

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
8787 Georgia Avenue • Silver Spring, Maryland 20910-3760

MEMORANDUM

TO: Montgomery County Planning Board

VIA: Jeff Zyontz, Division Chief, Countywide Planning Division
John Hench, Supervisor, Park Planning and Resource Analysis (PPRA)
Brenda Sandberg, Legacy Open Space Program Manager *BS*

FROM: John Turgeon, Legacy Open Space Senior Planner (301) 650-4361

DATE: October 10, 2003

RE: Bennett Creek Headwaters Area Proposed Legacy Open Space Site

Recommended Action

Staff recommends that the Planning Board approve designation of the Bennett Creek Headwaters Area as a Class I site in the natural resources category of the Legacy Open Space Functional Master Plan. The recommended area is identified on the attached map (See Attachment #1) and contains approximately 1,024 acres. The Bennett Creek Headwaters Area is currently listed as a Class III natural resources site in the appendix of the Legacy Open Space Master Plan.

Acquisition of the site as conservation parkland by M-NCPPC would be the best method for achieving long-term protection of this significant natural resource. However, staff further recommends that a range of lower cost options be explored to conserve parts of this site given its size, including purchase of conservation easements by the Commission, donations of land and easements, and particularly dedication of parkland and easements through the development review process.

Implications of Legacy Designation/Implementation Issues

Due to the high quality of the resources present in the Bennett Creek Headwaters Area, staff's preference for protecting the site is through purchase by M-NCPPC as conservation parkland. This method is consistent with Montgomery

County's past efforts to insure protection of its most significant natural resources for the long term, including the recent purchases of large natural resource sites by the Legacy Open Space program. Protecting the site as a contiguous area of conservation parkland would minimize fragmentation of the site's interior forest and preserve the forested stream valley buffers. Additionally, in the Damascus region there is a dearth of County-owned conservation parkland available, with none located in the Bennett Creek watershed. The Bennett Creek Headwaters Area would provide an opportunity to add considerably to that acreage.

However, projected future constraints on public funding for Legacy Open Space acquisitions and the process for setting Legacy spending priorities serve to limit the number of sites acquired as parkland by the program. Competing for available dollars are several natural resource sites originally listed in the Legacy Master Plan that are yet to be protected, in addition to the many sites listed in the other categories of the Plan.

The size of the headwaters area combined with the large number of individually owned properties making up the site also present limiting factors to the conservation of this area. Previous Legacy purchases of natural resource sites such as Bucklodge Forest, Hoyles Mill Diabase Area, and the Serpentine Barrens, were each owned by a single property owner. In each case, the entire resource was protected through one negotiation.

These factors ensure that protection of the entire site, if approved by the Board, will be achieved incrementally over many years. It is the intent of the Legacy program to work with willing property owners to achieve protection of sites. Implementation techniques will include a combination of outright purchase of land and lower cost options such as purchasing conservation easements, seeking donations of parkland and easements, and especially dedication of parkland and easements through the development review process.

Background

Staff completed an evaluation of the Bennett Creek Headwaters Area in Damascus as a potential natural resource site to be protected by the Legacy Open Space program. The area is listed as a Class III site in Technical Appendix D of the Legacy Open Space Functional Master Plan. Class III sites were nominated for inclusion in the Master Plan but have not been fully evaluated for full incorporation into the Legacy program. This Class III site was identified as meeting Legacy criteria but required further study to identify specific areas to protect. The evaluation of the site follows the process set forth in the Master Plan for conducting additional studies of Class III sites to designate them Class I or II Legacy sites or remove them from the program. According to the Legacy Open Space Functional Master Plan, staff should conduct an evaluation of a Class III site if development is proposed on the site prior to review of development plans by the Board. Two development plans (#1-03097 and #1-03106) have been

submitted for parcels in key locations of the headwaters region (See Attachment # 1). This memorandum discusses how the property was judged against the criteria for selecting Legacy Open Space sites and makes a recommendation to the Planning Board for protecting the important natural resources contained on this site.

