

DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES

STAFF REPORT

- PROPOSED COUNTY CODE AMENDMENT
- PROPOSED PFM AMENDMENT
- APPEAL OF DECISION
- WAIVER REQUEST

Proposed Amendments to Chapter 6 (Storm Drainage) and Chapter 12 (Vegetation Preservation and Planting) of the Public Facilities Manual Re: Water Quality Controls, Adequate Outfall, Detention, Maintenance of Stormwater Management Facilities, and Replanting of Disturbed Areas.

Authorization to Advertise	September 10, 2013
Planning Commission Hearing	October 9, 2013
Board of Supervisors Hearing	December 3, 2013
Prepared by:	Code Development and Compliance Division JAF (703) 324-1780 September 10, 2013

STAFF REPORT

A. Issues:

Proposed amendments to Chapter 6 (Storm Drainage) and Chapter 12 (Vegetation Preservation and Planting) of the Public Facilities Manual (PFM) related to water quality controls, adequate outfall, detention, maintenance of stormwater management facilities, and replanting of disturbed areas. The proposed amendments are necessary to implement the proposed Stormwater Management Ordinance and the Virginia Stormwater Management Program (VSMP) Permit Regulations (4 VAC 50-60 et seq.).

B. Recommended Action:

Staff recommends that the Board of Supervisors (the Board) adopt the proposed amendments to Chapter 6 (Storm Drainage) and Chapter 12 (Vegetation Preservation and Planting) of the Public Facilities Manual (PFM). Staff further recommends that the Board authorize staff to review plans, at the request of an applicant, based on the adopted amendments in advance of the effective date.

C. Timing:

Board of Supervisors authorization to advertise – September 10, 2013

Planning Commission Public Hearing – October 9, 2013

Board of Supervisors Public Hearing – December 3, 2013

Effective Date – July 1, 2014 at 12:01 a.m.

D. Source:

Department of Public Works and Environmental Services (DPWES)

E. Coordination:

The proposed amendments have been prepared by the Department of Public Works and Environmental Services and coordinated with the Office of the County Attorney. The proposed amendments to the PFM have been recommended for approval by the Engineering Standards Review Committee.

F. Background:

The proposed amendments to the PFM are a part of the implementation of the proposed County Stormwater Management Ordinance and the Virginia Stormwater Management Program (VSMP) Permit Regulations (4 VAC 50-60 et seq.). In a separate action, the Board is being asked to adopt Chapter 124 (Stormwater Management Ordinance), repeal Chapters 105 (Pollution of State Waters) and 106

(Storm Drainage), and adopt amendments to Chapters 101 (Subdivision Ordinance), 104 (Erosion and Sedimentation Control), 112 (Zoning Ordinance) and 118 (Chesapeake Bay Preservation Ordinance) of The Code of the County of Fairfax, Virginia. The new ordinance and proposed County Code amendments implement the Virginia Stormwater Management Act (Va. Code Ann. § 62.1-44.15:24, et seq.) and Virginia Stormwater Management Program (VSMP) Permit Regulations (4 VAC 50-60 et seq.).

The Virginia Soil and Water Conservation Board (SWCB) adopted final amendments to the Virginia Stormwater Management Program (VSMP) Permit Regulations (4 VAC 50-60 et seq.) on May 24, 2011, with an effective date of September 13, 2011. An earlier version of the amended regulations was adopted in 2010 but suspended by the SWCB prior to becoming effective because of issues raised by localities and the public. During the 2012 and 2013 legislative sessions, the General Assembly adopted amendments to the Code of Virginia (Chapters 785 & 819 of the 2012 Acts of Assembly and Chapter 756 of the 2013 Acts of Assembly) transferring regulatory and enforcement authority for the Erosion and Sediment Control Act, the Stormwater Management Act, and the Chesapeake Bay Preservation Act to the State Water Control Board and the Department of Environmental Quality (DEQ). During the 2013 legislative session, the General Assembly also adopted a separate amendment to the Stormwater Management Act (Va. Code Ann. § 62.1-44.15:33 (2013)) that constrains localities' ability to adopt more stringent requirements than the minimum requirements of the regulations. As a result of the amendment passed during the 2013 legislative session, the County will need to justify any more stringent requirements unless the requirements were in force prior to January 1, 2013. Additional amendments to the VSMP Permit Regulations, the Virginia Erosion and Sediment Control Regulations (4 VAC 50-30 et seq.) and the Chesapeake Bay Preservation Area Designation and Management Regulations (4 VAC 50-90 et seq.) were adopted by the SWCB on September 28, 2012, with an effective date of November 21, 2012. Staff anticipates that the regulations will need to be republished in 2013 because of the transfer of program oversight to the State Water Control Board and DEQ.

