



Snohomish County
Planning and Development Services

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February 13, 2008

Rachel McCrea
Department of Ecology NW Regional Office
3190 – 160th Avenue SE
Bellevue, WA 98008-5452

Dear Ms. McCrea:

Enclosed please find Snohomish County's documents drafted to comply with the County's Phase 1 Municipal Stormwater permit issued by the Washington Department of Ecology (DOE) February 16, 2007, for your compliance review.

In accordance with the Phase 1 permit, these documents were drafted to comply with stormwater protection regulatory requirements in *Appendix 1 Minimum Technical Requirements for New Development and Redevelopment* (Appendix 1).

This submittal includes the following draft documents along with supporting documents:

- Chapter 7.53 Water Pollution Control
- Chapters 30.63A Drainage
- Chapter 30.63B Land Disturbing Activity (previously Snohomish County Code (SCC) 30.63B Grading)
- Chapter 30.85 Code Enforcement
- Snohomish County Drainage Manual addendum, adapting the 2005 Department of Ecology Stormwater Drainage Manual for Western Washington (DOE Manual), for use in Snohomish County as an equivalent manual
- Engineering Design and Development Standards (EDDS) Chapter 5 Drainage
- New chapter 11 of EDDS containing low impact development best management practices

The County has incorporated the vast majority of the items outlined in *Appendix 1 – Minimum Technical Requirements for New Development and Redevelopment* into the draft documents language. However, several proposals deviate from the Appendix 1 standards and are more or less restrictive than Appendix 1 when necessary.

In some of the major topic areas, like preparation or stormwater pollution prevention plans (SWPPPs) and the thresholds for requiring a SWPPP, the County has already been implementing a standard that is more stringent than the DOE standard. DOE requires a 2,000 square foot

threshold. The County currently has a SWPPP threshold set at 200 square feet, which is consistent with the requirement for a building permit. This more restrictive requirement was negotiated in a legal settlement agreement with the Puget Soundkeepers Alliance in mid 2006. The draft drainage ordinance proposes a 200 square foot development or redevelopment SWPPP threshold for this requirement in urban growth areas and 400 square feet outside of an urban growth area. These thresholds are consistent with recent changes made to building permit requirements in the construction codes, for consistency with other jurisdictions in Snohomish County.

Another change for the engineering design community is the need to use a continuous runoff model pursuant to the 2005 Department of Ecology Stormwater Management Manual for Western Washington (Manual) required by Appendix 1. Engineers have been transitioning to the use of continuous runoff stormwater models when designing Low Impact Development projects in the County. This requirement is brought forward in the Appendix 1 in light of the issues surrounding climactic change and back-to-back storm events.

In addition, currently the County is more restrictive in requiring more stormwater storage than Appendix 1 in areas where closed depressions are holding dead storage greater than the continuous runoff models predict for reasons described further in this letter.

The County has several outstanding issues with the regulations in the Manual and Appendix 1 that are unique to Snohomish County. The attached regulatory documents and the Addendum to the Drainage Manual deviate as needed from the DOE standards and guidelines. In addition to the ordinance findings, the County offers the following evidence and attached documentation to support our request that “an equivalency” determination be made by DOE on the following issues:

Infiltration

The DOE guideline of a five-foot vertical separation from the bottom of an infiltration trench to a high-water table or till/impermeable layer is not feasible or possible in the majority of Snohomish County. These may be in areas of aquifer discharge, seeps, springs, near hillside bluffs or in certain soils like the Marysville Custer unit that has a capillary wicking of water to near the surface in winter and spring months depending on the overall precipitation and recharge from the Getchell Plateau or Tulalip Aquifer.

The County’s Draft Addendum to the DOE Manual and the draft drainage ordinance (SCC 30.63A.730), propose a three-foot vertical-separation guideline. To support the County’s technical position in this matter, the following five (5) supporting documents are attached to this letter:

- (1) *2005 Puget Sound Action Team (PSAT) Technical Guidance Manual* encourages “infiltration” and previously supported by DOE one foot vertical separation allowed for roof areas <5,000 square foot and three foot vertical separation allowed for pollution generating surfaces after treatment is then allowed to be infiltrated.

(2) USGS Water Resources Investigation Report 96-4312 entitled *The Ground-Water System and Ground-Water Quality in Western Snohomish County*. This report outlines the exceptional water quality of the groundwater in most of the County where the County has always used the thresholds identified in (1) above with no evidence of near surface or deeper pollution caused by new development or redevelopment.

