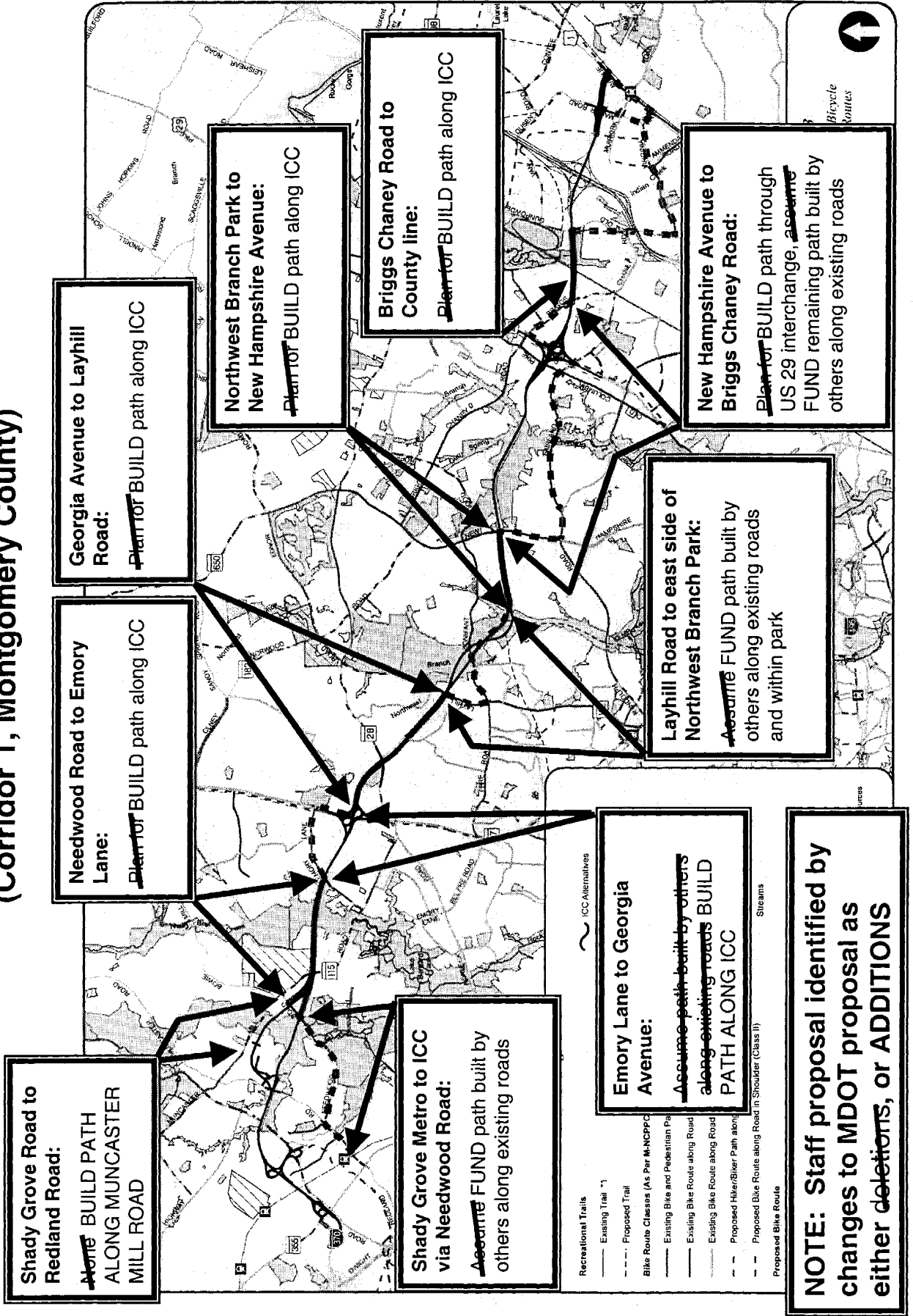


# Exhibit 19: Staff Bike Path Proposal

(Corridor 1, Montgomery County)



