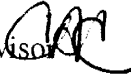



MEMORANDUM

DATE: February 25, 2005

TO: Montgomery County Planning Board

VIA: Rose Krasnow, Chief
Catherine Conlon, Acting Supervisor 
Development Review Division

FROM: Richard Weaver, Planner Coordinator (301) 495-4544 

REVIEW TYPE: Preliminary Plan Review

APPLYING FOR: Preliminary plan of Subdivision for 565 one family residential lots (including 71 MPDU's), and an 18-hole golf course and clubhouse

PROJECT NAME: Indian Spring

CASE #: 1-04108

REVIEW BASIS: Chapter 50, the Montgomery County Subdivision Regulations

ZONE: R-90 and R-200

LOCATION: Located on the east side of Layhill Road (MD 182) approximately 100 feet north of Randolph Road.

MASTER PLAN: Kensington-Wheaton

APPLICANT: Winchester Homes

HEARING DATE: March 3, 2005

STAFF RECOMMENDATION: Denial

Staff recommends denial of the preliminary plan because the proposed subdivision does not conform to the priorities for protection and enhancement of environmental buffers established in the Planning Board's "Guidelines for Environmental Management of Development in Montgomery County" and the Montgomery County Forest Conservation Law. Consistent with this finding, staff has no basis to conclude that the proposed subdivision has an attached unit mix that is "more desirable from an

environmental perspective than development that would result from adherence” to the 40 percent maximum single family attached unit mix.

It is staff’s opinion that the proposed subdivision has significant and excessive encroachments into environmental buffers. The subdivision proposes to encroach in 36 acres out of 99.5 acres of environmental buffers (36 % of the site’s buffers). This is the largest environmental buffer encroachment that has been requested to date. For comparison purposes, the requested buffer encroachment is more than twice the buffer encroachment in the recently approved Fairland Golf Course Community Project (16 acres of encroachment in 104 acres of environmental buffers, or, 15 % of the buffers). Some areas of encroachments are not just along buffer edges, but extend all the way to the stream channel. To reduce buffer encroachments to a level suitable in scale to encroachments approved in other plans, staff believes this subdivision would need to be substantially changed, including a significant reduction in the number of dwelling units proposed and/or the possible loss of or significant reduction in the golf course component.

At the request of the applicant, staff has examined the proposed on-site and off-site compensation measures offsetting the proposed buffer disturbance. Staff notes that both the applicant and staff have made significant efforts to identify measures to meet full compensation for the buffer encroachments. However, staff believes that the proposed encroachments are of such a large magnitude that the applicant’s proposal can compensate for only 23.6 acres out of the 36 acres of encroachments. The plan would have to substantially change to either reduce buffer encroachments by 12.4 acres or identify more compensation measures.

PREVIOUS PLANNING BOARD ACTION:

On March 11, 2004, the Pre-Preliminary Plan for the proposed development was brought before the Planning Board for a decision pursuant to § 50-33A of the Subdivision Regulations. At the hearing, the applicant requested that the Planning Board make binding conditions of approval with respect to the Adequate Public Facilities ordinance as well as regulations governing environmental buffers. The Board was not able to make decisions on all issues requested by the applicant due to a lack of information. On June 30, 2004, the Planning Board issued a written opinion setting forth its findings of fact and conditions of approval. (See Attachment 1 – Pre-Preliminary Opinion)

With regard to the Adequate Public Facilities, the Planning Board deferred a decision on the extension of Tivoli Lake Boulevard to the preliminary plan stage. Since many other transportation components hinged on this road extension, the Board could not make the requested adequate public facilities findings for transportation. The Board was of the mind that if Tivoli Lake Boulevard were extended, certain road improvements at the intersection of Georgia Avenue and Randolph Road would be required, otherwise the applicant would pay a pro-rata share of future road improvements by SHA to that intersection. The Board also agreed that if Tivoli Lake Boulevard was extended, it would

need to be built to primary road standards. In addition, traffic calming on Tivoli Lake Boulevard would be required and a traffic signal would need to be installed at the entrance on Layhill Road if SHA traffic signal warrants supported it. Finally the Board supported the requirement for bike racks if Tivoli Lake Boulevard was extended. Similarly, the Board did not have adequate information to make a determination on the connection to Foggy Glen Drive to the north.

