



MCPB
Item #
7-22-10

MEMORANDUM

TO: Montgomery County Planning Board

VIA: Mark Pfefferle, Acting Chief, Environmental Planning *MP*

FROM: Josh Penn, Senior Planner, Environmental Planning *JP*

DATE: July 9, 2010

SUBJECT: Staff Recommendations for Planning Board approvals of:
A. Special Protection Area (SPA) Preliminary Water Quality Plan,
and
B. Forest Conservation Plan associated with
Mandatory Referral No. 10711-DGS-1, Montgomery County Animal Shelter and
Laytonia Recreational Park

STAFF RECOMMENDATIONS

Staff recommendations are made below for two Planning Board actions on the following plans:

A. SPA Preliminary Water Quality Plan:

Approval of the SPA Preliminary Water Quality Plan with the following conditions:

1. Total impervious surfaces for the entire site must not exceed 8.55 acres (17.7% of the 48.17 acres) as shown on the proposed Preliminary Water Quality Plan.
2. Ten percent of the total parking for the entire site (Animal Shelter and Recreation Park) shall utilize small-car-only parking stalls to minimize imperviousness.
3. Applicant will conform to the conditions as stated in Montgomery County Department of Permitting Services (DPS) preliminary water quality plan approval letter dated July 1, 2010 (Attachment 1).

B. Forest Conservation Plan:

Approval of the Forest Conservation Plan with the following conditions:

1. Applicants to plant in the first planting season after issuance of the first sediment control permit for the subject site.

BACKGROUND

The Montgomery County Department of General Services (DGS), Division of Building and Construction and the Maryland National Capital Park and Planning Commission (M-NCPPC) Park Development Division each plan to co-develop a 48 acre tract of land in the northeast quadrant of Muncaster Mill and Airpark Roads. The project area is bordered to the north by Pope Farm Nursery, to the east by Airpark Road, Muncaster Mill Road to the south, and fallow land belonging to the Seventh Day Adventist Church to the west. The land is comprised of two parcels one currently owned by the County and managed by the Parks Department and a second parcel owned by the Parks Department. The entire site is within the Upper Rock Creek Special Protection Area (SPA).