The Bennett Creek Headwaters Area as delineated by staff is estimated to contain approximately 1,024 acres of land, and represents a portion of the entire headwaters region of the Bennett Creek. The delineated site is based on extensive field investigation as well as GIS analysis, and comprises the areas considered the highest priority for protection. The site is located just west of Ridge Road (Maryland Route 27) northwest of the Damascus town center, between Moxley Road to the north and Bethesda Church Road to the south. The Bennett Creek is located within the Potomac River watershed. It flows westerly from its origins on the subject site into Frederick County where it runs into the Monocacy River.

The identified area encompasses the principal headwater tributary streams of the Bennett Creek, including numerous seeps, springs, and wetlands that feed them. In addition, these aquatic features are located within and buffered by a large block of contiguous forest containing several stands of high quality interior forest, both upland and riparian in character. The large majority of the site is located within the RDT Rural Density Transfer zoning district, and there are roughly 30 to 35 acres of active agricultural land located within the proposed conservation area. No dwellings are located within the site, nor do any roads traverse the area. In general, the headwaters area has remained relatively undisturbed by development.

The property was nominated as an environmentally significant resource for inclusion in the Legacy Open Space program during the process of developing the Legacy Master Plan in 2000. Staff has been evaluating most of the Class III sites as part of area master plan processes such as Potomac, Upper Rock Creek and Olney. During the spring and summer of this year, Legacy staff in cooperation with other PPRA, Natural Resources Management, Environmental Planning, and Little Bennett Region staff undertook such an evaluation of the site as part of the process for amending the Damascus Master Plan. Staff elected to fast track its study and bring a recommendation to the Planning Board in light of the development plans submitted within the proposed area.

Resource Analysis

The following is an analysis of the significant natural resources found in the Bennett Creek Headwaters Area.

Aquatic Resources

The Bennett Creek watershed is a Water Use Category I-P as designated by the Maryland Department of the Environment. Use I-P waters are suitable for fishing, growth and propagation of fish (other than trout), and other aquatic species and wildlife, as well as public water supply. Agricultural land uses interspersed with remaining large tracts of forest and low-density residential uses characterize the watershed landscape. According to the Countywide Stream Protection Strategy, the Bennett Creek and its tributaries show overall good stream biological and habitat conditions. Preliminary monitoring indicates a diversity of fish species are supported in the watershed.

While imperviousness is not expected to increase significantly in the Bennett Creek watershed in the near future since the area is mostly zoned RDT, maintenance of the existing headwaters forest is crucial to maintaining the good water quality of the Bennett Creek over the long term. Much of the subject site is located in close proximity to the Damascus Town Center and Ridge Road, where development pressure is greatest. There have been some negative impacts to stream quality observed in this area due to imperviousness and runoff.

Wetlands

Wetlands comprise an estimated 47 acres of the subject site. This amounts to more than half of the wetland acreage in the Bennett Creek watershed according to the Damascus Environmental Resources Inventory published in July of this year. Numerous connected or "braided" wetlands are found within the floodplains of the headwater streams, and many seeps and springs that feed them are located on adjacent slopes. These features are mostly forested and appear relatively undisturbed by agricultural and development activity. Because many plants and animals in wetlands are specialized to survive in saturated or flooded soils, wetlands typically support unique biological communities. Maintaining the integrity of the wetlands in the headwaters area is also critical to maintaining the long-term health of the Bennett Creek.

Forest Resources

A large majority of the Bennett Creek Headwaters Area or an estimated 816 acres is covered by forest. This amount represents almost 40% of all the forested acreage found in the Bennett Creek watershed according to the Damascus Environmental Resources Inventory. It also represents one of the largest areas of contiguous forest in the Damascus vicinity, and is certainly one of the largest forests in the County still unprotected by conservation parkland. This forest consists of a number of stands including mature upland and riparian deciduous

stands, as well as young successional forest areas and meadows on former agricultural lands.

