



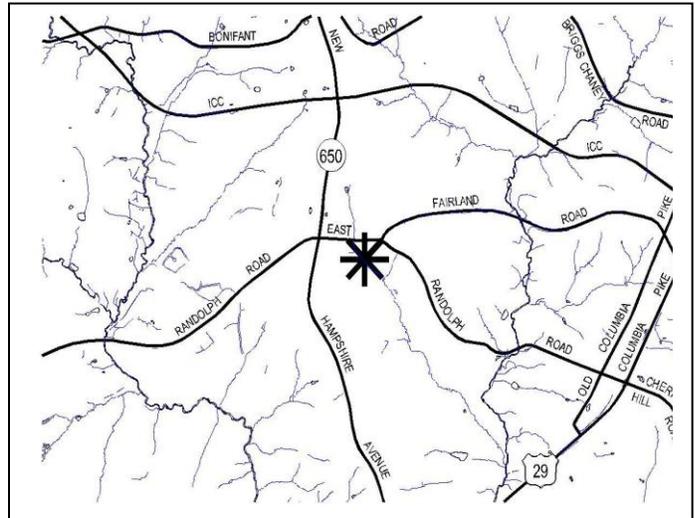
Hollywood Branch Stream Restoration, Forest Conservation Plan, MR2010006

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Completed: 11/3/11

Description

- Preliminary Forest Conservation Plan associated with stream restoration for Hollywood Branch in the Paint Branch watershed, between Midland Road and Cannon Road, including public ROW, parkland, and private property.
- RE-1 and R-90, White Oak Master Plan, 6.48 acres.
- Filing date: 12/16/10.



Summary

- Staff recommends **approval with conditions**.
- Preliminary Forest Conservation Plan includes clearing of 3.00 acres of forest and planting of 0.68 acres of forest.
- No correspondence has been received on this application.
- Amendment to Final Forest Conservation Plan, 820030130, is a portion of the overall Hollywood Branch stream restoration project but a separate regulatory plan and action, which will be presented to the Board on a later date.

Conditions

1. The proposed development shall comply with the conditions of the Preliminary Forest Conservation Plan. The applicant shall satisfy all conditions prior to Montgomery County Department of Permitting Services (MCDPS) issuance of sediment and erosion control permits.
2. Revise Preliminary Forest Conservation Plan to meet all technical requirements of COMCOR 22A.00.01 - Forest Conservation Regulations and to correct discrepancies between the revised NRI/FSD and the Preliminary Forest Conservation Plan.
3. Revise NRI/FSD to meet all technical requirements of COMCOR 22A.00.01- Forest Conservation Regulations and the Planning Board's Environmental Guidelines.
4. Approval of Final Forest Conservation Plan consistent with the approved Preliminary Forest Conservation Plan and requirements of the Park Permit prior to any clearing, grading or demolition on the site.
5. Final Forest Conservation Plan to include a detailed and specific invasive management control plan.
6. Final Forest Conservation Plan to include a minimum of 27, 2.5" DBH native canopy trees in addition to required forest planting areas.
7. Required site inspections by M-NCPPC monitoring staff must occur as specified in "Trees Technical Manual".

Discussion

This memorandum covers staff's review and recommendations on the Preliminary Forest Conservation Plan (PFCP). The Board's actions on Forest Conservation Plans, pursuant to Chapter 22A of the County Code, are regulatory and binding.

Project Description

The Hollywood Branch Stream Restoration project is located in eastern Montgomery County. Hollywood Branch is a second order tributary to Paint Branch that conveys flows to the Anacostia River and then to the Potomac River. The Hollywood Branch sub-drainage area, situated within the Lower Paint Branch Watershed, is a highly developed area that has undergone rapid development changes over the years. Much of the development within the watershed occurred prior to requirements to mitigate the impacts from stormwater flows.

As a result, Hollywood Branch, as a part of the Lower Paint Branch Watershed, has been identified as a priority watershed for restoration according to the Countywide Stream Protection Strategy (CSPS) issued by the Department of Environmental Protection (DEP, 2004). The goals of this strategy and the Hollywood Branch Stream Restoration project are to preserve, protect, and restore watersheds. More specifically, the goals of the Hollywood Branch Stream Restoration project are to utilize appropriate design restoration approaches that will stabilize erosive areas, improve floodplain access, enhance riparian and stream conditions, and improve overall aquatic resources.