The adoption of a local stormwater management ordinance by Fairfax County is mandatory under the Virginia Stormwater Management Act (Act). The Act gives localities until June 13, 2013, to adopt local ordinances to comply with the regulations. However, pursuant to the Act, the SWCB granted the County an extension to June 13, 2014. Adoption of amendments to the PFM is necessary at this time to implement the Stormwater Management Ordinance and the regulations. After the County has amended its ordinances and the PFM, the State Water Control Board and DEQ will review the ordinances and PFM for consistency with state law and regulations. The County is required to submit the new and revised ordinances, revised PFM, a funding and staffing plan, and associated policies and procedures for administering the stormwater management program to DEQ by December 15, 2013. The final adopted ordinances and PFM must be submitted to DEQ by April 1, 2014.

Chapter 6 of the PFM currently includes the County's requirements for water quality control, water quantity control (adequate outfall), and BMPs. The requirements for water quality control and water quantity control are being removed from the PFM and consolidated in the new Stormwater Management Ordinance. The requirements for design and construction of BMPs are more technical in nature and will remain in the PFM. The VSMP Permit Regulations list fifteen specific Best Management Practices (BMPs) that are approved for use statewide. The State also has published design standards for these BMPs. Any additional BMPs not on this list must be approved by DEQ before they may be used for credit towards meeting the water quality control requirements of the regulations. The regulations allow localities to establish limitations on the use of specific BMPs with written justification provided to DEQ. The amendment to the Stormwater Management Act, Va. Code Ann. § 62.1-44.15:33, limits localities' ability to adopt more stringent requirements than the minimum requirements of the regulations and the County's ability to exercise the authority provided in the regulations to establish limitations on the use of specific BMPs as follows:

C. Localities shall not prohibit or otherwise limit the use of any best management practice (BMP) approved for use by the Director or the Board except as follows:

1. When the Director or the Board approves the use of any BMP in accordance with its stated conditions, the locality serving as a VSMP authority shall have authority to preclude the onsite use of the approved BMP, or to require more stringent conditions upon its use, for a specific land-disturbing project based on a review of the stormwater management plan and project site conditions. Such limitations shall be based on site-specific concerns. Any project or site-specific determination purportedly authorized pursuant to this subsection may be appealed to the Department and the Department shall issue a written determination regarding compliance with this section to the requesting party within 90 days of submission. Any such determination, or a failure by the Department to make any such determination within the 90-day period, may be appealed to the Board.

2. When a locality is seeking to uniformly preclude jurisdiction-wide or otherwise limit geographically the use of a BMP approved by the Director or Board, or to apply more stringent conditions to the use of a BMP approved by the Director or Board, upon the request of an affected landowner or his agent submitted to the Department, with a copy submitted to the locality, within 90 days after adoption, such authorizing ordinances, design manuals, policies, or guidance documents developed by the locality that set forth the BMP use policy shall be provided to the Department in such manner as may be prescribed by the Department that includes a written justification and explanation as to why such more stringent limitation or conditions are determined to be necessary. The Department shall review all supporting materials provided by the locality to determine whether the requirements of this section have been met and that any determination made by the locality

pursuant to this section is reasonable under the circumstances. The Department shall issue its determination to the locality in writing within 90 days of submission. Such a determination, or a failure by the Department to make such a determination within the 90-day period, may be appealed to the Board.

