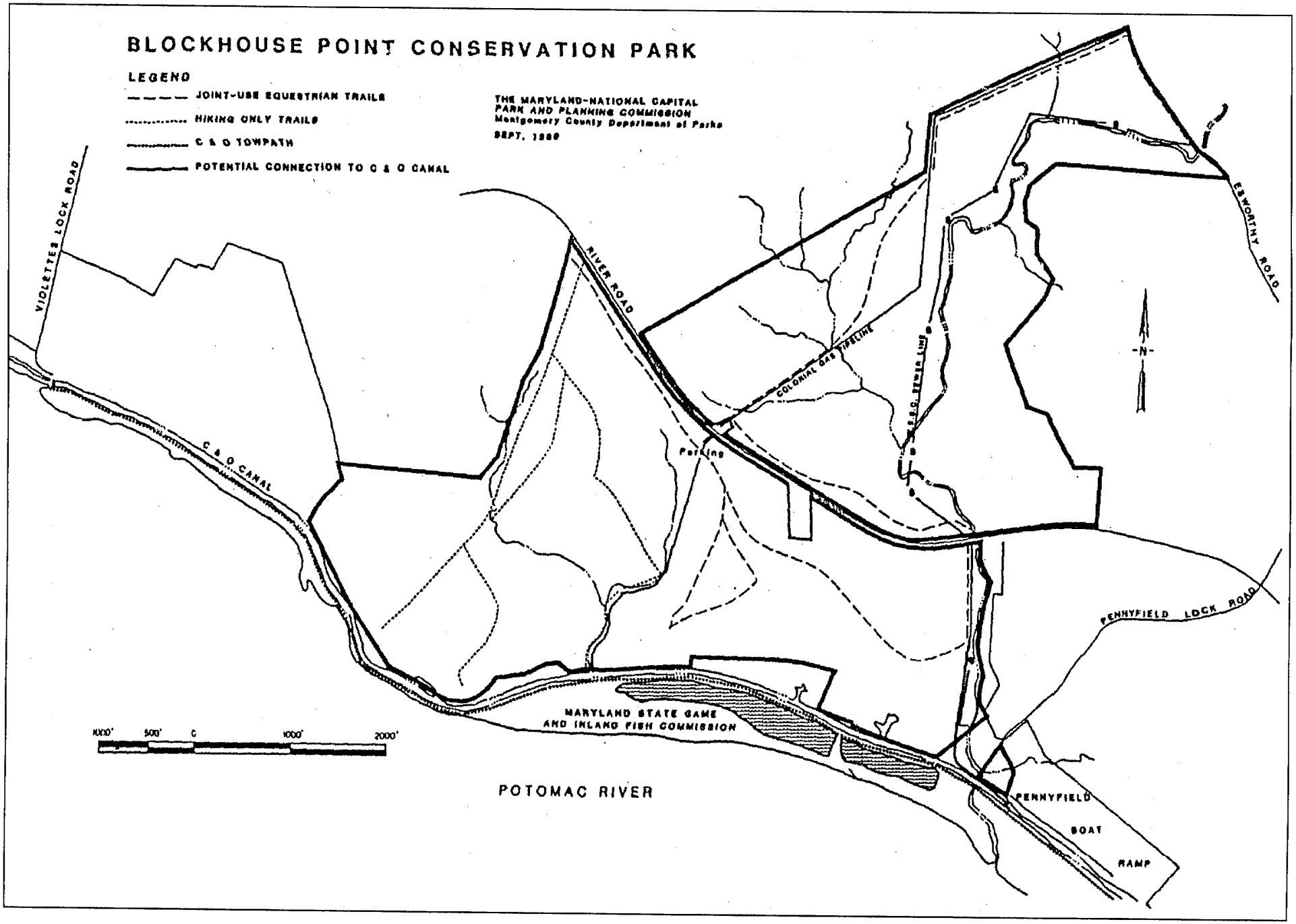


Figure 3 – Original Trail Plan Map from the 1989 Blockhouse Point Trail Master Plan

Element 3

- A *Hiker Only* Natural Surface Trail network within Blockhouse Point Conservation Park.

