MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MEMORANDUM

DATE: June 12, 2009

TO: Montgomery County Planning Board

VIA: Mark Pfefferle, Acting Chief, Green (Environmental Planning) Division MP
Mary Dolan, Supervisor, Green (Environmental Planning) Division MD

FROM: CB Candy Bunnag and Andrea Stone, Green (Environmental Planning) Division

SUBJECT: Environmental Review of the Intercounty Connector (ICC) Segment in the Upper Paint Branch Special Protection Area (SPA)

This memorandum is a review of the environmental and water resource protection measures that State Highway Administration (SHA) has proposed as part of the Intercounty Connector (ICC) project within the Upper Paint Branch Special Protection Area (SPA). The purpose of this review is to:

- Provide public information regarding the State's proposed designs within the Upper Paint Branch SPA;
- Allow public and Planning Board review and comment to the Maryland Department of the Environment (MDE) to influence details of the stormwater management, erosion and sediment control, and roadway design prior to MDE approval of final design plans; and,
- Provide recommendations to the Maryland Department of Natural Resources (DNR) regarding forest conservation.

This analysis will identify how the proposed project compares to the environmental protection requirements, standards, and guidelines that cover the Upper Paint Branch SPA. The analysis is a compilation of comments and recommendations from M-NCPPC Environmental Planning Division, the Department of Parks, Montgomery County Department of Permitting Services (DPS), and Department of Environmental Protection (DEP).

The ICC project is a state project and, as such, is not subject to County laws and regulations. However, SHA has recognized the local significance of the Upper Paint Branch SPA and has indicated that it will follow the intent of the County SPA law and regulations, proposing a series of protection, mitigation and stewardship measures that seek to provide the best possible protection for the resources of the Upper Paint Branch. This review provides feedback to the state and federal permitting agencies and SHA as to how well this overall objective is achieved from the local perspective with recommendations designed to improve protection and enhancement of SPA environmental resources. The regulatory review and approval of the stormwater management (SWM) plans and sediment and erosion control plans lie with the MDE. In addition, the project is subject to the Maryland Reforestation Act (Maryland Natural Resources Article, Section 5-103), which is administered by the DNR. The ICC is not subject to

Montgomery County's laws and regulations relating to Special Protection Areas, forest conservation, stormwater management, or sediment and erosion control.

The County Council and the Planning Board have requested that SHA (for the sections of the project traversing through the two SPAs) review the project with County staff and the Planning Board to determine how it could more closely follow the requirements and guidelines of the SPA. This review evolved from an agreement between M-NCPPC Chairman Hanson and SHA Administrator Pedersen in January 2007 to conduct a public hearing process for environmental review of the ICC portions within the SPAs in a collaborative manner that reflects the Design/Build (D/B) process and schedule, and results in County agencies providing detailed comments to State regulatory agencies on environmental protection measures. The details of this process were included in the ICC Status Report #5 presented to the Planning Board on February 2, 2007 and is included in Attachment 1.

STAFF RECOMMENDATIONS

Staff recommends that the Planning Board submit the comments below to MDE, DNR, and SHA for their consideration prior to permit releases.

Staff notes that the ICC does not comply with all elements of the SPA requirements and guidelines. This is mostly due to the location of the Right-of-Way (ROW) that is set by the Cloverly and White Oak Master Plans and the nature of the project, i.e. a major highway. If the ICC is to more closely follow SPA requirements and guidelines, and given the project's proposed location within the SPA, staff recommends that the following measures be incorporated into the project to help further reduce impacts to natural resources.

Overall SPA Comments

1. Construction plans should show that during construction, provisions should be made to maintain safe pedestrian passage along Cape May Road to New Hampshire Avenue for community access to public transportation.
2. The design/builder should review the current design to identify areas where the Limit of Disturbance (LOD) can be reduced to limit impacts to natural resources. In addition, tree protection measures should be incorporated along the LOD to ensure preservation of existing trees to remain and remove trees that will be significantly damaged as a result of this construction.

SPA Environmental Buffers

3. All plans should identify the County's SPA environmental and wetland buffers as sensitive areas, with notes recommending avoidance and minimization measures. This approach is consistent with the intent of Record of Decision (ROD) Commitments #91, #92, and #100, and the SPA process, to avoid or minimize adverse impacts to environmentally-sensitive areas. Where disturbance is unavoidable, the use of best management practices for working in "nontidal wetlands, the nontidal wetland buffer, waters of the State, and 100-year floodplain" should also be applied to all County

environmental buffers in the SPA in the same manner as would be applied to buffers and sensitive resources defined by state and federal authorities.

Interior Forest and Biodiversity Area

4. Clearing and grading activities in interior forest should not occur between April and August, in order to meet the intent of ROD Commitment #93 to avoid impacts to interior forest habitats and species during the breeding season of these species.

Forest Conservation

5. Reforestation on all sites within the SPA should follow the elements in the document entitled "SHA Reforestation Proposal for Current and Future M-NCPPC Property (Includes M-NCPPC Staff Recommendations of 2/5/08)", found in Attachment 2.
6. Coordinate with M-NCPPC Department of Parks to examine additional opportunities for reforestation in the Upper Paint Branch SPA on parkland to achieve up to 76 acres of reforestation in this SPA. The current proposal achieves only 41.4 acres of reforestation within the SPA.
7. For those segments of the ICC adjacent to parkland, SHA should coordinate with Department of Parks to control the establishment and spread of non-native invasive plants.
8. Reforestation should be planted at the earliest possible opportunity, consistent with the SPA objectives in the Planning Board's "Environmental Guidelines". Accelerated reforestation is consistent with SHA commitments for stewardship projects to provide mitigation during or before impacts occur, rather after completion of the project.

Water Quality Monitoring for SPA Performance Goals

9. SWM best management practices (BMP) in the ROW should be monitored for nutrients or other chemicals such as pesticides, metals, and other toxic substances.
10. Sediment and erosion control devices in the ROW should be monitored for total suspended solids loadings. Turbidity measurements should not be used as a surrogate for suspended solids.
11. SHA should coordinate with DEP to establish a specific timeline for reporting and for the transmission of data.
12. SHA should coordinate with DEP to expand the water quality monitoring for the ICC mainline and for environmental mitigation and stewardship projects to cover, at a minimum, the first, third, and fifth year after construction in the SPA is completed.
13. For projects that are proposing to use herbicides to control non-native invasive species, the water quality of streams and wetlands adjacent to these sites should be monitored for any potential harmful effects from the herbicide use. The methods and reporting of monitoring events should be coordinated with DEP and M-NCPPC Department of Parks.

Stormwater Management

14. Incorporate comments on the proposed SWM design identified in DPS letter dated June 9, 2009 (Attachment 3) into the final design plans. DPS and M-NCPPC should have an additional opportunity for comments to SHA and MDE if significant changes to the concept are proposed at any later point in the regulatory review and approval process.
15. Modify the proposed outfall for the Gum Springs bypass (Structure ES499) to provide an enhanced seepage step pool system (approx. 50'-80' long) for both the existing 36" pipe and the proposed 48" pipe that provides a stable transition into the existing inflow point at the main stem of Paint Branch.
16. Modify the outfall at Structure ES800 (Station 2750+50 Left) to become a flow splitter outfall such that low-flows are directed into the wetland complex and higher flows are conveyed directly into the main stem of Paint Branch in a non-erosive manner.
17. The outfall at the County Colesville Maintenance Facility (Structure EW903) should be field adjusted to provide a smooth transition into the existing channel below the Maintenance Facility to prevent any further downstream erosion.
18. Include in construction plans the details for the proposed spring box for the groundwater seeps (Wetland 3C) in this area and its connection to the 48" pipe above Structure EW903.
19. The re-established Cape May Road sidewalk shall be constructed of porous concrete or other in-kind material, consistent with the existing sidewalk.

Erosion and Sediment Control

20. The design/builder should reduce the proposed LOD where feasible in the current design plans to limit impacts to natural resources
21. The design-builder should closely coordinate with M-NCPPC Department of Parks to identify specific ICC segments where erosive conditions are of particular concern and to design and construct outfalls that discharge stormwater at non-erosive levels during and after construction.

Imperviousness

22. Final plans for the Cape May cul-de-sac (including sidewalk re-construction) should show no net gain of impervious surfaces within the SPA, consistent with the Board's action on July 31, 2008 requiring County Department of Transportation (DOT) to comply with the Environmental Overlay Zone requirements for the existing sidewalk on this county-owned road.

Environmental Stewardship and Compensatory Mitigation Projects

23. Retain all projects identified in the ROD as Compensatory Mitigation or Environmental Stewardship projects that are located in the Upper Paint Branch or Upper Rock Creek SPA.

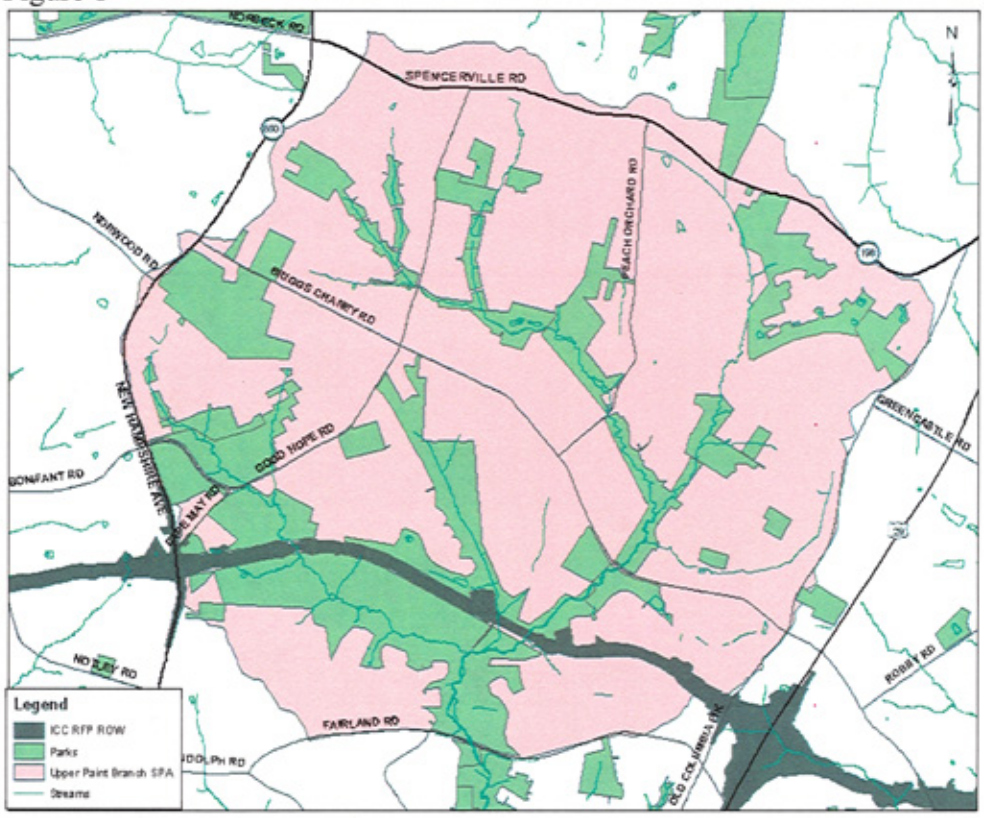
I. DESCRIPTION OF PROJECT

The ICC traverses through two Special Protection Areas: Upper Rock Creek and Upper Paint Branch. The ICC through the Upper Paint Branch SPA (from New Hampshire Avenue east to Old Columbia Pike) is approximately 13,000 linear feet (see Figure 1). The majority of the ICC mainline construction in the Upper Paint Branch SPA is included in Contract B, which was given a Notice-to-Proceed in January 2009. A small portion of the ICC mainline through the Upper Paint Branch SPA, approximately 500 feet, is included in Contract C, just east of Old Columbia Pike. This area has already been graded to drain away from the Paint Branch watershed, and final stormwater management plans will have runoff draining towards Little Paint Branch watershed, away from the SPA. The portion of the SPA in Contract C does not contain any streams, wetlands, floodplains, or environmental buffers.

