

# MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

8787 Georgia Avenue • Silver Spring, Maryland 20910-3760

December 2, 2002

### **MEMORANDUM**

TO:

Montgomery County Planning Board

VIA:

John A. Carter, Chief

Community-Based Planning Division

Khalid Afzal, Team Leader, Georgia Avenue Planning Team

Community-Based Planning Division

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FROM:

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SUBJECT:

Planning Board Worksession #2 on the Upper Rock Creek Area Master

Plan—Environmental Resources and Major Undeveloped Properties

**RECOMMENDATION:** 

Approval of Public Hearing Draft environmental recommendations and land use recommendations for the Dungan, Casey, Freeman, Hendry, Fraley and Woodlawn

properties.

### **Discussion**

The second worksession on the Upper Rock Creek Area Master Plan seeks the Planning Board's approval of overall recommendations for environmental resources and its approval of land use recommendations for the six major undeveloped properties—the Dungan, Casey, Freeman, Hendry, Fraley and Woodlawn properties. At the previous worksession, the Planning Board reviewed the tools available for implementing the land use concept. The discussion centered on the three zones the staff evaluated in search of land use recommendations that would expand the area's heritage of open space while maintaining its low density character.

This worksession will include a discussion of two other tools—special protection areas and environmental overlay zones—that can be used to protect important environmental resources.

## This packet contains the following:

- This memorandum, which summarizes the rationales that underlie recommendations for protecting environmental resources and offers overviews of the special protection area and overlay zone concepts; it also provides an updated proposed schedule for remaining worksessions;
- A summary, with planning staff responses, of public hearing testimony on environmental resource issues; for the convenience of the Planning Board, testimony summaries from the previous worksession are included as well (Attachment 1);
- Maps showing the major undeveloped properties, including areas proposed for acquisition (Attachment 2);
- Studies undertaken for the Upper Rock Creek Area and Potomac Master Plans (Attachment 3);
- Graphs depicting imperviousness levels under several development scenarios (Attachment 4);
- A letter from the County Executive concerning Special Protection Areas and Environmental Overlay Zones (Attachment 5); and
- Decision matrices for the Plan's environmental and undeveloped property recommendations (Attachment 6).

### **Environmental Recommendations**

Several issues were raised in the public testimony and are summarized in the attached table and addressed below. One issue that was raised that is not addressed in the draft master plan is the consistency of environmental analysis conducted for the Potomac Master Plan and the Upper Rock Creek Master Plan.

The studies conducted for the Upper Rock Creek Master Plan were very similar to those prepared for the Potomac Master Plan (see Attachment 3 for a list of studies). The main difference between the two is that the water quality modeling was performed by inhouse staff in Upper Rock Creek and by a consultant in Potomac. Staff used the same model developed for the Potomac studies and applied it in the same way in the Upper Rock Creek analysis. Wetland and forest studies undertaken were virtually identical in both planning areas. In Potomac, special surveys and analysis of potential impact to Rare, Threatened and Endangered species located on developable land were conducted due to the presence of unique habitats. These studies were not applicable in the Upper Rock Creek planning area. In Upper Rock Creek, the Maryland Geological Survey conducted a study of the contribution of groundwater to nutrients in the stream.

## <u>Protection of Important Environmental Resources</u>

Protection of the environment in Upper Rock Creek will be best accomplished by keeping the remaining forests and wetlands intact, adding to and restoring those resources where possible, and keeping imperviousness low in the planning area.

Forests and wetlands in the headwaters and buffering the biodiversity area in the North Branch are high priorities for protection both for habitat and water quality reasons. The best way to protect these areas is to keep them intact and in common ownership. The advantages to this approach include:

- The M-NCPPC or homeowners associations have a public responsibility to keep these areas in their natural condition
- Maintenance of the intact resource is not dependent on understanding and agreement by each property owner of the value of the resource
- Enforcement on many individual properties throughout the watershed is not an issue
- Restoration projects could be accomplished on parkland or HOA property and do not rely on the cooperation of many property owners

There was testimony that these areas would be maintained intact because they would not pass percolation tests and were therefore not endangered by development on septic systems. This issue is discussed below for each property.

### Freeman Property

Many of the forested areas on the Freeman property are not on soils constrained for septic systems and would, at a minimum, be fragmented by the use of these systems. This portion of the forest on unconstrained soils would only be protected through forest conservation easement as part of the development on septic systems if the developer volunteered to include this area. Even assuming that all the areas with constrained soils for septic systems would not be included in lots, approximately 65 acres of high quality forest land would have to be <u>purchased</u> if these areas are to remain in common ownership. Protection through parkland <u>dedication</u> for a conservation park on the Freeman property would result in:

- Permanent protection of 168 acres of intact forest and wetland resources;
- Permanent protection of a 600-foot wide wildlife corridor; and
- Potential to restore at least 10 acres of wetlands degraded by livestock grazing.

### Casey Property

Almost all the forest on the Casey property outside the stream buffer has been cleared due to past farming operations. However, the soils within the drainage area of the North Branch are very wet even though they all do not qualify as wetlands. Wetlands and forest restoration in this area would be relatively easy and contribute greatly to the health of the North Branch and the adjacent biodiversity area. As on Freeman, the constrained soils and wetland areas would probably become part of private lots under a development scheme on septic systems. The preferred cluster option would protect these areas in parkland. Parkland dedication on the Casey property would provide:

- Permanent protection of the intact forest and wetland resources;
- Potential to restore at least 20 acres of wetlands degraded by farming; and

• Sufficient area to allow the North Branch hard surface trail to be built outside sensitive resource areas on developable properties.

## Dungan Property

The resources needing protection on the Dungan property are in the southern two-thirds of the parcel. This site is designated for protection in the Legacy Open Space Functional Master Plan as a buffer to the North Branch biodiversity area. The early successional forest that covers most of this property acts as buffer, protecting the biodiversity area from invasive species and protecting the groundwater flow to the wetlands. The ideal area for building is in the northern field area. Unfortunately, three stream crossings are required to reach this area from Muncaster Mill Road. Cluster development on the southern portion would require a sewer extension over 1000 feet through the stream buffer parallel to the stream, much of it on parkland. For these reasons, the property is recommended for purchase through the Legacy Open Space program and to remain outside the sewer envelope to avoid the impacts of sewer construction on the stream buffer and parkland. If the property is not acquired through Legacy Open Space, staff recommends development on septic systems to avoid new sewer lines paralleling the stream in the stream buffer on parkland.

### Water Quality Protection Through Special Protection Area Designation

Testimony was received requesting Special Protection Area (SPA) designation for the Upper Rock Creek. The SPA law requires an approved Water Quality Plan for new development as well as monitoring by the applicant and the County.

There are also additional environmental guidelines applied by the Planning Board including wider wetland buffers and a longer period for reforestation guarantees. However, since the time the existing SPA's were designated, there have been significant changes in regulation and practice that apply in the Upper Rock Creek watershed. These include:

- Increased stormwater management requirements, making two-acre densities subject to stormwater management with greater use of infiltration and groundwater recharge.
- A Watershed Restoration Action Plan including substantial capital project investments to restore streams and retrofit stormwater management in the Rock Creek watershed.

These points are made in the attached letter from the County Executive's Office (Attachment 5). In addition, the letter indicates that water quality varies in the Upper Rock Creek watershed, and it would be difficult to isolate the impact of new development from the existing development, even with costly extra monitoring. The Executive's Office indicates that the approach proposed in the plan would "focus the natural resources protection plan without requiring the additional administrative elements that would be associated with creation of an SPA."