The major purpose of this element of the plan is to provide a natural surface trail network for the sole use of hikers. This action is consistent with previous Board policy as adopted in the Trail Plan for Blockhouse Point Conservation Park (M-NCPPC, 1989) and is intended to ensure the on-going interpretation, appreciation, protection, and enjoyment of the park's most sensitive natural and cultural resources – including the two scenic overlooks of the Potomac River.

In addition, the Trail Concept Plan (**Figure 1**) reflects a shared request that arose from all trail user groups between the time of staff's last public meeting in September 2003 and the Public Hearing in December 2003. This request was for a direct connection from the main park entrance located south of River Road to the Shared-Use – All natural surface trail north of River Road (**Figure 2**). This connection follows, in an easterly direction, the firm and stable bed of old River Road and allows trails users more direct access to the trail system north of River Road. Although this connection was shown in the former trail plan for the park (M-NCPPC, 1989), it was never formally implemented.

Topic 2: Staff responses to Planning Board questions during the Public Hearing.

During the Public Hearing, Planning Board members requested staff provide answers to the following:

1) A countywide overview of existing and proposed natural surface trails;
2) Management and use of natural surface trails; and
3) Trail policy issues in Conservation Parks.

Staff's response to these questions follows.

1) A countywide overview of existing and proposed natural surface trails.

The Countywide Park Trails Plan (M-NCPPC, 1998)

The Countywide Park Trails Plan (M-NCPPC, 1998) proposes an interconnected system of natural surface and hard surface trail corridors. The key element of the natural surface system is connectivity between the Patuxent and Potomac Rivers. Three "cross-county" greenway corridors provide linkage between these two significant natural features. Other trail corridors of countywide significance include the Muddy Branch Stream Valley Park trail where the intent of the trail facility is to provide linkage to the C&O National Historic Park, the towpath, and destinations north and south.

The proposed countywide natural surface trail system (M-NCPPC, 1998) totals about 175 miles. A little less than half of the network is currently open to public use. More detail on the existing trail network follows.

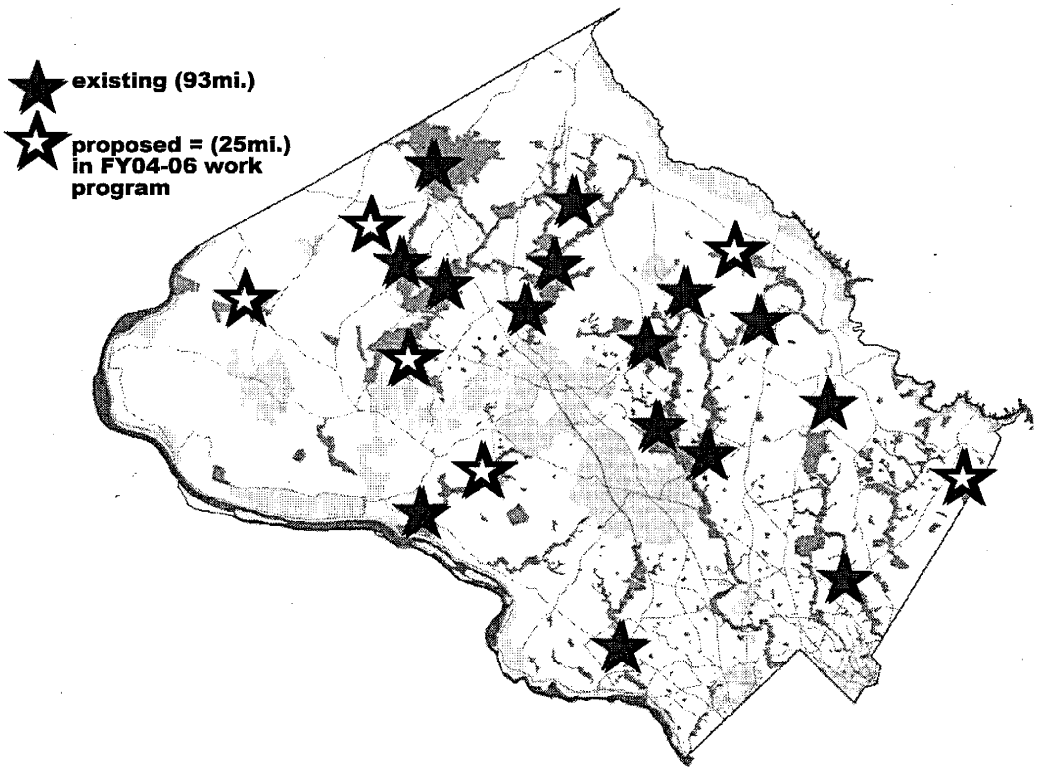
Location and Length of Natural Surface Trails