**NOTE: Staff proposal identified by changes to MDOT proposal as either deletions, or ADDITIONS**

### Staff Recommendation

Staff suggests that a compromise to ease concerns regarding both the Section 4(f) impacts and the potential coordination delays could be a partnering agreement in which M-NCPPC constructs the missing portions of park trails through the Rock Creek Stream Valley Park and the Northwest Branch Stream Valley Park. Staff's proposed compromise consists of the following elements, described below and shown in Exhibit 19:

- The selected alternative for Corridor 1 should include construction of the shared-use path along the 7.7 miles of potential trail segments identified as being studied along the ICC right-of-way in DEIS Figure IV-3.
- The selected alternative for Corridor 1 should also include construction of the shared-use path along the one-mile section of the ICC between Emory Lane and Georgia Avenue, including crossing Georgia Avenue at grade at one of the proposed interchange traffic signals and restoring the current shared-use path connection parallel to Georgia Avenue along its west side (using the "old Georgia Avenue" alignment).
- MDOT should commit to locating and providing state or federal funding sources by 2010 to complete the remaining portions of the shared-use path identified as being studied off the ICC right-of-way in DEIS Figure IV-3 (except for the Emory Lane segment replaced by the staff recommendation to augment the Corridor 1 bike path in the preceding bullet). The implementation of these segments using MDOT-acquired funding should be performed by SHA, DPWT, and M-NCPPC according to geographic jurisdiction
- MDOT should also commit to funding a shared-use path along Muncaster Mill Road connecting to the ICC path in the vicinity of Needwood Road and extending northwest to the existing path terminus southeast of Redland Road.

## D. OTHER DESIGN OPTIONS

**Staff recommends four specific design changes be incorporated into the selected alternative. Further minor refinements may be developed during subsequent design phases of the project; these elements are substantial enough to require incorporation in the FEIS.**

1. **Improve two stream crossings:** At most of the major ICC crossings of streams or other drainage features, the DEIS identifies a preferred structure (bridge or culvert). At two locations, staff recommends that the DEIS crossing concept be expanded to enhance passage beneath the ICC for wildlife passage as well as for potential human passage (although not for a formal, paved trail):

- a. Staff recommends that SHA select a bridge, rather than a culvert, at the Corridor 1 crossing of the Mill Creek tributary at Station 173. The bridge would cost \$4.2M more than a culvert. The staff recommendation would retain a functional connection between the two otherwise disconnected portions of Mill Creek Stream Valley Park on either side of the ICC right-of-way. The bridge at this location will minimize impacts to a complex network of wetlands, seeps and springs and enhance park access for the Founders Mill Community.
  - b. Staff recommends that SHA provide a larger culvert at the North Branch of Rock Creek tributary at Station 297. The staff recommendation would provide a functional connection between two pieces of the Dungan property recommended for parkland acquisition and next to a Biodiversity Area in the 2004 Upper Rock Creek Master Plan.
2. **Reduce forest loss in parklands through application of linear stormwater management and retaining walls or reinforced side slopes:** MDOT proposes to use a linear stormwater management system in the Upper Rock Creek and Upper Paint Branch Special Protection Areas (SPA). Staff supports this position, even though it results in a slightly wider median, because performing linear stormwater management that incorporates underground storage, rather than collecting stormwater in ponds, generally reduces the amount of total right-of-way and forest disruption required. Staff has requested that SHA document the estimated cost differential between linear and more traditional stormwater management treatment to assess the value of expanding the concept beyond the limits of the SPA. Without such information available, staff recommends that MDOT provide linear stormwater management at three additional locations:
- the portion of Mill Creek Stream Valley Park west of Redland Road
  - the portion of North Branch Stream Valley Park east of the North Branch (where the Upper Rock Creek SPA does not apply)
  - the portion of Northwest Branch Stream Valley Park south of Bonifant Road

This practice would maximize the remaining interior forest along the alignment and reduce the amount of replacement parkland sought under our proposed application of the Memorandum of Understanding with SHA. Throughout the remaining portions of the project, staff will pursue the application of advanced stormwater management concepts; such as soil amendments, underdrains, check dams, and hydrodynamic separator structures to treat bridge deck runoff; with MDOT staff during the detailed design process.