The Planning Board was also asked to make binding conditions on the environmental buffer encroachment as shown on the pre-preliminary plan. The Board determined they did not have enough information to make a judgment on the amount of buffer encroachment that they would accept. The Board did find that the full buffer is required by the current guidelines and any encroachment should be offset by compensating environmental mitigation measures. A decision on the buffer encroachment was deferred to preliminary plan. The Board instructed staff to begin its analysis with the full buffer and ensure that any compensation for encroachments into the buffer should result in a net increase in protection and/or enhancement over what is lost.

The Board also deferred a decision on unit type, number and mix of units shown on the pre-preliminary plan. The applicant requested a waiver of the required mix of 60% detached and 40% attached units based on compatibility and environmental reasons. Given the lack of decision regarding buffer encroachments requested by the applicant, the Board was deferred a decision on any waivers of unit mix to the preliminary plan stage when more information could be made available.

The applicant proffered to provide all required MPDU's on the subject property, with the number and location to be determined at the time of preliminary and/or site plan. The Board accepted this proffer.

The Board did include certain conditions of approval regarding: forest conservation, trails stormwater management, parkland encroachments, and schools to be addressed at the time of preliminary plan. These conditions are outlined in the Attachment 1.

SITE DESCRIPTION:

The 308.4-acre site lies within the Northwest Branch watershed (Use Classification IV¹). The mainstem of Northwest Branch lies along the east property boundary in M-NCPPC parkland, and Bel Pre Creek, a major tributary of Northwest Branch, lies within the site along the southern property boundary. Five smaller tributary streams are also located within the site. Northwest Branch Stream Valley Park surrounds the property to the south and east.

The majority of the land cover on the site is associated with the country club and golf course uses that have existed since the 1950's. The country club facilities include

¹ Use IV waters is the state use designation for Maryland streams which has the second highest water quality standards.

the club house, parking lots, maintenance building and area, tennis courts, driving range, swimming pool, and golf course. About 10 percent of the site (31.7 acres) is covered in forest, most of which is associated with stream valleys.

There are 99.5 acres of environmental buffers onsite. Currently, 72.4 acres of these buffers are in golf course use. Stream buffers on site have been modified to varying degrees by the existing golf course use. Some of the buffer is fully forested while others are partly or completely within the golf course and are covered in grass that is mowed down to the stream channel. Portions of the stream channels have been partly or completely piped or been converted to aesthetic ponds. Staff has not required long sections of piped stream channels to have a buffer.

A significant portion of the 99.5 acre environmental buffer, or 45.8 acres is floodplain. Floodplains cover 45.8 acres of the site, all of which are in golf course use. Much of the upland topography on the site is rolling, with some areas of steep slopes along parts of wooded stream valleys adjacent to the flat floodplains of Northwest Branch and Bel Pre Creek.

The applicant proposes a golf course community in which both a new golf course and residential units would be constructed. The applicant has proposed 36 acres of environmental buffer encroachments as shown on the submitted preliminary plan, excluding encroachments associated with roads and utilities.

PROJECT DESCRIPTION:

The applicant, Winchester Homes ("Applicant") has submitted a plan for development of 565 single-family units under the R-200 MPDU development standards. The plan proposes 226 detached units and 339 attached units with 71 MPDUs on-site. The plan also proposes the development of a new 18-hole private golf course and clubhouse. The Applicant proposes access to and through the site at three locations: 1) Tivoli Lake Boulevard to the south; 2) the existing access road from Layhill Road to the west; and 3) Foggy Glen Road to the north. The extension of Tivoli Lake Boulevard and the Layhill access road will be built to primary road standards.

The residential component and clubhouse are located in the upland area of the site. The new 18 hole golf course would be reconstructed in the lower areas of the property. The applicant strongly believes there should be a golf course associated with this residential community and that encroachment into the environmental buffer on the site is needed to facilitate such a use.