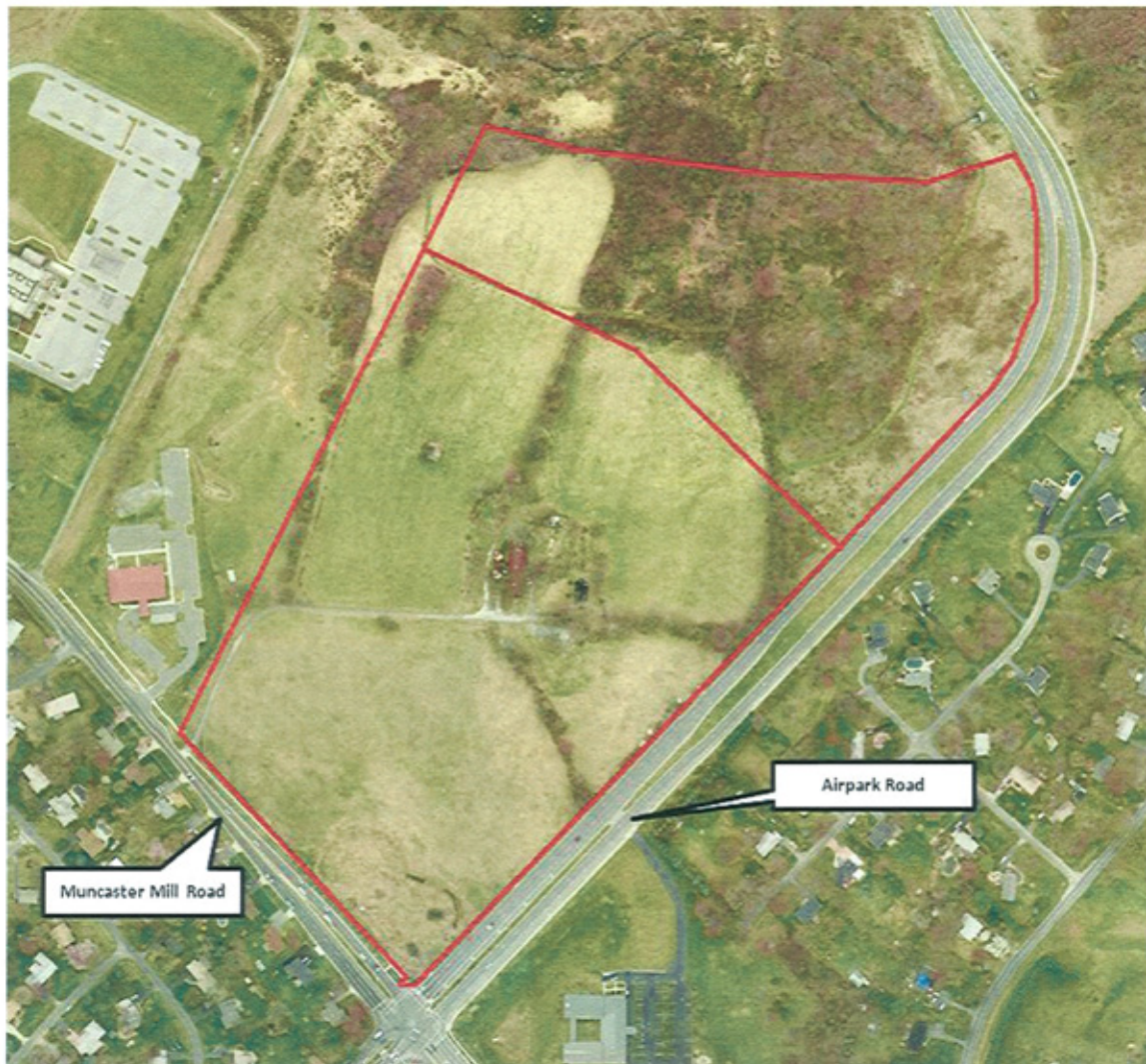


Figure 1: 2008 Aerial Photograph with Parcel Boundaries

Environmental Planning staff approved a Natural Resources Inventory/Forest Stand Delineation (NRI/FSD) on July 13, 2009. The site contains 9.26 acres of forest, one stream, and 4.11 acres of Stream Valley Buffer (SVB). There are also many specimen trees on the site. The stream is located

in the northeast corner of the site.

The Department of General Services plans to construct the Montgomery County Animal Shelter on approximately 7 acres of the site located on the east side of Muncaster Mill Road, approximately 600 feet north of the intersection of Muncaster Mill Road and Airpark Road.

The Parks Department proposes to construct the Laytonia Recreational Park on the remaining 41 acres of land. The recreational Park will include three soccer fields and 1 baseball field with associated parking.

Since both projects are located on the same parcels of land it was determined that one combined Preliminary Water Quality Plan and one combined Forest Conservation Plan was required that incorporated the entirety of both projects.

DISCUSSION

There are four items for Planning Board review for the Montgomery County Animal Shelter and Laytonia Recreational Park project: the mandatory referral, the park facility plan, the Special Protection Area (SPA) Preliminary Water Quality Plan, and the Forest Conservation Plan. This memorandum covers staff's review and recommendations on the SPA Preliminary Water Quality Plan and the Forest Conservation Plan.

The Board's actions on the SPA Preliminary Water Quality Plan and Forest Conservation Plan are regulatory and binding. The Planning Board must act on the SPA Preliminary Water Quality Plan and Forest Conservation Plan before it can act on the mandatory referral.

SPA PRELIMINARY WATER QUALITY PLAN

This project is within the Upper Rock Creek SPA and on publicly owned property so it is subject to submitting a water quality plan under section 19-62(c) of the Montgomery County Code. This section of the code states:

(c) Publicly owned property. Before engaging in any land disturbing activity on publicly owned property in an area designated as a special protection area, the applying agency or department should prepare a combined preliminary and final water quality plan.