Staff recommends that in the same areas (Mill Creek Stream Valley Park, North Branch Stream Valley Park, Northwest Branch Stream Valley Park, and Paint Branch Stream Valley Park) that retaining walls or reinforced 1:1 side slopes be applied throughout the project design to reduce the amount of interior forest loss (and therefore the amount of replacement parkland sought under our proposed application of the Memorandum of Understanding with SHA).

3. **Reduce residential property displacements with application of retaining walls:** Staff estimates that the recommendations in this memorandum will yield a design with approximately 50 residential displacements (including approximately ten in Prince George's County and approximately ten in Montgomery County already owned by SHA). Most of these displacements occur in either the Cashell Estates community or at locations where the ICC crosses local roadways; including Muncaster Mill Road, Emory Lane, Norbeck Road, and New Hampshire Avenue. At many of the roadway crossing locations, the application of retaining walls could save the property. In some locations, however, the property owners may prefer relocation to retention of the property adjacent to a retaining wall, particularly in the few locations where the ICC would be above grade. During the design process, MDOT should work with individual property owners to determine whether the application of retaining walls, where feasible, would result in a more desirable outcome.
4. **Preserve right-of-way for the Georgia Avenue Busway:** MDOT should widen the median of the Georgia Avenue interchange with Corridor 1 to provide the needed left turn lanes at ICC on-ramps while preserving a minimum of 53' for the future Georgia Avenue busway. SHA is to be commended in the proactive planning for the Georgia Avenue busway in the project planning study for the Georgia Avenue interchange with Norbeck Road less than a mile to the south; a similar preservation effort is needed in the ICC design.

## E. ENVIRONMENTAL STEWARDSHIP

In September 2002, Executive Order (EO) 13274 was signed by the President requiring federal agencies to take appropriate actions to promote environmental stewardship in the nation's transportation system and better coordinate environmental reviews of high-priority transportation infrastructure projects. The EO also created a new "Transportation Infrastructure Streamlining Task Force" to more closely coordinate federal reviews on projects while simultaneously stressing the importance of improved environmental stewardship at all levels of government.

The current Intercounty Connector study includes environmental streamlining and stewardship measures. It requires that transportation and environmental review processes become more effective and efficient through interagency partnerships and communication.

Beyond the ICC avoidance, minimization, and mitigation measures, restoration efforts and enhancements are being examined for their potential to improve the cultural, community, and natural resource quality within the study area. These efforts and activities comprise the Environmental Stewardship component of the ICC's Purpose and Need Statement.

The ICC Purpose and Need Statement contain five specific project needs. The fourth is Environmental Stewardship and is described as follows:

*The planned development that has occurred has created certain stresses on the study area's environments, including the rich natural resources associated with the north-south oriented stream valleys and their parks. Alternatives for the new east-west highway would be developed in an environmentally sensitive manner using state-of-the-art measures to avoid, minimize, and mitigate impacts. Further, the alternatives will include appropriate environmental restoration and enhancements. The land use plans in Montgomery and Prince George's Counties highly value environmental stewardship and resource protection. These plans allocate certain areas to private and public development and to preservation and open space. The ICC is a major public works project in an already highly developed area, and as such, it needs to be located and designed with full consideration of the current and future condition of important environmental resources in the study area. **The alternatives will incorporate restoration and enhancement features to help bring about improvements to natural, cultural, and human environmental conditions, including but not limited to those that exist today because of past development in the area.** (Emphasis added)*

Environmental Stewardship is defined for the ICC as activities undertaken to improve the existing cultural, community, and natural resources within the ICC study area. Environmental Stewardship is separate from compensatory mitigation requirements. Examples could include, but are not limited to: retrofitting poorly or non-functioning stormwater management facilities, improving water quality and stream habitat, increasing wetland and forest acreage, renovating degraded historic structures, or improving park facilities.