DISCUSSION OF ISSUES

THE ENVIRONMENT

I. Background

Forest Conservation Law

The Montgomery County Forest Conservation Law identifies natural areas found in environmental buffers as priority areas for forest retention and forest planting. Section 22A-12 (b) of the law states:

“(1) The primary objective of the forest conservation plan should be to retain existing forest and trees and avoid reforestation in accordance with this Chapter. The forest conservation plan must retain certain vegetation and specific areas in an undisturbed condition unless the Planning Director finds that:

- (A) the development would make maximum use of any available planning and zoning options that would result in the greatest possible retention;
 - (B) reasonable efforts have been made to protect the specific areas and vegetation listed in the plan; and
 - (C) the development proposal cannot reasonably be altered.
- (2) In general, areas protected under this subsection include:
- (A) floodplains, stream buffers, steep slopes, and critical habitats;
 - (B) contiguous forests;
 - (C) rare, threatened, and endangered species;
 - (D) trees connected to an historic site;
 - (E) exceptionally large trees; and
 - (F) areas which have been designated as priority save areas in a master plan or functional plan.” (Emphasis added.)

Further, section 22A-12 (e)(3) states that “afforestation and reforestation should be directed to stream buffer areas, connections between and additions to forested areas, critical habitat areas, topographically unstable areas, and land use and road buffers.” (Emphasis added.)

Environmental Buffer Guidelines

The Environmental Guidelines (formally known as “Guidelines for Environmental Management of Development in Montgomery County”) were first adopted by the Planning Board in 1983. Subsequent revisions were adopted in 1991, 1997, and 2000 with substantial input in public session from all stakeholder groups. Objectives of these guidelines include:

- maintenance of biologically viable and diverse streams and wetlands
- protection and restoration of water quality

- preservation/protection of wildlife habitat, wildlife corridors
- implementation of state and county riparian buffer programs

One of the major goals of the guidelines is the preservation and restoration of environmentally-sensitive areas as part of land development activities. Environmentally sensitive areas include sensitive areas as defined in the 1992 Maryland Economic Growth, Resource, and Planning Act: streams and their buffers, the 100-year floodplain, steep slopes, and habitats of rare, threatened, and endangered species. The Environmental Guidelines also explicitly include wetlands and their buffers as environmentally-sensitive areas.

The Environmental Guidelines recommend avoidance and protection of environmental buffers as part of new development. In conjunction with the County Forest Conservation Law, the guidelines identify buffers as the highest priority location to protect existing forest and to plant new forest. Staff normally does not support encroachments into buffers unless they are for unavoidable infrastructure (e.g., sewer lines, road crossings, and stormwater management outfalls). In limited instances staff has also allowed non-infrastructure buffer encroachments. In such cases, the following features have typically applied:

- Reasonable alternatives for avoidance of the buffer have been determined to be infeasible.
- Encroachment into the buffer is a small area, usually along an edge of the buffer, and has been minimized.
- The encroachment area is not forested and does not include sensitive areas (floodplain, wetlands and state-defined buffers, steep slopes, and habitat for rare, threatened and endangered species)
- The proposed plan provides compensation for the loss of the buffer. In many cases, compensation has involved protecting land next to a buffer and protecting forest or planting the land at a ratio of 2:1 (i.e., for every acre of buffer encroachment, staff has recommended two acres of land to be protected outside but adjacent to a buffer; if the land is not currently forested, afforestation is recommended). On a case by case basis, staff has also allowed limited compensation measures to be out-of-kind (e.g., stream restoration projects).

Two-for-one compensation to mitigate for the loss or permanent impairment of a natural resource feature has its basis in other environmental laws and regulations. The state and county forest conservation laws require reforestation at a 2:1 rate to compensate for clearing forest below a defined threshold known as the conservation threshold. The Maryland wetland regulations (COMAR 26.23.04.03 (C)) require a replacement ratio of at least 2:1 for loss of scrub-shrub or forested non-tidal wetlands.

The over-riding priority for compensation measures is to provide compensation “in-kind” for the loss to the existing or prospective environmental resource. “In-kind” replacement has several components, including replacement of the resource in kind and function (i.e., land for land; forest for forest); in quantity (acre per acre); and in

geographical proximity (e.g., in immediate proximity or within the watershed). The more the proposed compensation measure strays from any of these objectives, the less the buffer compensation credit given. On a case-by-case, limited basis, staff has also accepted out-of-kind measures (e.g., stream improvements) as partial or total compensation for environmental buffer encroachments.