D. Based on a determination made in accordance with subsection B or C, any ordinance or other requirement enacted or established by a locality that is found to not comply with this section shall be null and void, replaced with state minimum standards, and remanded to the locality for revision to ensure compliance with this section. Any such ordinance or other requirement that has been proposed but neither enacted nor established shall be remanded to the locality for revision to ensure compliance with this section.

E. Any provisions of a local stormwater management program in existence before January 1, 2013, that contains more stringent provisions than this article shall be exempt from the requirements of this section. However, such provisions shall be reported to the Board at the time of the locality's VSMP approval package. (§ 62.1-44.15:33. Code of Virginia)

Of the fifteen BMPs listed in the VSMP Permit Regulations, “rooftop disconnection” is the only BMP not currently available for use in Fairfax County in some form, either by inclusion in the PFM or various DPWES-LDS Technical Memoranda related to the use of innovative BMPs or with site-specific approval (rainwater harvesting). The restrictions proposed for the BMPs listed in the PFM are all based on current restrictions. Therefore, staff believes that the restrictions satisfy the requirement of § 62.1-44.15:33(E) as being in place prior to January 1, 2013.

G. Proposed Amendments

- 1) The extent of review of downstream drainage systems to determine adequacy is being replaced by a reference to the extent of review required under the Stormwater Management Ordinance. The extent of review required under the Stormwater Management Ordinance is the State minimum requirement, which extends farther downstream than the current requirement in the PFM.
- 2) The use of the critical shear stress method in determining adequacy is being eliminated. This method has not been used for a number of years and currently is not approved for use by the State. However, it still could be used at some future time under a provision in the PFM that allows the Director to consider alternative methods to the detention method that achieve an equivalent degree of stream protection and that are subsequently approved by the State.
- 3) The detention method is being removed from the PFM and relocated to the Stormwater Management Ordinance in a slightly modified version. Use of the detention method eliminates the need for a review of the downstream drainage system (outfall) to determine adequacy.

4) Water quality control criteria related to the Chesapeake Bay Preservation Ordinance is being removed from the PFM. At the State level, compliance with the water quality control criteria in the VSMP Permit Regulations is deemed to meet the criteria in the Chesapeake Bay Preservation Area Designation and Management Regulations. Because the new Stormwater Management Ordinance includes these requirements it is not necessary to have them duplicated in the PFM.

5) The table of assigned phosphorus removal efficiencies has been deleted. The state has developed design specifications and total phosphorus removal efficiencies for fifteen BMPs (available on the Virginia Stormwater BMP Clearinghouse web site) which must be used by localities. The section covering tree box filters, which are a type of bioretention facility, has been deleted; it is adequately covered by the section on bioretention and the Virginia design specifications. A separate section for each type of BMP is included in the PFM. BMPs must be designed in accordance with the state design specifications except as supplemented and modified in the PFM. The basic sizing criteria and other essential design criteria developed by the State for all fifteen BMPs is used to assure that the state's assigned total phosphorus removal is not compromised. Whenever any provision of the PFM imposes a different standard than the state design specifications, the PFM standard shall be followed. The County's dam standards, soils testing, and maintenance provisions of the PFM must be adhered to for all designs. Restrictions on the use and location for each BMP are included. The restrictions are based on general applicability for different types of development, site constraints, inspection and maintenance needs, and the potential burden on homeowners.

6) Nineteen plates related to design standards and criteria for BMPs, standard BMP plan views, the critical shear stress method, and example problems are being deleted. Standard BMP plan views are included in the online State BMP specifications.