Sanctioned trails are defined as those natural surface trails currently existing in County parks that are named, signed, mapped, and regularly maintained. **Figure 4** shows the location of all sanctioned trails in the County park system. Staff recognizes that there are many, existing, non-sanctioned natural surface trails in County parks as well. Park regulations permit hikers in all parks and once a foot-path is established, people tend to use it on a regular basis. In fact, most all of the major countywide parks have an informal network of non-sanctioned, natural surface trails. Non-sanctioned natural surface trails range from informal "people's choice" trails to park trails that are missing one or more of the criteria (*e.g.*, mapping or signage) necessary to declare them officially sanctioned even though they may be regularly maintained by maintenance staff in the Park Regions and/or volunteers.

At present, there are approximately 93 miles of officially sanctioned natural surface trails in the County parks. Staff do not know the number of miles of non-sanctioned, natural surface trails throughout the system although some have been mapped to facilitate use by staff, especially Park Police.

As noted in the Planning Board approved FY 04-06 Trails work program, approximately 25 miles of additional, sanctioned, natural surface trails will be open to the public in the next two years. The locations of these trail segments are also shown in **Figure 4**.

Figure 4 – Sanctioned Natural Surface Trails Countywide



Permitted Activities on Sanctioned Trails

There are three key activities associated with natural surface trails: hiking, horse-back riding, and biking. All sanctioned natural surface trails are signed with "patches" that illustrate the permitted trail use or uses.

Of the 118 miles of existing and programmed sanctioned trails, a little less than half are open to shared use by hikers, equestrians, and cyclists, i.e., Shared-Use All. With regard to trail miles available for each activity, hikers enjoy access to all 118 miles (100 %), whereas equestrians and cyclists enjoy access to 76 miles (64 %) and 54 miles (46%), respectively (Figure 5). Table 1 provides a tabular summary of permitted activities on sanctioned, natural surface trails throughout the County park system.

Figure 5 – Permitted Trail Activities on Sanctioned Natural Surface Trails Countywide