Using staff's general practice (described above) for defining appropriate compensation for buffer encroachments, the proposed 36 acres of buffer encroachment in the Indian Spring proposal would require 72 acres of compensation land that would be in immediate proximity and be of equivalent or greater natural resource value to the encroached buffers.

II. STAFF EVALUATION OF ENVIRONMENTAL ISSUES FOR THE PROPOSED INDIAN SPRING PRELIMINARY PLAN

A. Application of Environmental Guidelines

Three main issues have been raised with respect to staff's application of the Environmental Guidelines to this plan: (1) golf course uses are within the environmental buffer; (2) golf course use would be a continuation of an existing use within the environmental buffer; and (3) staff's review of the Indian Spring subdivision as compared with its review of the Fairland Golf Course Community.

Golf Courses within Environmental Buffers

It has been argued that golf courses provide a large amount of pervious open spaces that are environmentally beneficial. Grass cover provides for filtering of surface stormwater runoff, possibly some infiltration. Water quality treatment structures, such as created wetlands and sand filters, are required as part of a new golf course and provide an added layer of water quality protection. Therefore, a golf hole should be an acceptable use within an environmental buffer area that is currently not forested.

Staff disagrees with the above analysis. Although a golf hole in an environmental buffer is in vegetative cover, it displaces land identified as highest priority for reforestation in the Forest Conservation Law. That is, the presence of a golf hole in a buffer prevents that buffer from converting (through natural regeneration or man-made reforestation) into forest habitat. From a natural resources management perspective, forest habitat provides greater wildlife value than a golf hole. Forest that surrounds streams provide shade and food for fish and other aquatic organisms. Current literature in the golf industry for designing new golf courses frequently include recommendations to avoid development within environmentally-sensitive areas.

A golf hole within an environmental buffer will likely involve some chemical (fertilizers and pesticides) usage to maintain proper turf conditions, even if the golf course operations employ environmentally-sensitive measures and best management

practices. Such chemical usage would occur in or near recognized sensitive areas such as streams, wetlands, and/or floodplains and could potentially have adverse effects on native riparian or aquatic plants and animals and stream water quality. In addition, fairways, greens, and tees are intensely maintained and groomed. Often, these areas are designed to quickly drain water, which is completely contrary to the natural functions of floodplains and wetlands for water retention or infiltration, floodflow attenuation, and water quality filtration through vegetation.

Continuation of Existing Uses within Environmental Buffers

A second issue has been whether it is appropriate to allow a golf course use within those parts of the environmental buffer where it currently exists. Generally, it is staff's practice/policy to allow existing uses to continue within a buffer if the land use *and* features do not change. If new construction or reconstruction is proposed for the use, or if the use changes, staff typically recommends that the use be relocated outside the buffer. Staff considers the Indian Spring subdivision to be new development and subject to all current standards and guidelines. The proposal is to replace a 36-hole golf course with a residential golf course community consisting of 565 dwelling units and an 18-hole golf course. The golf course component involves complete regrading of the land to create a new 18-hole course. It is not just keeping existing holes with limited land disturbance. Therefore, staff would place high priority in laying out the subdivision to locate the residential lots and the new golf course outside environmental buffer areas.

In addition, there are areas of the existing golf course that are located within the 100-year floodplain and/or on hydric soils, contrary to current standards and guidelines for environmental protection. Land with hydric soils normally support wetland conditions unless it has been artificially altered. Allowing a golf course use to be reconstructed in such sensitive areas within the buffers would prevent these areas from naturally reverting back to forest and possibly wetland habitats.

Review of Fairland Golf Course Community

While some similarities exist between the Planning Board's recent approval of the Fairland Golf Course Community ("Fairland Project") and the Applicant's proposed development (e.g., an existing golf course in need of upgrade to current golf and environmental standards, appurtenant to a major residential component), there are major differences in the land use objectives for these two projects.

