



**THE MARYLAND-NATIONAL CAPITAL PARK AND
PLANNING COMMISSION**
Department of Park & Planning, Montgomery County, Maryland
8787 Georgia Avenue, Silver Spring, Maryland 20910

MEMORANDUM

TO: Wynn Witthans, Planning Coordinator, Development Review
FROM: Mark Pfefferle, Planning Coordinator, Environmental Planning *MP*
DATE: July 16, 2004
SUBJECT: Site Plan 8-04022
Greenway Village at Clarksburg: Phases 3, 4, and 5
Final Water Quality Plan

RECOMMENDATION

Staff recommends approval of the final water quality plan subject to the following conditions:

- Compliance with the conditions of the final forest conservation plan. The applicant must satisfy all conditions prior to recording of plat(s) or Montgomery County Department of Permitting Services (MCDPS) issuance of sediment and erosion control permits
- Conformance to the conditions as stated in the Department of Permitting Services letter approving the Final Water Quality Plan (Attachment 1).

DISCUSSION

The Greenway Village at Clarksburg includes 374 acres and is entirely located within the Clarksburg Special Protection Area (SPA). The property runs the entire length of Skylark Drive. Clarksburg Village subdivision is adjacent to the subject property and Ovid Hazen Wells Recreational Park to the north. This site plan covers 210 acres of the 374-acre site and includes 844 residential units. The drainage area within the subject property drains to Little Seneca Creek, a Use Class IV water.

Under the Special Protection Law, Montgomery County Department of Permitting Services (MCDPS) and the Planning Board have different responsibilities in the review of the water quality plan. MCDPS has reviewed and conditionally approved the elements of the final water quality plan under their purview. The Planning Board responsibility is to determine if the site imperviousness, environmental guidelines for special protection areas, and forest conservation requirements have been satisfied.

ENVIRONMENTAL GUIDELINES

The environmental guidelines for SPA's require examination of many tools to maximize achievement of site performance goals. For instance, the goal of protecting seeps, springs, and wetlands is better achieved with naturalized buffers surrounding these areas. The natural resource inventory/forest stand delineation for the 361-acre tract identified the environmental buffers. As part of the forest conservation plan for the Greenway Village, the applicant will place forest conservation easements on the sensitive areas including streams, springs, seeps, wetlands, floodplains, associated buffers, and steep slopes.

The approved preliminary plan and preliminary water quality plan for Greenway Village did not indicate any impervious surfaces or stormwater management facilities within the stream valley buffer, except for the Greenway trail hard surface bicycle path and necessary stormwater management discharges. Since the approval of the preliminary water quality, DPS reduced the allowable drainage area to sand filters. This requires more stormwater management facilities and in this plan necessitates the permanent encroachment into the stream valley buffer for additional structures. In order to eliminate the permanent encroachments into the stream buffers for the additional stormwater management facilities the applicant would have to relocate the facilities outside of the buffers by reconfiguring the site and potentially losing density. Other encroachments such as necessary stormwater management discharges and utilities, the Greenway hard surface trail occurs as previously shown.

FOREST CONSERVATION

A final forest conservation plan has been prepared for Phases 3, 4, and 5. This forest conservation plan amends the final forest conservation plan for the Phase 1 and 2. This site plans includes 55 acres of existing forest. The applicant is proposing to clear 29 acres of existing forest and plant 14 acres of forest plantings. Table 1 below compares the amount of existing forest, forest cleared, forest created, and offsite forest planting necessary for the two Greenway Village site plans. It is important to note that the development of Greenway Village will result in the clearing of 57 percent of the existing forest within the 361-acre site.

Table 1. Greenway Village: Existing Forest, Forest Cleared, Forest Planting Credits, Forest to be Planted Off-site (acres)

	Phase 1 and 2 (Site plan 8-02036)	Phase 3, 4, and 5 (Site plan 8-04022)	Total Greenway Village
Site Plan Area	167	194	361
Existing Forest	61	55	116
Forest Cleared	37	29	66
Forest Planted	14	14	28
Landscaping Credit	5	6	11
Offsite Planting Needed	8	12	20

The applicant will need to find 12 acres of offsite planting to meet the forest conservation requirements for this site plan. The total offsite planting for the Greenway Village plans is 20 acres.



SITE IMPERVIOUSNESS

There are no impervious limitations on this property. The impervious amount proposed for this site plan is entire 34.5 percent. This percentage is consistent with other similarly zoned developments.