The ICC ROW runs through the southern portion of the Upper Paint Branch SPA, bisecting the Upper Paint Branch Stream Valley Park. The ROW traverses the Good Hope and Gum Springs sub-watersheds, the two most fragile streams in the upper Paint Branch watershed. None of the ICC ROW is in parkland; the entire ROW is owned by SHA.

There are also 35 Environmental Stewardship and Compensatory Mitigation projects in the Upper Paint Branch SPA, including stormwater management, stream and wetland restoration, and reforestation. These projects are discussed in more detail in the Analysis section of this report.

Figure 1



II. HISTORY OF UPPER PAINT BRANCH SPA

The Paint Branch watershed is part of the Anacostia River system. Its headwaters occur in Montgomery County. Its streams flow into Prince Georges County, joining the Northeast Branch of the Anacostia River in Riverdale. The Upper Paint Branch watershed has been recognized as a unique cold-water fisheries resource for over 30 years.

The importance of the high quality natural resources found in the Paint Branch watershed reaches back to the State's designation in 1974 of the watershed in Montgomery County as the state's first Use III waters (natural trout waters, which are the highest quality waters). The County's extensive investment in protecting this resource started with the 1981 Eastern Montgomery County Master Plan and has continued with many measures, including extensive park acquisition and designation of its headwaters as a Special Protection Area (SPA) with a corresponding Environmental Overlay Zone.

The Paint Branch was the first watershed in the State of Maryland to be designated as a "Special Trout Management Area" (1980). It is home to the only viable and self-sustaining trout population in the Washington, D.C. metropolitan area. It is the only SPA that has an Environmental Overlay Zone with an 8% limit on *all* new development (public and private) and prohibits highly polluting land uses.

In November 2002, the late Councilmember Marilyn Praisner formed the Upper Paint Branch Technical Workgroup. Its purpose was to identify on-going problems in the SPA and to formulate specific recommendations to solve these problems and provide adequate protection of the environmental resources of the watershed. It was co-chaired by County DEP and the M-NCPPC Department of Parks and included technical staff from county, state, and regional agencies, as well as representatives from environmental organizations, all with intimate knowledge of the Upper Paint Branch watershed. The workgroup's analysis and recommendations are found in the "Final Report of the Reconvened Upper Paint Branch Technical Work Group" (June 2006). A summary of the report's recommended action items are found in Attachment 4.

One of the 2006 work group's conclusions is directly pertinent to the overall ICC discussion and review:

> *"Road projects need to be recognized as a particular problem. Potential watershed impacts occur from construction processes, road runoff after construction, and from vehicles utilizing the roadways. There was consensus that full mitigation isn't possible. For example, there is no way to replace hydric soils that are displaced because they take years and years to develop; furthermore, road projects seem to alter the natural hydrology of streams, and stormwater management systems can only go so far toward replicating natural conditions. The ICC as currently planned will negatively impact the Paint Branch even if all mitigation and stewardship activities are carried out to their fullest extent."*

These best professional judgments of Paint Branch's technical experts bear repeating today. Even after alignments are fixed and all environmental reports have been approved, extraordinary attention must be paid to all plans, revisions, construction and maintenance, to further avoid, minimize and mitigate environmental impacts. The continued focus on design and construction to minimize adverse impacts is as important for the ICC as it is for other projects that increase imperviousness in the SPA. The degree to which this project will minimize long-term environmental impacts will not be known for many years. It will depend on how aggressively design professionals convert the concepts expressed in the environmental/ROD commitments into "the best they can be" on the ground. The designers, reviewers, and regulatory authorities must work cooperatively to provide the best of the best in mitigation/minimization in the final designs and construction to achieve the desired results, given the reality of a major roadway traversing this sensitive ecosystem.

III. UPDATE ON PREVIOUS PLANNING BOARD REVIEWS ON ICC IN SPECIAL PROTECTION AREAS

To date, the Planning Board has had several reviews of construction for the ICC in Special Protection Areas. These have been:

- January 17, 2008, Review of eight Environmental Stewardship Projects for stormwater management in the Upper Paint Branch SPA

The eight Environmental Stewardship projects were recommended to be approved by the Planning Board and construction is underway. These are discussed further in the section on Environmental Stewardship and Compensatory Mitigation projects.

- February 12, 2008, Environmental Review of ICC mainline in Upper Rock Creek SPA

During the Environmental Review of the Upper Rock Creek SPA it was noted that DPS would not have approved the SWM structures (sand storage BMPs) in the SPA and had concerns with how well the structures would perform. It should also be noted that although the LOD in the ROD included areas where SWM structures could be placed adjacent to the highway (bump-outs), these structures had not been part of the original Request for Proposal (RFP) design, which had proposed linear infiltration systems in the median of the highway through the SPA. The plans for Upper Paint Branch SPA do not include the SWM structures that DPS had concerns with in the Upper Rock Creek SPA. The LOD bump-outs for SWM structures are present, but the design of the SWM structures will not be using these areas and is conforming to the RFP design to use linear infiltration in the median and on either side of the highway wherever possible.

- January 29, 2009, Status Report #17, Update of Environmental Review of ICC mainline in Upper Rock Creek SPA

The Status Report #17, on January 29, 2009 contained a detailed analysis of the status of the recommendations made by the Planning Board to SHA and MDE on the February 12, 2008 public hearing for the ICC through Upper Rock Creek SPA. During the discussion of the Status

Report #17 staff and DPS conveyed concerns that there was insufficient coordination with reviews related to stormwater management and sediment and erosion control measures that were occurring at the time between DPS and MDE. The Planning Board Chairman and the County Executive sent a joint letter to the Secretary of MDE expressing these concerns. Since then, the review process has improved. A MDE representative has attended "over-the-shoulder" discussions on stormwater management design in the Upper Paint Branch watershed with the Design-Builder, DPS, SHA and M-NCPPC staff. DPS is now submitting comments simultaneously to MDE and SHA so that MDE is able to consider DPS' comments at an earlier stage of its permit process for the ICC. DPS and DEP are also attending Inter-Agency Working Group (IAWG) meetings when stormwater management and water quality in the SPA segments are discussed. The IAWG includes federal, state and local agency representatives.

Other items that were covered in this Status Report included the need to have DEP and SHA coordinate water quality monitoring in Upper Paint Branch SPA. This issue is discussed further in the analysis and recommendation sections of this memo. Also discussed in the Status Report was DEP's analysis of water quality data in the Upper Rock Creek. The data was recommended to be provided to the Planning Board as a roundtable item. DEP will be providing this assessment as part of the June 25th public hearing.

- February 19, 2009, Environmental Review of Early Bridge Work for New Hampshire Avenue and Cape May cul-de-sac in Upper Paint Branch SPA

The public hearing for early bridge work for the future New Hampshire Avenue interchange and for a cul-de-sac at Cape May Road were reviewed by the Planning Board on February 19, 2009. The Planning Board endorsed staff's recommendations and forwarded them to SHA and MDE for consideration. The status of these recommendations is discussed below. Grading and clearing activities for this area are anticipated to start in mid-June 2009 after obtaining MDE permit approval.

IV. STATUS OF COMMENTS FROM FEBRUARY 19, 2009 PUBLIC HEARING

At the public hearing for the early bridge work at the New Hampshire Avenue interchange and the proposed cul-de-sac at Cape May Road on February 19, 2009, the Planning Board adopted the following recommendations and forwarded these recommendations to SHA and MDE. Responses to each recommendation are also given, *with those not completely satisfied shown in italics*:

1. Recommendation: Final plans for the Cape May cul-de-sac (including sidewalk re-construction) should show no net gain of impervious surfaces within the SPA, consistent with the Board's action on July 31, 2008 requiring County DOT to comply with the Environmental Overlay Zone requirements for the existing sidewalk on this county-owned road.

   Status: *The plans show a net gain of 905 sq. ft. of impervious surface for the Cape May cul-de-sac.*

2. Recommendation: Final plans for the Cape May Road cul-de-sac should include the re-establishment of a pedestrian connection between Cape May Road and New Hampshire Avenue that was recently installed by Montgomery County DOT due to strong safety concerns raised by the community. During construction, provisions should be made to maintain safe pedestrian passage to New Hampshire Avenue.

   Status: Plans submitted by SHA on April 24, 2009 include the pedestrian connection between the future Cape May Road cul-de-sac and New Hampshire Avenue in the final roadway plans. *However, the construction plans do not show a provision for a safe pedestrian connection to New Hampshire Avenue during construction.*

3. Recommendation: The re-established Cape May Road sidewalk shall be constructed of porous concrete or other in-kind material, consistent with the existing sidewalk.

   Status: *The plans submitted on April 24, 2009 show that the new section of sidewalk will not be constructed of porous material. Montgomery County DOT had constructed the sidewalk with porous materials in late 2008 to comply with the SPA requirements.*

4. Recommendation: Staff recommends that DEP, in coordination with the Parks Department and SHA, should establish a water quality monitoring station within the tributary to Good Hope downstream of the ICC LOD. DEP would manage the station and the collection of water samples through an existing water quality monitoring contract, but funding would have to come from SHA.

