

**FAIRFAX COUNTY PLANNING COMMISSION  
ENVIRONMENT COMMITTEE/ENVIRONMENTAL QUALITY  
ADVISORY COUNCIL  
WEDNESDAY, SEPTEMBER 28, 2005**

**COMMITTEE MEMBERS PRESENT:**

Walter L. Alcorn, At-Large  
John R. Byers, Mount Vernon District  
Frank A. de la Fe, Hunter Mill District  
James R. Hart, Commissioner At-large  
Nancy Hopkins, Dranesville District  
Laurie F. Wilson, At-Large

**COMMITTEE MEMBER ABSENT:**

Kenneth A. Lawrence, Providence District

**PLANNING COMMISSION STAFF PRESENT:**

Barbara J. Lippa, Executive Director, Planning Commission Office  
Linda Rodeffer, Planning Commission Office

**ENVIRONMENT COMMITTEE/ENVIRONMENTAL QUALITY ADVISORY COUNCIL  
(EQAC) MEMBERS PRESENT:**

Frank Crandall  
Stella Koch  
Chet McLaren

**DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENT SERVICES STAFF  
PRESENT:**

Jimmie Jenkins, Acting Director  
Michelle Brickner, Director, Site Development Services  
John Friedman, Land Development Services (LDS)  
Jan Leavitt, Code Analysis, LDS  
James Patteson, Director, LDS

**DEPARTMENT OF PLANNING AND ZONING STAFF PRESENT:**

Noel Kaplan, Senior Environmental Planner, Planning Division

**OTHERS PRESENT:**

Kambiz Agazi, Environmental Coordinator, Office of the County Executive  
Sally Ormsby, Northern Virginia Soil and Water Conservation District  
Fran Wallingford, Citizen  
Ruth Knee, Citizen  
Nicole Armstrong, Citizen  
Lynne Strobel, Esquire, Walsh, Colucci  
Pete Rigby, Paciulli, Simons  
Ari Cetron, *Connection* Newspapers  
Bill Zink, Northern Virginia Building Industry Association

Chairman Walter L. Alcorn convened the meeting at 7:10 p.m. in the Board of Supervisors' Conference Room, Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia 22035. He noted that the staff report on the proposed amendment to the Public Facilities Manual (PFM) on natural drainage divides would be presented, followed by a question and answer period.

Jan Leavitt, Code Analysis, Land Development Services (LDS), Department of Public Work and Environment Services (DPWES), presented the staff report which included an overview, benefits of diversion, three drainage divide examples, the proposed amendment and the proposed schedule. (Copies of her Power Point presentation and the proposed amendment are in the date file.)

Ms. Leavitt explained that:

- Section 6-0202.3A(1) of the proposed amendment repeated the requirements in the PFM that all outfalls with or without a diversion shall not have an adverse impact on adjacent properties;
- Section 6-0202.3A(2) listed the benefits and identified when a diversion would be acceptable;
- Section 6-0202.3A(3) required justification for the proposed diversion and a detailed analysis of each affected downstream drainage system in accordance with the requirements of Section 6-0203;
- Section 6-0202.3A(4) contained two options in which a diversion would not be permitted: (1) if it "changes the total drainage area of a watershed depicted on the County Map of Watersheds, as may be amended;" and (2) "or crosses a major watershed divide of a watershed depicted on the County Map of Watersheds, as may be amended."

She explained that staff preferred the first option because it would allow some flexibility as long as there was no net increase to either shed. She said under option (2) a diversion would not be permitted at all if it crossed the watershed divide.

Ms. Leavitt reviewed the proposed schedule for review of the proposed amendment:

ESRC <sup>1</sup>	Approval of option number (1) on September 22, 2005.
Planning Commission	Public hearing on October 5, 2005 <sup>2</sup>
Board of Supervisors	Public hearing on October 17, 2005 <sup>3</sup>

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<sup>1</sup> Engineering Standards Review Committee

<sup>2</sup> Planning Commission public hearing deferred to December 8, 2005.

<sup>3</sup> Board of Supervisors public hearing not scheduled yet.

Frank Crandall, EQAC, said the language in Section 6-0202.3(A) implied that it would always be an applicant who proposed that a natural drainage divide not be honored with the Director of DPWES approving the request. He recommended that "or required" be inserted after "unless otherwise approved" so it would read: "... unless approved or required by the Director.....". Ms. Leavitt said she would consider this suggestion.

Mr. Crandall pointed out that there could be situations where it would be desirable to slightly exceed a drainage area of a major watershed and perhaps the options should have slightly more flexibility.

In response to a question from Ms. Leavitt, Mr. Crandall suggested that increasing the drainage area of a watershed more than a certain percentage of its total area be prohibited. Commissioner Wilson pointed out that this could only apply to option (1) which addressed changing the total drainage area because option (2) prohibited crossing a major watershed divide at all.