Interior deciduous forest that provides important habitat for many birds and other wildlife species makes up an estimated 255 acres of the total forested acreage on the subject site, making it a significant green infrastructure corridor. On a county-wide basis, large tracts of high quality, interior forest, are now very limited. Several high priority, mature upland stands are found within the proposed Legacy site. These are considered high quality for their species diversity, low percentage of non-native invasive vegetation, good understory condition, and age. Some particularly notable stands dominated by mixed oak and hickory species, including chestnut oak (*Quercus prinus*), white oak (*Q. alba*), red oak (*Q. rubra*), mockernut hickory (*Carya tomentosa*), and pignut hickory (*Carya glabra*) have canopy trees in the 18-28" dbh range. Mountain laurel (*Kalmia latifolia*), pinxster azalea (*Rhododendron periclymenoides*), and native blueberries (*Vaccinium* spp.) are abundant in the shrub layer of these stands. One of the identified parcels also contains an exceptional stand of American chestnut (*Castanea dentata*), considered rare in Maryland; it is perhaps one of the best such stands in the County.

Extensive riparian forest stands are found in the floodplains and wetlands along the tributary streams of the Bennett headwaters area. Much of this acreage is also considered interior forest and provides the "interior forest" benefits to birds and other wildlife, as well as providing a good buffer to the headwaters streams. These floodplain forests are dominated by maturing oak, maple, tulip poplar, hickory, ash and sycamore trees. The Bennett Creek floodplain forest tracts have high quality herbaceous layers with exceptional populations of spring ephemeral wildflower and fern species. Some of the species noted include dwarf ginseng (*Panax trifolius*), yellow trout lily (*Erythronium americanum*), spring beauty (*Claytonia virginicus*), rue anemone (*Anemonella thalictroides*), and cinnamon fern (*Osmunda cinnamomea*).

In addition to the high quality upland and riparian forested acreages, there are also over 100 acres of young successional forest and former farm field areas on the site that offer good opportunities for expanding the existing forest in this area. These stands also provide valuable wildlife habitat, including habitat for species not so common in other parts of the County such as wild turkey.

Analysis of Overall Legacy Criteria and Specific Natural Resource Factors

Staff's analysis of the Bennett Creek Headwaters Area in relation to the overall Legacy criteria described in the Legacy Master Plan has determined that:

- The site has particular countywide and regional importance because it is a large diverse ecological area with a variety of habitats, some of them unique. It represents an opportunity to protect the principal forested

headwaters of a major stream whose watershed spans Montgomery and Frederick Counties.

- The resource contributes to the protection of public water supply since the Bennett Creek is part of the Potomac River watershed.
- The site is part of a “critical mass” of similar open space since it is located within a significant green infrastructure corridor as identified by the Maryland Greenways Commission linking the Patuxent River parkland with Little Bennett Regional Park and Magruder Branch Stream Valley Park (See Attachment #2). Thus, the resource provides ecological connectivity between these significant areas and could provide human connectivity as well.
- The resource provides an additional buffer to the County’s Agricultural Reserve from development approaching from the south, and helps define the traditional town center of Damascus.
- The resource represents an opportunity for broadening interpretation and public understanding of natural resources due to it being a major forested headwaters area with relatively little negative impact from development.
- The resource represents a significant opportunity to increase the amount of conservation parkland in the Damascus region, of which there is currently very little owned by the County. The only such parkland in the Damascus Planning Area is Oak Ridge Conservation Park, located southwest of the town center at the headwaters of the Little Bennett Creek, which is 64 acres in size. Sections of Magruder Branch and Great Seneca Stream Valley Parks, a type of conservation parkland, are located within the Damascus Planning Area, and total roughly 800 acres. However, these are relatively narrow greenways. Large areas of conservation parkland that preserve a significant natural feature, consistent with the definition provided by the County’s Park, Recreation and Open Space (PROS) Plan, generally do not exist in Damascus. These are areas such as Rachel Carson Conservation Park and Hoyles Mill Conservation Park.