First, the Fairland Master Plan expressly calls for the Fairland Project to be developed as a golf course community "developed in conjunction with an upgraded public golf course." (Fairland Master Plan, pages xiv – xv, 47 – 48). Consequently, a joint housing/golf course community is expressly recommended in the master plan. In contrast, the Indian Spring Property is not expressly recommended for the type of development proposed by the applicant.

The Fairland Master Plan recommends a joint private/public partnership with M-NCPPC for the dual purpose of developing a residential community with a significant percentage of single-family detached dwellings, and also provides a replacement for the existing Gunpowder public golf course, including a "First Tee" program. In addition, the master plan recommends dedication for a new elementary school on the site. Each of these recommendations was incorporated into the regulatory plans approved for the Fairland golf course community subdivision.

The Master Plan for Kensington/Wheaton, however, emphasizes residential development only for Indian Spring. The applicant's proposal includes a private golf club accessible by membership or tournament invitation only, and a private clubhouse/conference center available for rental. Both the golf course and clubhouse are not included as specific recommendations of the Kensington/Wheaton Master Plan.

Second, the subdivision and site plans approved for the Fairland Project achieved multiple environmental objectives, also recommended in the Fairland Master Plan for broad watershed protection benefiting Montgomery and Prince George's Counties. As recommended by the master plan, the Fairland Project (1) provides significant restoration/remediation measures within areas identified in the Fairland Master Plan along the northeastern stem of Little Paint Branch as environmental reclamation areas, which measures are designed to reverse decades of deterioration and degradation associated with sand and gravel operations; (2) the Fairland Project will provide on-site mitigation of off-site stormwater runoff from the current uncontrolled off-site industrial area in Prince George's County;; and (3) will provide for stabilization and remediation the existing unstabilized rubble fill on Parcel X. (See Fairland Master Plan, page 134.)

The express recommendations of the Fairland Master Plan, which seek the multiple objectives of (1) redevelopment of a public golf course; (2) the development of an adjoining golf course community; (3) creating a public school site on the project site; and (4) the restoration of highly degraded industrial sites containing stream beds and generating uncontrolled runoff, dictate flexibility in the standard practice of minimizing environmental buffer encroachments and providing in-kind compensation to achieve the identified environmental upgrades. The application of these master plan recommendations to the site-specific conditions of the Fairland Project does not establish broader precedent for deviation from the Board's standard application of the Forest Conservation Law and Environmental Guidelines. The Indian Spring development, a private development that is neither recommended by the master plan nor offers the significant environmental improvements provided in the Fairland Project as detailed in the Fairland Master Plan, do not justify deviation from the Board's standard environmental review practices.

Finally, it is important to note that the Fairland (314 acres) and Indian Spring (308 acres) sites are comparable in size. They also have comparable amounts of environmental buffers (104 acres of buffers on Fairland, 99.5 acres on Indian Spring). Even with the added public school site in the Fairland project, the buffer encroachments in Fairland are significantly less than those proposed in Indian Spring. *The Fairland golf*

course community was approved with 16 acres (15 % of buffers) of encroachments within 104 acres of environmental buffers. In contrast, Indian Spring proposes 36 acres (36 % of buffers) of encroachment within 99.5 acres of buffers.

B. Environmental Buffer Preservation Vs. Encroachment

As stated above, staff considers the proposed plan to be new development. Therefore, consistent with the application of the Environmental Guidelines and Forest Conservation Law for new development, staff has reviewed this plan in the following sequence as it relates to environmental buffers:

(1) Identify Full Environmental Buffers for Preservation or Restoration

As with any new development, the first priority is to recommend a subdivision layout that identifies all of the environmental buffers as natural areas for either preservation or restoration. This approach is also in keeping with the Planning Board's guidance at the pre-preliminary discussions to start the review from the full buffers. Staff recognizes that there are certain infrastructure features, such as road crossings, sewer lines, and stormwater management facility outfalls that unavoidably must encroach into buffers. Such encroachments are considered by staff to be acceptable and have been excluded from the stated 36 acres of buffer encroachments.