Responding to a question from Stella Koch, EQAC, James Patteson, Director, LDS, DPWES, said that it was very difficult to design a project such that the drainage divide post-development would be exactly the same as pre-development; therefore, flexibility in design was desirable as long as there would be no net increase in the drainage area.

In response to a question from Commissioner Hart about why major drainage divides as shown on the map seemed to be sacrosanct but that smaller ones were not, Michelle Brickner, Director, Site Development Services, DPWES, explained that smaller drainage divides could not always be honored. She said staff recommended that drainage areas stay the same and although they could wiggle back and forth, divides should be honored with regard to the size of the drainage area. She added that staff was monitoring this situation noting that the impact downstream was often difficult to analyze.

Responding to another question from Commissioner Hart, John Friedman, LDS, DPWES, said that breaking large divides was not a good idea because a lower line property owner would be subservient to an upper lying property owner; water should not be diverted into watersheds that encompassed a Water Supply and Protection Overlay District; owners could question the downzoning of their properties saying that pollutants were being diverted into their watersheds; and that diverting water across a major divide would most likely remove the 70 acre drainage area upstream. Mr. Friedman cited the Four Mile Run watershed along the Alexandria/Arlington border as an example where 100 year detention was required by Congress when the Four Mile Run flood control channel was funded. He said diverting total area across a major watershed divide could remove the 70 acre drainage area upstream where a regulatory floodplain requirement did not exist before. He said the scope of the review that would be required to prove that there would be no adverse impact would move exponentially upward.

Commissioner Wilson pointed out that an applicant's plan analysis would have to show that crossing a minor watershed would improve an inadequate outfall situation and under option (1) there would have to be a net zero increase.

Ms. Koch commented that her concerns had more to do with the adequate outfall issue and that if appropriate stream protection criteria were in place; it would not matter where the water went.

Commissioner Wilson pointed out that the PFM amendments had been deferred indefinitely to allow staff to develop updated language on adequate outfall so that it could be linked to the drainage divide issue. Mr. Patteson said staff was revising adequate outfall requirements to address issues raised by the Board of Supervisors (BOS) and EQAC and had been asked to move forward quickly so that it would not be necessary to impose a moratorium on projects. He said a proposed PFM amendment on adequate outfall would be sent to the BOS for authorization prior to the end of the year, but that the drainage divide issue might need to be addressed sooner.

Fran Wallingford noted that a creek was located on her property and that she had received a letter from the County telling her that she was losing from 6 to 12 inches of land per year due to erosion. She said no one seemed to be looking at the cumulative effect of development even though Section 6-0202-3A(1) stated that: "The increase and decrease in discharge rates, volumes, and durations due to the diverted flow shall not have an adverse impact on adjacent or downstream properties." In response, Ms. Brickner said that when an analysis of downstream impacts was done, water flow had to be calculated based on the topography and outfall and when water was diverted to that same shed in the future by someone else, their calculations would have to take into account all water flow. Ms. Wallingford said that was contrary to what she had been told by engineers, but Ms. Brickner reiterated that the PFM required that all drainage had to be taken into account and shown on the plan.

In response to a question from Commissioner Hart about notice to property owners, Mr. Patteson said the drainage divide amendment did not require notification since it was County-wide and that there were no additional notification requirements other than what currently existed in the Subdivision Ordinance. Commissioner Wilson pointed out that the Subdivision Ordinance notification was only given to adjacent property owners stating that a subdivision plan had been filed.

Mr. Patteson said since there did not seem to be unanimity about what type of notification should be required, staff had prepared simplified language addressing the benefits of diversion, the type of analysis required, setting criteria, and indicating that it was a technical determination. He added that the BOS supported not requiring notices as part of the pending proposed amendment.

Responding to a question from Mr. Crandall, Mr. Friedman said that a developer did not have the right to go onto private property without permission to remedy inadequate outfall by installing riprap or gabion without an easement. Ms. Koch commented that adequate outfall requirements should contain stream protection criteria.

Bill Zink, an engineer with Christopher Consultants, representing Northern Virginia Building Industry Association, expressed support for a change in the PFM. He pointed out some streams in the County looked the way they did because when developments were built forty years ago, such as Mantua, there were no stormwater management requirements or best management

practices (BMPs). He said he believed one point that had been overlooked was the fact that a drainage divide would never be able to be changed because water could not be taken out of one drainage shed and put it into another one if it did not go back to the original shed before that shed got to 70 acres because a new floodplain could not be created. Mr. Zink said he was also concerned about perennial load determination because it was difficult to track where perennial streams began and that NVBIA did not believe there should be public notification because it would complicate matters that should stay in the technical arena.

