

## Review of the County's January 2009 Submittal

March 9, 2009

### Chapter 40.385 Stormwater and Erosion Control

#### 1. 010.C.1. Exemptions

Subsection b is a new provision not included in the previous draft reviewed by Ecology. It exempts "construction of agricultural buildings or other impervious surfaces for carrying out agricultural activities, ***provided no stormwater is released from the site directly or indirectly to the county's stormwater conveyance system***"(Emphasis added). It accepts Ag./Habitat Protection Plans prepared under another County code or a Farm Plan approved by the Clark Conservation District as evidence that stormwater will not discharge to streams or ditches.

Ecology does not understand how implementation of those plans ensures stormwater will not discharge. The County must provide some support for this assumption.

#### 2. 010.C.2.f.

The County has exempted infill and redevelopment projects from flow control requirements though the 0.1 cfs increase threshold is exceeded. Ecology informed the County that this exemption is not acceptable in its original comments. The County refused to change the exemption.

#### 3. 020.A. General Standards – Stormwater Control

The County changed Section 020, by writing separate subsections for "urban" areas, and "rural" areas. The first issue with this distinction is that the County does not define the terms "urban" or "rural" in this code.

a) Subsection A.5.b exempts projects in "rural" areas from Minimum Requirements 6 – 10 if the project adds or replaces impervious area of less than 5% of a site, AND if the impervious area:

1. Is set back 200 feet from a water of the state and critical areas;
2. Does not generate runoff in channelized flow or discharge directly or indirectly to the county's MS4; and
3. Is not located in and does not discharge onto steep slopes or mapped geohazard areas

5 acre site would exempt 11,000 sq. ft. of impervious area; a 10 acre site, exempts impervious areas under 22,000 sq. ft., etc.

Because of the inclusion of #2 immediately above as a condition, Ecology cannot object to this provision, but can express concern about the county's ability to ensure exempted projects do not discharge to the MS4.

ISSUE: The sentence construction of subsection A.5.b makes it unclear whether projects that do not meet the above criteria (#1 - #3 above) must meet Minimum Requirements #1 - #10. Does the County intend the "or else M.R. #1 - #10 apply" clause to modify all of 5.b, or just #3 above? The sentence construction also makes it unclear whether the 5% threshold applies separately to new impervious areas and replaced impervious areas, or whether the 5% threshold applies to the total of new plus replaced impervious surface on a project site. We will have to get an interpretation.

- b) Subsection 6b seems unnecessary in regard to rural areas depending upon how subsection 5c is interpreted. If in 5c, you compare the total of new and replaced impervious surfaces on a project against the 5% threshold, then all projects above 5% apply M.R. #1 - #10 to the new and replaced impervious surfaces. In that case, 6b applies the minimum requirements to fewer sites.
  
- c) Subsection 6b contains an error in the valuation process. The NPDES permit requires that the value of the proposed improvements be compared to the value of the existing site improvements, not the entire site valuation. That means that the value of the real estate is not included in the comparison. This error was also in the draft reviewed last summer, but was not caught by Ecology. Figure 2-2 in the County manual has a correct presentation.
  
- d) Section A.9.b.(3) was changed to require that a regional facility must have sufficient capacity to provide the treatment and quantity control .... **at the time of connection (emphasis added)**. The addition of the prepositional phrase raises the question of how the County intends to interpret this requirement. A regional facility should not be allowed to meet a project's stormwater requirements, regardless of available capacity at the time of connection, if the available capacity was intended and is committed to serve other areas not yet developed.
  
- e) Section A.10. Wetland Protection

This is a newly proposed section not seen previously by Ecology. In this section, the County would use the hydrologic guidance in the Ecology manual only after it determines, based on

a preliminary stormwater plan or information submitted for wetland review per a wetlands ordinance, that the project will degrade wetland function. The County has not submitted any information explaining what it will use in the stormwater plan or the wetland review to make the initial determination that a wetland will be degraded. The Ecology requirement is that once the project has exceeded certain size thresholds, the County must require the hydroperiod to be maintained.

#### 4. Section 020.C. Quantity Control

The previous submission indicated that the County would require the pre-developed land cover condition to assume for flow control would be that condition generating the least amount of stormwater runoff since 1955. Ecology commented that the proposal would not comply with the NPDES permit requirements. Subsequently, the County has changed its position to designate the pre-developed land condition as the land cover condition existing at the time of permit application.

The County's proposal is not acceptable. To be acceptable, the County would have to also commit to a program for constructing flow control facilities to reduce the impacts of the existing development and previous land clearing within the County's jurisdiction. The proposal would have to demonstrate that it provides flow improvement benefits on an equivalent or faster rate than using the historic land cover condition as the flow control target for new development and redevelopment projects.

#### 5. Section 40.450.040 Wetland Permits

a) The submittal includes a new proposal in regard to changing wetland buffer requirements depending upon the manner in which adjacent development handles its stormwater. Wetland buffer quality is not an NPDES permit issue. The acceptability of what the County is proposing is likely a Shoreline Management Act compliance issue.

b) A proposed new subsection in this ordinance allows stormwater dispersion facilities within the wetland buffer. The NPDES permit, Appendix A states:

“Stormwater treatment and flow control facilities shall not be built within a natural vegetated buffer, except for:

Necessary conveyance systems as approved by the Permittee; or

As allowed in wetlands approved for hydrologic modification and/or treatment in accordance with Guidesheet 1B in Appendix I-D of the Stormwater management Manual for Western Washington.”

The County proposal is to allow stormwater dispersion facilities within the buffer. Dispersion facilities can range from splashblocks and small rock pads to rock-filled trenches with level overflows, depending upon the amount of flow to be dispersed. Because the purpose of dispersion is to meet treatment and flow control requirements (in whole or part), these are in fact treatment and flow control facilities that are prohibited by the permit with the exceptions noted above.