WATER QUALITY SITE PERFORMANCE GOALS

As part of the preliminary water quality plan, several site performance goals were established for the project, including:

- Protect the streams and aquatic habitat
- Maintain the natural on-site stream channels
- Minimize storm flow runoff increases
- Identify and protect stream banks prone to erosion and slumping
- Minimize increases in ambient water temperature
- Minimize sediment loading
- Maintain stream base flows
- Protect seeps, springs, and wetlands
- Minimize pollutant loadings.

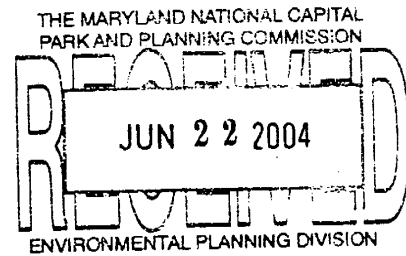
STORMWATER MANAGEMENT

To help meet these performance goals, the stormwater management plan requires water quality control and quantity control to be provided through an extensive system of linked best management practices (BMPs). Channel protection will be provided via four extended detention ponds. These structures will provide control for the one-year storm and a maximum of detention of 12 hours. Quality control will be provided via a treatment trains that vegetated open swales (open section roadways), dry swales, bioretention structures, sand filters, water quality inlets and recharge structures.

As previously mentioned, since the approval of the preliminary water quality plan, DPS has modified the land area that can drain to a surface sand filters. The result is more stormwater management facilities and minor encroachment into the stream buffer for stormwater management facilities. These encroachments prohibit the reforestation of the entire stream buffer as required by the environmental guidelines for Special Protection Areas, however, it does improve the performance of the stormwater management system.

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Attachment 1



DEPARTMENT OF PERMITTING SERVICES

Douglas M. Duncan
County Executive

Robert C. Hubbard
Director

June 17, 2004

Mr. Alan Barney, P.E.
Charles P. Johnson & Associates, Inc.
1751 Elton Road
Silver Spring, Maryland 20903

Re: **Final Water Quality Plan for Greenway Village at Clarksburg Phases 3, 4 and 5**
SM File #: 201363
Tract Size/Zone: 210 Ac/R-200, PD 5-7
Tax Plate: EW
Watershed: Little Seneca Creek

SPECIAL PROTECTION AREA

Dear Mr. Barney:

Based on a review by the Department of Permitting Services, the Final Water Quality Plan (FWQP) for the above mentioned site is conditionally approved. This approval is for the elements of the Final Water Quality Plan of which DPS has lead agency responsibility, and does not include limits on imperviousness or stream buffer encroachments.

Site Description: The total site area is 374.08 acres and is located mainly southwest of the intersection of MD Route 27 (Ridge Road) and Skylark Road. Phases 3, 4 and 5 will include 210 acres, primarily consisting of single-family detached units and townhouses units, in a proposed neo-traditional town layout. The site is located in the Clarksburg Special Protection Area (SPA) of the Little Seneca Creek Watershed.

Stormwater Management: Channel protection measures for this site will be provided via four extended detention dry ponds. These structures will provide control of the one-year storm and a maximum detention time of 12 hours per the new state standards. Quality control will be provided via a treatment train that consists of vegetated conveyance swales, dry swales (vegetated swales underlain with infiltration structures), bioretention structures (for small drainage areas), surface sand filters, underground filtering structures, water quality inlets and recharge structures. In areas where open section roads were not feasible, additional water quality measures were provided to offset the lost benefits that open section roadways provide. These offsetting measures included additional recharge structures providing 50 to 60 percent additional storage volume over what is normally required, additional sand surface area in the surface sand filters, and weir walls in the surface sand filters to create a multiple cell affect. Runoff from vehicular use areas is to be pretreated prior to entering water quality structures.

Sediment Control: Redundant sediment control structures are to be used throughout the site. These are to include upland sediment traps that drain to secondary traps down grade. When this is not feasible sediment traps with forebays will be acceptable. All sediment trapping structures are to be equipped with dewatering devices. Also, due to the sensitive nature of the watershed coupled with the large amount of proposed development, the use of flocculants, compost material or other measures to increase the effectiveness of sediment removal may be required in the detailed sediment control plan. The following features are to be incorporated into the detailed sediment control plan:



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1. The earth dikes that feed the sediment traps are to be constructed using trapezoidal channels to reduce flow rates.
2. The site grading shall be phased whenever possible to limit disturbance and immediate stabilization is to be emphasized.
3. Over size the forebay/sediment trap combination to provide an additional 25% storage volume.
4. Silt fence alone will not be allowed as a perimeter control. The use of super silt fence will be acceptable for small areas of disturbance.