The Planning Board is being asked to approve one preliminary water quality plan for the entire site and two separate individual Final Water Quality Plans at a later date. The project as noted in the background section is being developed by two separate agencies on different time schedules. In the interest of the Planning Board seeing the site as a whole project the Water Quality Plan was submitted as a complete preliminary water quality plan. However, the animal shelter portion of the project is much further along in design and funding and will be ready to build much sooner than the recreational park. It is for this reason we ask the Planning Board to approve the overall Preliminary Water Quality Plan now. The final water quality plans will need to be approved by the Planning Board at a later date when the details for each phase have been refined.

Review for Conformance to the Special Protection Area Requirements

As part of the requirements of the Special Protection Area law, a SPA Water Quality Plan should be reviewed in conjunction with a mandatory referral¹. Under the provision of the law, the Montgomery County Department of Permitting Services (DPS) and the Planning Board have different responsibilities in the review of a water quality plan. DPS has reviewed and conditionally approved the elements of the Preliminary Water Quality Plan under its purview. The Planning Board responsibility is to determine if environmental buffer protection, SPA forest conservation and planting requirements, and site imperviousness limits have been satisfied.

Environmental Planning Staff has reviewed and recommends Planning Board approval with conditions of the elements of the SPA preliminary water quality plan under its purview:

Site Imperviousness

The Environmental Overlay Zone for the Upper Rock Creek SPA imposes an 8 percent imperviousness limit for new projects within the SPA that are serviced by public water and sewer. However, in the applicability section there is a clause for public projects does not require public facilities to comply with the 8 percent impervious cap. More specifically, section 59-C-18.242 of the Montgomery Zoning Ordinance states

All public projects are subject to the provisions of this overlay zone, however, these provisions are not intended to preclude the development of public facilities. Such facilities must conform to the water quality plan submission and review requirements established in the Montgomery County Code, Chapter 19, Article V, and keep imperviousness to the minimum needed to accomplish the public purpose intended.

This section identifies that public projects are not subject to the 8% imperviousness cap, but the project must minimize impervious surfaces to amount needed to achieve the public purpose intended.

The proposed project area is composed of two separate parcels one owned by Montgomery County, 31.24 acres, and one owned by M-NCPPC, 16.93 acres, for a total area of 48.17 acres. The proposed facility plans for both the animal shelter and the recreational park have been redesigned from their original configurations to help reduce the amount of impervious surfaces needed to achieve the public purpose intended. The current plans show 8.55 acres of impervious surfaces, 2.10 acres attributed to the animal shelter and 6.45 acres attributed to the recreational park. The overall percentage for the entire project is 17.7 percent.

Parking for Animal Control Center

Overall the project does a good job minimizing impervious surfaces while maintaining the public purpose of both projects; however one area that can be greatly improved upon is parking. The proposed plan uses all large parking stalls measuring 9 feet wide by 18 feet long (162 square feet).

¹ Section 19-62 (c) of the Montgomery County Code states that “before engaging in any land disturbing activity on publicly owned property in an area designated as a special protection area, the applying agency or department should prepare a combined preliminary and final water quality plan.”

When curb stops are being used, they all appear to be internal to the parking area so that vehicle overhangs remain on the pavement. The parking spaces can be designed so that the curb stops are at the edge of paving so that vehicle overhang is not over impervious areas. The plan shows approximately 52 curb stop parking spots on the animal shelter portion of the site. If each of these 52 spaces was reduced by 18 inches, bringing the paved dimensions to 9 feet by 16.5 feet, this would reduce the impervious surfaces by approximately 702 square feet.

No small-car-only parking stalls are shown on the proposed plans. Small-car-only parking stalls can be striped at 7 feet 5 inches wide by 15 feet long (111.3 square feet). If 10% of the total 343 proposed parking stalls (34) were small-car-only stalls we could eliminate approximately 1,723.8 square feet of impervious surfaces.

Parking for Recreational Facilities

The recreational park portion of the property proposes 240 parking spots or 60 spots per field for each of the four proposed fields. Parks staff believes this is the number of parking spots needed to meet the needs of the park, however there are no parking requirements for recreational facilities in the zoning ordinance nor have any studies been completed to verify that this number of parking spaces is needed.