(2) *Buffer Encroachments Must be Minimized*

The pre-preliminary plan showed about 38 to 39 acres of buffer encroachments. Over the course of the review, the applicant has revised the plan to reduce buffer encroachments to 36 acres. The applicant indicates that these 36 acres of encroachments cannot be further reduced. The plan has been revised to tighten the residential areas so that some of the golf course may be shifted outside the buffers. The current plan shows the following environmental buffer encroachments:

- 1.9 acres proposed for 8 residential lots
- 34.1 acres proposed for golf course features and stormwater management facilities.

Staff believes that the proposed 36 acres of buffer encroachments are excessive. This is the largest amount and percentage (36 % of the site's buffers) of buffer encroachment that has been proposed for a project that is subject to the Environmental Guidelines. In addition, the configuration of some areas of proposed encroachments are such that there are no natural areas that are preserved next to streams. Staff believes the majority of the encroachments could be avoided if the subdivision is substantially altered, without changing the current zoning on the property. However, these changes may result in the loss of the golf course and/or changes in the unit mix or numbers.

C. Compensation for Environmental Buffer Encroachments

Staff's Recommended Compensation for Buffer Encroachment

As previously noted, in situations where staff has accepted buffer encroachments, recommendations for predominantly in-kind compensation have been at a rate of 2:1. Applying this generally-accepted "rule" to this site, the proposed 36 acres of buffer encroachment in the Indian Spring proposal would result in 72 acres of replacement land adjoining buffers in Northwest Branch watershed.

In early discussions with the applicant, it became apparent that compensation with land onsite, near the site, or even in the same watershed at a 2:1 rate was not feasible. Therefore, staff crafted an alternative method for defining acceptable compensation for buffer encroachments. This method is more flexible than staff's 2:1 compensation practice, by allowing compensation measures to be located outside the watershed of impact.

Staff's concept for compensation, and credits given, is based on the premise of in-kind replacement in proximity to the area of buffer encroachment. In other words, compensation measure should be able to at least replace the natural value and function of the impact area, as well as located near the area of impact. The more the proposed compensation measure deviates from these primary objectives, the less the buffer compensation credit is given. A secondary consideration is that citizens often complain that compensation for environmental impacts can occur far from the impact area rather than in the immediate vicinity of the environmental impact.

Staff's recommended method has two steps:

Step 1: Calculate the Total Compensation Credits Needed

The total compensation credits needed are the acres of buffer encroachment plus the acreage equal to the proportion of total buffer with encroachment multiplied by the buffer encroachment amount. In addition, of the total credits needed to show full compensation, an amount equal to the acres of encroachment must lie within the same watershed as the encroachment:

Total compensation credit = acres of buffer encroachment + [(% of onsite buffers with encroachment) x (acres of buffer encroachment)]

Example: A project site has 5 acres of environmental buffers. Encroachment is proposed in 2 acres (or 40 %) of the buffers. The compensation credits needed would be 2.80 credits, or, 2 acres + [(40 %) x (2 acres)]. Of this total credit, 2 credits must be within the same watershed as the buffer encroachment.

With the Indian Spring proposal, 36 acres of the 99.5 acres of the site's buffers have encroachments (36 % of the buffers). The compensation credits needed would be 49 credits, or, 36 acres + [(36 %) x (36 acres)]. The applicant would need compensation measures that equate to 49 credits.² Of that, 36 credits must lie within Northwest Branch watershed.

Step 2: Assign Compensation Credits for Each Proposed Measure

Staff believes that not all measures will equally compensate for buffer encroachments. So, staff assigned compensation ratios to define how much credits a type of measure could generate. The ratios are based on how closely the measure will replace the “loss” of buffer functions and values. Staff believes these criteria need to be clearly defined because: (1) they substantially deviate from staff's standard practice of 2:1 land for land compensation and (2) the large amount of encroachment requires a careful accounting of the compensation measures to ensure that there is a basis for concluding whether or not the measures provide full compensation.