   Status: According to DEP, they are ready and willing to establish a water quality monitoring station within the Depot Tributary of the Good Hope downstream of the ICC LOD. *DEP has the ability to establish and manage the station, but there is no agreement at this time with SHA for funding.* To date DEP has sponsored a USGS real-time stream flow gage downstream of the ICC LOD (http://waterdata.usgs.gov/nwis/uv?01649150), and will reinstall a rain gage in the Good Hope Watershed. In addition, DEP will install six water temperature meters in the Depot Tributary and the Good Hope in June, 2009. DEP collected spring benthic macroinvertebrate samples in the Good Hope above and below the ICC LOD in 2009.

5. Recommendation: Impacts to interior forest habitat and their buffers should be avoided during construction, when possible, from April and August as stated in the ROD Commitment Number 93 to minimize impacts on forest interior dwelling bird species.

   Status: *Current project schedules would have construction activities beginning in mid-June.* However, the area of interior forest in the New Hampshire Avenue interchange area is less than 0.1 acre. Park Department staff found no Forest Interior Dwelling Species in the New Hampshire Avenue early bridge work area of the ICC ROW.

6. Recommendation: Before any land disturbance for the early bridge work at New Hampshire Avenue occurs, DEP and SHA should agree to a schedule and format for water quality monitoring data to be submitted to DEP for assessing attainment with the

SPA Performance Goals established in the Mandatory Referral for Upper Paint Branch SPA.

Status: On February 11, 2009, staff from DEP, ICC Team, and M-NCPPC met to discuss water quality monitoring station locations and methods for data collection. An approach for replication of data collection was agreed upon and stations selected for the 2009 monitoring season. During the spring of 2009, County and ICC field staff collaborated in the collection of spring benthic macroinvertebrates in stations above and below the ICC corridor in both the Upper Rock Creek and the Upper Paint Branch watersheds. The teams were "field audited" by a representative of DNR to ensure that field methods were comparable. DEP is identifying their samples that were collected in the Upper Rock Creek SPA at this time and hope to have some results to share with the Board. A timetable and format for incorporation of the ICC water quality monitoring data into the County database is being discussed now.

7. Recommendation: Integrate sediment and erosion control concept as outlined in January 22, 2009 letter from Mark Etheridge, DPS to Dan O'Leary, ICC Team, Water/SWM Lead Engineer into final plans. DPS shall have an additional opportunity for comment to SHA and MDE if significant changes to the concept are proposed at any later point in the regulatory review and approval process.

   Status: M-NCPPC and DPS had an additional opportunity to comment on the plans for the New Hampshire Avenue early bridge work and proposed Cape May cul-de-sac when plans were submitted on April 24, 2009. DPS sent comments to SHA and MDE. This section was approved by MDE plan review on June 10 and approved by MDE Non-Tidal Wetland and Waterways (NTWW) on June 11.

V. STATUS OF CONSTRUCTION ACTIVITY IN THE UPPER PAINT BRANCH SPA

- 500 linear feet just east of Old Columbia Pike within Contract C is under construction. This is the contract beginning east of Old Columbia Pike and extending to Prince George's County.
- New Hampshire Avenue interchange area and Cape May Road future cul-de-sac area is scheduled to begin construction in mid-June 2009. This section was approved by MDE plan review on June 10 and approved by MDE Non-Tidal Wetland and Waterways (NTWW) on June 11.
- The majority of the ICC segment is scheduled to begin construction in September 2009.
- Construction started on eight biotrenches within County road rights-of-way in December 2008 and are scheduled to be completed in July 2009. These were brought before the Planning Board as a Mandatory Referral project on January 17, 2009.

VI. ANALYSIS OF ICC IN THE UPPER PAINT BRANCH SPA

a. SPA Environmental Buffers

Environmental buffers, as defined in the Planning Board's "Environmental Guidelines", are intended to identify and protect environmentally sensitive areas that affect stream systems. Such buffers include streams, steep slopes, 100-year floodplains, wetlands, wetland buffers, seeps, and springs. The Planning Board's environmental buffers are typically wider than state-defined 25-foot buffers around wetlands that are considered as part of the MDE review.

M-NCPPC staff used Montgomery County GIS data to provide a guide for SHA in defining the environmental buffers in the Upper Paint Branch SPA. Environmental buffers must be delineated in the field; however, M-NCPPC staff gave SHA a guide for locating the environmentally sensitive areas and calculating the appropriate environmental buffer for the streams and wetlands in the Upper Paint Branch SPA using County GIS data for wetlands, streams, soils, and topography. This guide has been shown on the Design-Builder's clearing, grading and roadway plans with a note labeling it as "M-NCPPC non-jurisdictional SPA expanded buffer". However, the construction plans do not include the SPA environmental buffers in the General Notes listing of environmentally sensitive areas, and do not provide avoidance or minimization of impacts to the areas within the SPA environmental buffers outside of the State and Federal environmental buffers. Therefore, the project does not meet the SPA criterion of maximum protection of environmental buffers.

b. Forest

i. Forest Conservation Law

As this is a State project, it is not subject to the Montgomery County Forest Conservation Law. Mitigation requirements fall under the jurisdiction of the DNR. However, staff recommends that SHA incorporate specific elements related to reforestation into the project, as identified in the Reforestation section, below.

SHA has estimated the total forest impacts within the Upper Paint Branch SPA to be 75.66 acres. The RFP design originally used a 50-foot-wide median to allow room for stormwater management treatments. The Design-Builder has incorporated the stormwater management structures while reducing the median width to 36 feet. This has resulted in reduction of forest impacts by 7.34 acres or 8.84% of the original RFP estimate of 83 acres.

ii. Reforestation

The DNR requires reforestation to mitigate the forest loss within the ROW and within Environmental Stewardship and Compensatory Mitigation projects.

In the Upper Paint Branch SPA there are two reforestation sites proposed. REF-15 covers the Southern Asia Adventist and McNeill properties which lie in the Left Fork subwatershed of the SPA, and is expected to have approximately 21.4 acres of reforestation. REF-16

consists of the Peach Orchard/Allnutt property in the Right Fork subwatershed and is expected to have approximately 20.0 acres of reforestation (see Figure 3). The acreages are subject to change as the sites are evaluated. Final plans for these projects are expected in 2010.

In addition, the Design-Build contract includes a Special Provision for specific areas along the ICC ROW in Contract B that are designated as Additional Reforestation Areas and Reforestation of Land to Revert to M-NCPPC. The latter refers mainly to areas of temporary construction easement on M-NCPPC land.

At this time, SHA proposes to reforest 41.4 acres within the SPA. Given that 75.66 acres of forest will be cleared, there will be a net loss of 34.26 acres of forest in the SPA.

The ROD specifies that the ICC will reforest on existing and proposed M-NCPPC parkland in Montgomery County as follows:

- Casey Property at Hoyles Mill (up to 118 acres)
- M-NCPPC (75-100 acres)
- Parkland Mitigation Sites (100 – 150 acres)
- Wetland/Stream Compensatory Mitigation and Environmental Stewardship Sites (75 acres)

As part of the environmental review of the ICC portion in the Upper Rock Creek SPA on February 21, 2008, the Planning Board supported staff's recommendation for SHA to coordinate with M-NCPPC Department of Parks to examine opportunities for reforestation in the Upper Rock Creek SPA watershed so that total reforestation would be equal to forest loss. Similar to the review in the Upper Rock Creek SPA, staff's position is that reforestation sites should be identified so that there is no net loss of forest due to the ICC in the Upper Paint Branch SPA. This does not necessarily mean that the total amount of reforestation for the ICC would increase, but that the locations of reforestation sites may need to be adjusted.

Parks staff has indicated that based on a preliminary assessment in this SPA, there may not be a sufficient amount of existing parkland in Upper Paint Branch to accommodate the additional reforestation needed to create no net loss of forest for the ICC in the SPA. There remains 34.26 acres of additional reforestation that will not be mitigated within the SPA. Staff recommends that SHA should coordinate with Parks to identify as many reforestation sites within the Upper Paint Branch SPA as are feasible on parkland so that the amount of forest planted is as close as possible to the amount of forest loss in the SPA.

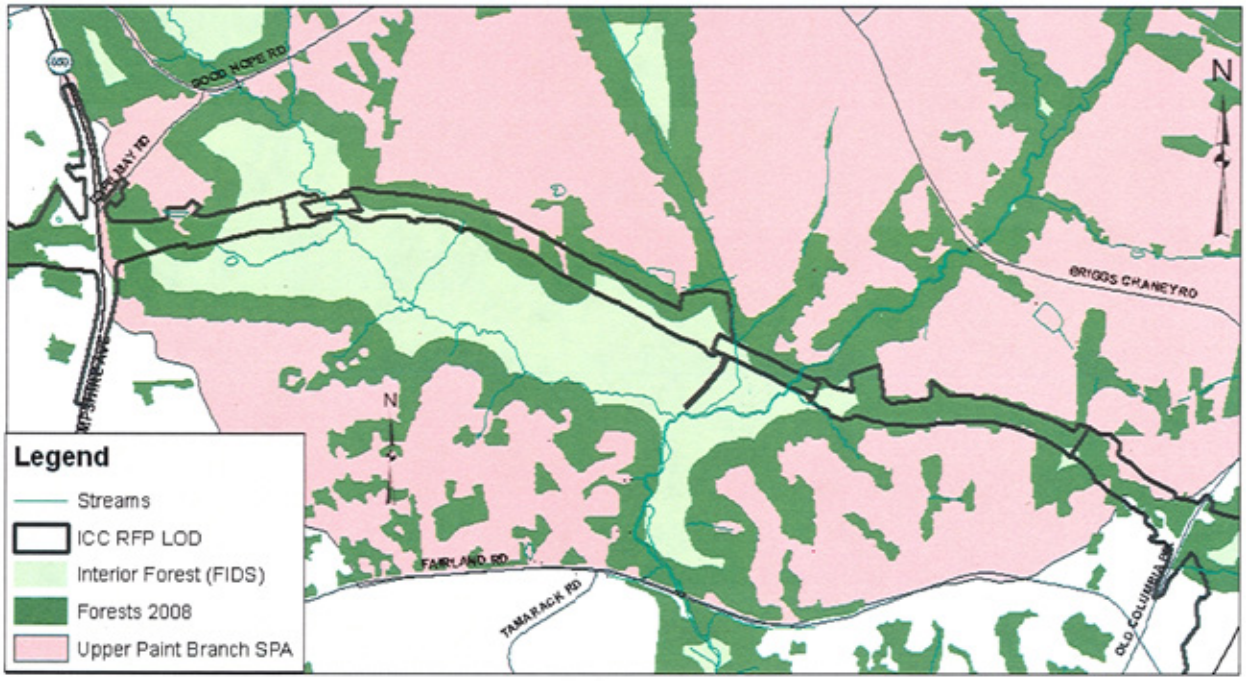
Any reforestation that occurs within the SPA should follow the specifications that were jointly developed by SHA and M-NCPPC Department of Parks and Environmental Planning Division for reforestation projects in the Upper Rock Creek SPA (Attachment 2). These specifications would provide for the planting of larger stock than the minimum allowed by DNR, would have longer inspection periods that would be conducted jointly for the planted materials, would require a higher survival rate than the minimum allowed by DNR, and would require joint evaluation and measures to control non-native invasive plants.

iii. Interior Forest and Forest Interior Dwelling Species (FIDS)

As noted below in the "Biodiversity" section below, the 390 acre forest tract is the largest contiguous forest tract in this SPA, as shown in Figure 2. The Good Hope Biodiversity Area is within this forest tract, and the FIDS habitat and rare plant species within this tract are an integral part of the Biodiversity area. This tract also includes forest and FIDS habitat in the ICC ROW that is not included in the Biodiversity area.