The SPA law is applicable to areas where the increased intensity may adversely impact stream quality such as at Traville or in Clarksburg. Planning staff agrees that designation of a Special Protection Area for Upper Rock Creek would not provide significant additional water quality benefits with current development programs in effect at the densities proposed in the draft master plan. In addition, the wider wetland buffers would be included in the area proposed for parkland dedication. Parks ownership would provide long-term stewardship of newly planted forest. These measures obviate the need for a Special Protection Area in the Upper Rock Creek.

Implementing the Special Protection Areas and imperviousness caps (see discussion below) has significant budget implications for the County DEP and DPS as well as the Department of Park and Planning. The marginal environmental benefits given the existing zoning and acquisition recommendations are outweighed by the regulatory burden of an SPA.

### Sewer Service vs. Septic Systems

The Comprehensive Water Supply and Sewerage Systems Plan recommends individual systems for low-density developments (one acre or less). Whenever sewer service is available, it is usually preferable to serve new development with it, if the development can be clustered to avoid temporary construction impacts. Septic systems, on smaller lots, have a record of failure over time and (without additional septic field reserve area) eventually require extension of sewer service for health reasons. The inflow and infiltration contributions to sanitary sewers range in the vicinity of 30 percent. Newer sewer lines are less prone to groundwater infiltrating into the pipes from the hydrostatic pressure. Septic systems, on the other hand, filter directly to the groundwater and eventually to the streams after having percolated through the soil. While the Maryland Geological Survey study did not find significant nutrients in streams correlated with existing septic systems currently in Upper Rock Creek, all of the current Chesapeake Bay tributary models assume a high level of nutrient contribution from developments on individual systems. Recent attempts to change existing laws and regulations to require much more stringent control of septic systems have failed.

### **Environmental Overlay Zone**

Testimony recommending an environmental overlay zone focused on the establishment of a 5 percent to 10 percent imperviousness cap on new development within the master plan area or "ridge to ridge." Because we use a 3 percent imperviousness factor for grass, a 5 percent imperviousness cap is equivalent to RDT zoning (25-acre densities). Even RC or Rural zoning (5-acre densities) would give an imperviousness of 6.4 percent.

The staff tested many alternative scenarios including a 10 percent imperviousness cap in the Use III area above Muncaster Mill Road (see Attachment 4 charts). The amount of remaining undeveloped land in the watershed and the small difference between the projected imperviousness levels of the proposed zoning and a 10 percent cap make the difference in ultimate imperviousness very small. Because the water quality in Upper Rock Creek is protected by low densities in the headwaters and substantial forested

parkland along the main stems of the two branches of the creek, the quality of the water remains good. Most of the developable property and proposed new roadways are located farther downstream of most of the developed areas, and any difference in water quality will be slight. Modeling indicates that stream quality will remain solidly in the good range, so long as densities and total impervious surface remain low (see table below and maps and charts in Attachment 4).

In the table below, Alternative C roadways for the Western Connector through the planning area have been added to the ultimate buildout. The numbers for Existing Zoning and 10 percent Cap assume that no parkland would be purchased. Under either scenario, parkland could be dedicated depending on the layout chosen by the developer.

	2000	Existing Zoning	Plan Proposal	10% Cap
Upper Rock Creek Mainstem at				
Muncaster Mill Road (Use III stream)	9.1%	10.9%	11.0%	10.7%
North Branch Rock Creek at				
Muncaster Mill Road (Use III stream)	11.4%	13.8%	13.2%*	13.3%
<b>Combined Rock Creek Tributaries</b>				
above Muncaster Mill Road (Use III	10.6%	12.4%	12.2%*	12.1%
stream)				
Upper Rock Creek Watershed Total				
below Lakes	10.9%	15.7%	15.6%*	15.5%

<sup>\*</sup>This figure may be up to 0.3 percent higher if the Dungan property is developed at RE-2 densities and not purchased as parkland.

These figures indicate that there is little difference in the imperiousness that might result from different scenarios. This is because the schemes tested for the proposed plan measured between 10 and 12 percent imperviousness and assumed that the Dungan property would become parkland. Average imperviousness for RE-2C zoning in this area is about 11 percent. One item to note is that the model does not take into account new uses that might be more intense than the underlying residential zoning. Institutional and special exception uses can occur anywhere in the watershed and can contribute to higher imperviousness.

If the Planning Board wishes greater environmental protection, the staff would recommend an imperviousness cap for selected properties, institutional uses and special exceptions before we would recommend an SPA. The imposition of a cap at a level lower than 10 percent would effectively lower the zoning capacity below that of the existing or proposed zoning.

### Use III Watershed and Temperature Impacts

Testimony raised the issue of the effect of cluster development on the temperature of the Use III designated portions of the two streams above Muncaster Mill Road. There is no documented evidence for a large self-sustaining trout population in Upper Rock Creek, and the presence of erodible soils and relatively low numbers of seeps and springs could impair this stream system from ever supporting such a population. Nevertheless, existing good stream conditions in much of the stream system support a coldwater aquatic community.

Although no temperature modeling was performed due to limited resources, it is unlikely that any scenario will improve temperature conditions significantly. While stormwater management facilities serving clustered development may create higher instream temperatures than stormwater management serving development on larger lots, recently the State and County have revised storm water regulations to make them more sensitive to base line conditions. This plan recommends that the Department of Permitting Services pursue Low Impact Development (LID) techniques and other measures to reduce temperature impact in this watershed.

### Air Quality Impacts

Testimony indicates that the difference between existing and proposed changes in the total number of housing units will produce several additional tons of air pollution in the planning area. With the reduced number of units predicted by the coalition and others, it is likely that the people who would choose to live in the additional units of the type proposed by the plan in this area would also choose to live in other low-density areas farther out within the metropolitan airshed. These people would then be generating even more vehicle miles traveled than they might if they lived in this area. Especially because the Casey and Woodlawn properties are so close to the Shady Grove Metro Station, it could be argued that less pollution may be generated than if these units were located in Olney or Damascus.

The testimony recommends improved bus service and amenities such as benches and shelters. Staff recommends these improvements.

## Land Use Recommendations for the Major Undeveloped Properties

The matrix of land use recommendations, distributed as part of the first worksession for the six major undeveloped properties, should be read alongside the summary sheet on when to consider specific zones. The summary sheet is included in this packet as well, for the Planning Board's convenience. The first column in the matrix provides the Plan's recommendation for the property, keyed to the summary sheet so that it offers the planning staff's rationale for lot sizes, resource protection, provision of sewer service and master plan guidance. The second column broadly summarizes testimony on the property and the third shows a land use recommendation for the Planning Board's consideration.

In reaching a decision on the Casey property, there is a further issue that warrants the Planning Board's attention: the matter of how sewer service came to Sequoyah Elementary School, which is adjacent to the Casey property and would be used to serve the property in cluster development scenarios. At the worksession, the staff will provide a detailed account of the 1989 decision to locate the school on Bowie Mill Road and to

extend sewer service up Bowie Mill Road to serve it. A critical element of the process was the decision made by a previous Planning Board to endorse a limited access designation for the Sequoyah sewer line. The line is not so designated today. This issue was raised during the public hearing and the issue of the Board's intent at the time of the 1989 decision should be resolved before making a decision on appropriate land uses for the Casey property.