M-NCPPC Parks submitted the following breakdown as the justification for 60 spaces per field:

Soccer Team Composition: The soccer teams have 15-18 each team (players and coaches), or 30-35 total; during overlap period, can have 60-72 total; some carpool and drop-offs reduce the number.

Lacrosse: The lacrosse teams are larger, with typically 20 players per team plus coaches, resulting in a total of 44 cars for a single game or 88 cars during the overlap period.

Soccer and lacrosse team compositions were included in Parks' justification; however baseball team composition was not included. The following baseball team composition is based on standard recreation league rosters:

Baseball: The baseball teams have 12-15 each team (players and coaches), or 24-30 total; during overlap period, can have 48-60 total; some carpool and drop-offs reduce the number.

The Institute of Transportation Engineers (ITE) in their 3rd edition Parking Generation² study would classify this usage as a recreational land use (City Park). ITE assessed the parking needs at a 25-acre park in Santa Barbara California, containing three softball fields, two soccer fields, an outdoor group area, and an administration building. This park provided 15 parking spaces per acre and upon field survey during peak hours it was observed that only 5.1 parking spaces per acre were used during peak demand.

The Laytonia Recreational Park is at 240 spaces for 41.17 acre park or about 5.83 parking spaces per acre. The Laytonia Recreational Park has fewer fields, no administration building, and no outdoor group area, so it would be anticipated that peak demand would be less than the peak

² McCourt, Ransford S., and Kevin G. Hooper. *Parking Generation: an Informational Report of the Institute of Transportation Engineers*. Washington, D.C., USA: Institute of Transportation Engineers, 2004. Print.

demand in the example above.

Since this project is located within the Upper Rock Creek SPA, public projects need to keep imperviousness to the minimum necessary to meet the public purpose. The reduction of parking spots from 60 to 45 per ball field would eliminate approximately 9,720 square feet of impervious surfaces, but may cause parking issues and limit the use of the facility. With a maximum impervious cap it gives flexibility to parks to determine what impervious usages best meet the public purpose.

Environmental Buffers

The entire site is within the Upper Rock Creek Special Protection Area (SPA). The site contains 9.26 acres of forest, one stream, and 4.11 acres of Stream Valley Buffer (SVB). The project has no direct impacts on streams, wetlands, or environmental buffers. The applicants will be required to plant the unforested stream buffers per Section V.C.2.a on page 37 of the Environmental Guidelines.

County DPS Special Protection Area Review Elements

DPS has reviewed and conditionally approved the elements of the SPA preliminary water quality plan under its purview with a synopsis provided below (see Attachment 1).

Site Performance Goals

As part of the preliminary water quality plan, the following performance goal was established for the site:

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

Goals 2,3,5,6, and 9 apply to the animal shelter and all 1 through 10 apply to the recreational park according to DPS' preliminary water quality plan approval letter dated July 1, 2010 (Attachment 1).

Stormwater Management Concept

A stormwater management concept plan was submitted and reviewed in conjunction with the Preliminary Water Quality Plan. The stormwater management concept is split into two parts since the animal shelter will be built prior to the recreational park portion.

The animal shelter stormwater management will consist of a combination of ESD practices that include vegetated swales, infiltration trenches, biofilters, and a 10,922 square foot green roof. This entire area will then drain to the existing SHA stormwater management pond at the northwest corner of Muncaster Mill Road and Airpark Road.

The recreational park stormwater management will consist of a combination of ESD practices that include 2.2 acres (95,832 square feet) of pervious concrete, micro biofilters, landscaped infiltration, Vegetated swales, and disconnection of non-rooftop runoff. Additionally, there will be infiltration and storage volume under the synthetic turf field. M-NCPPC does not consider pervious concrete to be a pervious surface in regards to impervious surface cap limits, based upon the Planning Board adopted policy from the March 25, 2010 roundtable discussion.