The current plans show that 28.54 acres of interior forest will be cleared within the SPA. The original RFP design had shown 30 acres. The current design has reduced the impact by 4.9%. However, the actual amount of forest that functions as FIDS habitat will be reduced further by the forest edges created by the road.

Figure 2



c. Biodiversity Areas

Biodiversity areas have been identified on parkland by the Maryland Natural Heritage program. These areas are only designated in Montgomery County M-NCPPC Parkland.

An area is designated as a biodiversity area if it meets one or more of the following criteria:

- Contiguous, high quality forest, marsh, or swamp.
  - Relatively little evidence of past land-use disturbance.
  - Few or no exotic, invasive, plant species.
  - Generally represent the best examples of unique plant community types found in Montgomery County.
- The known presence of rare, threatened, endangered, or watch-list species.
- Exceptional scenic beauty.

The Good Hope Biodiversity Area contains Good Hope tributary and the largest contiguous tract of forest in the Upper Paint Branch watershed. Good Hope Tributary is one of an extensive series of headwater tributaries to Paint Branch, and is rich in diverse aquatic life including spawning brown trout and other pollution intolerant fish and macroinvertebrates. The forest is dominated by several oak species including white, chestnut, scarlet, black and red oaks and provides suitable habitat for forest interior dwelling species. Portions of the area contain large, old trees and a well developed shrub layer including mountain laurel, pinxter flower azalea, highbush blueberry and witch-hazel, along with a good diversity of wildflowers and ferns. According to Parks Department documentation on rare, threatened and endangered species in M-NCPPC Montgomery County Parkland, three State watchlist species are known from the area, Virginia snakeroot (Aristolochia serpentaria), Chinquapin (Castanea pumila), and Small's ragwort (Senecio annonymus). Wetlands along the Good Hope Tributary include high quality seasonal and permanent pools and seeps with abundant amphibian species.

The project will bisect the forest tract containing the Biodiversity Area, creating two much smaller forest areas. Staff has great concern for loss of diversity and FIDS habitat in this biodiversity area. The ICC will create additional forest edges and significantly increase the likelihood of invasive plant species establishment in the remaining forests.

To reduce the impacts of the ICC on the FIDS species, staff recommends that clearing and grading activities in the forest should not occur between April and August, which is the general breeding season for many FIDS species. In addition, staff recommends that the control of non-native invasive plant species be closely coordinated between Department of Parks and SHA where the ICC is adjacent to parkland.

d. <u>Water Quality SPA Performance Goals and Monitoring</u>

For the water quality monitoring program within County SPAs, the ICC Team has prepared a document "*Montgomery County Special Protection Areas and the ICC*" to outline the ten SPA Performance Goals and describe how the project intends to meet these goals. In addition, each Special Protection Area (Upper Rock Creek and Upper Paint Branch) has a separate SHA Mandatory Referral document which also outlines the performance goals.

The ICC Team has also prepared a report to document the methods that SHA and the Design-Builders are using to address each Performance Goal within the ICC Mainline and for the Environmental Stewardship and Compensatory Mitigation projects in the Special Protection Areas. The final version of this report was submitted to DEP for review on May 15, 2009. The proposed Water Quality Monitoring Plan for the ICC mainline within the SPA identifies how Performance Goals related to stream habitat, baseflow, protection of seeps, springs and wetlands, natural channels, storm flow, erosion-prone stream banks, stream water temperature, and stream turbidity will be monitored and reported.

Typically, for a private development project, a SPA water quality monitoring plan would include two parts: stream monitoring and BMP monitoring. DEP staff performs the stream monitoring and a team consisting of DEP, DPS, M-NCPPC, and consultants for the private developer

identify sediment and erosion control devices and SWM BMPs to be monitored under the BMP monitoring component. The consultant for the developer performs the monitoring and provides a report to MCDEP. Water quality and quantity parameters (total suspended solids, nutrients, metals, etc) are selected and monitored to document the performance of these structures in meeting SPA Performance Goals.

Although SWM BMP monitoring of the BMPs in the ROW has been requested by DEP, SWM BMPs will not be monitored for nutrients or other chemicals such as pesticides, metals, and other toxic substances. Sediment and erosion control devices will not be monitored for total suspended solids loadings, but turbidity will be measured as a surrogate. DEP recommends that SHA expand the list of chemicals that should be monitored. In addition, SHA and DEP need to establish a timeline for reporting and for the transmission of data.

Currently, only one year of post-construction monitoring is planned for the ICC mainline and the stewardship and mitigation projects. DEP believes this is not adequate to assess the performance of the ICC in meeting SPA Performance Goals. Water quality monitoring should include a time period that will document conditions of receiving streams before, during, and after construction of the project. DEP has determined that at a minimum, monitoring stream conditions in the first, third and fifth years after a project is completed will provide enough data to document any impacts the project may have on these streams. DEP requires this schedule of monitoring on other projects in SPAs where impacts to streams are anticipated as well as stream restoration projects where benefits from the project may not be immediately observable.

It should be noted DEP's assessment of water quality data collected in Upper Rock Creek SPA to date, including any data that may document impacts to the stream system due to the ICC construction activities, will be provided at the June 25 Planning Board public hearing for the ICC.

e. <u>Stormwater Management</u>

i. ICC Contract Requirements for Work in Upper Paint Branch SPA

The SHA design-build contract includes several Special Provisions to protect the Upper Paint Branch watershed during and after construction. SHA has posted the RFP information on-line at http://www.iccproject.com/rfp-browser-contractb.php

- The construction specifications for the Upper Paint Branch SPA currently do not allow clearing and grading to occur before the final erosion and sediment control and stormwater management design has been approved by MDE.
- The design submittal for roadway and drainage plans in the Upper Paint Branch SPA will include designs for the entire SPA as one complete submission, and will include all information necessary for approval of the stormwater management and erosion and sediment control by MDE, and must be approved for Erosion and Sediment Control and Stormwater Management and be in compliance with the Nontidal Wetlands and Waterways Permit issued by MDE prior to beginning construction.
- Drainage from the high point of the ICC mainline approximately 1,000 feet east of the tributary to Good Hope will be carried west to discharge into Northwest Branch,

west of New Hampshire Avenue. Flows leaving the MCDPWT (now, MCDOT) Maintenance Depot from storms up to and including the 1-year return period storm will also be carried away from the Good Hope tributary and discharged to Northwest Branch. This diversion of drainage is to protect the Good Hope tributary from thermal impacts.

- Discharged roadway runoff from east of the high point will drain through stormwater management structures and outfall to the Paint Branch mainstem below Gum Springs and at the ICC bridge. No ICC roadway pavement drainage is allowed to enter Good Hope or Gum Springs tributaries as recommended by the Brown Trout Work Group. The stormwater management criteria for highway drainage entering Paint Branch mainstem is designed to maximize infiltration and cooling prior to discharge at a point where significant baseflow already exists.

ii. Comments from DPS, DEP and M-NCPPC

While DPS has some concerns about specific design elements of the stormwater management proposal, the stormwater management approach generally would be considered to be in conformance with typical requirements of SPA redundancy through the use of increased recharge volumes, water quality swale design, and linear sand filtration. DPS has recommendations for specific design elements of SWM facilities and sediment and erosion control structures. These comments apply to the ICC mainline including the New Hampshire Avenue interchange area and are listed in detail in (Attachment3). Staff recommends that DPS' comments be addressed in the final plans for the ICC.

The design build contractor has proposed discharging the Paint Branch water to one or more smaller tributaries of the Northwest Branch between New Hampshire Ave and the Northwest Branch main stem. According to DEP, discharge to these smaller tributaries would have significant adverse impacts to these tributaries. The Sherwood Forest Tributary received a major stream restoration project in 2005 and the other tributaries already have erosion problems. When SHA completed a similar diversion with the widening of New Hampshire Avenue, the diverted discharge caused significant erosion problems on the Rolling Stone Tributary despite the construction of a stormwater management pond by SHA at the outfall pipe. This diversion resulted in significant sediment deposits to the downstream regional stormwater pond which cost $350,000 to remove. DEP recommends that the proposed NW-160 stream restoration project needs to account for the increased flows resulting from this diversion. Quantity and quality SWM BMPs need to be provided for this increased flow prior to entering the Northwest Branch. This issue and DEP recommendations will also be brought to the Planning Board as part of the Mandatory Referral for the NW-160 and 170 projects.

Staff recommends that county agencies should have additional opportunities to comment to SHA and MDE if significant changes to the SWM design are proposed at any later point in the regulatory review and approval process.

f. Erosion and Sediment Control

According to DPS, sediment control design includes acceptable levels of redundancy, which include over sizing the sediment traps to provide 7,200 cubic feet of storage per acre of drainage, use of Super Silt Fence (including areas of double row fencing with mulch), preliminary excavation of the proposed Linear Sand Filter areas to act as redundant sediment trapping devices, good strategies for directing off-site "clean" flows through the work areas, installation of dewatering devices in the 120-inch CSP pipes, phased grading, and early stabilization. Staff recommends that DPS' comments (Attachment3) are addressed in the final plans for the ICC.