Environmental Stewardship features are designed to address undesirable environmental conditions that were caused or exacerbated by past development. Candidate Environmental Stewardship features were identified, and are being studied, to address priority restoration and/or enhancement needs for both the natural and the human environment. Using selected priority needs, an equivalent Environmental Stewardship package has been developed for each alternative to reflect the types of natural or cultural needs unique to the areas through which each alternative is planned. These Environmental Stewardship packages are based on the identification of resource needs and features identified by the Federal Highway Administration (FHWA), the Maryland State Highway Administration (SHA), the public, and federal, state, and local agencies. Once a preferred alternative has been selected, the Environmental Stewardship package will be detailed.

Five categories of Environmental Stewardship features were identified for the natural environment. Each of these categories, and the number of candidate Environmental Stewardship features selected for further study are described below. The locations of the Environmental Stewardship features are depicted on *Figure VI-1* for Corridor 1 and *Figure VI-2* for Corridor 2 in Volume 2 or the DEIS. Descriptions of each of these features are provided in *Table VI-6* of Volume 1 of the DEIS. **Staff recommends that the entire package of Corridor 1 Environmental Stewardship features shown in DEIS Figure VI-1 be included in the selected alternate, with two exceptions:**

- **Removal of the proposed sidewalk project at Fairland Elementary School (S-9 on DEIS Figure VI-1), because the project would add impervious surface in the Upper Paint Branch Special Protection Area.** While this sidewalk project may prove at some later date to be desirable, staff finds that it should not be implemented by SHA as part of the ICC project as it conflicts with the objective to minimize Upper Paint Branch SPA impervious surface associated with the project.
- **Addition of a project to dredge Lake Needwood** as described in greater detail below.

The MDOT study team considered many types of projects including:

- Providing pedestrian/bicycle trails
- Rehabilitation of historic structures
- Signage to identify and direct interest to cultural resources
- Providing sidewalks for communities, schools and/or other community facilities
- Riparian buffer enhancement and/or reforestation
- Stream restoration
- Wetland creation, preservation, and/or enhancement
- Stormwater management improvements
- Fish blockage removal

The original Environmental Stewardship features inventory identified more than 900 natural and human environmental project opportunities. A number of these sites are already complete, under design, or under construction; however they were included in the inventory for purposes of tracking recent improvements and targeting restoration areas.

Staff suggested the dredging of Lake Needwood to the MDOT study team in summer 2004, but the suggestion did not survive the team's screening process. The ICC traverses Rock Creek Regional Park upstream of Lake Needwood and could significantly degrade the lake's important functions as a major recreational feature in the county, a flood control/regional stormwater management facility, and a sediment retention structure. Filling of the forebay and main lake with sediments has always been a concern for the M-NCPPC regardless of the status of the ICC. This issue has been identified in the M-NCPPC Master/Management Plan for the Rock Creek Regional Park (1998). The DEIS indicates that the ICC could exacerbate these sedimentation problems by accelerating stream bank erosion and resulting sedimentation within the lake.

If such problems are not addressed, Needwood Lake's ability to provide recreational and environmental benefits to Rock Creek and the county may be severely impaired. Therefore, staff believes the DEIS should include compensatory mitigation and/or stewardship projects, such as sediment removal in the lake and stabilization of stream channels draining to the lake, to protect and improve the lake's current functions. Staff recommends that this project be included in the final Environmental Stewardship package.

Exhibit 20 summarizes the initial number of features identified for each site type. Using these features, additional screening based on a criteria/ranking system was performed to narrow the more than 900 features being considered for Environmental Stewardship.

## Exhibit 20. Summary of Initial Environmental Stewardship Features

*Summary of Features Inventory*

Feature Type	Number of Features
Riparian Buffer Enhancement/Reforestation	33
Stream Restoration	181
Wetland Creation, Preservation, and/or Enhancement	360
Stormwater Management (SWM) Improvement	154
Fish Blockage Removal	91
Community/Cultural Environment (approximate)	130
<b>TOTAL</b>	<b>949</b>

All suggestions for Environmental Stewardship features went through an initial screening revision which removed several of the features from further consideration based on; their ability to meet Environmental Stewardship needs established for each planning area, feasibility, and proximity to the study area.