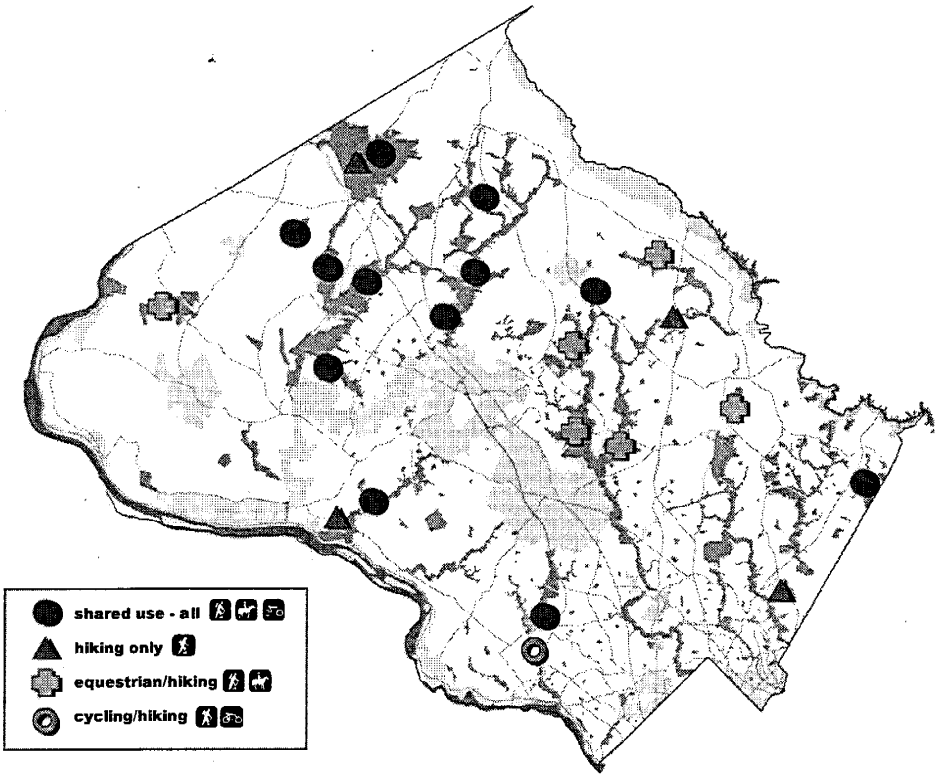


Table 1 – Overview of Sanctioned Natural Surface Park Trails by Use in Montgomery County Parks

	Shared by All	Hiker Only	Hiker/Equestrian	Hiker/Biking	Total Miles
Sanctioned	43%	39%	15%	3%	**93**
To be Sanctioned by 6/06	46%	10%	44%	0	**25**
TOTAL	44%	33%	21%	2.6%	**118**
Miles of Trail Open to User Groups					
Hikers	118 miles (all trails are open to hikers; one-third are hiker only)				
Equestrians	76 miles				
Cyclists	54 miles				

When planning and maintaining natural surface trails, staff are increasingly challenged with accommodating the different interests and skill levels within user groups. By in large, staff's focus is on providing trails that are oriented to the casual hiker, equestrian, and cyclist. However, there are clearly users within each group who seek and increasingly demand more challenging trail experiences. Hikers as a group, for example, include those who enjoy a causal walk across a level to moderately sloped woodland to those who relish the rigorous physical challenge of more rolling terrain and steep stream valleys. Equestrians include those who enjoy a casual trail ride to those engaged in the exciting sport of fox chasing. Finally, cyclists include riders on hybrid bikes seeking a quiet ride in a park setting to more adventuresome riders on mountain bikes looking for trails with varied, challenging terrain and a variety of trail obstacles such as downed logs, rocks, and water features.

For those interested in the more challenging aspects of permitted trail activities, we try to provide specially designed facilities in specific parks. Hiking only trails have been planned and are maintained in many of our best Conservation Parks. A network of trails open to fox chasing is available via permit at Hoyle's Mill Conservation Park. Staff are currently working with volunteers from the mountain bike advocacy group, MORE (Maryland Off Road Enthusiasts) to develop a network of mountain bike accessible trails in Fairland Recreation Park. All these examples reflect staff's on-going efforts to accommodate natural surface trail users seeking the more challenging aspects of their sport.

Staff recognize that accommodating the more challenging demands of equestrians and cyclists (especially mountain bike enthusiasts) will require greater emphasis in future park planning efforts.

2) Management and use of natural surface trails

Testimony from the Public Hearing included requests by equestrians and cyclists to provide more shared use, natural surface trails for their enjoyment. In response to these requests, the Planning Board asked the following questions:

a. **Could better management techniques allow equestrians access to more trails at Blockhouse Point?**
b. **What have been the impacts at Schaeffer Farm in Seneca Creek State Park in terms of mountain bike use?**
c. **What is the current experience elsewhere in our park system in terms of shared use trails?**

a. Could better management techniques allow equestrians access to more trails at Blockhouse Point?

