total impervious surface since 1985. In this case, the pre-developed condition to be matched shall be the existing land cover condition; or*~~

Section 020.C.2.a.3. For sites where the drainage area of the immediate stream and all subsequent downstream basins has had less than 40% forested cover since 1955, the County proposes that the pre-development land cover condition to be matched shall be the land cover generating the least amount of stormwater runoff since 1955. The proposal does not comply with the requirement in the permit. In addition, the proposal does not have a science-basis or basis in water quality statute. It is based strictly on the county's contention that the majority of land in the developing areas of the County was cleared over 100 years ago. Use of land cover that existed on a specific date as the basis for a flow control target is not defensible unless analyses of basin flows and stream geomorphology indicate it will produce a flow regime compatible with sustaining and restoring beneficial uses.

As directed by the Board of County Commissioner's, this language will not be revised..

13. Section 020.C.3.b

This section conflicts with the text of the County's proposed stormwater manual. This section indicates that the designer may use either the simplified or detailed approach for infiltration facilities. Those approaches allow use of 3 ways to determine infiltration rates. Chapter 5 of the proposed manual restricts the determination of the infiltration rate to field test methods. I would suggest that this section either indicate that the soil textural classification and ASTM gradation methods are not acceptable, or that in situ field tests are the only accepted method for determining infiltration rates.

This section will be revised as follows:

Revised Language

The design shall follow the methodology in either the simplified or detailed approaches in Volume III, Section 3 of the SMMWW, except that infiltration testing shall only be conducted using the methods described in the Stormwater Manual.

14. Section 020.C.3.i

The last section should be changed to require a comparison of the actual initial infiltration rate to the infiltration rate assumed for design prior to the application of correction factors. The "design infiltration rate" is the rate arrived at after the application of correction factors. The county should not accept a site shows actual infiltration is already at 95% of design.

This section will be revised to better match the CCSWM and take into account Ecology's comment.

Revised Language

Before acceptance of any infiltration facility by the county, the completed facility must be tested and monitored to demonstrate that the facility performs as designed. ~~If the facility performance is not satisfactory, the facility will need to be modified or expanded as needed in order to make it function as designed. The facility will be determined to perform satisfactorily if the rate of infiltration is at least 95% of the design infiltration rate.~~ If the tested coefficient of permeability determined at the time of construction is at least 95% of the uncorrected coefficient of permeability used to determine the design rate, construction shall be allowed to proceed. If the tested rate does not meet this requirement, an additional testing plan shall be submitted to Clark County that follows the requirements in Chapter 2 of the SWM. This plan shall address steps to correct the problem, including additional testing and/or resizing of the facility to ensure that the system will function properly.

15. Section 020.D.1.b

The County's proposed setbacks from on-site sewage disposal drainfields are: 30 feet when the stormwater facility is downslope; 10 feet when the facility is upslope. While the SMMWW does not require use of specific setbacks for engineered treatment or flow control facilities, it generally recommends that unlined ponds and infiltration systems are located 100 feet from drainfields. In regard to downspout infiltration, downspout dispersion, and sheet flow dispersion, the criteria indicate that the dispersion or infiltration areas must be downgradient of the drainfield. The County

will have to supply a justification for why it expects location of these facilities within 10 feet upgradient of a drainfield area to not compromise either the functioning of the stormwater facility or the drainfield.

This section will be revised and include language to allow for geotechnical investigation to determine a setback specific to the site conditions.

Revised Language

Stormwater facilities, other than closed conveyance systems, shall be located in relation to existing and proposed on-site sewage system drainfields as follows:

(1) at least thirty (30) feet when downslope from the drainfield system.

(2) at least ten (10) feet when upslope from the drainfield system.

(3) at least one-hundred (100) feet for infiltration or dispersions systems. This distance can be reduced upon submittal of a report that provides evidence that neither system will be compromised by a closer proximity. All applicable state and federal regulations must still be followed.

16. Section 040.E.3.a

The County must submit Sections 40.510.010, 020, and 030 for Ecology review. A variance allowing the use of an LID BMP, a treatment facility, or a flow control facility not currently included in the stormwater manual should have to meet the requirements in Section 5, Appendix 1 of your NPDES permit. A jurisdiction-wide variance (i.e., a variance allowing use of a different or altered design for treatment or flow control) must receive prior Dept. of Ecology concurrence.

Chapter 40.510.010, 020, and 030 will be submitted. The language was intended to allow for the use of future LID BMPs approved by Ecology to be allowed under the County code. It was not intended to circumvent the requirements of the NPDES permit.

Revised Language

40.380.040.E.3.a

a. Type I and Type II (Administrative) Variances.