After further analysis of specific natural resource factors as discussed in the Legacy Open Space Master Plan, staff concludes that:

- The site is a significant forested headwaters area with relatively little negative impact from development and containing some exemplary natural communities.
- It is a large area of good quality contiguous forest supporting a diversity of plants and wildlife.

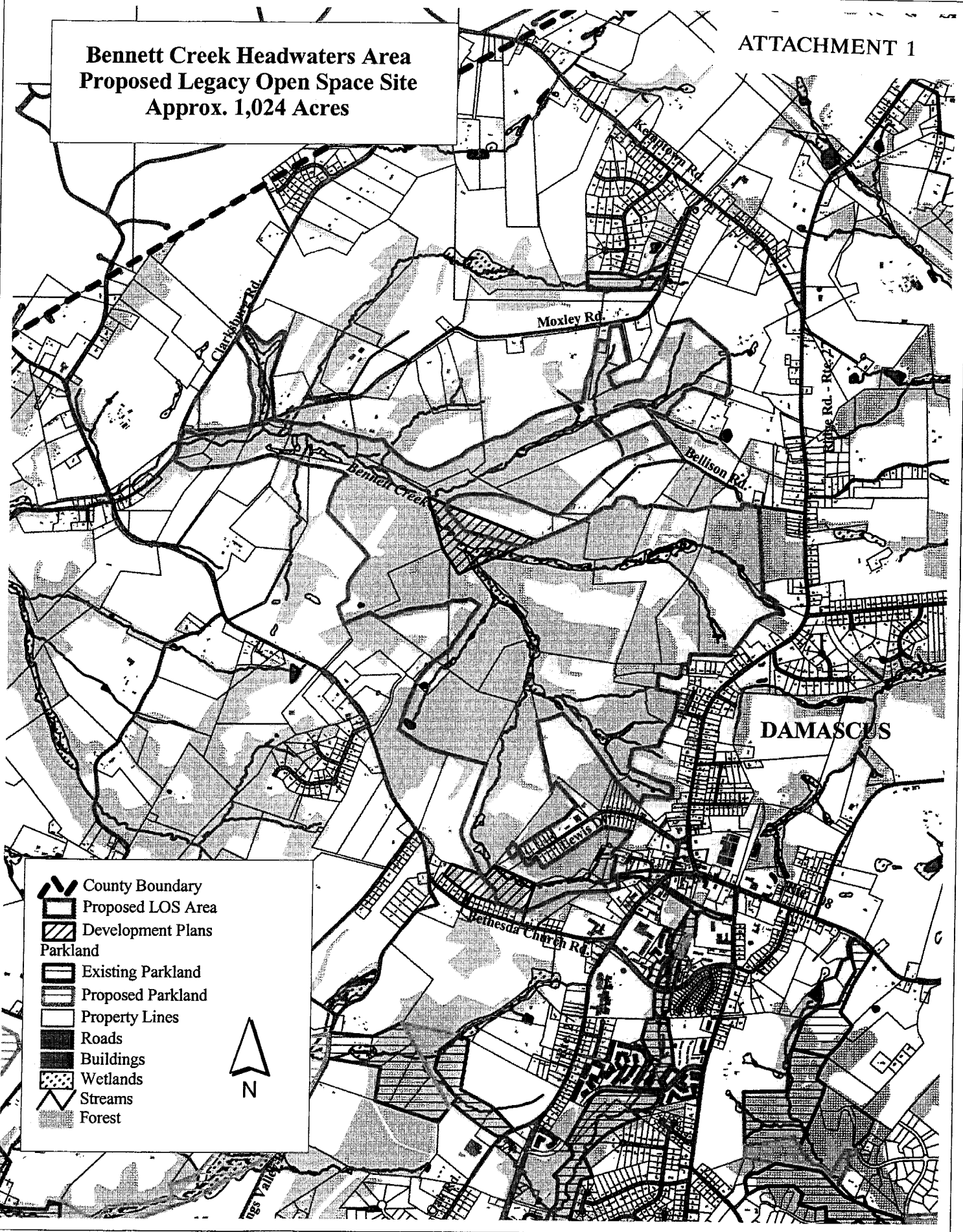
- The site's forest provides a valuable buffer to the headwater tributaries of the Bennett Creek, which is key to maintaining the good water quality of the stream.
- The site provides a wildlife corridor and potential natural surface trail corridor linking the Patuxent River parkland with Little Bennett Regional Park and Magruder Branch Stream Valley Park.