Addressing Mr. Zink's comment about determining where perennial streams began, Mr. Friedman said that perennially streams were all mapped out.

In response to a question from Commissioner Wilson, Mr. Zink said that the PFM addressed overland flow in residential development and required that if the flow exceeded 2 cfs it needed to be collected into a pipe system. He pointed out that a flow of 0.5 cfs would only occur on a very small piece of property. Ms. Brickner explained that staff had arrived at the 0.5 cfs requirement by looking at the zoning district, minimum lot size, and square footage. Mr. Zink commented that engineers would have to prove to staff that the calculations were appropriate, whether the language was simple, or complicated as proposed.

Ms. Wallingford said she thought the idea of not notifying property owners was unfair since the property owner had a maintenance responsibility for a creek on their property.

Addressing Mr. Patten's remark about the lack of agreement on notification requirements, Commissioner Wilson said that based on her discussion with Planning Commissioners, there was no question that an improved notification process was necessary to let people know that a drainage divide had been requested. She remarked that there may have been a question about whether the public notification process should be expanded at the rezoning level beyond what was legally required. Commissioner Wilson also noted that there had been discussion about including information about requested drainage divides with legal notices but she was not sure why that had been left out.

Ms. Brickner said that Zoning Ordinance submission requirements for zoning applications had to explain how outfall would be met and that a letter had been sent to industry representatives several months ago stating that the outfall description needed to indicate whether the drainage area would change. She explained that this information would be included in zoning applications even though there would not be a separate notice to adjoining property owners. She pointed out that because final engineering had not been completed, it would only be a best guess. She said since the information that was available would be in the staff report, the Planning Commission and the BOS would be aware of the situation. Ms. Brickner noted that when the staff report went to the BOS for authorization to advertise the proposed PFM amendments, the Planning Commission's recommendation had been included, but that the BOS had authorized the advertisement without a notification provision.

Mr. Crandall commented that the reason for a 0.5 cfs limit was due to the impact of infill redevelopment which was greatly increasing impervious surface. He said imposing reasonable limits would eliminate future problems as the County got closer to buildout.

Nicole Armstrong stated a public process was needed because property owners needed recourse if drainage problems occurred after final engineering had been completed. Ms. Brickner noted that all sites had to have adequate outfall regardless of where the water was coming from and that analysis and engineering would be the same whether or not there was diversion.

Responding to a question from Ms. Armstrong, Ms. Brickner said all data had to be shown on the plan, including whether or not it was a natural channel; the topography of the cross section; the velocity of the flow; erosion conditions; and, if used, the capacity of a pipe. She reiterated that all of that information had to be shown on the plan and adequate outfall had to be certified by a licensed engineer and would be reviewed by staff.

Pete Rigby, an engineer with Paciulli, Simons, asked if it was true, based on the status quo, that an engineer had to provide information showing benefits and justification for diversion and include it on the plan. Commissioner Wilson responded that the County Attorney's Office had determined that this should not be done considering the way the PFM was currently written. He said he understood that, but all benefits of diversion could not be enumerated. Mr. Rigby cautioned against creating spines of undevelopable property along major divides where diversion was not allowed and requested that the language in Option (2) be reconsidered. Ms. Brickner noted that Option (1) allowed diversion with a net zero change. Mr. Rigby said Option (1) was restrictive because it did not just apply to residential and infill development, but to public facilities as well. He said if a house was in the middle of a spine road or a development was impervious on one side but not the other, the area would be equal but not the water flow.

Responding to a question from Mr. Patteson, Mr. Rigby said he was recommending that diversion be looked at in terms of volume, not drainage area. Mr. Patteson commented that the drainage area affected the major floodplain. Ms. Brickner noted that staff had debated the issue of not having flexibility within the major sheds and although there might be instances where such flexibility was desirable, staff had decided what could potentially have to be given up was not worth it. She referred to the example given by Mr. Friedman earlier in the meeting about the difficulty with the Four Mile Run watershed.

Commissioner Hart said he did not believe he could support the proposed amendment if public notification was not part of the process.

Ms. Wallingford said in a letter to the Board of Supervisors, the NVBIA pointed out that the science of what constituted adequate outfall was unresolved at the County and State levels which made her feel uncomfortable.

Chairman Alcorn said another committee meeting would be scheduled in the near future to continue discussion on this matter.<sup>4</sup>

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The meeting was adjourned at 8:15 p.m.  
Walter L. Alcorn, Chairman

For a verbatim record of this meeting, reference may be made to the audio recording which can be found in the Office of the Planning Commission of Fairfax County, Virginia.

Minutes by: Linda B. Rodeffer

Approved: April 27, 2006

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Linda B. Rodeffer, Clerk  
Fairfax County Planning Commission

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<sup>4</sup> The committee met again on October 19, 2005.