(3) *Draft Report on Cross Valley Sole Source Aquifer Wellhead Projection Plan*, by Golder Associates, prepared for the Cross Valley Water District together with a Draft Technical Memorandum dated October 4, 2007, entitled “Baseline Hydrogeologic Information, Land Use Information and Water Quality Analysis,” also by Golder Associates. Again, there is no trend of an impaired groundwater quality situation from the infiltration in this sole source aquifer or the Little Bear Creek Basin.

(4) *Critical Aquifer Recharge Area (CARA)* map – the map shows certain areas that the County encourages natural recharge via infiltration to augment and maintain summer low flows in streams, creeks and rivers in the County. The Critical Areas Ordinances require infiltration into the hyperheic zones next to the riparian buffers and, where possible, next to stream riparian systems. These maps are being provided to DOE to note that the shallow aquifer or highly sensitive aquifer will still be protected by the draft ordinance language consistent with Appendix 1 and the DOE Manual.

(5) *Getchell Plateau Groundwater Investigation*, dated March 2006 – Study by the County’s Surface Water Management (DPW/SWM) and their groundwater staff, led by Jeff Kirtland L.H.G. DPW/SWM outlined the water quality in the north county from the well log data and depths to potable ground water supply in the vicinity of the Newberg sole source aquifer. At page 6-14, section 6.4.3, the report clearly describes that there is no noted groundwater contamination from surface water sources from stormwater infiltration systems in the study area.

In applying these standards, the regulations require experts in their respective fields to “prove their case/show their work” as to how infiltration will meet the drainage code requirements either to the Hearing Examiner or to the County engineering and biological review staff. The PDS Director may impose more stringent standards when it is deemed necessary to do so to protect the public.

Utilities

The County’s existing administrative process for regulating utilities under the drainage and grading regulations has been working well for Type D7 and D8 permits (see findings in the drainage ordinance). The utilities are required to follow or use the appropriate abbreviated list of best management practices (BMPs) for ongoing maintenance, blanket permit and minor utility installations. Planning & Development Services (PDS) staff keeps copies of each utility’s annual BMPs and construction program on file with the right of way inspection/utility staff within PDS. Under the new draft regulations (SCC 30.63A.200(3) and 30.63B.020), utilities would be responsible for managing their projects and having a Certified Erosion and Sediment Control Lead (CESCL) available if questions arise regarding stormwater erosion control. Construction of major new utilities would be required to meet the full drainage plan requirement.

Closed Depressions

These features of the topography are not satisfactorily covered in the Western Washington Hydraulic Model (WWHM), a continuous runoff model. The model is not specifically integrated into a GIS or AUTOCAD format to assess stage storage configurations for irregular-shaped surfaces or depressions.

The proposed draft (SCC 30.63A.760(3)(b)) would allow an engineer to continue to use the Santa Barbara Urban Hydrograph (SBUH) analysis if a site has a closed depression that drains or infiltrates into the ground within the design storm timeframe. After performing calculations, the stormwater design engineer arrives at the acre/ft or cubic feet of storage that the developed site is required to store and then they are to apply the correction factors cited in the code, which essentially makes it HSPF compliant. (See attached supporting white paper by NW Hydraulics/RWBeck.) However, the County also requires the engineer/developer to add the dead storage volume of the closed depression if it does not drain/infiltrate to arrive at a total volume being detained. This is consistent with the County's historical past practice for the last 25 years. Historically, in earlier versions of the King and Snohomish Drainage Manuals that first issued in 1979 and 1980, this dead storage volume was referred to as "Pothole Storage" to be added to the detention volumes if it was proposed to fill in the existing volume of dead storage during earthwork or grading operations.

Agriculture – Right to Farm

Finally, the citizens of Snohomish County have expressed their position via the initiative process on the issue of "Right to Farm" in Snohomish County Code 30.32B.230.

Normal agricultural activities shall not be regulated like development activities by the grading or drainage code on property where commercial agriculture is a lawful use, except when the activities include development requiring another permit.

The County's position has been clear on this issue. I have supported the agriculture community in their right to farm and work the land as so many of their families have done for years. We encourage sustainable farming practices development of bio fuel and other food crops that broaden the County's ability to maintain a diverse and thriving agricultural community.

To this effort, the draft proposal provides allowances for the right to farm in the exemption provisions (SCC 30.63A.200 and 30.63B.020). Most agricultural roads are farm roads that do not drain to the MS4 of the County and are located in Ag10 zoned property. The County has worked with DOE and the Federal Emergency Management Agency (FEMA) to exempt *de minimus* agricultural activities from permit requirements (see attached letters from DOE and FEMA). During the development of the Critical Areas ordinances, the County worked with this community to reach consensus on some of the tough issues, similar to Timber, Fish and Wildlife (TFW) legislation, and it is also similar to the recent critical area legislation in Olympia to stay new regulations that may impact farmers further with new regulations while they are struggling to keep their current farms in production and profitable.