In conclusion, staff recommends that the Planning Board designate the Bennett Creek Headwaters Area, consisting of approximately 1,024 acres as delineated in the attached map, a Class I Legacy Open Space site in the Natural Resources category of the Legacy Open Space Functional Master Plan.

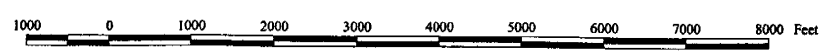
The Legacy Master Plan requires that reclassification of a Class III site to Class I be approved by the County Council. Staff recommends that this approval be accomplished as part of the amendment to the Damascus Master Plan, which is currently midway through its process. The Damascus Master Plan will verify the Planning Board's designation of the Bennett Creek Headwaters Area as a Legacy Open Space site, and this is consistent with the recommendations being developed for the Master Plan.

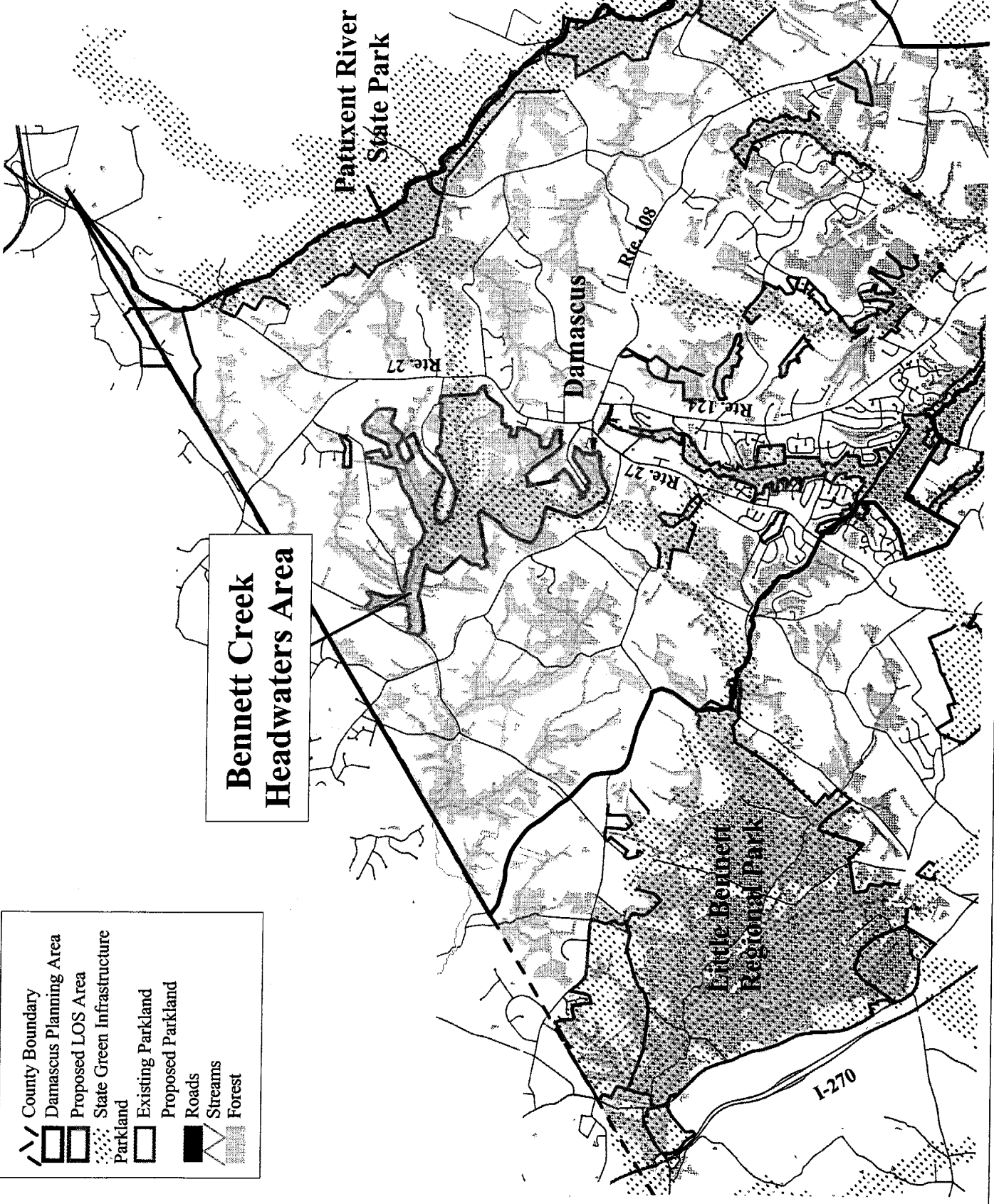
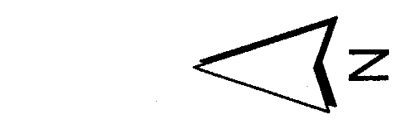
**Bennett Creek Headwaters Area
Proposed Legacy Open Space Site
Approx. 1,024 Acres**