The responsible official may grant an administrative variance to the numerical standards of this chapter using a Type I or Type II process pursuant to Sections 40.510.010 and 40.510.020 prior to permit approval and construction; provided, that the provisions of this chapter are met. These variances deal with the design and construction of facilities, are not limited to any percentage change, and typically include (but are not limited to) the following:

(1) Conveyance system analysis and design;

(2) Off-site analysis;

(3) Materials;

(4) Facility side slopes;

(5) Easements;

(6) Percent of facility made up of retaining wall;

(7) Fencing requirements; and

(8) Varying from the standard details, ~~;~~ and

(9) ~~The use of LID BMPs not currently included in the Stormwater Manual.~~

17. Section 040.E.3.b.2

This section does not fulfill the requirements for variances as outlined in Section 6, Appendix 1 of your NPDES permit. The permit requires that the applicant demonstrate a “severe and unexpected economic hardship” is imposed by a minimum requirement. The County must consider the factors listed in that section in making its determination. The County’s proposal has substituted that the applicant demonstrates that the requirement(s) would deprive the developer of all reasonable use of the property. That is not the same basis. In addition, the County is not using the listed factors as they are intended to be used in making the decision. The County lists the factors as “creative ways to meet the intent of the requirements.” That is a misrepresentation of the intent and use of the factors. They are not creative ways to meet the intent, but rather intended to provide a basis upon which to decide whether the criterion of a severe and unexpected economic hardship will be imposed by application of the requirements.

The language will be revised to delete "creative ways". The County’s criteria requires that the project proponent show that imposing the requirements would result in a loss of "all reasonable use of the property". This loss would essentially amount to a taking. There is no reason that the economic hardship should have to be "unexpected" as Ecology suggests. Legally, there is no requirement that a loss be unexpected to be a compensable taking.

Revised Language

40.380.040.E.3.b

Type III Variances.

The responsible official may grant a variance from the requirements of this chapter using a Type III process pursuant to Section 40.510.030 prior to permit approval and construction; provided, that the provisions of this chapter are met. A written finding of fact is required that addresses the following:

- (1) The variance provides for equivalent environmental protection and is in the overriding public interest; and that the objectives of safety, function, environmental protection and facility maintenance, based upon sound engineering, are fully met;*
- (2) That there are special physical circumstances or conditions affecting the property such that the strict application of these provisions would deprive the developer of all reasonable use of the property of land in question, and all feasible efforts ~~every effort to find creative ways~~ to meet the intent of the requirements has been made, including:
 - (a) the current (pre-project) use of the site;*
 - (b) how the application of the Minimum Requirements restrict the proposed use of the site compared to the restrictions that existed prior to the adoption of the Minimum Requirements;*
 - (c) the possible remaining uses of the site if the variance were not granted;**

- (d) the uses of the site that would have been allowed prior to the adoption of the Minimum Requirements;*
 - (e) a comparison of the estimated percentage of value loss as a result of the Minimum Requirements versus the estimated amount and percentage of value loss of requirements that existed prior to adoption of the Minimum Requirements; and*
 - (f) the feasibility for the owner to alter the project to comply with the Minimum Requirements.*
- (3) That the granting of the variance will not be detrimental to the public health and welfare, nor injurious to other properties in the vicinity and/or downstream, and to the quality of waters of the state; and*
- (4) The variance is the least possible variance that could be granted to comply with the intent of this section.*

Included within this section are the criteria required by the NPDES permit for making “Adjustments.” The County’s proposal does not acknowledge the possibility of adjustments as distinguished from variances. This seems to be an oversight.

Section 040.E.3.a is intended to be similar to “adjustments” which most closely matches the County’s Type 1 and Type II (administrative) variance process.

III. Clark County Stormwater Manual

I.

Please provide us a clear statement, or direct us to an existing statement in your proposal, that indicates that the minimum requirements and the BMP selection, design, and maintenance provisions are all mandatory unless an adjustment or variance is granted for a specific project. The reference in the introduction to the manual as guidance, and the use of the word “should” in the overview of Section 1.1 give the impression that they are not mandatory. Your permit requires that they be mandatory. The design reviewer must ensure their use unless the applicant applies for an adjustment or a variance.

Chapter One of the ordinance will be revised to reflect the mandatory requirements referenced.

2. Section 1.1.2 Exemptions

The exemption for oil and gas facilities and temporary access roads is not approvable. Please see the similar comment on 40.380.010.

See response in the ordinance section.

The exemption for single-family homes and duplexes would seem to result in failure to implement Minimum Requirement #5. M.R. #5 applies to individual home sites. A subdivision developer cannot comply with M.R. #5 because they are not developing each lot. This exemption should be re-written to not exempt SF homes and duplexes from M.R. #5.

See response in the ordinance section.

The listing of the Lewis River and East Fork of the Lewis River must include the same limitation as indicated in Appendix 1-E concerning the upper geographic extent of the exemption. The additions of Lake River and Vancouver Lake are acceptable.