Three items related to erosion and sediment control measures should be noted:

- SHA has reported failures of sediment control structures in the Upper Rock Creek SPA due to the heavy rains this past May.
- In early June, a heavy rain event resulted in some sediment-laden water flowing from an access road (used for geo-technical work within the ICC ROW) into the Good Hope Tributary. SHA contractors stabilized the road the next day after the contractors identified the problem.
- The Design-Builder, MD200 Constructors emergency response contractor will be Hepaco of Fredericksburg, Virginia. Hepaco has said that their response time to an emergency spill would be an hour and twenty minutes. If a spill occurs, the Design Builder would make every effort to contain the spill with berms or spill containment products if safety permits.

g. Imperviousness

The Upper Paint Branch SPA has an Environmental Overlay Zone that limits impervious surfaces for all development projects (private and public) that are subject to the County zoning ordinance. This is different than the Upper Rock Creek SPA Environmental Overlay Zone, which has a specific imperviousness limit only for private subdivisions that are served by community sewer.

The ICC ROW has been set by previous County and State decisions. The project will not meet the Upper Paint Branch SPA Environmental Overlay Zone imperviousness limit of 8 percent because the ROW has been kept to the minimum possible to accommodate the construction of the road project. The ICC will create 36.1 acres of impervious surfaces within 121.9 acres of ROW. This results in 29.64% imperviousness. If the ICC were to meet the 8% impervious limit of the Upper Paint Branch SPA Environmental Overlay Zone, it would need 451.3 acres of land, compared to the 121.9 acres of ROW within the SPA.

SHA has acquired properties in the Upper Paint Branch SPA for mitigation for the ICC. In addition, SHA has acquired 129.9 acres of land in the Peach Orchard/Allnutt property. This property had approved preliminary subdivision plans that will no longer be constructed. SHA will be reforesting and restoring streams and wetlands on these properties, and conveying the properties to M-NCPPC Parks Department. In effect, these properties can be considered to be pervious reserves for the ICC project. The subdivisions on these properties were approved for a total of 13.8 acres of impervious surfaces. Since these subdivisions will not be constructed

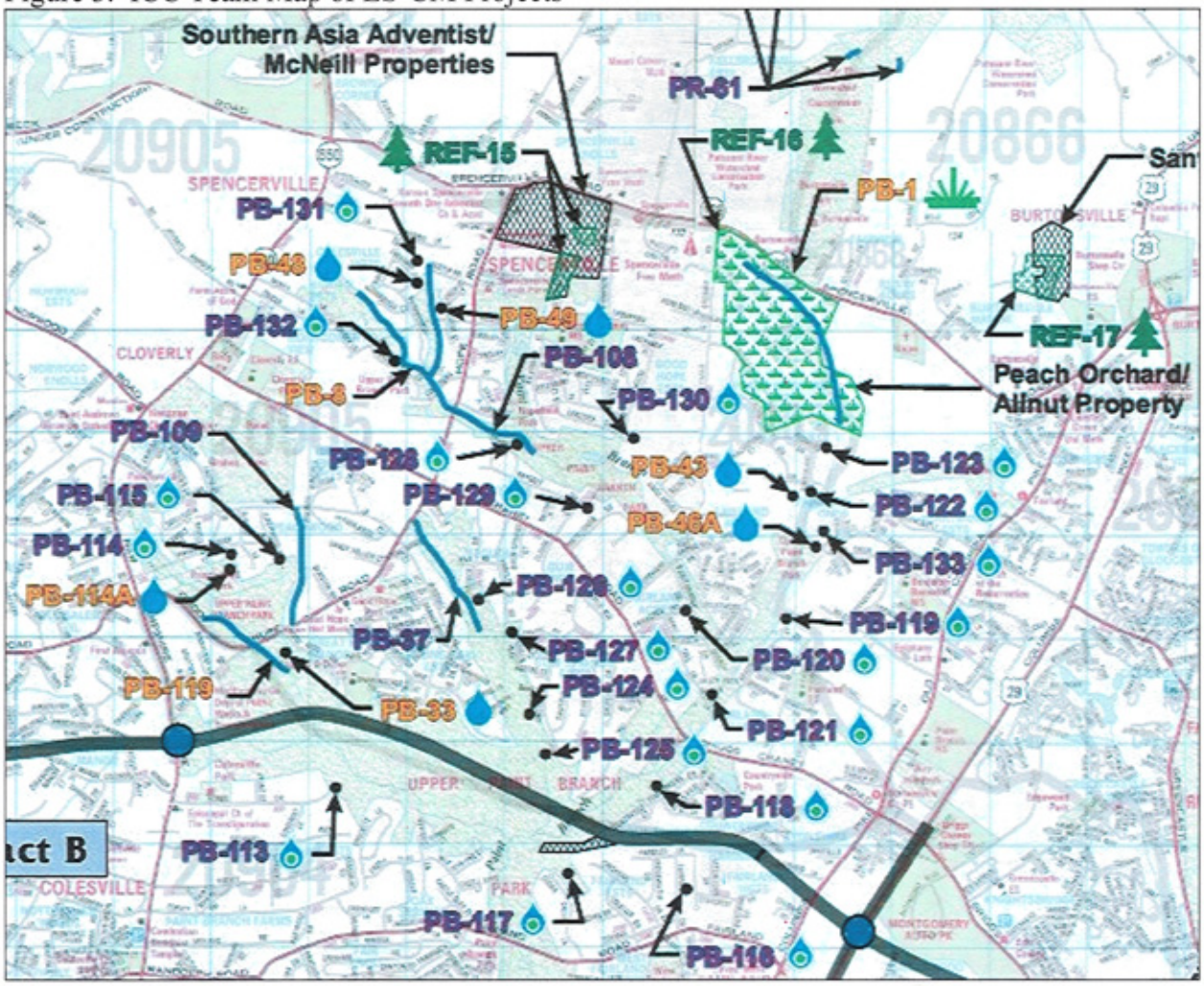
because of SHA's purchase of the properties, the approved impervious surfaces can be considered a partial offset for the ICC's impervious surfaces. In addition one of the Environmental Stewardship projects will remove 0.1 acres of concrete channel and replace with grass channel. This would generate a net impervious surface of 22.3 acres or 18.3% imperviousness for the ICC in this SPA. This is still significantly higher than the 8% limit of the Environmental Overlay Zone.

It should be noted that the impervious surfaces that were approved as part of the subdivision projects on these properties are located in the Right Fork sub-watershed of the SPA. This is a different subwatershed than the subwatersheds of Good Hope, Gum Springs, and Paint Branch mainstem, where the ICC will traverse. Although the purchase of approved subdivisions will help reduce the net imperviousness of the project in the SPA, staff believes that the reduction will not mitigate the effects of the ICC, itself, on the subwatersheds of the Good Hope and Gum Springs tributaries. It should be noted that June 2006 report of the Upper Paint Branch Technical Work Group stated that the subwatersheds of Upper Paint Branch should be managed individually and that natural resource problems in one subwatershed cannot be corrected by implementing mitigation projects in another subwatershed (Attachment 4).

The impervious impact is further reduced as the bike path will not be constructed through the Upper Paint Branch SPA as part of the ICC project which eliminates approximately 2 acres of impervious surface. However, in March 2009, the County Council voted to retain the master planned bike path adjacent to the ICC through the Upper Paint Branch SPA. The Council resolution (16-874) recommends a tiered set of priorities: first within the highway LOD, second directly adjacent to the ICC, and third through adjacent parkland.

h. Environmental Stewardship and Compensatory Mitigation (ES-CM) Projects

Figure 3. ICC Team Map of ES-CM Projects



As a Federal government requirement for permitting of the highway construction, the impacts to streams and wetlands must be mitigated by additional Compensatory Mitigation projects which include stormwater management facility retrofits, and stream and wetland restoration. In addition, SHA has also added Environmental Stewardship projects and Community Stewardship projects. The projects were selected through the coordination of the IAWG and are above and beyond the required mitigation under Federal and state regulations.

There are 35 Environmental Stewardship and Compensatory Mitigation projects in the Upper Paint Branch SPA.

Environmental Stewardship and Compensatory Mitigation Projects in UPB SPA		
Type of Project	Compensatory Mitigation	Environmental Stewardship
Stormwater Management	6	21
Stream Restoration	1	4
Wetland Mitigation	1	0
Reforestation	2	0
Total	10	25

Each of the ES-CM projects will be brought to the Planning Board by the Parks Department for review as a separate Mandatory Referral. To date, eight of the stormwater management projects have been brought to the Board as Mandatory Referral No. 07905-SHA-1 on January 17, 2008. The projects reviewed were PB-122 though PB-129, consisting of biotrenches constructed in the DPWT Right-of-Way. The staff report recommended approval of the construction. Construction began in December of 2008 and is scheduled to be completed by July 2009.

As the ICC Team and Design-Builder are continually seeking ways to avoid and minimize impacts to streams, wetlands and forest in the ROW, the areas requiring mitigation are being reduced during the design-build process. This reduction of impacts, as well as other agency recommendations, such as the change to Lake Frank Trail project, make the review of Environmental Stewardship and Compensatory Mitigation projects a continual process. Staff recommends that any review of the ES-CM project priorities should maintain those projects within the SPAs as a high priority and all projects within or draining to SPAs should be retained.

The table below shows a breakdown of the type of mitigation project and the expected area to be treated within each sub-watershed in the SPA. For a detailed list of project descriptions see Attachment 5. For the stormwater management areas it should be noted that the actual treatment area will be less than the drainage area shown. The actual benefits have not been quantified, and will not be known until engineering report and design for each project becomes available.

Environmental Stewardship and Compensatory Mitigation (ES-CM) Project Treatment Areas by Subwatershed					
Subwatershed (Acres)	Subwatershed Total Size* (Acres)	Stormwater Management Drainage Area (Acres)	Stream Restoration (Linear Feet)	Wetland Restoration (Acres)	Reforestation (Acres)
Paint Branch Mainstem	850	62.98			
Paint Branch - Right Fork	941	76.95	TBD	35	20
Paint Branch - Left Fork	1400	106.67	3600		21.4
Paint Branch Left Fork & Mainstem Combined		14.4			
Good Hope Tributary	986	159	3500		
Gum Springs Tributary	624	37.17	2700		
Upper Paint Branch SPA Totals	4,801	457.17	9800	35	41.4
* Source: Final Report of the Reconvened Upper Paint Branch Technical Work Group", Prepared at the request of the late Councilmember Marilyn Praisner, June 2006.					

As part of the mitigation for the ICC, SHA is transferring land on four properties to the Parks Department. These properties will increase the acreage of County parkland by about 117 acres. The Southern Asia Adventist property will have 18.7 acres transferred to parkland, and the McNeill property will have 35 acres transferred to parkland. These properties will be the site of the reforestation in the Left Fork subwatershed of the Upper Paint Branch SPA. The Peach Orchard/Allnutt property is an unbuilt subdivision, approved in 1995 prior to the Upper Paint Branch SPA establishment and currently owned by SHA. Approximately 75 acres of the subdivision were dedicated as parkland and are currently owned by SHA, so the transfer of those acres would not increase the net park acreage beyond the amount that would have occurred were the approved subdivision actually built. The unused Designated Transportation Area is a remnant of ICC right-of-way designated for transportation prior to the 1981 Eastern Montgomery County master plan amendment that shifted the ICC alignment and will contribute approximately 8 acres to parkland.