7) Two alternatives, previously discussed with the Board, are presented for maintenance of stormwater management facilities in residential areas. Under the first alternative, which is a continuation of the current policy, the County will maintain dry ponds, extended detention ponds, and regional wet ponds. All other types of BMPs will be maintained by Homeowner Associations (HOAs) or property owners. Under the second alternative, the County will maintain the following stormwater management facilities constructed after adoption of the proposed amendments:

- Sheet flow to a vegetated filter or conserved open space
- Infiltration practices
- Bioretention
- Vegetated swales
- Wet swales (linear wetlands)
- Filtering practices (e.g. sand filters)
- Constructed wetlands
- Wet ponds

- Extended detention ponds
- Manufactured (proprietary) BMPs

Under the second alternative, the HOAs or property owners will maintain the following:

- Rooftop disconnections
- Soil compost amendment
- Reforestation
- Vegetated roof
- Rainwater harvesting
- Permeable pavement

Under the second alternative, involving expanded County maintenance of residential BMPs, the County would be responsible for functional maintenance of the facilities and the property owners would be responsible for aesthetic maintenance. In addition to maintaining new residential BMPs, the Board may also want to consider development of a conversion program to allow property owners to turn over eligible existing facilities to the County for maintenance. The transfer of the BMPs to the County for maintenance would be optional for the BMP owners. Prior to transfer, the BMPs would need to be brought up to an acceptable condition and easements dedicated to the County. Some advantages of County maintenance are:

- Greater assurance that the BMPs are functional, resulting in greater control of MS4 permit compliance terms
- Reduction in the potential need for enforcement actions against homeowners and associated costs and staff time
- Reduction in the perceived inequity of owners of privately maintained BMPs versus owners of publicly maintained BMPs and residents of older communities without BMPs
- County may be able to trade or pursue more cost effective solutions in the future with greater control of the countywide system

Some disadvantages of County maintenance are:

- County will be working on private property within easements which may be perceived as intrusive by the owners
- Costs for regular inspections and most maintenance assumed by the County
- Costs would be passed on to all County property owners via the countywide stormwater service district tax which might be perceived as inequitable by owners who currently don't have BMPs to maintain
- Conversion program would be needed to transfer over 1,000 existing privately maintained residential BMP facilities to the County inventory.

H. Regulatory Impact:

The proposed Stormwater Management Ordinance is being adopted as required by the Virginia Stormwater Management Act and Regulations. Requirements for water quality and quantity control, currently located in the Public Facilities Manual and Chesapeake Bay Preservation Ordinance, are being consolidated in the new ordinance. Existing prohibitions related to pollution of state waters and discharges into County storm drains in Chapters 105 and 106 of the County Code are being expanded and consolidated in the new ordinance. The new ordinance establishes more stringent requirements for water quality controls than those currently contained in the PFM and Chesapeake Bay Preservation Ordinance. These requirements meet but do not exceed the minimum requirements of the Virginia Stormwater Management Act and Regulations. The new ordinance retains existing requirements currently in the PFM, with minor modifications, for water quantity control related to stream protection and flooding. These requirements exceed the minimum requirements of the Virginia Stormwater Management Act and Regulations. The new ordinance creates a requirement for a local stormwater permit and a consolidated stormwater and erosion and sediment control permit as required by the Virginia Stormwater Management Act and Regulations. Under the new ordinance and in accordance with the Virginia Stormwater Management Act and Regulations, the County will be responsible for plan review and inspections for the state for VSMP permits and enforcement of VSMP permit violations. Under the Virginia Stormwater Management Act and Regulations, the threshold for the requirement to obtain a state permit has been increased from 2,500 square feet to one acre making it less stringent than current requirements.