Staff's criteria for evaluating compensation for buffer encroachments for the Indian Spring plan are shown in Table 1. The credits are based on the following principles:

- Compensation should be close to the buffer areas that are “lost”. Therefore, measures within the site are preferred to offsite measures. Also, measures within the same watershed (Northwest Branch) as the subdivision are preferred to measures outside the watershed.
- Land-based measures (e.g., protecting land and planting forest) are preferred over other types of measures (stream restoration, controlling invasive plants, etc.). Encroachments into a buffer area result in the loss of that land's existing or potential functions and values for wildlife habitat, forest (existing or future) community, and water-related habitats of wetlands, floodplains, and other riparian areas. *Staff believes that the priority for compensating for the loss of that buffer's existing or potential natural resource values and functions should be to replace it with land of equivalent or greater natural value and function.*
- The County Forest Conservation Law allows 1:1 credit for planting forest and protecting the planted forest to mitigate for forest clearing. The law also allows protecting existing forest on a 2:1 basis for forest clearing mitigation. That is, twice as much forested land is needed to mitigate for the loss of forest. Staff has followed a similar approach in defining credit ratios for buffer encroachment compensation.

² Staff's evaluation of the applicant's compensation package is based on credits, as defined in Table 1, rather than in acreages.

TABLE 1. STAFF'S RECOMMENDED COMPENSATION CREDIT RATIO

| Recommended compensation measure | Staff's recommended compensation credit ratio (amount of compensation measure: allowed credit) |
|---|--|
| <p>Within Northwest Branch watershed:</p> <p>Buffer on subject site (will have Category I conservation easement as part of subdivision):</p> <ul style="list-style-type: none"> ▪ Plant forest <p>Buffer in an already developed property and currently not protected (no conservation easement):</p> <ul style="list-style-type: none"> • Place Category I conservation easement without planting • Plant forest and place land in easement <p>Protect and improve existing forest that is <i>heavily</i> overgrown with non-native invasive plants. (Forest must be of a size and location to be considered as valuable forest habitat if improved).</p> <p>Area adjacent to buffer and not currently protected</p> <p>a. onsite:</p> <ul style="list-style-type: none"> • Place Category I conservation easement with no planting.. • Plant forest and place land in easement <p>b. offsite:</p> <ul style="list-style-type: none"> • Place Category I conservation easement with no planting. • Plant forest and place land in easement | <p>2 acres = 1 credit</p> <p>2 acres = 1 credit</p> <p>1 acre = 1 credit</p> <p>1 acre = 0 credit up to 1 credit, depending on the extent and severity of the invasive plant problem and the benefit to the forest habitat.</p> <p>2 acres = 1 credit</p> <p>1 acre = 1 credit</p> <p>4 acres = 1 credit</p> <p>2 acres = 1 credit</p> |
| <p>Outside Northwest Branch watershed:</p> <p>Buffer in an already developed property</p> | |

| Recommended compensation measure | Staff's recommended compensation credit ratio (amount of compensation measure: allowed credit) |
|--|--|
| <p>that is currently not protected (no conservation easement):</p> <ul style="list-style-type: none"> • Place Category I conservation easement with no planting • Plant forest and place land in easement <p>Area adjacent to buffer and not currently protected:</p> <ul style="list-style-type: none"> • Place Category I conservation easement with no planting • Plant forest and place land in easement | <p>4 acres = 1 credit</p> <p>2 acres = 1 credit</p> <p>8 acres = 1 credit</p> <p>4 acres = 1 credit</p> |

Staff Evaluation of Applicant's Proposed Compensation for Buffer Encroachment

The applicant proposes a variety of compensation measures. These are shown in Table 2 and include planting forest in excess of meeting the Forest Conservation Law requirements, adding and planting land next to onsite buffers, stream channel and streambank restoration, invasive plant controls, and out-of-watershed forest preservation.

There are certain measures that the applicant proposes more credits than staff recommends. Staff's recommendations for credits are given in Table 2 and differences between staff and the applicant on credits assigned to proposed measures are highlighted as follows:

- The applicant believes that 12.8 credits should be assigned for creating 12.8 acres of forested wetlands in environmental buffers on the site. The applicant believes this measure will accelerate the establishment of forested wetlands where none exist today.

Staff recommends that this measure should be given 6.4 acres of credit (2 acres = 1 credit). First, protection of this environmental buffer area will occur as part of the normal subdivision process, so no additional compensation credit is appropriate. Second, staff does not support the "value-added" compensation credit of designed wetland creation since we believe that the area, if left alone,