It is in the County's interest to preserve and protect prime agricultural land where possible. The Snohomish County Comprehensive Plan is structured in a fashion to do this by allowing the agricultural activities to continue in the flood plain valleys as they have for the past century. For years, this land in our river valleys has served as a temporary holding area for the major floodwaters during heavy precipitation, snowmelt and runoff events. These agriculture areas are also, in most instances, adjacent to areas where direct runoff and discharge to the Stillaguamish, Snohomish, Snoqualmie and Skykomish Rivers is allowed by DOE via the 5th Order Strahler Streams and above assessment.

A few other housekeeping items are worth mentioning. Within the existing drainage code, what DOE refers to as an adjustment, the County calls a modification; similarly, what DOE calls a variance, the County would continue to call waivers. A variance means something totally different in the Unified Development Code. The draft proposals retain the County's existing terms.

There are still a few code sections that do not appear to be a critical factor in the DOE review process that staff are continuing to address in the drafts. These include:

- the land disturbing activity permit expiration dates;
- new fee structure for the clearing permit process/targeted and full drainage reviews and inspections; and
- clarification in code of vesting for projects/development applications subject to these regulations.

The term "Land Disturbing Activity" includes clearing, grading, excavating or filling, which heretofore has been regulated via County State Environmental Policy Act review and the Department of Natural Resources Forest Practices permitting and a County grading permit process. It was decided early on that the citizens of the County did not need another new permit to acquire, so the land disturbing activity permitting requirements are incorporated in the proposed chapter 30.63B SCC relating to land disturbing activity.

We would like to thank DOE staff for their earlier assistance in working with Snohomish County staff to clarify technical questions on the Appendix 1 requirements. I trust that you will fully consider our entire package during the compliance review. We look forward to continued dialog with DOE on this important regulatory process.

Our efforts will always be to build community through sustainable growth, while preserving our agricultural, fishing, forestry, manufacturing and mining legacy and heritage within Snohomish County.

Sincerely,

Aaron Reardon
Snohomish County Executive

cc: Craig Ladiser, PDS
Dave Brookings, DPW
Steve Thomsen, DPW
County Council
Linda Kuller, PDS
Randy Sleight, PDS
Bill Leif, DPW
Arthur Lee, DPW
Bob McEwen, DPW

Attachments:

1. Draft Ordinance Relating to Chapter 7.53 Water Pollution Control
2. Draft Ordinance Relating to Chapters 30.63A Drainage
3. Draft Ordinance Relating to Chapter 30.63B Land Disturbing Activity (previously Snohomish County Code (SCC) 30.63B Grading)
4. Draft Ordinance Relating to Chapter 30.85 Code Enforcement
5. Draft Snohomish County Drainage Manual addendum, adapting the 2005 Department of Ecology Stormwater Drainage Manual for Western Washington (DOE Manual), for use in Snohomish County as an equivalent manual
6. Draft Engineering Design and Development Standards (EDDS) Chapter 5 Drainage
7. Draft new chapter 11 of EDDS containing low impact development best management practices
8. *Low Impact Development: Technical Guidance Manual for Puget Sound*, by Puget Sound Action Team and WSU Pierce County Extension, dated January 2005 (Revised May 2005)
9. *The Ground-Water System and Ground-Water Quality in Western Snohomish County, Washington*, by US Geological Survey and Snohomish County, Snohomish County PUD No. 1, and Washington State Department of Ecology, dated 1997
10. *Draft Technical Memorandum: Baseline Hydrogeologic Information, Land Use Information and Water Quality Analyses*, by Golder Associates, dated October 4, 2007; and *Draft Report on Cross Valley Sole Source Aquifer Wellhead Protection Plan*, by Golder Associates, dated December 3, 2007
11. Snohomish County *Aquifer Recharge/Wellhead Protection* map, dated October 1, 2007
12. *Getchell Plateau Groundwater Investigation*, by Snohomish County DPW/SWM, dated March 2006
13. *Detention Pond Sizing Issue Paper*, by Northwest Hydraulic Consultants, dated October 1997
14. Letter to Charles L. Steele (DOE Floodplain Management Specialist) from Thomas Rowe, (PDS Division Manager), dated October 20, 2004
15. Letter to Thomas Rowe (PDS Division Manager) from Charles L. Steele (DOE Floodplain Management Specialist), dated October 27, 2004
16. Letter to Ryan Ike (US Dept. of Homeland Security) from Thomas Rowe (PDS Division Manager), dated October 20, 2004
17. Letter to Thomas Rowe (PDS Division Manager) from Ryan Ike (US Dept. of Homeland Security), dated October 26, 2004