

MEMORANDUM

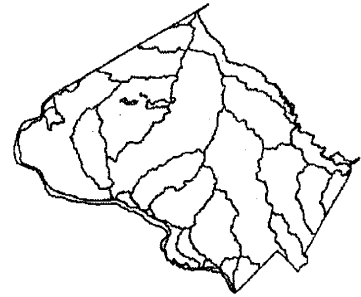
TO: Rich Weaver, Planning Coordinator
Development Review

FROM: Mark Pfefferle, Planning Coordinator
Countywide Planning-Environmental Planning *MP*

VIA: Steve Federline, Supervisor *SF*
Countywide Planning-Environmental Planning

DATE: May 28, 2004

SUBJECT: Preliminary Plan of Subdivision for Cabin Branch
Preliminary Plan 1-03110



RECOMMENDATION

Staff recommends approval of the preliminary plan of subdivision for Preliminary Plan # 1-03110 subject to the following conditions:

- Reforestation of the stream buffer is to begin in the first planting season after the issuance of the first grading permit by the Montgomery County Department of Permitting Services (DPS).
- A five-year maintenance period shall be required for all planted areas credited toward meeting the requirements of the forest conservation law.
- No encroachment into stream buffers for stormwater management facilities, or sediment control facilities, is allowed without permission of the Planning Board, except for necessary outfalls and temporary sediment control facilities in non-forested portions of stream buffers. If at later stages of stormwater review and design it is determined that a stormwater management facility is not properly sized and it must be enlarged to accommodate the proposed drainage areas the applicant will have to find additional space outside of the stream buffer. This may mean the reconfiguration of site layout and loss of developable area outside of stream buffers.
- Location of major onsite water and sewer lines and associated forest conservation implications to be determined as part of the infrastructure site plan.

DISCUSSION

This memorandum contains Environmental Planning staff's review and recommendations on the preliminary plan of subdivision for Cabin Branch. The sections below discuss existing conditions, forest conservation, compliance with environmental guidelines, imperviousness, and excessive cutting and fill.

Background

The 540-acre property is located west of I-270 in Clarksburg. This area is also known as the Clarksburg Triangle. West Old Baltimore Road is the southern most boundary of the property, I-270 the eastern most boundary, and MD-121 the western and northern boundaries. The property is zoned RMX and MXPD. The site includes drainage areas to Little Seneca Creek (Use IV-P SPA stream), Cabin Branch (Use I-P non-SPA stream), and Ten Mile Creek (Use I-P SPA stream). The current land uses include active agricultural, abandoned agricultural, and forest. The natural resources for the subject properties are characterized in Natural Resources Inventory/Forest Stand Delineation (NRI/FSD) plans 4-02007, 4-02008, 4-02009, 4-02010, and 4-03340. Staff approved the NRI/FSDs in 2003.

Approximately 243-acres of the 540-acre site is within the Clarksburg Special Protection Area (SPA), including two pods of land that drain to the Cabin Branch Tributary. The entire Clarksburg Study Area falls within an area designated as a sole source aquifer that underlay parts of Montgomery, Frederick, Howard and Carroll Counties. The "sole source" designation is used to describe an aquifer that is a groundwater-served population's only available source of drinking water. The two pods were designated as part of the SPA because the specific areas were identified as the most sensitive areas for groundwater contamination.

The subject site contains 130 acres of forest, 11 acres of wetlands, 27 acres of floodplains and 90 acres of stream buffers. There are steep slopes (> 25%) on the property and highly erodible soils. Not all steep slopes and erodible soils are hydraulically connected to Waters of the United States. Those that are hydraulically connected to Waters of the United States are included in the stream buffers.

Issues

Countywide Environmental Planning staff has a concern over the excessive amount of cut and fill currently proposed for this project, and the associated environmental implications, including the loss of an exceptionally large 68-inch sycamore tree outside of the stream valley buffer, and the negative effects on groundwater hydrology. The following assessment summarizes the concerns, and proposes some options for consideration to minimize the cut and fill. Additional or revised conditions for approval may be in order at the Planning Board's discretion.

Excessive Cut and Fill

The preliminary plan of subdivision includes numerous cuts and fills throughout the 540-acre site. In some locations, the amount of cut is unusual and the fill excessive. On the west side of the Cabin Branch tributary the proposed elementary school is located on 50 feet of fill. In order to provide a level site, there must be two 7-foot high retaining walls along MD 121 and three 16-foot high retaining walls adjacent to the stream buffer. Other sections on the west side of the Cabin Branch tributary require 30 and 35 feet of fill material and retaining walls of up to 13 feet high. Most of the retaining walls are adjacent to stream buffers. The future MNCPPC Park also has a 26-foot high retaining wall separating it from the adjacent stormwater management facility.

Based on conversations with the applicants engineer, it appears that the elevation of relocated MD 121 is driving the amount of cut and fill on the west side of the Cabin Branch tributary.