Figure 1 Overall project area

The study area for the current project includes Hollywood Branch and its tributaries from the outfall of the stormwater management pond upstream of Copley Lane to the culvert on the upstream side of Cannon Road. The proposed construction crosses multiple properties, easements, and ROWs. For descriptive purposes, the project can be broken into four segments. From the north, the first segment of the project is between Midland Road and E. Randolph Road. In this location, most of the stream is located in the unbuilt ROW for Monocacy Drive. However, the stream and associated restoration work meanders onto private property, with an additional three private properties affected by construction. This area is not forested but there are multiple large and specimen trees in this segment. The properties adjacent to this section are zoned RE-1.



Figure 2 Segment 1

The second segment is located on the Willow Manor senior independent living facility. This segment will be covered by a separate regulatory item that will be before the Planning Board in the future (Randolph Manor, Amendment to Final Forest Conservation Plan, 820030130).

The third segment runs southeast from Willow Manor to M-NCPPC parkland and includes the branch that crosses the Broadmore Hills community association property. The stream, stream restoration areas, and temporary access routes cross 33 separate properties. 31 of these properties are single-family residences, one is unbuilt ROW for Octagon Lane, and one property is the Broadmore Hills community association property. Stretches of sewer easement and storm and sewer ROW also cross many of the properties. Much of the area is covered with high priority forest and there are many large and specimen trees in this segment. The properties adjacent to this section are zoned R-90.

The fourth section of the Hollywood Branch stream restoration project occurs on M-NCPPC parkland - Cannon Road Local Park. This park straddles Cannon Road and includes an active recreation component associated with Cannon Road Elementary School. The majority of the park is covered by high priority forest and includes a paved trail system. The applicant has worked closely with the Parks Department to develop the plans for this portion of the stream restoration and will go through the Parks Permit process.



Figure 3 Segment 2

Analysis

This project crosses approximately forty separate properties. As per Section 22A-3, the limits of disturbance (LOD) are used as a net tract area for this linear project and all measurements are based off of this area.

Environmental Guidelines

Staff approved a Natural Resource Inventory/Forest Stand Delineation (NRI/FSD #420100340) on 4/21/2002. The 6.48-acre project area contains 4.58 acres of high priority floodplain forest. The project is centered on the Hollywood Branch of the Paint Branch stream system and several associated tributaries. The entire project is within the environmental buffer, except minor areas of access road.

There are 0.07 acres of wetlands and 3.25 acres of floodplain associated with the streams. The property is within the Paint Branch watershed – a Use III watershed but not within the Upper Paint Branch Special Protection Area. The proposed project is in compliance with the *Environmental Guidelines*.

Forest Conservation

This project is subject to the Montgomery County Forest Conservation law (Chapter 22A of the Code) under section 22A-4(d) which applies to “a government entity subject to mandatory referral on a tract of land 40,000 square feet or larger...” The proposed stream restoration will require the clearing of 3.00 acres of forest within environmental buffers. Areas of clearing are minimized by providing staging areas outside of the existing forest and minimizing temporary access routes, wherever possible. For example, existing roads, paths and ROWs are used to provide access, even though the linear distance may be greater. Tree protection measures will be used during the construction process to minimize damage to the forest and individual trees. These tree protection measures include mulch matting on the temporary access routes to protect the surrounding forest and planking on trees to protect them from damage from equipment. 0.68 acres of forest will be planted after construction is complete. In addition, 0.29 acres of shrubs will be planted over easements and ROWs. The difference between forest cleared and forest planted is 2.32 acres but the actual difference is not significant because the stream channels and paths are included in the calculation of existing forest. The stream channels are covered by forest canopy, even though no trees are actually inside the channel. As the stream channels themselves cannot be planted, a numerical difference is shown on the worksheet. DEP will plant all areas within the LOD that can be planted and the stream banks will be stabilized with plantings of live stakes or tubelings. This includes staging and storage areas and temporary access roads that are currently unforested.



