



Loudoun County, Virginia

Department of Building and Development

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Technical and Procedural Newsletter

May 15, 2015

To: Members of the Land Development and Home Building Community

From: Michael Seigfried, Director 

The purpose of this correspondence is to inform the Land Development and Home Building Community of technical and procedural updates that have recently transpired. Please distribute this information to applicable personnel within your organization.

IN THIS EDITION:

The second in a series of newsletters providing updated information on the County process and procedures for Land Development Application (LDA) Projects and certain non-LDA projects in response to Virginia Stormwater Management Program (VSMP) mandates.

APPLICABLE STANDARDS:

Loudoun County SWM Ordinance (Chapter 1096) and Loudoun County Facilities Standards Manual (FSM) Chapters 1 and 5.

DISCUSSION:

County staff continues to receive information and guidance from the Virginia Department of Environmental Quality (DEQ) on various VSMP permitting requirements, technical issues, and on the overall responsibilities of our local VSMP. The following items address those issues and documents that seem to be causing the most confusion for DEQ, the County, and the development community at this time. The concluding VSMP guidance includes some recommendations to improve SWM plan submissions when meeting the new technical criteria detailed in FSM 5.230 (Part II.B of the Virginia Stormwater Management Regulations).

In the final section of this newsletter, we include new information which is not related to new VSMP requirements but rather to specific hydraulic criteria in Chapter 5. Based upon discussions with the engineering community and research by B&D staff, we present alternate guidance for dealing with allowable pipe flow velocities as defined in FSM 5.220.B.7.

Project Grandfathering – “10-year Storm” I.C Criteria: A majority of the development applications received since July 1, 2014 have been grandfathered to the I.C Technical Criteria and are not subject to the new “runoff reduction” methodology or the new BMP Clearinghouse designs. However, there is a facet of the “old” I.C criteria that some grandfathered plans may

not have addressed.

If an application meets the water quantity and quality technical criteria in the previous version of Chapter 5 of the FSM (adopted 12/4/07) and incorporates the adequate channel requirements found in the Department of Building and Development's December 28, 2011 Technical Newsletter, the majority of the II.C technical criteria will be satisfied. There was, however, one inconspicuous requirement that became part of II.C via some older State permit language, which may not have been addressed on grandfathered plans. Per that requirement, **all grandfathered project designs are required to maintain the 10-year pre-development runoff rate at all stormwater outfalls**. This requirement does not allow for analysis of the receiving channel to verify that the 10-year capacity is maintained and thus would mandate the installation of stormwater detention at outfalls where it was not previously deemed necessary. Based upon timing effects within the contributing watershed, mandatory detention could work against the intent of the requirement and actually cause flooding problems where none existed.

Recently, staff met with DEQ on this issue. DEQ indicated that we could allow our applicants to choose to address flooding with the "new" flooding criteria found in the II.B criteria.

For these reasons, we will immediately begin allowing the "new" criteria included in FSM 5.230.A.3 "Flood Protection" to be utilized in lieu of the flooding criteria found in II.C. In essence, this section of the FSM allows for the hydraulic analysis of the receiving channel using the 10-year storm and requires design improvements only if they are necessary to prevent localized flooding. These criteria provide for more effective and practical flood control.

VSMP Permit Modifications & Terminations:

Please note: All Permit Modifications & Terminations are now to be submitted to the County (2nd Floor B&D Land Development Counter) vs. the State (DEQ)

- 1. VSMP Permit Modifications:** In its role as a VSMP Authority, the County is now responsible for processing all permit modifications. This action is required from the permittee primarily when there are changes in the total disturbed area proposed on a development project (versus the amount that was originally permitted*¹). Permit modifications are also necessary when there are significant changes in drainage area boundaries and ground cover (e.g., impervious areas, manicured lawns, etc.) that would affect the layout and/or design of stormwater management BMPs. These modifications typically trigger additional plan review by staff to verify that the original SWM treatment strategy remains adequate.

What is required from the applicant?

- A. Marked-up Registration Statement denoting changes (write "REVISED" at top of form).
- B. Copy of original Registration Statement.
- C. Brief, written explanation of modification (can be e-mailed to VSMP staff).
- D. VSMP Permit Modification Fee, if applicable.
- E. VSMP Permit Fee *Difference* (only if modification involves an increase in disturbed area which would change the disturbed area category); the difference in the fee for the

2 categories must be remitted.