## **Remaining Worksessions**

Planning staff proposes to follow this worksession with three more:

- December 19 Transportation, including east-west issues, local intersections and bikeways
- January 16 Housing, Park Trails and Acquisitions and remaining land use issues
- February 6 Approval of Planning Board Draft Plan

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Attachments

Attachment 1
Summaries of Public Hearing Testimony

# Summary of Public Hearing Testimony—Upper Rock Creek Area Master Plan Environmental Resources

Speaker	Comments	Staff Response
Douglas M. Duncan, County Executive	Seeks inclusion of method of acquisition and amount of acreage to be acquired when Plan recommends property acquisition	The method of acquisition is accounted for in the text with "dedication" for those properties that would be given as part of the development process and "acquisition" for those which would have to be purchased. A table can be prepared after Board
	Supports recommendations for policies protecting wetlands and stream valleys; suggests additional consideration of importance of forested/vegetated uplands	Staff concurs
David Hamod, Norbeck Conservation Society	Supports creation of environmental overlay with 10 percent imperviousness cap  Plan proposals will diminish air quality when	The ten percent impervious cap would not provide significant additional protection than proposed zoning levels.
	thousands of additional vehicles are on roads	The difference between the numbers of vehicles for different development scenarios is relatively minor considering the difference in the number of homes.
	Extension of sewer service is not appropriate in fragile ecosystem like Upper Rock Creek	Cluster development proposals in this Plan use existing sewer lines; no new lines parallel to streams are proposed
Jim Fary, Sierra Club	Environmental base line studies are insufficient and do not compare with studies done for Potomac plan; the draft Plan should be returned to staff for completion of such studies, which will determine what should, and should not be developed	Studies done for Upper Rock Creek are comparable to those done in Potomac; fuller studies would not provide significant additional information
John Parrish, Maryland Native Plant Society	Recommends special protection area, environmental overlay zone with five percent imperviousness cap north of lakes to protect stream water quality	A special protection area and/or imperviousness caps would not result in significant differences in stream conditions than proposed zoning levels.
-	Impacts to biodiversity areas should be avoided, not minimized Supports Plan recommendation against new sewer lines in stream valleys	If a road crossing or hard surface trail is deemed desirable, crossing the biodiversity area may be necessary Staff concurs
	Attaches list of significant plant and animal species found in area but not included in appendix list	Staff will add plants to its list

# Summary of Public Hearing Testimony—Upper Rock Creek Area Master Plan Environmental Resources

Speaker	Comments	Staff Response
Karen Ehrlich, North Granby Woods Civic Association	Introducing sewer service to certain properties increases the need for stormwater management controls, which is unnecessary given that septic development works	Stormwater management is now required for all development; development on septic will have a dispersed discharge compared to a concentrated discharge from clustered development
	On Casey property, draft does not set imperviousness limits; it does not mention the need for increased stormwater management, and does not indicate acreage that cannot be developed because of environmental constraints	About 65 acres are constrained by stream buffers; this area would be protected in easement and included in private lots under septic development. Clustering would provide common open space.
	Disputes statement that septic development on Freeman property will have significant environmental impact; no percolation tests exist to verify statement	Forest uplands on the Freeman property have no soils constraints and are likely to "perc," which means that portions of the forest may be fragmented or lost to development on private lots
	Plan contains no recommendation for acquisition of 45 acres of forest, as was done on Turkey Foot property in Potomac	Plan recommends preservation of wetlands and other sensitive areas in headwaters through park dedication; Potomac Plan recommends that stream valley of tributary be acquired through dedication
Kathy Parnell, Magruder High School PTSA	Proposed development would require sewer in virgin streambeds	Please see response to Hamod, above
Jerome D. Miller, Cypress Homeowners Association	Supports cluster development because wetlands are better preserved when managed by government	Staff agrees
Art Diem, individual	Supports overlay zone with limits designed to protect wetlands and watersheds	Please see response to Hamod, above
	Plan recommends extensive sewer expansions without descriptions of impacts	Please see response to Hamod, above.
	Increases in housing units would result in significant increases of air pollutants	The additional homes would still be located in the regional airshed, perhaps at even greater distances from their destinations or access to transit.
	Water resources are in short supply	The anticipated levels of imperviousness should not significantly affect groundwater levels associated with wells.
Barry P. Davis, individual	Running sewer lines in, along or across Use III streams degrades stream quality and presents a public health hazard	Please see response to Hamod, above, on sewer systems

# Summary of Public Hearing Testimony—Upper Rock Creek Area Master Plan Environmental Resources

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Эреакег	Comments	Staff Response
Вагту Р. Davis, individual	Supports overlay zone with 10 percent imperviousness limit	Please see response to Hamod on imperviousness limits
	Dungan and Freeman properties have undergone percolation tests as evidenced by test sites on the properties	To staff's knowledge, no test results have been submitted to the County Well and Septic review staff of DPS
Jean Sommerville, Sycamore Acres Citizens' Association	Increased noise, air pollution and associated environmental damage would result from proposed	Increased noise will mainly be a factor on any new major roadways (M83 and Western Connector).
	development	Designs would have to address the need for noise barriers. For air quality, see Diem response above.
	Increased densities will lead to contamination of aquifers that feed wells serving community	See response to Diem above on water supply
Art Brodsky, Greater Olney Civic Association	Environmental analysis does not correlate environmental effects of transportation	This information is presented in the appendix.
	recommendations with environmental goals and objectives	
Elaine Adornetto, Muncaster Area Civic Association	Proposed sewer lines will cross or be in the vicinity of streams	Please see response to Hamod, above, on sewer lines
	Acidic emissions from concentrated car exhausts will lower pH levels in streams	Little evidence of this effect exists.
	Runoff temperature will be higher from clustered development than with large lot development	Agree, but the effect would be less with new stromwater management practices than in the past
	Supports Special Protection Area with new development subject to 10 percent imperviousness	Please see response to Hamod, above, on imperviousness limits
Robert R. Harris, Winchester Homes	Suggests that cluster development in RNC Zone can reduce imperviousness, notes staff analysis	Staff concurs, but avoided the use of RNC due to the potential for very small lots and the need to
	indicating lower imperviousness in KINC Zone man in RE-2 Zone	extend sewer unough the stream valley to the Dungan property.

Speaker	Comments	Staff Response
Douglas M. Duncan, County Executive	Supports Plan concept	
	Generally supports land use plan Recommends continued consideration of MPDUs on RE-2C and RNC properties	
Alan Strelser	Opposes cluster development on Casey and Freeman properties	Cluster development shifts allowable density from
	Sewer systems may lead to density	permanently from the residual open space; cluster
	increases  Extensions should not occur without	development is proposed when blocks of contiguous forest and wetlands should be
	compelling reasons	maintained, reasons the Plan considers compelling; where resources are less likely to be directly
		affected by development, but warrant protection, the Plan proposes a cluster and a non-cluster option
	No vield estimates are provided for sentic	Percolation tests for the Casev property were
	development on the Casey property	approved in 1992; they indicated a yield of 85 lots
		on the property. The Plan proposes 134 lots if the cluster development option is used
Mr and Mrs James M Ellis	Supports Option 2 for development of Casey	Planning staff agrees that septic development on the
	property	Casey property can achieve Plan goals and objectives
Lesley and Derek Woods, individuals	Cluster development adds more houses to area	Planning staff acknowledges that yields will
Daniel Stafford, individual	Opposes cluster development in the vicinity of	increase with cluster development, but believes that
	Magruder High School	preservation of open space in its natural state is a
		public benefit. Planning staff also believes that
		common ownership of open space is the most
		appropriate means of preservation, while
		acknowledging that easements on private property
		are effective as well.