Sediment and Erosion Control

Redundant sediment control structures are required for this site; such as sediment traps/basins with forebays. All sediment trapping structures are to be equipped with dewatering devices, bringing the total storage volume to 133% of the normally required volume. In addition, due to the sensitive nature of the watershed, coupled with the magnitude of proposed development, the use of flocculants, compost material, or other measures to increase the effectiveness of sediment removal devices may be required. Finally, it is recommended that the earth dikes are constructed using trapezoidal channels to reduce flow rates while feeding the sediment traps. Accordingly, silt fence alone will not be allowed as perimeter control; the use of super silt fence will be required.

Monitoring of Best Management Practices

Groundwater wells will be required and will provide continuous monitoring of groundwater levels pre- and post-construction. If the ball fields are to be treated with fertilizers or pesticides, DPS may require monitoring of chemicals that may enter into the groundwater. The location and criteria of all monitoring will need to be detailed as part of Final Water Quality Plan.

FOREST CONSERVATION

This project is subject to Chapter 22A of the County Code (Montgomery County Forest Conservation Law), because the project is on a tract of land greater than 40,000 square feet, subject to a Mandatory Referral, and the applicant is a government entity. The applicants propose to clear 2.80 acres of forest and retain 6.35 acres of forest. The forest retention area is proposed in the northeastern corner of the site. There is a 5.60 acre forest planting requirement associated with this development. The applicants are proposing to meet the forest planting requirements through onsite and offsite reforestation covering a total of 5.60 acres. The proposed offsite planting as shown on the FCP is within in the same watershed and within the same branch of Pope Farm Creek approximately 2,500 feet from the project site. The proposed offsite planting area is part of Pope Farm, which is owned MNCPPC and maintained by the Parks Department.

The Forest Conservation Plan meets the requirements of the Forest Conservation Law.