County staff will alert both the applicant and DEQ when the permit modification is approved.

**¹This and related values are found on the original registration statement.*

2. **VSMP Permit Terminations (applicant initiated):** The County also inherited the processing of permit terminations. This action is typically initiated by the applicant **when final stabilization has been obtained on the permitted site and all BMP's which are included in the SWM plan/SWPPP have been installed and are functioning properly.**

What is required from the applicant before Permit Termination can be accepted?

- A. Obtain release of Erosion Control Bond for permitted area.
- B. A County Inspection*² of all BMPs installed as part of SWPPP to verify proper function.
- C. "As-built" drawings to verify BMP function may be required.
- D. Completed "Notice of Termination" Form (available on County VSMP website www.loudoun.gov/loudounvsmp).

County staff will alert both the applicant and DEQ within 60 days of the receipt of the Notice of Termination as to its acceptance.

**²Inspection may be separate from performance bond inspections and Notice of Termination acceptance is independent of performance bond release.*

Termination requests may also be submitted for the following less common scenarios:

- When another operator has assumed control over all areas of the site that have not been finally stabilized and obtained coverage for the ongoing discharge;
- When coverage under an alternative VPDES or state permit has been obtained; or
- For residential construction only, when temporary soil stabilization has been completed and the residence has been transferred to the homeowner.

VSMP Requirements for Linear Utility Installation

Staff recently received information on State and local program regulation of the installation of linear utilities such as electric and telephone lines, oil and gas distribution pipelines, and water and sewer lines, etc. The highlights of this information as it applies to the County-regulated projects are:

- Erosion & Sediment Control (E&S) Plans will be required for the activity if the utility project will disturb 5,000 square feet or more.
- Linear projects must address post-development SWM. However, a typical SWM Plan which includes permanent water quality BMPs will not be required if determined by the

VSMP Administrator that **the project will not result in significant changes in the pre-development runoff conditions of the “land surface” following construction and final stabilization.**

- **As an Example:** If there is a change from forest to grass or other natural ground cover as a result of the utility installation, the applicant can demonstrate compliance through providing stabilization measures on the E&S Plan and a plan note/narrative that indicates re-vegetated areas will not be mowed more than 4 times per year.
- For further information, visit the DEQ website:
<http://www.deq.virginia.gov/Programs/Water/Laws,Regulations,Guidance/Guidance/WaterPermitGuidance.aspx>

Recommendations for SWM Plan Submissions

1. **Don't Modify Runoff Reduction Spreadsheet** – Include all parts of the spreadsheet created by DEQ on the plans. Truncating the spreadsheet may leave out items that require review.
2. **Submit a Digital Copy of the Spreadsheet** – This allows the reviewer to see if differing assumptions make any meaningful difference in the results/conclusions. Digital copy may be e-mailed to staff.
3. **Use Site-specific Designs of SWM BMPs** – Label all dimensions and call out specific features that may differentiate the treatment level provided (e.g., Level I or Level II). Don't simply provide the “typical” drawing from the BMP Clearinghouse.
4. **Provide Back-Up Calculations for BMP Designs** – Certain BMP designs require specific surface areas, volumes, engineered soil mixes, vegetative planting ratios, etc., in order to provide the required level of treatment. Provide these calculations in the plans.
5. **Analyze Manmade Channel to the Natural Receiving Channel** – If the point of stormwater discharge from a site is a manmade channel (e.g., storm sewer, roadside ditch, etc.), Channel Protection criteria may be addressed by simply proving the 2-year storm does not cause erosion. However, if the manmade system directs flow into a natural channel prior to the drainage area threshold being met (via 1% rule for drainage area or flowrate), the “energy balance” analysis must be performed at that point. Under this scenario, designers will typically perform the energy balance at the point of discharge to the manmade system.

County VSMP Website: Please go to www.loudoun.gov/loudounvsmp to find templates for the documents referenced in this newsletter.

If you have additional questions regarding other program elements, such as specific project vesting or grandfathering, or the new Technical Criteria for water quality and quantity control, please call Jimmy Edmonds, B&D VSMP Administrator, at (703) 737-8052.