ATTACHMENT 1



- County Boundary
- Proposed LOS Area
- Development Plans
- Parkland
- Existing Parkland
- Proposed Parkland
- Property Lines
- Roads
- Buildings
- Wetlands
- Streams
- Forest





**Bennett Creek
Headwaters Area**

- County Boundary
- Damascus Planning Area
- Proposed LOS Area
- State Green Infrastructure Parkland
- Existing Parkland
- Proposed Parkland
- Roads
- Streams
- Forest



October 8, 2003

Derick P. Berlage, Chairman
Montgomery County Planning Board
8787 Georgia Avenue
Silver Spring, MD 20910

Dear Mr. Berlage:

The Legacy Open Space Advisory Group would like to express its support for the staff recommendation to add the Bennett Creek Headwaters Area to the Legacy Open Space program as a Class I natural resource. The site was included in the 2001 Legacy Open Space Functional Master Plan as a Class III (Appendix D) site that met the Legacy criteria but for which further study was necessary. Now that staff has completed its analysis and the Advisory Group has reviewed its recommendation, the Advisory Group would like to reaffirm the importance of placing the Bennett Creek headwaters in the Legacy program for protection.

The Bennett Creek Headwaters Area is an important countywide resource because of its large contiguous forests, the quality of its stream resources, and the unique nature of several forests and wetlands within the larger area. For instance, one of the best stands of American Chestnut trees in the County today lies within the proposed Legacy site. The positive impact protection of this area would have on the entire stream system cannot be overstated. The Advisory Group believes that it is important to identify this area as a Class I resource and then pursue protection through the many tools available to the Legacy program, including easements and park acquisition.

Thank you for your continuing support of the Legacy Open Space program. We hope that you will give the Bennett Creek headwaters area the protection under Legacy Open Space that it deserves.

Sincerely,

The Members of the Legacy Open Space Advisory Group

Royce Hanson & John Chirtea, Co-Chairs

Ginny Barnes

Barbara Medina

Aleen Starkweather

Vincent Berg

Dolores Milmoie

Charles F. Stuart, Jr.

Susie Eig

Charles Pritchard

Helen Wilkes