Those retained Environmental Stewardship features that were not removed in the initial screening process were field visited, then rated based on the Environmental Stewardship rating criteria developed in coordination with federal, state, and local agencies to meet the Environmental Stewardship goals. These Environmental Stewardship rating criteria included:

***Environmental Benefit*** - refers to how the opportunity would benefit the community or watershed, provide tangible results, and link the project with other Environmental Stewardship projects.

***Other Resources Impacted*** - refers to whether the opportunities would have adverse impacts on the environment as a result of construction. Sites that would require creating a substantial amount of impervious surfaces in Special Protection Areas (SPAs) were given a low ranking.

***Severity of Need*** - refers to how much public benefit or support the project would have. This criterion is a measure of how immediate the need is for the project and whether the project is consistent with local goals and priorities.

***Feasibility*** - refers to the extent of additional studies, engineering and ROW acquisition that would need to be completed before the project is constructed.

***Cost*** - considers the benefit to cost ratio. High costs were not prohibitive for any of the projects.

**Relevance to the ICC Corridor** - considered the proximity of each opportunity to the project and their relevance to the existing needs of each corridor. Those sites not located within the selected master plans or watershed boundaries for the study area were either removed from consideration or given a low ranking.

After the site screening process was applied, the remaining features were then assigned a numerical ranking from one to ten, based on their ability to meet the established criteria.

Those features receiving a ranking of five or less were removed from further consideration. Agency field tours were then held between March and May 2004 to view those features that received a ranking of six or higher. Based on the field tours, 22 human environment features were selected for further consideration. These included 17 community sites and five cultural resource sites. The community sites included bicycle/pedestrian trails, sidewalks near schools, natural habitat enhancements, and a pedestrian underpass. The cultural resource sites included improvements to four historic structures and creating signage to identify and direct interest to various cultural resources.

Additional information on Environmental Stewardship can also be found in the *ICC Environmental Stewardship Technical Memorandum I-270 to US 1, July 2004*, prepared for this project.

### **Riparian Buffer Enhancement/Reforestation Sites**

Proposed riparian buffer enhancement/reforestation features consisted mostly of small isolated sites that did not offer forest connectivity or riparian buffer benefits and were therefore eliminated. Other reasons that features were eliminated included the presence of public utilities or infrastructure, unwilling property owners, and planned development. In addition, several features previously identified in planning documents as good candidates were found during field reviews to have already been reforested and were dropped from further consideration. Based on the results of a field evaluation, none of the riparian buffer and reforestation features were found to be satisfactory. Ongoing coordination with governmental agencies will continue throughout the next several months to determine if additional features may exist that could be added to the inventory for subsequent evaluation.

### **Stream Restoration Sites**

Potential stream restoration features from the original inventory list were field evaluated. During these investigations, the features were ranked to determine those most technically suitable and feasible. Details on the ranking provided for these sites are included in the *ICC Environmental Stewardship Technical Memorandum, I-270 to US 1* (SHA, 2004) prepared for this project. Based on this ranking, 11 sites were retained for detailed study.



## **Wetland Creation/Preservation/Enhancement**

Based on field reviews, six potential wetland features are being considered as candidate sites for Environmental Stewardship. Additional details regarding these sites can be found in the *ICC Environmental Stewardship Technical Memorandum, I-270 to US 1* prepared for this project.

## **Stormwater Management Sites**

Based on technical suitability and feasibility ranking and whether these features could be linked to downstream stream restoration Environmental Stewardship features, 18 stormwater management retrofit features are currently being considered as candidate sites for Environmental Stewardship.