The Callithea Farm Stables Lease was made and entered into on September 30, 2003 by and between the M-NCPPC and George Sengstack, Manager of Callithea Farm. Article IV – Grant of Rights to Lessee specifies in section 4.5 that the Lessee will develop a Soil and Water Conservation Plan and a Nutrient Management Plan for Callithea Farm. The plans – which include waste management measures, pasture

stocking rates, sediment control measures, and a reference to establishment of stream buffers – were prepared in cooperation with Montgomery County Soil Conservation Service and Commission staff and cover the period 2002-2004. The plans indicate that the farm manager expects to accommodate approximately 65 horses at the farm – about 30 in stalls and 35 in pastures.

A survey of equestrians at Callithea Farm in 2001 revealed that 15 of 17 survey respondents participated in trail rides and the overwhelming majority of these rides incorporated the equestrian trail in Blockhouse Point Park as part of the trail riding experience. The survey also revealed that 14 of 17 riders go out in all seasons and most ride about once a week.

Staff believes that weather related trail management techniques have the greatest chance of success. Both horses and bikes can damage trails and negatively affect the trail tread when conditions are wet and muddy. This problem is greatest from late-November through mid-April. As discussed below, trails are closed during the wettest months of the year at one local facility operated by the State of Maryland in order to reduce adverse, user related trail impacts.

At Blockhouse Point, staff's concern for trail sustainability (as well as the protection and preservation of adjacent, natural, archaeological, and historical resources) goes beyond wet weather related impacts. As noted in the Trail Plan for Blockhouse Point Conservation Park (M-NCPPC, 1989), approximately 90% of the soils at Blockhouse Point are rated as severe for trail use. This is especially true for the thin and fragile soils of the slopes and rock outcrops overlooking the Potomac River as well as the poorly drained and wet soils of the Muddy Branch floodplain. Soils in the park are susceptible to damage from horses and bikes during wet and dry periods of the year.

The Trail Plan for Blockhouse Point Conservation Park (M-NCPPC, 1989) was developed specifically in response to damage caused to the park's soils and other natural, archaeological, and historical resources by a combination of all-terrain vehicles accessing the park via the Muddy Branch stream valley and equestrians originating from Callithea Farm. Staff believes that implementation of the 1989 plan, coupled with an aggressive, concurrent program of site restoration, has allowed for adequate protection of the park's natural, archaeological and historical resources over the years.

Three other concerns related to the Master Plan for Blockhouse Point Conservation Park affect staff's view of management-based approaches to trail use:

Concern 1
The first concern is related to the interpretation, appreciation, and enjoyment of the park's unique natural, archaeological, and historical resources by solitary hikers or larger formal groups that may be led by interpretive naturalists, resource specialists, teachers, or volunteers. Staff believes that the quality of this experience should not be diminished by distractions caused by equestrians and cyclists.

Concern 2
The second concern is related to the protection and preservation of the park's resources. Long-term stewardship of these resources is best assured if the concurrent

recreational activity causes the least amount of environmental impact possible. Thus, a natural surface trail designated as *Hiker Only* is the most logical choice for a park related improvement and associated use in the park's sensitive areas.

Concern 3
The third concern is related to the regional nature of both the *Shared Use – Hiker/Equestrian Only* natural surface trail loop and the north-south *Shared Use – All* natural surface trail in the Muddy Branch Stream Valley (See the Trail Concept Plan, **Figure 1**). Equestrians entering Blockhouse Point Conservation Park may originate from Callithea Farm, either of the two trail connections to the C&O Canal National Historic Park (one of which passes through Callithea Farm), the main parking lot on River Road, or the *Shared Use – All* natural surface trail in the Muddy Branch Stream Valley. Therefore, regulating only the number of horse-back riders originating from Callithea Farm and not from the park's other access points will not necessarily ensure there are no trail related impacts to the park's sensitive and significant resources.