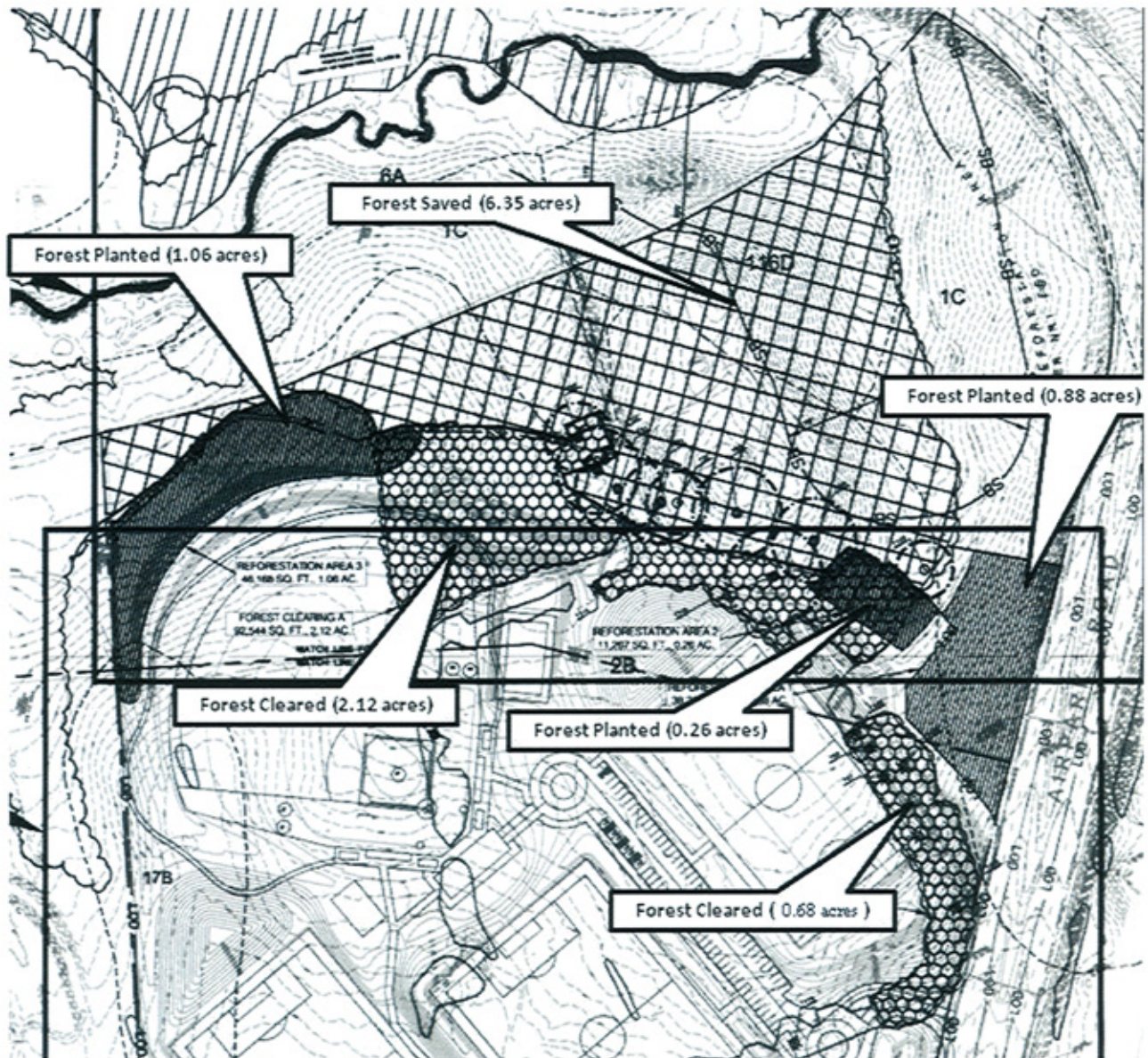


Figure 2: On-site Forest Clearing, Retention, and Planting

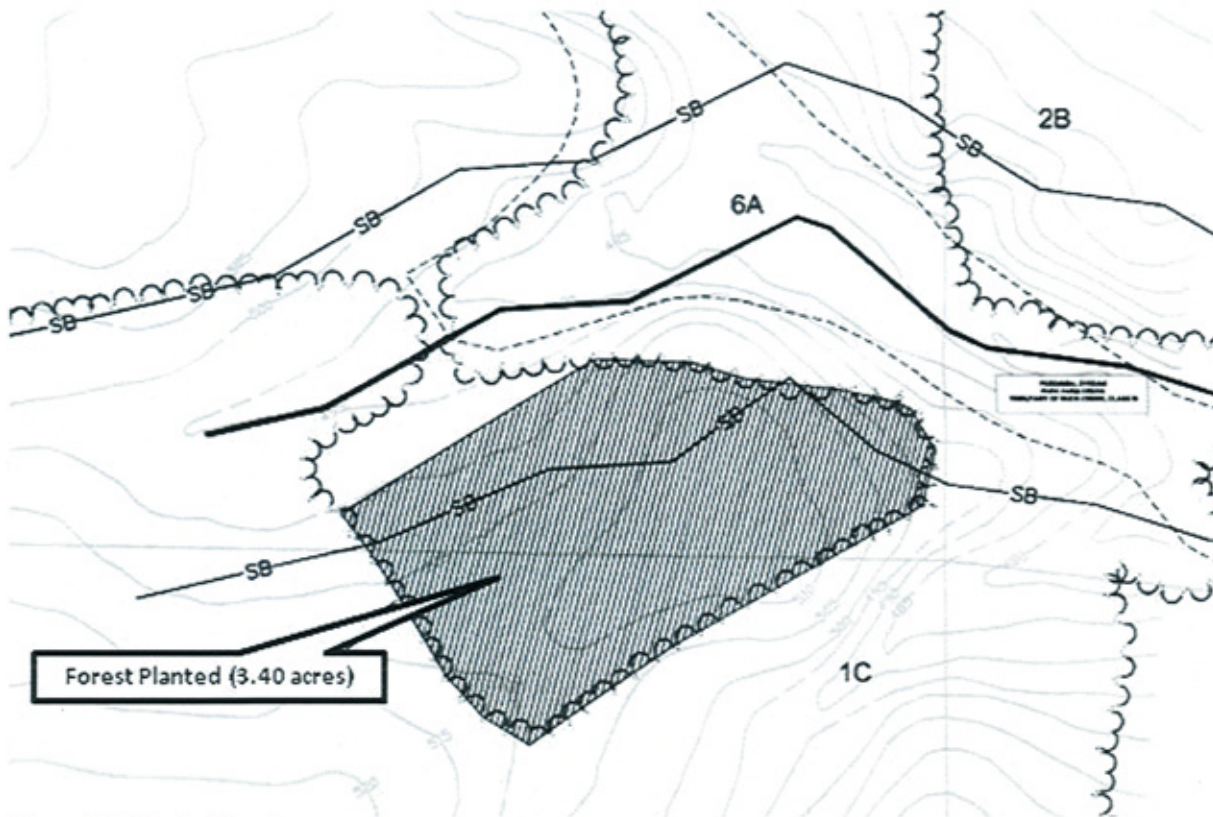


Figure 3: Off-site Planting

Forest Conservation Variance

Section 1607(c) of the Natural Resources Article, MD Ann. Code identifies certain individual trees as high priority for retention and protection. If a forest conservation plan cannot be altered to protect these trees, the Applicant is required to demonstrate that it qualifies for a variance in accordance with Section 22A-21 of the Montgomery County Code to remove them. In general, law requires the retention and protection of all trees that measure 30" DBH and greater; trees that are 75% the diameter of the county champion for that species; and rare, threatened and endangered species. Since this project will require six trees greater than 30 inches DBH to be removed and four other will be impacted, a variance is required.

Table 1: Specimen Trees Proposed To Be Removed

Tree Number	Size	Tree Species	Condition
T66	43" DBH	Black Cherry	average
T67	36" DBH	Black Cherry	Average to poor
T68	32" DBH	Black Cherry	good to average
T80	30" DBH	Sugar Maple	good to average
T107	37" DBH	Paulownia	average
T116	43" DBH	Basswood	average

Table 2: Specimen Trees Proposed To Be Impacted

Tree Number	Size	Tree Species	Condition
T81	38" DBH	Sugar Maple	good to average

T85	38" DBH	Sugar Maple	good to average
T98	38" DBH	Red Maple	average
T132	36" DBH	Black locust	poor

In accordance with Montgomery County Code, Section 22A-21(c) the Planning Board must refer a copy of the variance request to the County Arborist in the Montgomery County Department of Environmental Protection for a written recommendation prior to acting on the request. The County Arborist has elected not to review the variance request. As such, the County Arborist's recommendation for the variance request is therefore presumed to be favorable.