Figure 4 Segment 3



Figure 5 Segment 4

All aspects of the restoration were designed based on a detailed geomorphic assessment, hydrologic and hydraulic studies. These studies allowed for the most appropriate stabilization measure to be chosen and designed specifically accordingly to the current hydrologic regime. Although during the design phases of the project existing trees were taken into account, in some instances, the most appropriate long-term stream channel stabilization measures will require impacts to, or the removal of, select existing trees. Decisions regarding tree impacts were carefully considered knowing that vegetation, especially mature trees, provide invaluable soil stability and often help to slow active stream bank and bed erosion. Conversely however, in more extreme instances, erosion can undermine trees to the extent where they are unstable. This instability leads to tree collapse and channel blockages which, in turn, exacerbate active erosion that results in the loss of additional trees. Impacts or the removal of trees designated as a part of the Hollywood Stream Restoration will provide greater long-term benefits to stream and floodplain stability, riparian and aquatic habitat, and downstream reaches than if they were to remain.

Forest Conservation Variance

Section 22A-12(b) (3) of Forest Conservation Law provides criteria that identify certain individual trees as high priority for retention and protection. Any impact to these trees, including removal of the subject tree or disturbance within the tree’s critical root zone (CRZ) requires a variance. An applicant for a variance must provide certain written information in support of the required findings in accordance with Section 22A-21 of the County Forest Conservation Law. The law requires no impact to trees that: measure 30 inches or greater, diameter at breast height (DBH); are part of a historic site or designated with a historic structure; are designated as a national, State, or County champion trees; are at least 75 percent of the diameter of the current State champion tree of that species, or trees, shrubs, or plants that are designated as Federal or State rare, threatened, or endangered species.

The applicant submitted a variance request on 1/13/2011 and a revised variance request on 6/29/2011 for the impacts to trees with the proposed layout (Attachment A). The applicant proposes to remove 10 trees and impact, but not remove 38 trees that are considered high priority for retention under Section 22A-12 (b) (3) of the County Forest Conservation Law. The following table details trees proposed for removal.

ID	Type	DBH	Condition	FCP Sheet	Comments
11	Tulip poplar	33"	Fair	7	Tree is located at the top edge of a sharp turn and severe undercut stream bank. Remove this tree to allow channel realignment to provide better geometry of the stream.
109	Tulip poplar	35"	Fair	5	Tree is located at the top edge of a severe undercut stream bank. Stream erosion and channel down cutting had caused tree roots to expose and undercut. Grading to stabilize erosive area and improve stream condition requires this tree to be removed. More than 45% CRZ will be impacted.
121	Tulip poplar	36"	Fair	4	Tree is located at the top edge of a severe undercut stream bank. Stream erosion and channel down cutting had caused tree roots to expose and undercut. Grading to stabilize erosive area and improve stream condition requires this tree to be removed. More than 45% CRZ will be impacted.
177	Tulip poplar	31"	Fair	9	Stream channel’s down cutting has narrowed and dropped stream bed elevation and tree roots are exposed. Grading to install step-pools and widening stream bank to stabilize erosive area and improve stream condition requires this tree to be removed. More than 45% CRZ will be impacted.
178	Tulip poplar	32"	Fair	9	Stream channel’s is down cutting has narrowed and dropped stream bed elevation and tree roots are exposed. Grading to install step-pools and widening stream bank to stabilize erosive area and improve stream condition requires this tree to be removed. More than 45% CRZ will be impacted.
218	Red maple	32"	Poor	2	Stream channel’s down cutting, has narrowed and dropped stream bed elevation and tree roots are exposed. Grading to install step-pools and widening stream bank to stabilize erosive area and improve stream condition requires this tree to be removed. More than 45% CRZ will be impacted.

234	Red maple	38"	Fair	2	Stream channel's down cutting, has narrowed and dropped stream bed elevation and tree roots are exposed. Grading to install step-pools and widening stream bank to stabilize erosive area and improve stream condition requires this tree to be removed. More than 45% CRZ will be impacted.
238	Red maple	36"	Fair	2	Stream channel's down cutting has narrowed and dropped stream bed elevation and tree roots are exposed. Grading to install step-pools and widening stream bank to stabilize erosive area and improve stream condition requires this tree to be removed. More than 45% CRZ will be impacted.
242	Tulip poplar	38"	Fair	2	Tree is adjacent to LOD and is located within an overgrowth invasive (bamboo) area. Stream restoration work includes grading to install step-pools that will be required 32% impact to CRZ. Arborist will be consulted to ensure the survival of this tree.
222	White willow	38"	Poor	2	Tree #222 is greater than or within >75% of a current State or County Champion. However, it was in poor condition and has recently fallen due to storm damage.