Given consideration of these multiple issues, staff does not believe that better management techniques could allow equestrians (or bikes) more access to trails at Blockhouse Point Conservation Park. Staff does believe that the proposed Trail Concept Plan (**Figure 1**) – with it's network of natural surface trails and permitted uses -- adequately balances resource stewardship and opportunities for trail-based recreation.

b. What have been the impacts at Schaeffer Farm in Seneca Creek State Park in terms of mountain bike use?

Based on conversations with Lt. Walter F. Brown, Park Manager, Seneca Creek State Park, 11950 Clopper Road, Gaithersburg, MD 20878. Telephone (301) 924-2127:

Schaeffer Farm is part of Seneca Creek State Park, located south of Interstate 270, near Gaithersburg, MD. The Maryland Department of Natural Resources (DNR) manages the park. The trail system at Schaeffer Farm was proposed, designed, and built by volunteers from the mountain bike advocacy group, MORE. MORE volunteers provide most of the trail maintenance. Although the trail system is also open to hikers and equestrians, the vast majority of trail users are mountain biking enthusiasts. The facility features several natural surface trail loops covering almost 12 miles. The trail system offers something of interest for a wide variety of cyclists with different skill levels. The trails feature a hard-packed surface with moderate climbs, and a good number of log and ramped-log hops. Trails are often crowded on the weekends, with fewer users during weekdays.

Lt. Brown believes there has been 85-95% success with the design of the trail system. However, he noted that erosion has occurred on slopes where trail sections were not well designed. Trail segments in open fields are generally the worst for retaining water after heavy rains. Trail segments in forested, upland areas generally have fewer drainage problems. Lt. Brown advised that the sustainability of any natural surface trail system is largely dependent on a good, well-thought-out initial trail design and layout coupled with regular and routine follow-up maintenance.

Lt. Brown noted that the biggest problem with the trails at Schaeffer Farm have occurred when cyclists use trails when conditions are too wet. To address this problem, DNR has implemented a mandatory trail closure period from December 15 through March 15. If there is an extended hard freeze, the trails may be open during the winter on a day-to-day basis. There is no trail riding for 24 hours after a soaking rain. Cyclists are encouraged to not use the trails when they are wet and muddy. All gate closures must be observed. DNR has set up a 24 hour hot-line to provide trail closure information. A few years ago, "renegade" cyclists created additional trails through adjacent forest without the approval of park staff. MORE successfully argued to add these trails to the official network but also agreed to help educate trail users regarding acceptable vs. unacceptable behavior. To MORE's credit, the problem has not re-occurred. MORE continues to lobby for more trails with the caveat that some be opened on an interim basis thus allowing time to evaluate success. Due to budget cuts and coincident reductions in staff, Lt. Brown is relying more and more on volunteers -- especially from MORE, Boy Scouts, *etc.* -- for trail maintenance.

c. What is the current experience elsewhere in our park system in terms of shared use trails?

Little Bennett Regional Park has an extensive network of natural surface trails designed and implemented by park staff in the mid 1980s. Roughly one half of the park's trails are designed as *Hiker Only* with the remainder designated as *Shared-Use All.* The shared use trails are used heavily by equestrians and less so by mountain bike enthusiasts. Staff's analysis of natural surface trails in Little Bennett Regional Park has shown that trails designated *Shared -Use All* cause more environmental impacts and require more maintenance than trails designated *Hiking Only*. This conclusion largely mirrors staff's observation regarding shared use trails elsewhere in the County park system.