The language for the Lewis River and East Fork Lewis River will be revised as follows:

Revised Language

Project meets the exemption requirements (described in Volume I, Section 2.5.7 of the SMMWW) for discharges to a water body listed in Appendix I-E of the SMMWW or one of the following water bodies:

Columbia River

Lake River

Lewis River, [downstream of confluence with Quartz Creek](#)

Lewis River, East Fork, [downstream of confluence with Big Tree Creek](#)

Vancouver Lake

For infill and redevelopment projects, the County proposes to eliminate the 0.1 cfs increase as a threshold at which flow control is necessary. The proposal is not approvable. This is a straightforward threshold that is an explicit permit requirement. The County may not understand that the 0.1 cfs increase is a comparison of the flow from the existing land cover to the flow from the proposed land cover.

See response in the ordinance section.

3. Section 1.1.4 Minimum Requirements

Consistent with #1 above, the word, “guidance,” in referring to BMP’s and operation and maintenance found in other volumes of the SMMWW and the County’s manual must be changed to “requirements.”

The word “guidance” will be changed to “requirements” in the stormwater manual.

4. Section 1.1.4 Minimum Requirement #2

The paragraph states that specific information on Clark County requirements re Construction SWPPP’s is provided in Chapter 2. That is not accurate. Chapter 2 only includes a reference to Volume II of the SMMWW.

This language will be reviewed and revised.

5.

The County’s reference to M.R. #2 in the SMMWW creates unaddressed issues. The County is obligated to comply with M.R. #2 as it is written in Appendix 1 of the permit. There are differences in the content and layout of M.R. #2 in the permit as compared to the text in the SMMWW. Here is a listing of some of the issues created by the reference to the manual.

- a. General Requirements

Appendix 1, Section 4.2 has requirements for Stormwater Pollution Prevention Plans that are not included in the Minimum Requirements. These requirements were brought forward from Chapter 3 of Volume II. They include:

- All SWPPP's shall have a narrative and drawings;
- All BMPs shall be clearly referenced in the narrative and marked on the drawings;
- The SWPPP narrative shall include documentation to explain and justify the pollution prevention decisions made for the project;

The County does not mention these as requirements. Because the County only references all of Volume II of the SMMWW as "guidance", it seems that it cannot enforce the above requirements.

Also, Section 4.2 of Appendix 1 requires that sediment and erosion control BMPs shall be consistent with the BMPs contained in chapters 3 and 4 of Volume II of the Stormwater Management Manual for Western Washington, and/or other equivalent BMPs contained in technical stormwater manuals approved by the Department. Again, the County only indicates that guidance for BMPs can be found in Volume II. This does not give the indication that the County can require implementation of these BMPs.

b. Element #2. Construction Access.

The statement concerning wheel wash or tire baths must be changed to the following or an equivalent statement: "Wheel wash or tire baths shall be located on site, if the stabilized construction entrance is not effective in preventing sediment from being tracked onto public roads.

c. Element #5. Stabilize Soils

The last sentence of the second bullet in the manual indicates that the local authority may adjust the time limits for soil stabilization. This text was not intended to give the plan reviewer the discretionary authority to adjust the time limits. If the County wishes to adjust the time limits, it must propose a change to the Dept. of Ecology. It would be best if this sentence was struck.

d. Element #6. Protect Slopes

Sub-element c in Appendix 1 of the permit has additional statements that do not appear in the manual. How will the County incorporate those statements?

e. Element #7. Protect Drain Inlets

The second bullet in the manual was not included in Appendix 1 of the permit because it is in direct conflict with the statement concerning handling of street wash water in Element #2. How will the county remove this statement?

f. Element #8 Stabilize Channels and Outlets

Similar to Element 6, sub-element a. includes directions concerning hydrologic analysis that do not appear in the manual. How will the County incorporate those statements?

g. Element #9 Control Pollutants

The permit indicates that the County “shall require construction site operators obtain written approval from the Department (of Ecology) prior to using chemical treatment other than CO2 or dry ice to adjust pH.” How will the County incorporate that requirement?

The information from Appendix A-1 of the permit will be reviewed and incorporated into the stormwater manual.

6. Section 1.2.3 Maintenance of Private Drainage Facilities

The reference to the 2000 Maintenance manual in the last paragraph needs updating to the proposed version of that document.

This will be revised to reflect the new language.

Revised Language

At a minimum, maintenance activities will be to the standards in the county’s Stormwater Facility Maintenance Manual (Clark County 2008~~9~~) pursuant to CCC Chapter 13.26A. Additional activities may be required.

7. Section 2.1.3 Preliminary Technical Information Report

Section Sub-section G, item 3 gives direction to the applicant to determine whether the area was greater than 40% impervious in 1985. As indicated in s on the Stormwater & Erosion Control Code, this is not a determination to be made by project applicants. The direction should be deleted.

See response in the ordinance section.