Speaker	Comments	Staff Response
Kristin and Patrick McNamara, individuals	Oppose proposals to increase density of development, which will overcrowd local schools and diminish quality of education for all students; Plan's zoning proposals double or triple allowable densities on Casey, Dungan and Freeman properties	The Plan proposes two options on the Casey property, one of which allows cluster development. The proposal, up to 134 lots, is 49 lots more than the number shown in an approved percolation test on the property; the Plan proposes to acquire the Dungan property so that it will not be residentially developed; no percolation tests have been submitted on the Freeman property, making comparisons difficult; the Plan proposal envisions 135 units on this property as well
Daniel Solomon, individual	Opposes cluster development and provision of sewer service	Please see response to Woods and Stafford, above
Linda Kuserk, Sequoyah Elementary School PTA	Opposes cluster development and provision of sewer service	
Paul Hatchett, indvidual	Supports development at densities consistent with current master plan	One- and two-acre densities are prevalent between the lakes and north of Muncaster Mill Road; the cluster proposals in this Plan call for two-acre densities
Jim Humphrey, Rally for Bethesda Coalition	Opposes sewer options in Upper Rock Creek because they will enable sprawl development in upper county increased densities in Bethesda are designed to prevent	Please see response to Woods and Stafford, above
Dan Gillespie, individual	Opposes cluster development because it will add density that crowds schools, increases danger on roads and damages ecosystems	
Sandra Rosenbaum, individual	Opposes cluster development because it will add density that crowds schools, increases danger on roads and damages ecosystems	Please see response to Woods and Stafford, above
Helen and Richard Zakour, individuals	Opposes cluster development because it will add density that crowds schools, increases danger on roads and damages ecosystems	
Chung-Hae Casler, individual	Opposes cluster development	

nts Staff Response	Please see resp as to McNamar	ervice to Casey,	endorses cluster Please see response to McNamaras, above ant to 100 percent	Protection of open space does not justify significant increases in density; 60 percent of land offered as open space on Casey property is undevelopable  As noted in detail in the response to Woods and Stafford, above, the Plan seeks to place open space in common ownership; septic development in the RE-1 and RE-2 zones generally does not include the ability to acquire land through dedication	Please see response to Woods and Stafford, above	measter Mill Road two-acre densities without sewer service; development between Redland and Needwood roads generally predates the 1968 Plan and occurred in the R-200 zone under a development category that allowed averaging of lot sizes and promoted but did not require open space preservation; this development adhered to contemporary master plans and sewer policies; this portion of the stream valley is Use IV	richer constitute visual things, propose to preserve residential character and existing views by orienting large lots along roads, placing cluster lots—which would be a minimum of 25000 square feet in size—away from
Comments	Opposes cluster development that will substantially increase housing densities and alter character of residential wedge	Opposes extension of sewer service to Casey, Freeman, Dungan and Woodlawn properties	Extension of service endorses cluster housing and 80 percent to 100 percent	Protection of open space does not justify significant increases in density; 60 perces of land offered as open space on Casey property is undevelopable	Opposes extension of sewer service; supports maintaining current zoning	Cluster development using sewer service has degraded streams south of Muncaster Mill Road	No cluster development is compatible with adjacent communities; houses close together constitute visual clutter
Speaker	Cathy Clark, individual	Susan Petrocci, Norbeck Meadows Civic Association			John Crispeno, Mill Creek Towne Civic Association	Karen Ehrlich, North Granby Woods Civic Association	

Staff Response	of site Planning Board during the worksessions ation tests for	of Residential The Freeman property is entirely in the RE-1 Zone, svelopment is a low-density residential zone; in general, the Agricultural Wedge incorporates the Rural Density Transfer Zone, which is located north of MD 108 in this area	Cluster development is and remains an option in the RE-1 Zone, so the statement is necessary to make it clear that the option is inappropriate in that zone.  There is no cluster option in the RE-2 Zone; a separate zone, RE-2C, is necessary to enable cluster development.	The General Plan Refinement attempted to respond to the continuing evolution of Montgomery County. It explicitly does not recommend detailed zoning patterns and it does not provide guidelines for specific properties. Its goals, objectives and strategies focus on the interrelationships among a number of important components, including land use, transportation, housing, community identity and environmental resources. Its most important contribution is the creation of strategies that	no apn
Comments	Discussion of Casey property does not include review of Sequoyah Elementary School site location issues or existence of percolation tests for property	Freeman property straddles boundary of Residential and Agricultural Wedge, so cluster development is inappropriate	Language on Hendry and Fraley properties implies that clustering is appropriate on portions in RE-2 Zone	General Plan guidelines, definitions and descriptions are not reflected or applied in the Plan	Existing development on septic does not intrude on sensitive landscapes and protects Residential
Speaker	Karen Ehrlich, North Granby Woods Civic Association				Kathy Parnell, Magruder High School PTSA

Speaker	Comment	Staff Response
Jerome D. Miller, Cypress Homeowners Association	Supports cluster development to acquire parkland and in fairness to prospective future residents	Staff agrees
Art Diem, individual	Plan recommends cluster development with high density housing that is inconsistent with residential character of the area	Please see responses to Hatchett and Ehrlich (on compatibility), above
Joe Mornini, individual	Ongoing development results in loss of natural resources; recommends preserving wedges and open space	Please see responses to Woods and Stafford, and to Ehrlich (on the General Plan Refinement), above
David Hernandez, individual	Supports cluster development on Casey property	Staff agrees
Barry P. Davis, individual	Character of development with sewers is incompatible with adjacent communities	Please see response to Ehrlich (compatibility) above
	Supports acquisition of Dungan property or, if property cannot be acquired, septic development	Staff agrees
Art Brodsky, Greater Olney Civic Association	Without percolation tests on specific properties, it is impossible to determine how to manage growth;	The Department is unable to order landowners to conduct percolation tests on private property.
	Caps on development cannot be maintained	In general, this Plan finds setting appropriate densities through the zoning ordinance and more circumspect use of guidelines and plan language to be the most appropriate means of making Plan recommendations.
Deborah Perry, individual	Current zones and septic classifications should be retained	Please see response to Woods and Stafford, above
Robert R. Harris, Winchester Homes	Seeks cluster development using RNC Zone for Dungan and Woodlawn properties Concept Plan allows dedication of 91 acres of open space, conforms with planning policies and achieves public benefit; added units remain under zoning maximum	For the Dungan property, planning staff believes that limited septic development south of the right-of-way may be a more appropriate way to protect sensitive forest; for the Woodlawn property, development under RE-2C standards will make for a more compatible development
Julia F. Welsh, individual	Opposes cluster development and extension of sewer service	Please see response to Woods and Stafford, above
Susan Johnson, individual	Opposes higher density development in Upper Rock Creek	Please see response to Woods and Stafford, above

Staff Response	Please see response to Ehrlich (compatibility) above	In the wake of its decision on Sheffield, the Council added the Upper Rock Creek master plan to the Planning Board work program and asked that the update focus on evaluating the impact of development on the watershed and the appropriateness of extending sewer service	This Plan acknowledges the ability of easements on private land to preserve open space, but is premised on the idea that the most appropriate way to preserve continuous and recognizable open space is through common or public ownership; while it is true that some homeowners have planted extensively, reliance on individual action is neither as efficient nor as effective as common ownership	This issue will be reviewed with the Planning Board during the worksessions	y Please see responses to Woods and Stafford and to the McNamaras, above	Percolation tests for the Casey property were approved in 1992; they indicated a yield of 85 lots on the property; to Planning staff's knowledge, no percolation tests have been completed on the Dungan, Woodlawn or Freeman properties
Comment	Clustered homes on small lots using sewer service are inconsistent with surrounding neighborhoods	Council decision extending sewer service to Sheffield development being used as precedent	Private ownership of open space has advantages: land is protected while maintaining master plan integrity; developers and homeowners bound by master plan "contract;" no taxpayer dollars needed to acquire land; conservation easements can adequately protect open space; no taxpayer dollars needed to maintain land	Community was promised when Sequoyah was built that sewer line serving the school would be limited access	Cluster development increases achievable density today and in the future; it constitutes sprawl and would destroy the semi-rural character of the area	No information was provided on percolation tests for undeveloped properties
Speaker	Espy S. Driscoll, Bowie Mill Civic Association				Elaine Adornetto, Muncaster Area Civic Association	