Little Bennett's *Shared-use All* natural surface trails:

- Are subject to greater disruption of the normal soil profile and therefore experience more erosion.
- Are subject to significant soil compaction and associated negative impacts to the roots of adjacent trees and shrubs.
- Cause a higher level of trail-side tree mortality.
- When located on slopes, are more likely to evolve into well-defined, incised channels that regularly convey erosive storm-flows during major storm events.
- Are more likely to widen and even split into multiple trail segments over time as trail users try to avoid water saturated soils, erosion channels, wash-outs, and fallen trees.
- Are more likely to become water saturated, muddy quagmires when used in rainy weather.
- Are in some locations, unsuitable for use by hikers.
- Require more substantial engineered structures (e.g., boardwalk, bridges) to cross streams, nontidal wetlands, and other environmentally sensitive areas.
- Regularly require more frequent and intensive maintenance.

As previously noted, the natural surface trail system in Little Bennett Regional Park was designed and built approximately 20 years ago. Staff's knowledge of trail design and construction has improved over the intervening years. The Montgomery County Department of Park and Planning is committed to the design and construction of sustainable natural surface trails, capable of supporting the intended range of uses. Staff's commitment in this regard should help to ensure that newer trails result in less environmental impact, require less maintenance, and provide a more satisfactory experience for the trail user.

3) Trail policy issues in Conservation Parks.

The Park Recreation and Open Space Master Plan, *i.e.,* PROS, (M-NCPPC, 1998) defines Conservation Parks on pages 24-25 as generally large areas that preserve specific natural, archaeological, or historical features; are typically located in upland areas (but also include stream valleys); and are acquired specifically for environmental preservation purposes. Conservation parks may include outstanding examples of natural communities, self-sustaining populations of rare, threatened, endangered or Watch-list plant or animal species, or unique archaeological and historical resources. Given the sensitive nature of resources in Conservation Parks, development is very limited and generally restricted to passive recreational activities such as hiking on natural surface trails, fishing, informal picnicking, and nature study. Opportunities for interpretation of the protected environmental, archaeological, and historical resources are maximized through natural-surface trails and staff and/or volunteer led programs.

Staff interprets PROS policy to mean that natural surface trails are a permitted recreational improvement in Conservation Parks. Staff 's recommendations regarding permitted uses on natural surface trails require balancing a complex set of issues involving trail planning objectives, environmental impact assessment, responsibilities for resource stewardship, recreational needs, accessibility issues, monitoring, maintenance, and public safety. Ultimately, staff balance the public's right to use public parkland for recreation with M-NCPPC's responsibility to manage the land (and its natural, archaeological, and historical resources) in a manner that ensures those resources will be available for future generations.

There are currently 16 Conservation Parks totaling 3,316 acres in the County's 32,164-acre park system. The largest Conservation Park is Hoyle's Mill Conservation Park (766 acres) whereas the smallest is Goshen Elm Conservation Park (about three tenths of an acre). Conservation Parks include five of the park system's 12 best natural areas; these are Hoyle's Mill Conservation Park, Potomac Serpentine Barrens Conservation Park, River Road Shale Barrens Conservation Park, Rachel Carson Conservation Park, and Blockhouse Point Conservation Park. The other best natural areas are located in stream valley and regional parks.

The Planning Board approved the Countywide Park Trails Plan in July 1998. The plan (M-NCPPC, 1998) recommends natural surface trail corridors through Rachel Carson Conservation Park and Blockhouse Point Conservation Park. The Planning Board

reaffirmed its 1998 decision regarding Blockhouse Point within the context of the Muddy Branch Stream Valley Park Trail Plan in January 2002.

The Planning Board approved the Rachel Carson Conservation Park Master Plan in June 2000. The plan (M-NCPPC, 2000) included natural surface trails designated as *Hiker Only* and *Shared-Use Hiker Equestrian Only*.

The Planning Board approved the public access element (*i.e.*, trail plan) of the Bucklodge Forest Conservation Park Management Plan in June 2002. The management plan (M-NCPPC, 2002) included natural surface trails designated as *Hiker Only* and *Shared-Use All*.

Topic 3: Staff responses to Public Hearing Testimony.

Staff responses to Public Hearing Testimony are given in **Table 2.**