Dispersion achieved through BMP’s T5.10, T5.11, and T5.12 does not meet treatment or flow control requirements, and the BMP’s do not mandate native vegetation use. If the County’s proposal was restricted to allowing use of wetland buffers for meeting the “full dispersion” option (which requires use of native vegetation), that would be acceptable from a treatment and flow control standpoint, but may still run afoul of SMA requirements. We will need to have the SEA Program look at this ordinance change.

## **Clark County Stormwater Manual**

### **1. Section 3.3. Final Technical Information Report**

Subsection E describes submittal requirements for documenting the use of On-site Stormwater Management BMP’s. The text does not have any submittal requirements in regard to implementation of BMP T5.13 – Soil Quality and Depth. That BMP is required for all sites that exceed the thresholds triggering minimum requirements 1 – 5. The County’s response to Ecology’s first round of comments indicated that it would revise the text to at least reference the BMP. It did not promise to incorporate Ecology’s suggestion to directly reference and require submittal of a “Soil Management Plan,” which is provided at the Soils for Salmon website. Ecology renews its suggestion for the County to require project proponents to use the very complete and useful guidance document at that website, and for the County to use the documents and procedures for satisfying its NPDES permit responsibilities to review design submittals and inspect project sites for meeting the soil quality and depth requirement. In any case, the County must provide some revision of this section to have the TIR include a description of how BMP T5.13 will be accomplished on the project site. Lacking that, the County cannot ensure that it is requiring implementation of BMP T5.13.

### **2. Calibration of WWHM to Clark County**

Ecology also reminds the County that it must submit its calibration report, along with a copy of the revised model, concerning adapting the WWHM to the County's rainfall/runoff conditions for different soil types. This should be done in advance of making the adjustments available to the public.

3. Section 4.2 LID Design Guidelines

The County added the third bullet from the top of page 4-25 in response to comment #26c from Ecology. Unfortunately, the County's understanding of the comment is exactly the opposite of what the comment meant. A correct statement would begin as follows:

For soils with an infiltration rate less than 4 inches per hour, .....

**Recommendations and Comments; County Response Not Required**

1. Section 040 E.3.b.2. Type III Variances

The County did not provide a complete response to Ecology's objections. Firstly, the County's response is vague in regard to how it would determine whether a variance provides for equivalent environmental protection. If the County's judgments concerning what constituted equivalent environmental protection were similar to Ecology's, then Ecology's objections to the remaining text of this section would be moot. Unfortunately, the County's response to Ecology's second round of questions was evasive on this point despite our attempt to draw them out on this point through a specific example.

Secondly, the County misapplied the factors listed in the Permit for determining economic hardship. Instead, the County listed them as factors in determining feasibility of changing a project. In its second round of comments, Ecology pointed out this misapplication of the factors and that they do not help answer the question of feasibility of changing a project. The County offered no response.

Lastly, the County's response takes issue with the permit requirement that granting variances must be based on an unexpected economic hardship. The County argues that the standard for a variance should be loss of all reasonable use of the property. And the County implies that not granting a variance in light of such a loss would constitute a taking. Ecology does not agree. Ecology's permit language was arrived at after a review of court decisions and pertinent statutes in regard to "takings" and other pertinent issues.

Ecology will allow the County to proceed with its variance provision. The permit requires the County to keep records, including the written findings of fact, of all local variances to the

Minimum Requirements. Ecology has the option of reviewing these decisions for consistency with the permit requirements.

2. As stated in earlier comments, Ecology does not require a correction factor be applied to the measured infiltration rate of native soils that are under a bioretention soil mix. Ecology recommends a correction factor of not less than 4 for the bioretention soil mix

The County has added 2 optional bioretention soil mixes of 24-inch depth. Those soil specifications are taken from the King County Surface Water Drainage Manual. In the King County manual they are minimum acceptable soil specifications for infiltration basins that serve as treatment facilities. They were never intended to be used for rain gardens/bioretention facilities. The soils should function well for pollutant removal. But I do not know if the soils will support the mix of plant types that you have specified.

3. Section 4.2: LID Design Guidelines

- a) One of the limitations listed under the section entitled Dispersion into Pasture and Cropland is the following:

The total site area shall consist of at least 75% cropland, and no more than 15 percent of the site draining to the dispersion area shall be impervious surfaces. Please clarify which of these interpretations is correct.

For a 100 acre site, the dispersion area must be at least 75 acres, and the area draining to the dispersion area cannot have more than 15 acres of impervious surface. (15 acres is 15% of the entire site)

For a 100 acre site, the dispersion area must be at least 75 acres, and the area draining to the dispersion area cannot have more than 3.75 acres of impervious surface. (3.75 is 15% of the maximum remaining 25 acres not in cropland).

- b) The County specifically states that dispersion areas do not have to be put in a separate tract or recorded easement. Ecology had recommended in comment #26a that the county require some type of legal tracking of the area used for dispersion. This would be to let the property owners know that the area has to continue to meet certain limitations. Instead, the County explicitly states that such dispersion areas do not have to be placed in a separate tract or recorded easement. This is unfortunate. The County will have less ability to require proper long-term management of stormwater.

4. Stormwater Facility Maintenance Manual:

The Introduction to this manual should be updated to replace references to Chapter 40.380 with Chapter 40.385.

5. General Comment:

The County refers the user to the 2005 Stormwater Management Manual for Western Washington in a number of locations for various reasons. The County may want to add a statement that allows designers to use addenda and amendments to the 2005 manual. Those are published at the Dept of Ecology website.