## **Special Protection Area Best Management Practices**

Twenty-one sites for Special Protection Area (SPA) Best Management Practices (BMP) Environmental Stewardship features were examined. All these sites ranked moderate to high under the technical criteria and moderate to high under the feasibility screening. Primarily, concerns pertain to feasibility aspects such as operation and maintenance, and public acceptance to changes near private property.

## **Fish Blockage Removal Sites**

Two fish blockage removal features are currently being considered as candidate sites for Environmental Stewardship.

## **Future Steps**

Agency and public coordination will continue throughout the design process in developing and selecting Environmental Stewardship strategies/features for both corridors. Environmental Stewardship features will be further refined and presented in the Final Environmental Impact Statement (FEIS) for the Preferred Alternative.

The Record of Decision (ROD) will document the Federal Highway Administration's final decision on a selected alternative, and, if a build alternative is selected, will document project commitments related to it, including Environmental Stewardship features and project mitigation measures.

# **PART II. NEXT STEPS AND SCHEDULE**

The Planning Board is expected to make its recommendations and forward them to the County Council and the County Executive with a copy to MDOT before February 15, 2005. Thereafter, the study process in some detail will proceed as shown in the Draft Milestone Schedule in Attachment A. The proposed schedule of future Planning Board meetings is reflected in Attachment B.

## PART III. RESPONSE TO PLANNING BOARD INFORMATION REQUESTS

The following topics were raised at the January 13, 2005, Planning Board briefing # 5 and have not been fully addressed in prior portions of this memorandum.

### TOLL DETAILS

MDOT plans for the ICC to be a value-priced facility with tolls varying by time of day to both provide a revenue stream and manage demand to ensure a congestion-free ride with reliable travel times. The tolling structure has not formally been established by the Maryland Transportation Authority (MTA), but a reasonable range of potential tolling concepts was analyzed in the DEIS. DEIS Table IV-87 summarizes the toll rates analyzed (all in 2004 dollars) as follows:

- The “baseline toll rate”, used for the travel demand, air quality, and noise analyses, is \$0.17 per mile during peak periods and \$0.13 per mile during off-peak periods.
- The “lower toll” rate tested is \$0.13 per mile during peak periods and \$0.09 per mile during off-peak period.
- The “higher toll” rate tested is \$0.26 per mile during peak periods and \$0.17 per mile during off-peak periods.

The Planning Board raised questions about the impact of the toll rates on out-of-pocket user costs for those who would travel the full length of the ICC on a daily basis. Assuming that the ICC is roughly 20 miles in length (Corridor 1 is generally described as 18 miles and Corridor 2 as 20 miles; certainly are there variations in length depending upon the options selected), the **daily out-of-pocket costs for a round-trip during peak periods** would be:

- \$5.20 for the lower toll rate
- \$6.80 for the baseline toll rate
- \$10.40 for the higher toll rate

For comparison purposes, daily out-of-pocket costs of other user-fee facilities and services include in the region include:

- \$4.50 for a round trip on the 14-mile Dulles Greenway during peak periods
- \$4.50 for a daily parking permit in the Silver Spring Parking Lot District
- \$7.80 for trips requiring the maximum fare (such as the 17 mile trip from Shady Grove to Farragut North) on the WMATA Metrorail system (\$11.80 if parking at Shady Grove is included)

## PATUXENT WATER SUPPLY

One of the significant factors to consider in alternative selection is that all options for Corridor 2 pass through the Patuxent watershed draining into the Rocky Gorge reservoir that is part of a major public water supply network of the WSSC, serving both Montgomery and Prince George's Counties. Despite extensive spill protection measures designed to protect the reservoir, the risk for negative impacts is increased if Corridor 2 is selected. No part of Corridor 1 passes through the Rocky Gorge drainage area. Concerns that have been raised by the WSSC and other persons presenting public testimony on reservoir impacts may be summarized as follows:

- Increased nutrient enrichment especially phosphorus
- Exacerbated low dissolved oxygen levels especially in summer months
- Long term protection beyond the ICC study year 2030
- Source protection
- Spills and road runoff
- Direct and long term indirect impacts should be clearly presented in the FEIS