Although these ES-CM projects will provide water quality benefits and improve some of the stream segments in the SPA, staff does not believe that these projects will completely mitigate the impacts of the road itself. Twelve of the 35 ES-CM projects lie within the Good Hope and Gum Springs and mainstem subwatersheds that are being directly affected by the ICC. However, 32 of 35 ES-CM projects are located upstream of the ICC project in the SPA. While they will improve upstream conditions in the headwaters, they do not provide direct mitigation in the downstream reaches that will be directly affected by the road.

CONCLUSIONS

Given that the ICC is a major highway with limited Right-of-Way, this project will not meet the Upper Paint Branch SPA Environmental Overlay Zone imperviousness limit. In addition, because it must connect east to west across stream valleys, the project will also not be able to meet the SPA goal of avoiding or minimizing impacts to environmental buffers. The environmental buffers and the avoidance and minimization measures for this project are defined by state and federal regulations, rather than the more inclusive County definition. Because of these conditions, the project cannot meet the requirements of a typical SPA water quality plan as defined by Montgomery County SPA law and the Upper Paint Branch SPA Environmental Overlay Zone.

SPA Environmental Buffers

The ICC does not recognize the entirety of County SPA environmental buffers as sensitive areas where avoidance and minimization measures should be applied. The parts of environmental buffers that are treated as sensitive areas are those that overlap with Federal- and State-defined streams, Waters of the U.S., wetlands, and associated buffers. Therefore, the ICC does not fully adhere to the Planning Board's Environmental Guidelines for protection of SPA environmental buffers.

Forest

The ICC is not able to avoid adverse impacts to highest priority forest. Staff has made recommendations to reduce the forest impacts in the SPA. However, even if staff's recommendations are incorporated, there will be significant impacts to forest resources in the SPA.

Biodiversity Areas

Staff has great concern for loss of diversity and FIDS habitat in this biodiversity area. The ICC will create additional forest edges and significantly increase the likelihood of invasive plant species establishment in the remaining forests.

Staff's recommendations for SHA to coordinate with Parks Department for invasive plant control measures, to avoid clearing and grading activities within the general breeding season of FIDS species, and to limit the LOD adjacent to parkland as much as feasible would help reduce, but not eliminate the adverse impacts to this biodiversity area.

Water Quality SPA Performance Goals

DEP and SHA continue to coordinate elements of the monitoring plan. There are specific comments from DEP that still need to be addressed in order to document whether the project meets the SPA Performance Goals.

Stormwater Management Erosion and Sediment Control

DPS concludes that the SWM approach is generally in conformance with typical requirements of SPA redundancy.

DPS, M-NCPPC, and DEP have technical recommendations on the plans that have been submitted to revise specific elements of the SWM measures.

Imperviousness
The ICC does not meet the 8 percent impervious limit of the Environmental Overlay Zone for the Upper Paint Branch SPA due to the limitations of the ROW.

Environmental Stewardship and Compensatory Mitigation (ES-CM) Projects in UPB SPA
The ES-CM projects will provide water quality benefits and improve some of the stream segments in the SPA, although staff does not believe that these projects will completely mitigate the impacts of the road itself within the Upper Paint Branch SPA and its sub-watersheds.

ATTACHMENTS

1. ICC Status Report #5 – Process for ICC Water Quality Plan Review in Special Protection Areas
2. "SHA Reforestation Proposal for Current and Future M-NCPPC Property (Includes M-NCPPC Staff Recommendations of 2/5/08)"
3. Memorandum from DPS to SHA, June 9, 2009, SWM Comments
4. Summary of Action Items from the Final Report of the Reconvened Upper Paint Branch Technical Work Group, June 2006 (prepared for the late Councilmember Marilyn Praisner)
5. Environmental Stewardship and Compensatory Mitigation (ES-CM) Projects in UPB SPA

ATTACHMENT 1.
(page 1 of 2)

ICC Project Status Report #5

ATTACHMENT C *(2/6/07 revision)*

Process for ICC Water Quality Plan Review in Special Protection Areas

The review process described below responds to the Condition #6 of the ICC mandatory referral.

1. MCDPS to prepare a letter of concurrence that the compilation of studies, meetings, and permit conditions focused on the SPAs during ICC planning, coupled with contract design requirements, meet the intent of the SPA regulation.

2. SHA/MdTA to prepare mandatory referral packages for M-NCPPC review and comment, including documentation of the effects of Environmental Stewardship and Compensatory Mitigation projects in each SPA and other information needed by M-NCPPC to make staff findings referenced below.

3. The selected D-B team will work collaboratively with SHA/MdTA to prepare stormwater management and erosion and sediment control plans in accordance with contract requirements and MDE review procedures. Those plans will be shared with, and reviewed by, the EMT informally during design. During the informal review process, the M-NCPPC representative on the EMT will convene local interagency staff coordination meetings to be held between MDE (invited), DPS, DEP, SHA, and M-NCPPC staff to discuss SPA stormwater management plan issues, imperviousness, forest preservation, and environmental buffer issues.

4. Prior to the time of MDE submittal, M-NCPPC's EMT member will send the draft plans to DPS and M-NCPPC staff for review and comment:
   a. One set of Draft SWM report and plans per contract (Upper Rock Creek for Contract A, Upper Paint Branch for Contract B).
   b. M-NCPPC staff to arrange a Planning Board Public Hearing on SPA compliance for the ICC after local agency coordination regarding the water quality plans and prior to or concurrent with SHA submittal to MDE.
      i. SHA/MdTA will provide support as necessary for an M-NCPPC hearing.
      ii. M-NCPPC staff would make recommendations to the Planning Board concerning imperviousness, mitigation, SPA compliance, and other elements that may include Environmental Stewardship projects that contribute to the watershed.
   c. Receive, consider and incorporate as desired comments from Board Public Hearing into consolidated M-NCPPC comments and submit to SHA for review and consideration.

5. Conduct all formal M-NCPPC and DPS staff reviews within Design-Build submittal review timeframes and submit comments to SHA and MDE. Submittal review timeframes shall be negotiated between SHA/MdTA and the successful D-B after award and in the context of SHA's partnering process. M-NCPPC, as a member of the EMT and IAWG, will have the opportunity to comment to SHA on D-B plans within the negotiated timeframes and participate in the partnering process.

6. Subsequent to Planning Board comment on water quality plans:
   a. M-NCPPC staff would continue collaborative involvement in subsequent design work through EMT.
   b. If SHA/MdTA or MDE finds alternatives to Planning Board recommendations, SHA/MdTA would coordinate with the M-NCPPC representative on EMT.

ATTACHMENT 2
(page 1 of 2)

SHA Reforestation Proposal for Current and Future MNCPPC Property (Includes M-NCPPC Staff Recommendations of 2/5/08)

Densities/Size:

- 200 trees/acre (5' min ht., CG)
- 20 trees/acre (2.5" cal., B&B)

Tree Species:

- See "Planting Requirements for Land-Disturbing Activities and Related Mitigation on MNCPPC Montgomery Parkland" (Revised January, 2008) for tree species approved by MNCPPC.
- Shrubs will not be planted due to prevalence of deer predation and poor survivability.
- Planting materials are to be inspected by qualified personnel upon delivery to the site before planting to determine that plants meet species and size specifications.

Supplemental Tree/Shrub Seeding:

- Seeding of native trees/shrubs may be conducted at suitable sites to supplement forest establishment. Site preparation will include mowing and/or disking prior to planting.

Tree Protection:

- Tree sleeves made of heavy-duty plastic open weave mesh, 4'tall, 6" diameter will be installed on all trees; tree sleeves should be staked on all small stock: http://www.amleo.com/index/item.cgi?cmd=view&Words=bg48.
- MNCPPC will remove tree sleeves to prevent trunk damage once trees are large enough to withstand deer browse/rub (4-6 years+/-).

Invasive Control:

- NNI control will occur prior to planting in order to permanently remove as many existing vine, shrub and herbaceous NNIs as possible. NNI control will occur for plant species identified on the State's noxious weed list. In addition, NNI control will be implemented for climbing vines (e.g., mile-a-minute, porcelain berry, oriental bittersweet). MNCPPC will assist SHA in control efforts of other NNI plants such as: autumn olive, bush-honeysuckle, multiflora rose, Japanese knotweed.
    - A joint evaluation will be conducted by MNCPPC and SHA to determine the need for additional NNI treatment, if necessary. This evaluation will be conducted during the joint site-investigation (see Documentation and Verification for schedule).
    - In areas where an effective NNI control program is in place, additional NNI control measures will be implemented as outlined in MNCPPC's "Best Management Practices for Control of Non-Native Invasives" (January, 2008) during the 2 year and/or 5 year maintenance periods.
- As outlined in the document referenced above, herbicide/pesticide use will be conducted only when it is determined by SHA and MNCPPC Parks Forest Ecologist, or other appropriate park staff, that mechanical measures alone are not sufficient to remove the targeted non-native invasive plant species. The specific herbicides to be used, the specific

areas where herbicides will be applied, and the methods for and extent of herbicide application will be coordinated with the MNCPPC Park Forest Ecologist or other appropriate park staff prior to use on MNCPPC property.

Survival Rate/Maintenance Period:

- **90%** survival at the end of the 1st year of maintenance & **80%** at the end of the 2nd year of maintenance on all sites.
- Additional requirement of **75% survival** at the end of 5th year of maintenance for SPA sites.
- If less than required survival % in any year, area will be replanted to 100%. SHA will notify MNCPPC of the schedule for replanting.
- Maintenance may include watering, pruning, pest management, weeding, plant replacement, etc.
- Forest planting, maintenance, and survival requirements will apply universally to all SPA plantings, in and outside parkland.

Documentation and Verification:

- A joint site-investigation with MNCPPC and SHA representatives will be conducted at the end of year 1 and 2 at all sites, and year 5 at SPA sites demonstrating the survival rates in this agreement are achieved. In addition, the following documentation will be prepared (including survival rates):
    - Year 1: SHA will document the results of the joint site-investigation and provide MNCPPC a copy of the results.
    - Year 2: MNCPPC will be forwarded a copy of all documentation submitted to regulating agencies (DNR) demonstrating compliance with the State Reforestation Law.
    - Year 5: MNCPPC will document the results of the joint site-investigation and provide SHA a copy of the results.