Staff Response	ages: Please see response to Driscoll (private ownership), plan above above needed needed dollars	runk The RE-2C zone does the best job of setting a density appropriate to the area's residential character while providing adequate amounts of open space and limiting disturbance.	nent 1 id nes	ves	Staff agrees that uniform zoning on the property will provide a more logical transition from commercial to residential or institutional uses it use of ing	The RT-10 zone recommended is in keeping with actual yields on other townhouse developments
Comment	Private ownership of open space has advantages: land is protected while maintaining master plan integrity; developers and homeowners bound by master plan "contract;" no taxpayer dollars needed to acquire land; conservation easements can adequately protect open space; no taxpayer dollars needed to maintain land	Supports cluster development for property Believes, based on site characteristics and trunk sewer capacity, that appropriate density for property is 175-200 lots connected to sewer	Company is willing to complete septic development scenario, but believes septic development would require encroachment on areas planning staff and company would prefer remain undisturbed  Believes that Plan can contain sufficient guidelines and appropriate language that eliminate need to rezone property	Should property be rezoned, company believes RNC is most appropriate	Seeks uniform zoning for property now split between RT-12.5 and R-90 to allow logical transition from commercial to institutional and residential uses as well as enabling improved use of open space, mitigation of impacts of adjoining roads and intelligent use of infrastructure	Seeks RT-12.5 Zone for entire property
Speaker	Elaine Adornetto, Muncaster Area Civic Association	Stephen Z. Kaufman, Freeman Property			Barbara Sears, Bozzuto Group	

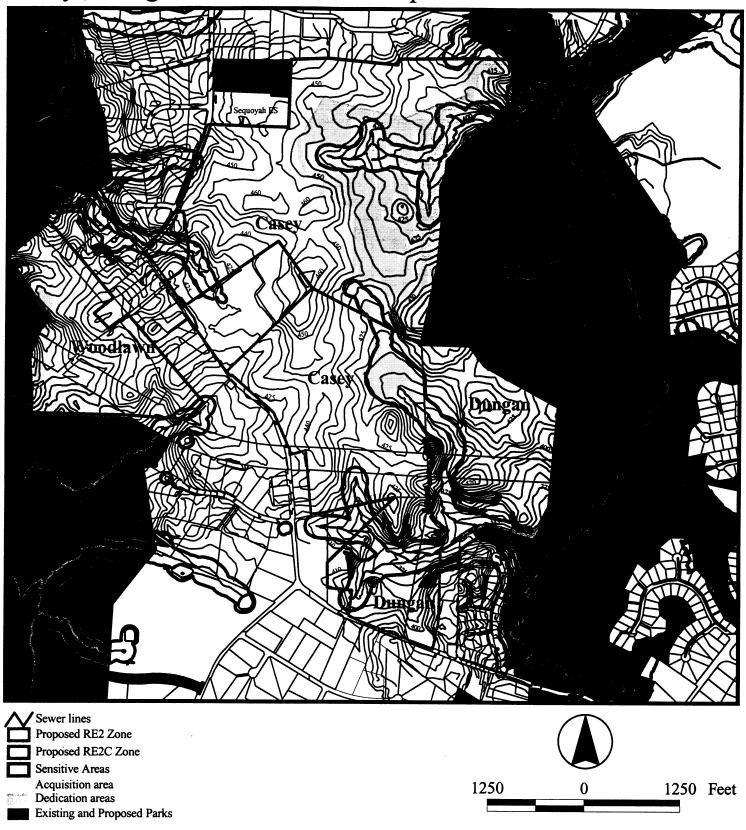
Speaker Stephen Z. Kaufman, Casey Property	Comment  Requests that property remain in RE-1 and RE-2	Staff Response Planning staff agrees that cluster development is the
·	zones and that cluster development method be applied; owner willing to limit development to 155 lots with 25000 square foot minimum lot size	most appropriate method of protecting natural resources on this property. If cluster development is a preferred option, the DE 20 and DE 2 consequences
	Cluster development using existing sewer infrastructure protects natural resources on property	the Casey property do the best job of setting a density appropriate to the area's residential character while providing adequate amounts of
	Attaches Dewberry and Davis study noting that septic development would require disturbance of virtually entire property	open space and limiting disturbance.  Planning staff agrees that improved testing criteria and the availability of community water may result
	Attaches plan for property showing imperviousness less than 10 percent	in increased yields on septic and will offer evidence of that outcome as part of the worksessions. In addition, the staff will review with the Board the
	Indicates that improved testing criteria and availability of community water would increase yield on septic	most current plan for the property and its imperviousness calculations.  In general, this Plan finds setting appropriate
	Believes that Plan can contain sufficient guidelines and appropriate language that eliminate need to rezone property	densities through the zoning ordinance and more circumspect use of guidelines and plan language to be the most appropriate means of making Plan recommendations.
	Should property be rezoned, company believes RNC is most appropriate	
William Hendry, landowner and Master Plan Advisory Group member	Supports MPAG recommendations for undeveloped properties	Staff agrees with the MPAG's rationale for allowing cluster development, but believes that the Zoning Ordinance, rather than unit caps and open
		space set asides delineated by Plan language, is the most appropriate way to set densities

onse	s and Stafford, above
Staff Response	Please see response to Woods and Stafford, above
Comment	Opposes cluster and sewer development
Speaker	Patrick O'Keefe, Redland Middle School PTA

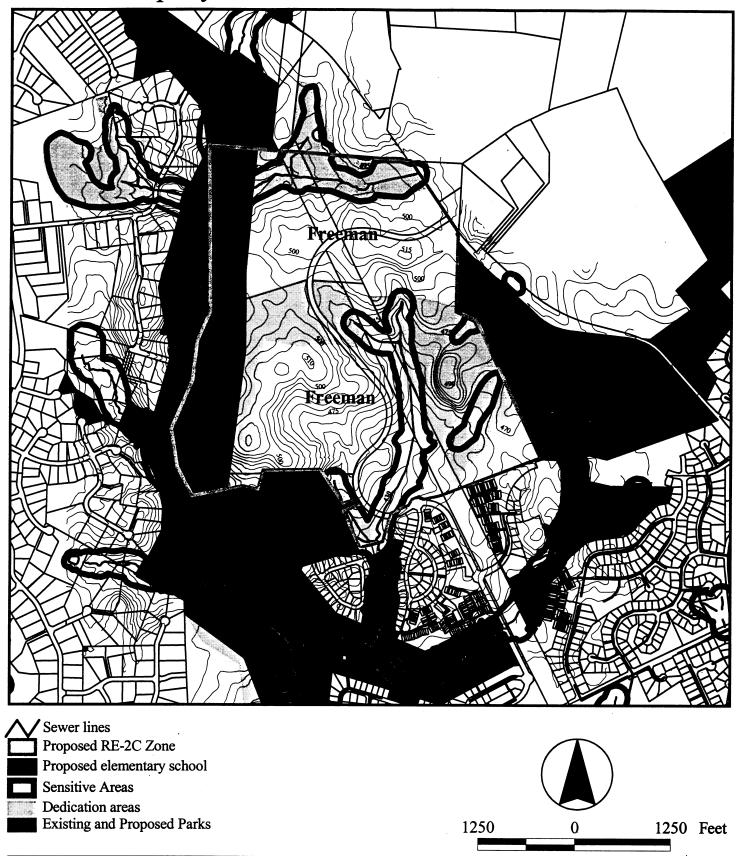
Attachment 2 Major Undeveloped Property Maps Major Undeveloped Properties Case 'Upper Rock Creek Watershed Proposed Shady Grove Sector Plan Area Master Plan Area Boundary Major Undeveloped Properties 5000 5000 Feet **Parks** 