Currently there are 14 driveways, with direct access to the west side of MD 121. The preliminary plan of subdivision plans to relocate MD 121 and provide indirect access for 4 existing driveways and direct access for the remaining 10 driveways. If the relocated MD 121 were lowered, the amount of fill could be reduced. The applicant has not provided Environmental Planning staff information suggesting that MD 121 could be lowered in elevation.

The Department of Permitting Services regulates the placement of fill for complex structures. The fill must be free of rocks and compacted by 95 percent with tests conducted every 8 inches of fill. There is no question that the site can be engineered to support the uses proposed by the applicant. However, the cut and fill operations and resulting soil compaction:

- Alters existing hydrology
- Inhibits natural groundwater recharge into native soils
- Takes away opportunities to save natural features
- Through the removal of soil overburden, eliminates most filtering and final cleansing of water before it enters the groundwater table
- Cuts may intersect bedrock and groundwater providing ready access for pollutants without the benefit soil cleansing.

In addition to these issues, there are other issues associated with the retaining walls including maintenance of the walls and public safety.

Tree Save

From the earliest reviews of this project, Environmental Planning staff has requested the applicant to preserve a 68-inch diameter at breast height (dbh) sycamore tree that is located outside the stream buffer and is in good condition. The tree is a free-standing, exceptionally large well-shaped tree with a circumference of 213 inches, which is 85 percent of the County champion sycamore tree.

The preliminary plan proposes to remove the tree and replace it with 22 feet of fill. Staff first requested preservation prior to the rezoning case and believes the applicant has not made reasonable efforts to protect the tree, primarily due to the significant cut and fill proposed on the site.

Alternatives site design considerations that reduce cut and fill, and maximize the potential for preserving the tree include the following:

- Reducing the elevation of relocated MD 121
- Increasing the steepness of Street AA if possible
- Redesign and configuring adjacent buildings and parking lots to make up grades
- Looping Street D around the tree.

Forest Conservation

The applicant has submitted a preliminary forest conservation plan for staff review. The applicant is proposing to remove 58.97 acres of forest, retain 71.85 acres of forest and plant

58.32 acres of forest. Part of the property is developed using an optional method of development. Section 22A-12(f) of the forest conservation law requires properties developed under an optional method of development to meet certain forest retention requirements on site. The forest conservation plan indicates that the applicant will meet the conservation threshold onsite and that they will meet all planting requirements through a combination of onsite forest retention, onsite forest planting, and landscape credit.

In order to meet all FCP planting requirements onsite the applicant will plant all unforested stream buffers. Accelerated reforestation of stream buffers within SPAs is required under MNCPPC's implementation responsibilities for the Special Protection Area law, as specified in the Environmental Guidelines. The objective of accelerated reforestation of stream buffers was also specified in the Clarksburg master plan.

Approximately 243 acres of the 540-acre site are within the Clarksburg SPA. Since the property includes land both in and out of the SPA and the tributaries drain to a common water body Environmental Planning staff is requesting the planting requirements be treated as if the entire site is located within the Clarksburg SPA. Therefore, Environmental Planning is requesting a condition on the preliminary plan of subdivision requiring the applicant to plant the stream buffers after DPS approval of the first sediment control/grading permit and that the applicant provide a five-year maintenance period for all planting areas credited toward the forest conservation plan.

Environmental Guidelines

The environmental guidelines for SPAs 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 NRI/FSDs for the various properties included in this preliminary plan identified the environmental buffers. Environmental buffers include wetlands and wetland buffers, floodplains, and streams and stream buffers.

The only encroachments into the environmental buffers associated with this plan are necessary stormwater management conveyances, some utilities, natural surface trails, widening of West Old Baltimore Road, and future construction of A-302 (Little Seneca Parkway)/I-270 Interchange.

Environmental Planning has concerns with encroachment of ever enlarging stormwater management facilities and temporary sediment control traps into stream buffers even after the approved water quality/stormwater management concept plans indicate no encroachment. The final design of stormwater management facilities does not occur until after preliminary/site plans are approved and often after plats are approved locating roadways and individual lots. The applicant submits grading/stormwater management plan to DPS for review and approval. If more space is required for stormwater management because of ponds incorrectly sized during the water quality/stormwater concept stage, Environmental Planning receives requests to allow encroachment into the buffers. Many times the encroachment can be avoided by reconfiguring the stormwater management facilities but sometimes there is no alternative but to allow the encroachment or the facility is constructed with undesirable features such as steep slopes from the rear of residential units into the stormwater management facility.

Based on experience with several earlier approvals, staff recommends a condition of approval that requires the applicant to honor the approved stream buffers and that all permanent stormwater management facilities, except for necessary conveyances, be kept out of the stream buffer and that no temporary sediment control facilities be located in forested stream buffers. The Environmental Guidelines permit temporary sediment control facilities in unforested portions of stream buffers, which are recommended to continue for this site.