Performance Goals: The performance goals that were established at the pre-application meeting are to be met with the implementation of this Final Water Quality Plan. They are as follows:

1. Protect the streams and aquatic habitat.
2. Maintain the natural on-site stream channels.
3. Minimize storm flow run off increases.
4. Identify and protect stream banks prone to erosion and slumping.
5. Minimize increases to ambient water temperatures.
6. Minimize sediment loading.
7. Maintain stream base flows.
8. Protect springs, seeps, and wetlands.
9. Minimize pollutant loading.

Monitoring: The monitoring must be in accordance with the BMP monitoring protocols which have been established by the Department of Permitting Services (DPS) and Department of Environmental Protection (DEP). Prior to the start of any monitoring activity, a meeting is to be held on site with DEP, DPS and those responsible for conducting the monitoring to establish the monitoring parameters. **The pre-construction monitoring must be completed prior to the issuance of a sediment control permit.** See the attachment to this approval letter titled "Description of Monitoring Requirements" for the detailed monitoring requirements. These monitoring requirements are based on the information currently available and may change based on final structure locations and configuration.

Conditions of Approval: The following conditions must be addressed in the initial submission of the detailed stormwater management and sediment control plan. This list may not be all inclusive and may change based on available information at the time of the review:

1. Retaining walls are not to be located within stormwater management easements.

2. All proposed stream buffer encroachment by stormwater management structures must be approved by the Maryland-National Capital Park and Planning Commission. This may affect lot yield.
3. Provide verification of a joint use agreement with Clarksburg Village to use their channel protection structures as shown on the FWQP.
4. Provide clear access to all stormwater management structures from a public right-of-way.
5. Provide drop manhole structures (typical of the proposed recharge trenches) to feed the recharge areas that are proposed under the water quality storage pipes (do not perforate the storage pipe).
6. Water quality structures that are to be used for sediment control must have a minimum undisturbed buffer of two feet from the bottom of the sediment trap to the bottom of the stormwater structure.
7. As specified in the approval of Phases 1 and 2, provide a hydrologic study point at DEP's existing monitoring station LSLS 104 (from Annual Report-May 2001) to determine the effect of the ultimate buildout (pre-development, post-development and post-development with the proposed BMPs) on this subwatershed. This analysis is to be done using accepted methodology (e.g. TR-20, HEC-2, HEC-RAS, HSPF and SWMM).
8. Minimize the use of insecticides and fertilizers via a residential Integrated Pest Management Plan as part of the Homeowners Association (HOA) documents. A draft of this plan/document is to be submitted at the detailed sediment control plan stage, and the final document is to be submitted prior to bond release.
9. Prior to permanent vegetative stabilization, all disturbed areas must be topsoiled per the latest Montgomery County Standards and Specifications for Topsoiling.
10. The proposed dry swales are to have 2' flat bottoms with under drains that tie into the proposed storm drain structures. This will require approval from the Department of Public Works and Transportation.
11. Additional upland percolation tests may be required to determine the feasibility of providing ground water recharge.
12. Provide level spreaders and/or plunge pools at all of the channel protection pond outfalls. Also, pond outfalls are to be located at non-erosive (down slope) areas. This may require additional stream valley buffer encroachment.
13. Provide a tree planting plan to allow for shading of the dry pond outfalls.
14. Due to the large amount of development activity in this area, DPS requires the developer to provide a full-time third-party sediment control inspector.

Any divergence from the information provided to this office; or additional information received during the development process; or a change in an applicable Executive Regulation may



Alan Barney
June 17, 2004
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constitute grounds to rescind or amend any approval actions taken, and to reevaluate the site for additional or amended Water Quality Plan requirements.

If you have any questions regarding these actions, please feel free to contact Leo Galanko at (240) 777-6242.

Sincerely,



Richard R. Brush, Manager
Water Resources Section
Division of Land Development Services

RRB:dm:CN201363

cc: R. Weaver MNCPPC-DR
M. Pfefferle MNCPPC-ER
D. Marshall MCDEP
L. Galanko
SM File # 204344

Qn: on-site 210 ac
Ql: on-site 210 ac.

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