Upper Rock Creek Area Master Plan

Casey, Dungan and Woodlawn Properties



# Freeman Property



Hendry and Fraley Properties RE-2 Fraley West Sensitive Areas Dedication areas **Existing and Proposed Parks** 1250 1250 Feet

Upper Rock Creek Area Master Plan

Attachment 3
Studies Conducted for Upper Rock Creek Area and Potomac
Master Plans

## Studies Conducted for the Upper Rock Creek Master Plan:

Rapid Stream Assessment Technique (RSAT) Survey of Rock Creek Watershed, Montgomery County, Maryland, Galli and Cornish, 1996

Environmental Resources Inventory, Upper Rock Creek Watershed, January 2000

Functional Assessment of Wetlands for the Upper Rock Creek Planning Area, January 2000

Recommendations for Protection and Enhancement of Forest in the Upper Rock Creek Watershed, February 2001

Environmental Analysis of Imperviousness and Stream Conditions (Powerpoint Presentation), July 2001

Influence of Groundwater on Nitrate Loads of Streams in the Upper Rock Creek Basin, Montgomery County, Maryland, Maryland Geological Survey, 2000

# Studies Conducted for the Potomac Subregion Master Plan:

Rapid Stream Assessment Technique (RSAT) Survey of Watts Branch Watershed, Montgomery County, Maryland, Biohabitats, Inc., August 1997.

Potomac Subregion Environmental Resources Inventory, January 1998

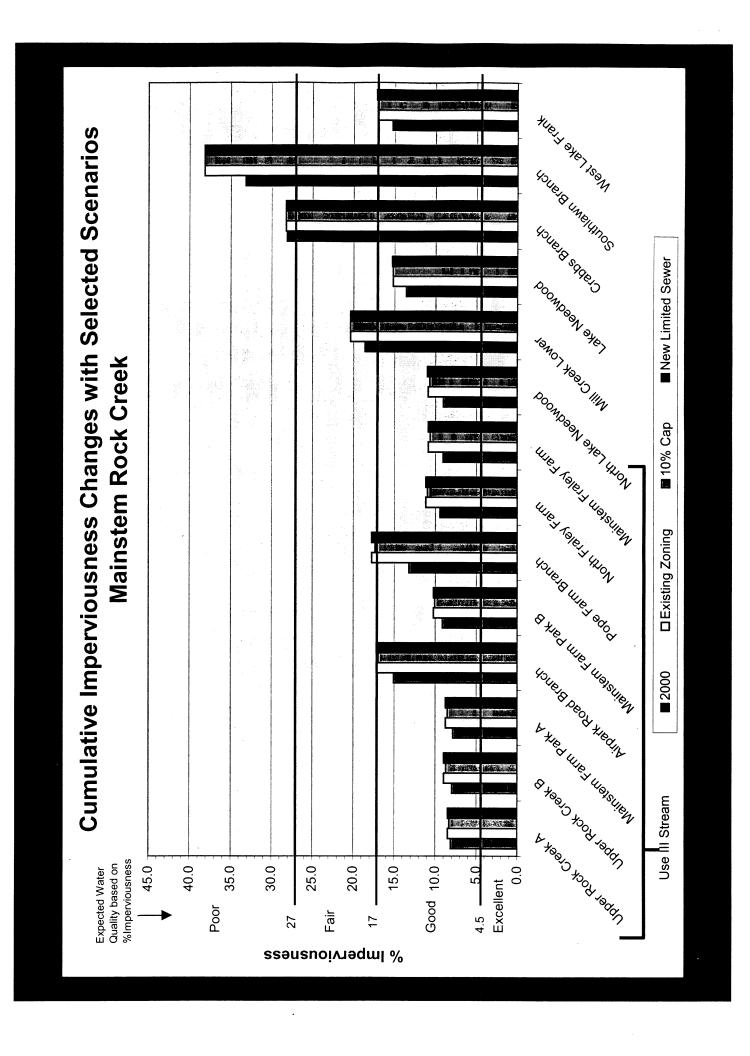
Potomac Subregion Wetland Functional Assessment Study, January 1998

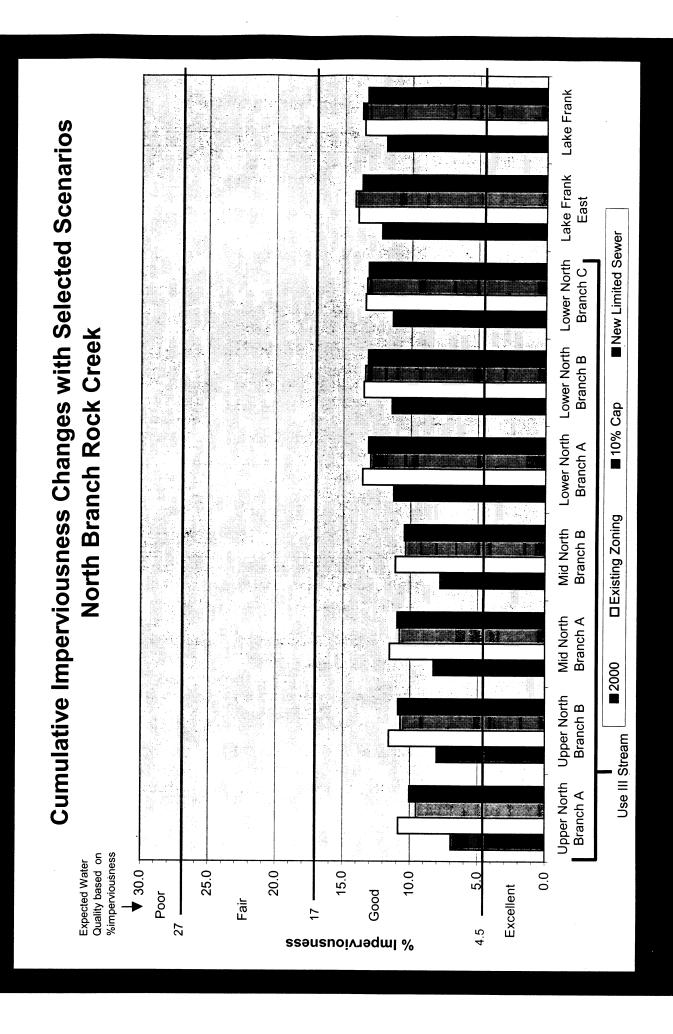
Recommendations for the Protection and Enhancement of Forest in the Potomac Subregion, September 1999