In accordance with Section 22A-21(e), the Planning Board will need to find that the applicant has met all the following criteria to grant the variance.

- a) Will not confer on the applicant a special privilege that would be denied to other applicants.

The proposed site development and subsequent removal and impact of specimen trees are necessary to achieve the development purpose of the site. The approval of this variance would not grant any special privileges that would not be awarded to any other applicant.

- b) Is not based on conditions or circumstances which are the result of the actions by the applicant.

The requested variance is not based on conditions or circumstances which are the result of specific actions by the applicant outside the norm of a development application allowed under the applicable zoning and associated regulations.

- c) Does not arise from a condition relating to land or building use, either permitted or nonconforming, on a neighboring property.

The requested variance is a result of the proposed site design and layout on the subject property and not as a result of land or building use on a neighboring property.

- d) Will not violate State water quality standards or cause measurable degradation in water quality.

The project as a whole is subject to a water quality plan and the conditions, stormwater management, and implementation would not change if the proposed trees were to remain. The removal of these six trees and impact the CRZ's of the four trees mentioned above would not create a measurable degradation of water quality and no state water quality standards will be violated.

As a result of the above findings, the Environmental Planning recommends the Planning Board approve the applicant's request for a variance to remove the six specimen trees and impact the CRZ's of four other specimen trees mentioned above.

CONCLUSION

Staff recommends the Planning Board approve the preliminary water quality plan and the forest conservation plan.