The following table describes the impacts to the trees proposed to be impacted but not removed. Detailed tree protection measures to mitigate effects include root pruning, rock packing, tree planking, and the use of mulch and wooden matting.

ID	Type	DBH	Condition	FCP Sheet	Comments
5	Red maple	33"	Fair	8	This tree is located about 25 feet inside TPF. Stream restoration work includes minor grading to install new bank toe protection structure.
9	Red maple	30"	Fair	7	Stream restoration work includes grading to install new bank toe protection structure.
12	Tulip poplar	30"	Fair	8	Tree is located at the top edge of an undercut stream bank. Stream erosion and channel down cutting had caused tree roots to expose and undercut. Grading and rock packing to protect tree's root system and stabilize stream bank toe.
16	Tulip poplar	32"	Fair	7	CRZ extends into access route within the LOD therefore, contractor will place Mulch mats or Wooden mats to protect this tree's CRZ. Minor grading proposed.
22	Tulip poplar	32"	Fair	6	Tree is located at the top edge of an undercut stream bank. Stream erosion and channel down cutting had caused tree roots to expose and undercut. Grading and rock packing to protect tree's root system and stabilize stream bank toe.
34	Tulip poplar	30"	Good	7	Tree is adjacent to LOD and is located on eroded stream bank. Stream restoration work including grading to protect bank toe will be worked around this tree CRZ to minimize impacts if possible.
49	White oak	31"	Fair	6	This tree is located about 35 feet inside TPF. Minor grading to stabilize stream bank.
50	White oak	31"	Fair	6	This tree is located about 35 feet inside TPF. Minor grading to stabilize stream bank.
51	Red oak	30"	Fair	6	This tree is located about 35 feet inside TPF. Minor grading to stabilize stream bank.

ID	Type	DBH	Condition	FCP Sheet	Comments
52	Tulip poplar	31"	Fair	6	Tree is located at the top edge of an undercut stream bank. Stream erosion and channel down cutting had caused tree roots to expose and undercut. Grading and rock packing to protect tree's root system and stabilize stream bank toe.
53	Tulip poplar	32"	Good	6	Tree is located at the top edge of an undercut stream bank. Stream erosion and channel down cutting had caused tree roots to expose and undercut. Grading and rock packing to protect tree's root system and stabilize stream bank toe.
60	Tulip poplar	33"	Good	6	Tree is located at the top edge of an undercut stream bank. Stream erosion and channel down cutting had caused tree roots to expose and undercut. Grading and rock packing to protect tree's root system and stabilize stream bank toe.
66	Red oak	36"	Fair	6	Tree is adjacent to LOD and is located near stream crossing access. Primary impact within the CRZ is temporary access route and a minor stream bank grading.
78	Tulip poplar	48"	Good	5	Tree is adjacent to LOD and is located near stream crossing access. Primary impact within the CRZ is temporary access route and a minor stream bank grading.
99	Red oak	32"	Fair	5	This tree is located about 25 feet inside TPF. Minor grading to stabilize stream bank.
102	White oak	36"	Fair	5	This tree is located about 25 feet inside TPF. Minor grading to stabilize stream bank.
106	Tulip poplar	41"	Good	5	Tree is located at the top edge of an undercut stream bank. Stream erosion and channel down cutting had caused tree roots to expose and undercut. Grading and rock packing to protect tree's root system and stabilize stream bank toe.
115	Red oak	34"	Fair	5	This tree is located about 30 feet inside TPF. Minor grading to stabilize stream bank.
116	Tulip poplar	30"	Good	5	This tree is located about 25 feet inside TPF. Minor grading to stabilize stream bank.
125	Tulip poplar	34"	Fair	4	This tree is located about 40 feet inside TPF. Minor grading to stabilize stream bank.
129	Tulip poplar	33"	Good	4	This tree is located about 20 feet inside TPF. Minor grading to stabilize stream bank.
141	Black cherry	36"	Poor	4	Tree is adjacent to LOD and is located on eroded stream bank. Stream restoration work includes grading to protect bank toe will be worked around this tree CRZ to minimize impacts if possible.
144	Tulip poplar	50"	Fair	4	This tree is located about 30 feet inside TPF. About 18% of CRZ will be impacts by grading to stabilize stream channel.
171	White oak	30"	Fair	9	This tree is located about 30 feet inside TPF. About 23% of CRZ will be impacts by grading to stabilize stream channel.
173	Red oak	31"	Fair	9	This tree is located about 30 feet inside TPF. About 4% of CRZ will be impacts by grading to stabilize.
180	White pine	34"	Good	9	CRZ extends into access route within the LOD therefore, contractor will place Mulch mats or Wooden mats to protect this tree's CRZ. No grading proposed.
181	Tulip poplar	32"	Good	9	CRZ extends into access route within the LOD therefore, contractor will place Mulch mats or Wooden mats to protect this tree's CRZ. No grading proposed.