Potomac Subregion Environmental Study, ERM, Inc., May 2000

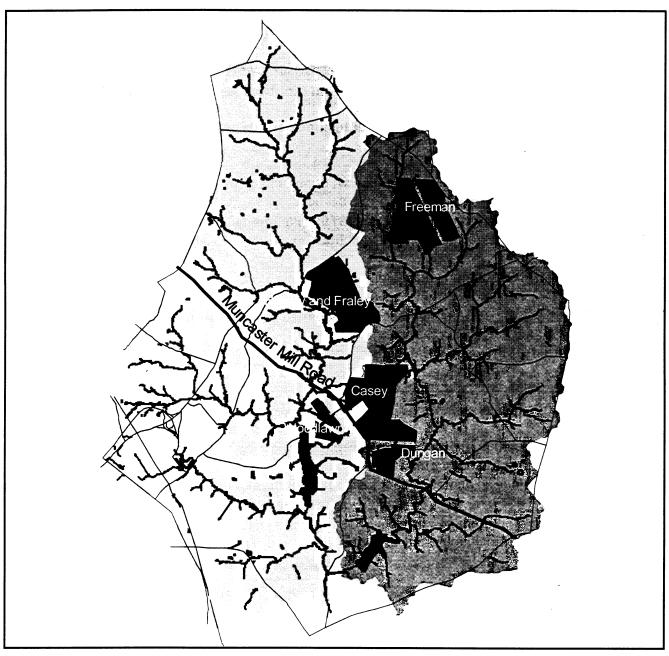
Natural Heritage Plant Survey for the Lower Greenbriar Branch, Travillah Serpentine Area, Chris Athanas, Ph.D. and Associates, Inc., December, 2000

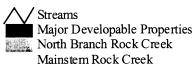
Attachment 4
Impervious Levels Under Different Development Scenarios

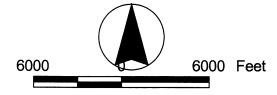




# Property Locations in the Upper Rock Creek Watershed







Attachment 5
Correspondence from the County Executive on
Special Protection Areas



### OFFICES OF THE COUNTY EXECUTIVE

Douglas M. Duncan County Executive

Bruce Romer Chief Administrative Officer

November 19, 2002

Mr. Nazir Baig, Supervisor Countywide Planning Division Maryland-National Capital Park and Planning Commission 8787 Georgia Avenue Silver Spring, Maryland 20910

Dear Mr. Baig:

On behalf of the Executive Branch, I am sending you these consolidated comments in response to your request for our position on creating a Special Protection Area (SPA) in the Upper Rock Creek Planning Area. Prior to drafting this position, I consulted with several key staff members including Cameron Wiegand of the Department of Environmental Protection and Rick Brush from the Department of Permitting Services. Based on their technical input, and the planning perspective of this office, we offer the following comments:

- 1. The land use densities in the Upper Rock Creek planning area reinforce the "green wedge" concept for the area. These densities are relatively low. In the three other areas of the County where SPAs have been designated, densities are higher than those recommended for the Upper Rock Creek area. The intensive development related impacts associated with the higher densities in Paint Branch, Piney Branch and Clarksburg are an underlying rationale for designation of SPA that does not exist in Upper Rock Creek.
- 2. In the time since the existing SPAs were designated, there have been changes in the stormwater management requirements of the Maryland Department of the Environment (MDE). The new stormwater requirements now make two acre lot densities, as proposed in Upper Rock Creek, subject to stormwater management requirements. These requirements call for greater use of infiltration measures and greater stormwater storage than previously required. These new rules accomplish some of the additional stormwater requirements that would have been required if an SPA was designated for the area.
- 3. The Department of Environmental Protection adopted a Rock Creek Watershed Restoration Action Plan in July 2001. In implementing that Plan, substantial capital project investments are being made for stormwater retrofit and stream restoration projects

Mr. Nazir Baig November 19, 2002 Page 2

> to protect the upper watershed. Designation of an SPA would not necessarily add benefit beyond this level of effort which exceeds the stream improvement and restoration efforts being made in many other parts of the County.

- 4. Practically speaking, the costs of undertaking extra monitoring that would be associated with the SPA designation would be significant. Given the existing stream condition in the Upper Rock Creek watershed and the modest level of development contemplated, these additional resources would not be wisely used if directed to isolating development impacts in a newly designated SPA.
- 5. In addition, it would be difficult to isolate the impact of new development from those already impacting the Upper Rock Creek watershed as a result of established development.
- 6. Water quality in the Upper Rock Creek tributaries varies considerably, from excellent to poor, based on a variety of monitoring results. Water quality in the three designated SPAs are generally of higher quality, with less impacted stream conditions, such as in the Paint Branch, which has a proven long-term record of sustaining naturally-reproducing trout.
- 7. By recommending cluster development on several key properties, as well as acquisition of several key properties or portions of properties, protection of natural resources is enhanced in the planning area. The protection approach, as stated in the Plan, is to "reduce the potential imperviousness as much as possible while retaining large, contiguous areas in their natural, undisturbed state." These strategies focus the natural resources protection plan without requiring the additional administrative elements that would be associated with creation of an SPA.

Thank you for inviting our comments. We look forward to participating in the future worksessions on the Upper Rock Creek Area Master Plan.

Sincerely,

Lisa W. Rother

Planning Manager

Jisa W. Rother

LWR:jgs

cc: Scott Reilly, Assistant CAO Cameron Wiegand, DEP Rick Brush, DPS Attachment 6
Recommendation Matrices

# **Environmental Recommendations**

Public Hearing Draft	Public Testimony	Recommendation
Protect water quality of	Agree with resource	Approve Public Hearing
streams by preserving	protection goal.	Draft recommendations
important natural resources		
in the headwaters and	Some agree with common	
adjacent to biodiversity	ownership, but do not want	
areas by keeping these areas	to use cluster to accomplish	
in a natural state, intact and	it.	
in common ownership		
	Some want to use	
	conservation easements on	
	private property	
Minimize the effect of	Minimize imperviousness	Approve Public Hearing
additional imperviousness	through a 5 or 10% cap on	Draft recommendations,
by maintaining low density	all new development	add Low Impact
zoning and clustering away		Development techniques in
from sensitive streams,	Special Protection Area	coordination with DPS
where possible	designation for watershed	
Minimize impacts to	Avoid all impacts to	Approve Public Hearing
sensitive areas from	sensitive resources and	Draft recommendations
proposed trails and new	biodiversity areas	
roads where these facilities		
must cross streams		
Extend the sewer envelope	Coalition and others want to	Approve Public Hearing
to include Casey,	maintain septic as the only	Draft recommendations
Woodlawn and Freeman to	means of development	
accomplish protection of		·
resources and opportunities	Developers of Casey,	
for natural resource	Woodlawn and Freeman	·
restoration	agree with	
	recommendations to extend	
	sewer envelope	
D	D1	
Do not extend sewer	Developer of Dungan wants	
through stream valley to	sewer envelope to be	
serve Dungan property	extended to that property	

# Consider low density residential development in the RE-2 Zone without water and sewer service when:

- Large lots are the most desirable or the only way to maintain compatibility;
- Sensitive environmental resources (forests, wetlands, floodplains) are within regulatory stream buffers and can be preserved by creating easements on private lots:
- Community water and sewer service is not desirable or readily available;
- No further master plan guidance is necessary.

# Consider low density residential development in the RE-2C Zone with water and sewer service when:

- A range of lot sizes (from half-acre to two-acres) is an appropriate way to maintain compatibility;
- Significant amounts of environmental resources are present and warrant the protection afforded by common or public ownership (homeowners associations or public parks);
- Community water and sewer service is available and will not disturb significant portions of adjacent stream systems;
- Some master plan guidance is desirable, but not required.