ATTACHMENT 3.
(page 1 of 4)

DEPARTMENT OF PERMITTING SERVICES

Isiah Leggett
County Executive

Carla Reid
Director

MEMORANDUM

Date: June 9, 2009

TO: Mr. Dan O'Leary
ICC Team Hydrology and Hydraulics Lead

FROM: Mark Etheridge
Senior Permitting Services Specialist
Montgomery County Department of Permitting Services (DPS)

SUBJECT: DPS Review Comments
Intercounty Connector
Contract B (Sta. 2415+00 to 2787+00) East of MD 97 to West of US 29
May 2009
Upper Paint Branch Watershed

Dan –

I have reviewed the above referenced submission for general concurrence with Montgomery County SPA redundant design criteria. Overall I would agree that the sediment control design includes acceptable levels of redundancy, which include over sizing the sediment traps to provide 7,200 cubic feet of storage per acre of drainage, use of Super Silt Fence (including areas of double row fencing with mulch), preliminary excavation of the proposed Linear Sand Filter areas to act as redundant sediment trapping devices, good strategies for directing off-site "clean" flows through the work areas, installation of dewatering devices in the 120-inch CSP pipes, phased grading, and early stabilization. Likewise, the stormwater management approach generally would be considered as conforming to requirements of SPA redundancy through the use of increased recharge volumes, water quality swale design, and linear sand filtration.

While we understand MDE is the approval authority for the sediment control and stormwater plans for the ICC project and is ultimately responsible for technical plan review and approval, DPS makes the following comments in the interest of striving to provide the best plans practical for this very sensitive watershed. We hope SHA and MDE will give them serious consideration.

Plan Sheet E3S_DR_SW_PS-31

- The proposed pipe connection to the outfall of the existing Maintenance Depot pond needs to be detailed. It is not clear how the pipe connection to the existing concrete outfall is proposed to be accomplished.

- "Spring box to maintain ground water seepage See Roadway Plan Sheet ES3_RW_PS-31". This sheet reference appears to be incorrect.

Plan Sheet E3S_DR_SW_PS-33

- The detail for this trench, on sheet E3S_DR_SW_DE-12 shows only a typical section. Plans should show a profile of the facility. Will the bottom of the trench be flat, or will it be stepped? Will the surface of the facility be flat? There is an existing high point at about the middle of this facility. Modification of the inflow from the 12" CSP should be considered to avoid allowing flows to bypass the facility to the west. Also, this trench appears as though it will receive considerable off-site drainage. Please consider some way of bypassing this drainage around the facility in order to increase its efficiency.

- The 12'x12' Class I Rip Rap inflow appears to interfere with the proposed maintenance access road.

Plan Sheet E3S_DR_SW_DE-12

- As noted, more design detail is needed for the proposed Infiltration Trench.

- Location of the sand layer high up in the cross section of the trench may cause early failure of the facility due to the filtering effect of the sand. When the sand layer becomes clogged, the underdrain will be useless and the facility will not function. It may be better co consider using a standard Infiltration Trench design for this facility.

Plan Sheet E3S_DR_SW_DE-13

- How is the 12 inch low flow supposed to be abandoned? This should be specified.

- Connection to the existing pond outfall needs better detail.

Plan Sheet E3S_DR_SW_DE-14

- Does this sheet represent existing conditions? It is not clear what this is intended to represent. This appears to be very misleading information.

Plan Sheet E3S_DR_E1_PS-42

- Location of the SSF perpendicular to the slope as shown will provide little or no benefit, and may in fact serve to concentrate flow and cause erosion.

Plan Sheet E3S_DR_E2_PS-33

- Station reference 2671+00 in step one of the Sequence of Construction appears to be incorrect.

ATTACHMENT 3
(page 3 of 4)

FINAL STORMWATER MANAGEMENT REPORT
VOLUME I of II

1.2 Purpose and Scope
Page 4

- DPS understands that the MDE/USACOE permit for this project requires water quality treatment to be sized for 1.5" rather than the normal 1". The normal DPS requirement for stormwater quality facilities is to store 100% of the required water quality volume, while the MDE requirement is to store at least 75% of the required volume. This project proposes to store 75% of the required volume, thereby meeting the MDE minimum standard, but not meeting the normal DPS standard. However, since DPS would normally require treatment of 1", and since recharge volumes have been increased beyond normal requirements, we feel storage of 75% of the 1.5" treatment amount satisfactorily meets our normal standard.

- DPS does not agree that 12-hour detention should be required for the channel protection volumes. The normal detention requirement for Channel Protection is 24-hours, and this requirement is relaxed for surface facilities in sensitive watersheds to help alleviate concerns about thermal impacts to the receiving stream system, since it is felt that surface detention exposes quiescent water to thermal uptake. This project proposes to store the detention volume in two separate underground pipe systems, thereby avoiding this condition. In addition to this, extreme measures are being undertaken to provide more that required amounts of recharge and filtration prior to runoff entering these piped systems. The piped detention storage facilities will receive all the runoff from the project and produce two new, concentrated outfall points. DPS does not see the need for a relaxed Channel Protection standard in this case. In fact, it could be argued that, if temperature mitigation is of such high concern, underground detention times should be increased beyond the normal 24-hour requirement, to allow for the potential for further cooling prior to release into the environment. DPS is aware that Special Condition No. 14 of the FEIS requires this 12-hour detention time.

- It should be pointed out that the MDE/USACOE permit also states that the median width through this portion of the project will be 50-feet, while in fact the plans as submitted show a median width which is narrower. DPS does not object to the narrower median.

- The MDE/USACOE permit also requires all flows to be collected and will outfall at two concentrated points along the main stem of Paint Branch. We feel we should point out that concentration of flow in this manner seems inconsistent with current stormwater management requirements and philosophy.

1.2 Purpose and Scope
Page 5

- DPS has several questions pertaining to the strategy for pumping flows from the Colesville Depot stormwater pond to the Northwest Branch Watershed. In the event of pump failure (and it must be assumed there will be failure at some point in time) uncontrolled storm flows will enter the Upper

Paint Branch (UPB), since the detention orifice in the pond is proposed to be eliminated, until the pumps are repaired. This is a concern, since we would not want uncontrolled runoff entering the UPB. Who will be responsible for inspection and maintenance of these pumps? In the event the pumps fail and are not repaired, I assume the responsible party will be found to be in violation of MDE requirements … exactly who would be the entity in violation?

2.2 Methodology
2.2.2 Water Quantity Management
Page 6

- Please see DPS comments about the 12-hour detention requirement elsewhere in this report.

3.1.2 Line Of Study SPA-2
Page 10

- POI SPA-2 does not appear to show on the Drainage Area Map for Proposed Conditions.

3.1.7 Study Point SPA-7
Page 15

- "Flow from the offsite areas north of the ICC will cross the proposed roadway via a new 24" RCP culvert …" The plans appear to show a 36" RCP.

4.1 Water Quantity and Quality Control Requirements
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- The report refers to waivers being requested for areas that do not produce concentrated flow in excess of 2cfs. DPS would point out that in our normal plan review process, these areas are considered as meeting the Channel Protection requirement via dispersion. We do not normally consider this to be a "waiver". It should also be mentioned that it is the understanding of DPS that the current MDE stormwater requirements no longer consider the 2cfs element, however it does not appear that this project is designed under the most recent revisions to the MDE stormwater manual.

Please let me know if any of these comments is unclear, or if you need to discuss anything. Although I have made a few technical comments, I did not review the submission in great technical detail since I assumed MDE would be doing that as a part of their approval process.

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ATTACHMENT 4
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from: "Final Report of the Reconvened Upper Paint Branch Technical Work Group", June 2006.

Summary of Action Items

- The work group recommends that land use decisions be made based on an assessment of all of the parameters that are necessary for continued support of a high-quality Use III stream.
- Each of subwatersheds in the Upper Paint Branch SPA needs to be managed individually so that they can continue to function together as a robust, diverse, and resilient system.
- Based on more recent data, there is a need to revise the impervious cap downward from 10% to 8% in the Upper Paint Branch Special Protection Area to allow room for impervious "creep" – imperviousness that is added to private homes after the development is complete.
- There is a need to acquire additional land in the Special Protection Area as pervious reserve.
- Park & Planning should provide annual updates of impervious levels in the Upper Paint Branch watershed, either through aerial surveillance or by calculations of known additions to existing levels.
- DPS, DEP, and Park & Planning should pursue a detailed review of ways to partially mitigate the effects of existing imperviousness. For example, public facilities with parking lots and other impervious areas could be retrofitted with a system of filtration facilities (rain gardens, biofiltration in parking lot islands and other areas, sand filters, etc); County, park, and MCPS buildings could be retrofitted with green roofs; and future road widths could be reduced; and existing impervious surfaces in the watershed – old parking lots, old paths, etc. – that are underutilized or not needed should be identified and removed.
- The County Council should continue to support the stormwater retrofits already planned by DEP and Park & Planning. DEP needs to pursue additional stormwater retrofitting projects by looking comprehensively at the entire drainage system and then identifying places where more effective controls can be built. Each restoration project must be monitored according to its design goals (temperature, flow, etc.).
- DPS and DEP should continue to research and look for improved sediment control design and construction standards through the evaluation of the SPA BMP monitoring data.
- Some of the work group members recommend that "keystone" SWM facilities such as Piping Rock Drive, Colesville Maintenance Depot, Fairland Ridge and others should be inspected and, if warranted, maintained after *every* significant rainfall event. The appropriate agencies should meet to discuss this recommendation in greater detail.
- DPS, DEP, DPWT, and Park & Planning should review the design guidelines for roads, sidewalks, and parking lots and consider modifying the standards for projects located in the SPA.
- DPS should publicize the "hot line" number so that residents can report observed problems. One way to do this would be to post signs along the perimeter of construction sites.

- DPS should notify developers early in the process that they will face fines, Notices-of-Violations, and/or Stop-Work Orders for being in non-compliance with approved sediment and erosion control plans. However, the amount of the fines – Class A violations, usually assessed as a civil penalty with a maximum initial fine of $500 and a repeat offense fine of $750 – does little to serve as a deterrent that would encourage permittees to maintain their sediment and erosion control structures. County Council should raise them.

- DEP, working with other agencies, should establish a protocol for major sediment spill events, sewer line breaks, and other pollutant spills so that the response is quick and effective.

- The County should manage the transport of hazardous materials through the SPA (this could be done in conjunction with the placement of road signs at the entrance points).