ID	Type	DBH	Condition	FCP Sheet	Comments
185	Tulip poplar	31"	Fair	7	CRZ extends into access route within the LOD therefore, contractor will place Mulch mats or Wooden mats to protect this tree's CRZ. No grading proposed.
188	Red oak	48"	Good	7	CRZ extends into access route within the LOD therefore, contractor will place Mulch mats or Wooden mats to protect this tree's CRZ. No grading proposed.
189	Red maple	30"	Fair	10	This tree is located about 10 feet inside TPF. Stream restoration work includes minor grading to install new bank toe protection structure.
195	Tulip poplar	40"	Good	9	This tree is located about 30 feet inside TPF. About 7% of CRZ will be impacts by grading to stabilize stream channel.
196	Tulip poplar	40"	Good	9	This tree is located about 30 feet inside TPF. About 6% of CRZ will be impacts by grading to stabilize stream channel.
197	Red maple	30"	Fair	9	Tree is located at the top edge of an undercut stream bank. Stream erosion and channel down cutting had caused tree roots to expose and undercut. Grading and rock packing to protect tree's root system and stabilize stream bank toe.
225	Tulip poplar	36"	Good	2	This tree is located about 35 feet inside TPF. About 6% of CRZ will be impacts by staging and temporary construction access. No grading proposed.
31773	Virginia pine	19"	Poor	2	Tree is greater than or within > 75% the size of a current State or County Champions. This tree is located about 13 feet inside TPF and tree protection planking is required. About 8% of CRZ will be impacts by staging and temporary construction access. No grading proposed.
235	Tulip poplar	30"	Good	2	This tree is located about 15 feet inside TPF. About 20% of CRZ will be impacts by grading to stabilize stream channel.
240	Tulip poplar	48"	Fair	2	This tree is located about 56 feet inside TPF. About 5% of CRZ will be impacts by grading to stabilize stream channel.

The applicant has offered the following justification for the variance request:

(1) Describe the special conditions peculiar to the property which would cause the unwarranted hardship;

Response: "In February 2006, the Department of Environmental Protection (DEP) completed a watershed study of the Lower Paint Branch that included Hollywood Branch. The study evaluated stream conditions, identified opportunities to improve stormwater management controls in the watershed, and prioritized streams for restoration. DEP conducted two public meetings as part of the study to obtain citizen comments regarding watershed conditions and restoration projects proposed in the study. Comments received regarding DEPs efforts to reduce severe stream bed and bank erosion were favorable. DEP also received citizen complaints regarding stream erosion from residents on Anderson Street, Clifton Road, Rosmere Avenue, Chilton Drive and Downs Drive. To meet the goals and objectives of the watershed study and serve the public good the applicant must access this area and work in the vicinity of these trees. Access was designed to minimize tree loss to the extent possible."

Because the trees are located directly adjacent to the streams and the critical root zones extend into the channels, it is not possible for the applicant to avoid affecting many of the trees while restoring the stream. Access routes and storage areas have been designed to minimize disturbance. Staff has reviewed the variance application and agrees that denial of the variance would cause an unwarranted hardship.

(2) Describe how enforcement of these rules will deprive the landowner of rights commonly enjoyed by others in similar areas;

Response: “Enforcement of these rules would deprive the Montgomery County DEP (owner) of their right and directive to improve stream conditions and enhance riparian stream buffers in order to create wildlife habitats, reduce erosion rates and provide stormwater management controls in the watershed. The proposed stream restoration and stabilization design has been carefully planned according to best management practices that allow for the preservation of as many existing trees as possible. Although unforested areas were utilized when possible, some tree impacts were unavoidable due to their location on the stream banks and the amount of forest within the existing stream buffers.”