In general, the new water quality control requirements will be more difficult to achieve for all development including County projects and result in the construction of more, albeit smaller, controls distributed throughout the project site. This impact is mitigated for land disturbances on existing residential lots by the exception provisions contained in the new ordinance and the option to purchase water quality control credits through a broker system set up by the state. It is unknown at this time if sufficient credits will be available to meet future demand for credits. The regulatory impacts also are mitigated by the provisions set forth in the ordinance for land-disturbing activities that have coverage under a state VSMP permit prior to July 1, 2014, and proposed land-disturbing activities that have County approvals prior to July 1, 2012, both of which are derived directly from the Virginia Stormwater Management Regulations. Projects that have coverage under a state VSMP permit are not subject to the new technical criteria in the proposed Stormwater Management Ordinance provided that construction is completed by July 1, 2024. Grandfathered projects are not subject to the new technical criteria provided that construction is completed by July 1, 2019. The types of projects grandfathered are currently valid proffered rezonings or P district rezonings or other rezonings with a plan of development, special exceptions, special permits, variances, preliminary or final subdivision plats, subdivision construction plans, preliminary or final site plans, or grading plans. In addition, County projects for which funding was obligated prior to July 1, 2012, are grandfathered until July 1, 2019, and County projects for which governmental bonding or public debt financing was issued prior to July 1, 2012, are grandfathered indefinitely.

The proposed PFM amendments are necessary to implement the new Stormwater Management Ordinance and the VSMP Permit Regulations. Requirements for water quality and quantity control, currently located in the PFM and Chesapeake Bay Preservation Ordinance, are being consolidated in the new ordinance. The primary regulatory impact of the PFM amendments is related to the limitations on use and location of BMPs and, if approved, the maintenance of additional types of BMPs in residential areas by the County.

With respect to the limitations on use and location of BMPs, the limitations are less restrictive than current requirements but more restrictive than what is permitted under the Regulations. Currently, all BMPs must be located on outlots in new residential subdivisions except that some types of BMPs may be located on lots in residential subdivisions creating three or fewer lots with approval by the Director and on existing residential lots and BMPs may not be located in the VDOT right-of-way. Under the proposed amendments, the limit of three lots is being increased to seven lots and some BMPs may be located in the VDOT right-of-way subject to approval by VDOT. In order for BMPs to be located in the right-of-way, an agreement between the County and VDOT, similar to the one currently in place for the Tysons Corner Urban Center, will have to be developed. Staff has begun talks with VDOT but it may take some time to negotiate an acceptable agreement(s).

I. Fiscal Impact:

There is a need for two Code Compliance Investigator positions in FY 2014. Based on the actual increase in constructed BMPs above current ordinance BMP construction levels coupled with increased enforcement efforts, additional positions may need to be requested in future budget submissions. It is also anticipated that additional positions in the County Attorney's office may be needed in the future for enforcement activities. The need for additional maintenance staff will need to be reevaluated if the Board determines that the County should take over maintenance of most new BMP facilities. With respect to plan review and inspection activities, no new staff is being requested at this time.

It is difficult to assess what fiscal impact the addition of new BMP types and changes to the BMP design standards will have on the County, developers, or property owners. The primary fiscal impact is due to the increase in the number of BMPs required to meet the new water quality control requirements in the Stormwater Management Ordinance rather than the design standards for those BMPs. The increase in the number of BMPs per project would increase both design and construction costs.

If the number of BMP types eligible for public maintenance is expanded, the annualized cost for County maintenance of new BMPs added to the inventory of County maintained facilities is estimated to be approximately \$0.6 million versus approximately \$0.25 million under the current system. The costs to the County would increase by this amount every year. In addition, there would be additional costs if the

County instituted a conversion program for existing privately maintained residential BMPs to be brought up to acceptable condition and turned over to the County. If all of the existing privately maintained residential BMPs were turned over to the County for maintenance (this likely would take many years), there would be an additional annualized cost estimated at \$3.5 million. Any staffing costs associated with the conversion program would be offset by less enforcement activity. Therefore, the fiscal impact of a change to the types of BMPs maintained by the County would be approximately \$3.5 million increasing at a rate of \$0.6 million per year from current Stormwater Program funding.

J. Attached Documents:

Attachment A – Amendments to Chapter 6 (Storm Drainage)

Attachment B – Amendments to Chapter 12 (Vegetation Preservation and Planting)