- Agencies need to work together to develop a statement of the importance of the SPA and the need for both public and private development to adhere to the conditions of plan approval or recommendations outlined in mandatory referral reports. The statement needs to be disseminated not only to developers but also to County and State agencies each time a project in the SPA comes in for approval or mandatory referral.

- DPS and DEP should review Chapter 19 (Erosion, Sediment Control, and Stormwater Management) and the Executive Regulations to see whether they need to be revised and/or strengthened.

- Even though the SPA program is a local one, State and Federal agencies should be asked to comply voluntarily with the local standards. The mandatory referral process should be used to work actively toward gaining compliance from the State and Federal agencies. It is also of critical importance that MDE, SHA, Parking and Planning, and County DEP, DPS, and DPWT get together early in the process to discuss the issues and work out solutions before plans are put on paper. For those projects already under way and following federal guidelines, our agencies should continue the dialogue toward achieving mutually beneficial goals.

- If Route 198 is widened, the stormwater management ponds should be located on the north side of 198 to avoid impacts on the Left and Right Fork headwaters. Open-section and other types of environmentally sensitive road designs and BMPs should be provided throughout the SPA, except as noted below, consistent with the Cloverly and Fairland Master Plans, but within a design framework that allows for reduced imperviousness even if it requires deviating from some of the design standards. Closed section should be used only in those sections where there is not sufficient right-of-way for open section (for example in the section of the MD 198 project passing through Spencerville and passing by Union Cemetery).

- M-NCPPC needs funding and staffing to allow completion and continued maintenance of an accurate and up-to-date countywide GIS database for conservation and scenic easements. All easements should be identified and mapped on the GIS system, and all landowners where easements are located should be notified of their existence and the compliance standards.

- Permanent signage to delineate conservation and scenic easements should be posted by the agency managing the easements. The inspection and enforcement process needs to be improved through adequate staffing and training and accurate and timely tracking of enforcement cases.

- M-NCPPC needs to implement a consistent process to handle violations of terms of conservation and scenic easements.

- Park & Planning needs to develop an effective policy for the prevention and elimination of encroachments by private property owners into parkland in the SPA.

- Interagency cooperation is needed to plan and implement an education program to increase public and private awareness of the special requirements for living in and building in the SPA. This could include producing informative brochures, providing interpretive signs along trails, posting signs along all public roads at the SPA entrance points, developing programs for presentation in the public schools, getting newspaper coverage, and using the GIS system to get the addresses of property owners abutting parkland and sending letters reminding them to stop mowing, clearing, and/or building beyond their property lines.

- Acquisition of additional vacant parcels for pervious reserve in the SPA is necessary to offset the detrimental effects of continued development throughout the watershed.

Environmental Stewardship and Compensatory Mitigation Projects in the Upper Paint Branch SPA	
Site	Description
PB-1	PB-1 is located on the south side of Spencerville Road and east of Peach Orchard Road. This area drains into the Right Fork of the Upper Paint Branch. The concept for this site includes creating forested wetlands on the south side of the stream by excavating less than five feet to hydrologically connect to the stream and existing groundwater. The north side of the stream will be reforested with a mix of wetland and upland tree species. A total of 35 acres of wetland will be created at PB-1.
PB-8	PB-8 consists of restoring 1200 linear feet of stream along the Left Fork of the Upper Paint Branch. Restoration for this project includes bank stabilization, floodplain creation, riparian buffer enhancement, fish blockage removal, and habitat enhancement.
PB-108	PB-108 consists of restoring 2400 linear feet of stream along the Left Fork of the Upper Paint Branch. Restoration for this project includes bank stabilization, floodplain creation, riparian buffer ehancement, fish blockage removal, and habitat enhancement.
PB-37	PB-37 consists of restoring 6500 linear feet of stream along the Gum Springs Tributary to the Upper Paint Branch. Restoration for this project includes bank stabilization, floodplain creation, and habitat enhancement.
PB-119	PB-119 consists of restoring 1000 linear feet of stream along the Good Hope Tributary to Paint Branch. Restoration for this project includes floodplain creation to provide energy dissipation of erosive flood flows, reduce erosive shear stresses, reduce channel incision, bank stabilization to provide energy dissipation of erosive flood flows, reduce erosive shear stresses, and reduce bank erosion and instream sedimentation; and installation of woody debris and other types of instream cover and gravel channel material to enhance the benthic and fish habitats and communities.
PB-109	PB-109 consists of restoring 2500 linear feet of stream along the Good Hope tributary to the Upper Paint Branch. Restoration for this project includes bank stabilization, floodplain creation, riparian buffer enhancement, and habitat enhancement.
PB-113	The concept of PB-113 is to address stormwater management on a micro scale by constructing multiple areas to retain stormwater runoff based upon the contribution of runoff from each parcel rather than the end-of-pipe or cumulative runoff total. PB-113 will treat runoff from a total of 36.00 acres of land in the Good Hope Tributary subwatershed.
PB-114 & 115	PB-114 and PB-115 are located off of Piping Rock Drive and Peachwood Drive. These areas drain into the Good Hope Tributary to the Upper Paint Branch. The concept for these sites consists of reconstructing existing grassy swales to provide bioretention areas. PB-114 and PB-115 will treat runoff from a total of 26.00 acres of land.
PB-114A	PB-114A is a degraded stream channel at the south end of Eastway Drive in Peachwood Park, which drains into the Good Hope Tributary of the Upper Paint Branch. The concept for this site includes evaluating alternatives previously developed by MDEP and MWCOG to plan and construct an off-line extended detention facility to address one of the few remaining uncontrolled drainage areas contributing to the Good Hope Tributary. PB-114A will treat runoff from a total of 70.00 acres of land.

PB-33	PB-33 is located in the Great Hope Manor community, which drains into the Good Hope Tributary to the Upper Paint Branch. This site is a proposed storm water management pond that would treat a total of 27.00 acres of land.
PB-122 & 123	PB-122 and PB-123 are located within the Peach Orchard Heights development, which drains into the Right Fork of the Upper Paint Branch. The concept for these sites consists of reconstructing existing grassy swales to provide bioretention areas. PB-122 and PB-123 will treat runoff from a total of 7.40 acres of land.
PB-124 & 125	PB-124 and PB-125 are located within within the Gum Springs Farm development, which drains into the Gum Springs Tributary of the Upper Paint Branch. The concept for these sites consists of reconstructing existing grassy swales to provide bioretention areas. PB-124 and PB-125 will treat runoff from a total of 28.87 acres of land.
PB-126 & 127	PB-126 and PB-127 are located within the Sequoia development, which drains into the Gum Springs Tributary of the Upper Paint Branch. The concept for these sites consists of reconstructing existing grassy swales to provide bioretention areas. PB-128 and PB-129 will treat runoff from a total of 8.30 acres of land.
PB-128 & 129	PB-128 and PB-129 are located within the Maydale development, which drains into the Left Fork of the Upper Paint Branch. The concept for these sites consists of reconstructing existing grassy swales to provide bioretention areas. PB-128 and PB-129 will treat runoff from a total of 15.27 acres of land.
PB-120 & 121	PB-120 and PB-121 are located within the Fairland Acres development, which drains into the Left Fork and Mainstem of the Upper Paint Branch. The best opportunity for BMP treatment may be an under-street/bioretention storage combination at the end of Fairland Acres Road and Apple Tree Lane. PB-120 and PB-121 will treat runoff from a total of 14.40 acres of land.
PB-116 & 117	The concept of PB-116 and PB-117 is to construct micro scale projects such as bioretention areas along grassy swales and a possible bioretention area between Fairridge Drive and Bridgewater Drive. PB-116 will treat 5.07 acres of land and PB-117 will treat 6.51 acres of land (a total of 11.7 acres).
PB-130	PB-130 is located within the Good Hope Estates development, which drains into the Good Hope Tributary of the Upper Paint Branch. The conept for this site consists of constructing an inline bioretention area below the existing outlet structure. PB-130 will treat runoff from a total of 74.00 acres of land.
PB-131 & 132	PB-131 and PB-132 are located within the Colesville Heights development, which drains into the Left Fork of the Upper Paint Branch. The concept for these sites consist of reconstructing existing grassy swales to provide bioretention areas. PB-131 and PB-132 will treat runoff from a total of 12.00 acres of land.
PB 48 & 49	PB-48 and PB-49 both drain into the Left Fork of the Upper Paint Branch. PB-48 consists of creating a bioretention area at an outfall off of Evesham Place. PB-49 consists of constructing a new dry extended detention pond off of Langside Street that will attenuate flows without raising temperatures. Planting will occur around the riparian buffer and the pond. PB-48 and PB-49 will treat runoff from a total of 5.40 acres of land.
PB-43	PB-43 is located east of Timberlake Drive and Seibel Drive and drains into the Right Fork of the Upper Paint Branch. This site is a proposed storm water management pond that will treat treat runoff from a total of 34.18 acres.

PB-118	The concept of PB-118 is to construct a bioretention area between Ness Lane and the existing outfall and extending the treament area into the park to accommodate the roughly 106,000 ft^3 of volume to treat the first flush. PB-118 will treat runoff from a total of 51.40 acres of land that drains into the mainstem of Paint Branch.
PB-46A	PB-46A consists of an existing dry pond at the west end of Perrywood Road, which drains into the Right Fork of the Upper Paint Branch. The concept for this site is to convert a dry ED pond to attenuate flows without raising temperatuers, including planting the riparian buffer and pond. The pond may need to expand into the adjacent parkland to capture runoff for the entire drainage area. PB-46A will treat runoff from 25.24 acres of land.
PB-119	PB-119 is located in the Fairland Farms development, which drains into the Right Fork of the Upper Paint Branch. Only the uncotrolled drainage area would be treated under this concept. The uncontrolled portion would be treated with existing grassy swales. There may also an oportunity to utilize an existing planted area within the Culp Court cul-de-sac as a bioretention area. PB-119 will treat runoff from a total of 8.13 acres of land.
PB-133	PB-133 is located within the Perrywood Estates development, which drains into the Right Fork of the Upper Paint Branch. The concept for this site consists of reconstructing existing grassy swales to provide bioretention areas. PB-133 will treat runoff from a total of 2.00 acres of land.
REF-15	REF-15 is a reforestation site that is located on the Southern Asia Adventist/McNeill Properties. This site drains into the Left Fork of the Upper Paint Branch. A total of 21.4 acres of reforestation is planned at the site.
REF-16	REF-16 is a reforestation site that is located on the Peach Orchard Allnut/Allnut Property (PB-1). This site drains into the Right Fork of the Upper Paint Branch. A total of 20.0 acres of reforestation is planned at the site.