MEMORANDUM

TO: Montgomery County Planning Board

VIA: John E. Hench, PhD, Chief, Park Planning and Stewardship Division
     Mike Riley, Deputy Director of Parks

FROM: Doug Redmond, Principal Natural Resources Specialist
      Park Planning and Stewardship Division

PROJECT: ICC Environmental Stewardship Projects
          Special Protection Area Best Management Practices
          PB-122 through PB-129

REVIEW TYPE: Mandatory Referral No. 07905-SHA-1

APPLICANT: Maryland State Highway Administration

APPLYING FOR: Plan Approval as part of a Mandatory Referral

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RECOMMENDATION: Approve construction of Special Protection Area
Best Management Practices (SPA BMPs) – Biotrenches within DPWT
Rights-of-Way in the Upper Paint Branch SPA.

Background: This project comprises eight of the twenty-one sites proposed for SPA
BMPs. These sites were selected as part of the Environmental Stewardship component
for the ICC project. Although best management practices can include various types of
facilities, the selected type in this case is being called a “Biotrench”. Each biotrench
consists of an excavated trench of approximately two to eight feet in depth, filled with
different gradations of stone that are placed in the trench almost to the surface.
The surface of the biotrench is covered with a specific soil mix and planted with turf grass sod for final stabilization of the site. When completed, the biotrenches will be similar in appearance to the existing grass swales.

All the proposed sites are located within the Upper Paint Branch SPA in older neighborhoods with little to no stormwater management (SWM) control. The neighborhoods included in this project (and the SPA subwatersheds where they are located) are Maydale (Left Fork), Sequoia (Gum Springs), Gum Springs Farms (Gum Springs) and Peach Orchard Heights (Right Fork). These projects do not border any lands administered by MNCPPC, but all project areas drain to parkland. Under an agreement that should soon be completed, the biotrenches will be installed in the County’s road right of way.

**Design:** The project design has been based on the following restoration objectives:

- Provide infiltration of stormwater to slow runoff and lessen its affect on receiving streams
- Providing water quality treatment for adjacent lands
- Recharge of groundwater using increased infiltration
- Decrease thermal impacts from runoff and increase cooling by groundwater
- Show the feasibility of further watershed restoration beyond traditional efforts by implementing smaller projects at a micro-scale level throughout the watershed

The 90% final review plans are being finalized and a final review meeting will be held in early 2008.

**Wetland or Stream Impacts**
There are no adverse impacts to jurisdictional waters including wetlands or their buffers. The quality of runoff should be improved and the quantity of runoff should be somewhat reduced.

**Maryland Historical Trust:**
*Cultural or Historic Architectural Resources:* The completed ICC Cultural Resource Studies have not identified any historic properties within the general vicinity of the SPA BMP sites. In addition, it is unlikely that any significant archeological resources that might have occurred in these areas still exist. Coordination with the Maryland Historic Trust is ongoing.

**Forest Conservation:**
Based on the 90% design, there are no impacts to upland forested areas. During design, biotrench locations were modified to avoid potential impacts to trees on adjacent private properties. Due to the location within County ROW, no tree planting is anticipated. Forest Conservation for this project is the responsibility the Maryland Department of Natural Resources (DNR). Coordination with DNR is ongoing.
**Air and Noise Concerns:** The proposed biotrench installations will not have any significant affect on traffic within the adjacent community. Therefore, an environmental traffic noise analysis and assessment was not conducted.

**Public Meetings:** A public meeting was held October 25, 2007 to provide the community an opportunity to review and comment on final plans for the project. The meeting was well attended and reactions were generally favorable. Some modifications to the designs were made as the result of comments presented at the meeting.

**Funding:** The proposed environmental stewardship project is being funded by the Maryland State Highway Administration.

**Implementation:** Construction is expected to begin April 2008 following the award of the contract under the typical SHA bid process normally used for similar environmental contracts. It should be noted that, unlike the process for the ICC itself, the Environmental Stewardship projects are not “design/build”.

**Maintenance:** Following construction, the maintenance and monitoring of the biotrenches is expected to be minimal. Under the agreement with the County, these duties will be assumed by the County.