# Consider low density residential development in the RNC Zone with water and sewer service when:

- A broader range of lot sizes (4000 square feet to 10 acres) is an appropriate way to create residential character;
- Significant amounts of environmental resources are present on the site and the site contains historic or other resources that together warrant the protection afforded by maintaining at least two-thirds of the tract area in private or public open space;
- Community water and sewer service is available;
- Master plan guidance is necessary to specify a density on the site, to direct development to specific portions of the site, to achieve compatibility and to maintain character

# Land Use Recommendations—Dungan Property

Public Hearing Draft	Public Testimony	Recommendation
Public acquisition is	Coalition and various	Approve Public Hearing
appropriate; if property is	citizens support acquisition	Draft recommendations
not acquired, large-lot	of property; Coalition	·
development using septic	concurs with septic	
systems at existing zoning	development if property is	
(RE-1 and RE-2) will	not acquired; landowner	
preserve residential	proposes RNC zone for	
character	property	
Large-lot development will	Landowner asserts that	
reduce forest fragmentation	development in RNC Zone	
and lessen imperviousness;	provides 91 acres of open	
easements can protect	space	
resources on private	1	
property		
Septic development will	Landowner asserts that new	
preclude new sewer line	line to North Branch can be	
construction in stream	built in environmentally	
valleys draining to North	sound manner without	
Branch	significant disturbance to	
	stream buffers or stream	
	systems	

Property size—approximately 132 acres
Location—north side of Muncaster Mill Road east of Avery Road
Current zones—RE-1 (7 acres); RE-2 (125 acres)
Watershed—North Branch

## Potential Unit Counts

The Upper Rock Creek Coalition and other citizens—as few as 12 lots, assuming that no development is possible north of the ICC right-of-way

The Public Hearing Draft—anticipates septic development; the actual yield is unknown until percolation tests are approved

Winchester Homes—44 in its proposal for the RNC Zone

# Land Use Recommendations—Casey Property (Option 1)

Public Hearing Draft	Public Testimony	Recommendation
Retain existing zoning	Coalition and various	Approve Public Hearing
pattern (RE-1 and RE-2) to	citizens support large lot	Draft Option 2
maintain consistency in lot	development at existing	·
sizes and density with	zoning to preserve character	
surrounding development	and reduce number of lots	
	in area	
Seek dedication to parkland of tributary valleys and forested areas; easements on private lots are acceptable	Coalition and various citizens argue that private easements will preserve open space; sixty-five acres of stream valleys, wetlands and forest should be publicly acquired	
Exclude property from sewer service envelope and designate existing line as limited access in accord with 1989 decision on extending service to Sequoyah ES	Coalition and various citizens assert that sewer line was intended to be limited access	-

**Property size**—approximately 336 acres

Location—northeast quadrant of Bowie Mill and Muncaster Mill roads, south of Sequoyah Elementary School

Existing zones—RE-1 (229 acres); RE-2 (107 acres)

Watershed—western part drains to mainstem; eastern part to North Branch

See next table for potential unit counts

# Land Use Recommendations—Casey Property (Option 2)

Public Hearing Draft	Public Testimony	Recommendation
Permit cluster development to encourage a range of lot	Coalition and various citizens support large lot	Approve Option 2
sizes; reclassify northern	development at existing	
portion RE-2C, retain RE-2 on southern portion	zoning to preserve character; landowner	
on southern portion	supports cluster at existing zoning	
Use cluster development to	Coalition and various	
protect approximately 126 acres of tributary valleys,	citizens argue that private easements will preserve	
forest and wet areas that drain to North Branch and	open space; sixty-five acres of stream valleys, wetlands	
are adjacent to existing	and forest should be	
parkland	publicly acquired	
Use existing sewer line serving elementary school; no new lines in tributary valleys draining to North Branch	Coalition and various citizens assert that sewer extensions will increase density, degrade environment	
Lies meeter plan language to		
Use master plan language to cluster development		
"between" the schools, to control lot sizes if desirable,		
to direct large-lot		
development to areas adjacent to existing		
neighborhoods and to		
preserve views from Bowie Mill Road		
IVIIII IXUAU		

See previous page for property specifications

# Potential Unit Counts

The Upper Rock Creek Coalition—85, based on approved percolation tests

Public Hearing Draft—134 using cluster development and septic development

Oxbridge Development—a maximum of 155, based on public hearing testimony

# Land Use Recommendations—Freeman Property

Public Hearing Draft	Public Testimony	Recommendation
Permit cluster development	Coalition and various	Approve Public Hearing
to encourage a range of lot sizes; reclassify entire property from RE-1 to RE-	citizens support large lot development at existing zoning to preserve	Draft recommendation
2C to bring zoning densities	character; landowner	
into line with prevailing pattern of area	supports cluster at existing zoning	
Use cluster development to protect about 168 acres of forest and headwaters areas adjacent to existing or proposed parkland	Coalition and various citizens assert that private easements will preserve open space; stream valleys, wetlands and 45 acres of forest should be publicly acquired	
Sewer service should connect to existing lines with minimum disturbance	Coalition and various citizens assert that sewer extensions will increase density, degrade environment	
Use master plan language to maintain consistency of lot sizes with nearby properties across stream to west, preserve views along MD 108, and, if desirable, to		
control lot sizes		

Property size—approximately 332 acres
Location—north of Bowie Mill Road and Norbeck Grove community
Existing zone—RE-1
Watershed—North Branch

## Potential Unit Counts

The Upper Rock Creek Coalition—approximately 100

Public Hearing Draft—135 using cluster development

Carl M. Freeman Retail—175-200 based on public hearing testimony

# Land Use Recommendations--Hendry and Fraley Properties

Public Hearing Draft	Public Testimony	Recommendation
Retain existing zones on	Coalition concurs with Plan	Approve Public Hearing
both properties to maintain	recommendations	Draft recommendations
consistency in lot sizes and		
densities with neighboring		
development		
Acquire portions of both		·
properties for added		
parkland; use easements to		
preserve wetlands and	·	
sensitive areas outside of		
park acquisition lines		
		·
Septic development is		
appropriate because sewer service would require		
construction through stream		
valleys with significant		
forest and wetlands		

Property size—217 acres (Hendry); 130 acres (Fraley)

Location—Muncaster Road north of Rock Creek (Hendry); Bowie Mill Road at Fraley Farm Road (Fraley)

Existing zones—RE-2 (Hendry); RE-1 and RE-2 (Fraley)

Watershed--mainstem

## Potential Unit Counts

The Upper Rock Creek Coalition and Public Hearing Draft—both anticipate septic development; the actual yield is unknown until percolation tests are approved

Landowners—no proposals have been submitted for either property

# Land Use Recommendations—Woodlawn Property

Public Hearing Draft	Public Testimony	Recommendation
Permit cluster development	Coalition supports large-lot	Approve Public Hearing
to encourage a range of lot	development west of	Draft recommendation
sizes; reclassify majority of	Needwood Road at existing	
property from RE-2 to RE-	zoning to preserve	
2C	residential character;	
	landowner proposes RNC	
	Zone for property	
Use cluster development to preserve about 30 acres of forest and other open space that is adjacent to existing parkland or between road rights-of-way	Coalition acknowledges nearness of existing lines, but argues that compatibility is best achieved with septic development	·
Sewer service should connect to existing lines in mainstem of Rock Creek with minimum disturbance		

Property size—approximately 79 acres
Location—Needwood Road south of Muncaster Mill Road
Existing zone—RE-2
Watershed—mainstem

## Potential Unit Counts

The Upper Rock Creek Coalition—anticipates septic development; the actual yield is unknown until percolation tests are approved

Public Hearing Draft—as many as 31 lots using cluster development

Winchester Homes—22 lots using cluster development; two lots using septic development