Staff has reviewed the application and agrees that enforcing the rules would deprive the landowner of rights.

(3) Verify that State water quality standards will not be violated or that a measurable degradation in water quality will not occur as a result of the granting of the variance;

Response: “State water quality standards will not be violated and a measurable degradation in water quality will not occur as a result of granting this variance. In this case, the proposed project will focus on stream restoration approaches that will stabilize erosive areas, improve floodplain access, enhances riparian buffers and stream conditions that will improve water quality and overall aquatic habitats. In addition, the Stormwater Management Concept and a Sediment Control Plan will be submitted for review and approval by Montgomery County Department of Permitting Services and the Maryland Department of the Environment to ensure that the proposed plans will meet the current State and County water quality standards and regulations.”

Staff has reviewed the application and agrees that State water quality standards will not be violated or that a measurable degradation in water quality will not occur. In fact, as this is a stream restoration project, water quality should improve as a result of the actions of the applicant.

(4) Provide any other information appropriate to support the request.

Response: “The approved NRI/FSD #42010034 acknowledged that there are no rare, threatened or endangered species within the boundaries of the project site as delineated. Also, the Maryland Historical Trust has determined that there are no historic properties affected within the project site. Please note that all specimen trees will be retained upon project completion. Please also note that efforts to retain all trees were made, however due to the existing degraded stream conditions those trees proposed for removal are already under stress and are a safety concern for adjacent home owners. Should the current rate of stream erosion continue, trees proposed for removal will likely be undermined and fall in the future with greater impacts to adjacent property owners.”

Section 22A-21 of the County Forest Conservation Law sets forth the findings that must be made by the Planning Board or Planning Director, as appropriate, in order for a variance to be granted.

Variance Findings - Staff has made the following determination based on the review of the variance request and the proposed Forest Conservation Plan. Granting the variance request requires the following findings:

1. *Will not confer on the applicant a special privilege that would be denied to other applicants. Granting the variance will not confer a special privilege on the applicant as disturbance of the specified trees are due to the proposed restoration of the stream. The trees and/or their critical root zones lie directly adjacent to the stream. Granting a variance request to disturbance to the CRZs of the trees for the purposes of stream restoration is not unique to this applicant. This variance is necessary to achieve the County goals of improving water quality. Therefore, staff believes that is not a special privilege that would be denied to other applicants.*
2. *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 actions by the applicant. The requested variance is based on the locations of the trees and the techniques necessary to restore the stream.*
3. *Is not based on a condition relating to land or building use, either permitted or non-conforming, on a neighboring property.*
The requested variance is a result of the proposed stream restoration on the subject property and not a result of land or building use on a neighboring property.
4. *Will not violate State water quality standards or cause measurable degradation in water quality.*
The proposed stream restoration plan should improve water quality by reducing erosion, improving floodplain access, and enhancing the stream valley buffer area. The requested variance will not violate State water quality standards or cause a measurable degradation in water quality.

Mitigation for Trees Subject to the Variance Provisions – A variance is being requested for 38 trees in order to impact their CRZs and ten trees in order to remove them. Generally, mitigation is not recommended for trees impacted but retained. Additionally, all variance trees affected by construction are located within forest and any impacts for removal would have been compensated for as part of the forest conservation worksheet. However, the applicant has proffered to plant a minimum of 27, 2.5" DBH native shade trees as part of the Final Forest Conservation Plan to mitigate for impacts to existing specimen trees.

County Arborist's Recommendation on the Variance - In accordance with Montgomery County Code Section 22A-21(c), the Planning Department is required to refer a copy of the variance request to the County Arborist in the Montgomery County Department of Environmental Protection for a recommendation prior to acting on the request. The request was initially forwarded to the County Arborist on 2/4/2011 and a revised variance request was forwarded on 11/1/2011. The County Arborist has elected not to review the variance request, per a phone conversation on 11/1/2011.

Variance Recommendation - Staff recommends that the variance be granted.

Conclusion

Staff recommends that the Planning Board approve the Preliminary Forest Conservation Plan with the conditions cited in this staff report. The variance approval is assumed into the Planning Board's approval of the Preliminary Forest Conservation Plan

Attachment

Preliminary Forest Conservation Plan