



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

May 1, 2003

## MEMORANDUM

**TO:** Montgomery County Planning Board

**VIA:** John A. Carter, Chief *JAC*  
Community-Based Planning Division

Khalid Afzal, Team Leader *KA*  
Georgia Avenue Planning Team

**FROM:** Frederick Vernon Boyd, Community Planner *FVB*  
Georgia Avenue Planning Team (301-495-4654)

**SUBJECT:** Planning Board Worksession #8 for the Upper Rock Creek Area Master Plan—Land Use

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**RECOMMENDATION:** *Discussion and endorsement of development options for Casey, Dungan, Freeman and Woodlawn properties*

## OVERVIEW

The eighth worksession on the Upper Rock Creek Area Master Plan enables the Planning Board to continue its deliberations on land use and housing issues in light of public comments made by interested citizens and landowners at worksession #7, on April 10. This memorandum will:

- Broadly summarize public comment by topic;
- Provide refinements to the existing draft land use recommendations and offer a development option that reflects some local residents' desire for lessened densities on the undeveloped properties;
- Highlight refinements made to development schemes proposed by the owners of the Casey, Dungan and Freeman properties;
- Address issues of balancing transportation and land use; and
- Briefly discuss school enrollment and capacity issues.

This worksession will be followed by a final session, at which the Planning Board will review and approve the Planning Board Draft Master Plan. For that final session, staff will incorporate all decisions made in worksessions and prepare final text for the Planning Board Draft. This draft can, if the Planning Board desires, include detailed illustrations of the land use principles that underlie the master plan.

This memorandum contains a digest of public comment; a map showing the Upper Rock Creek Master Plan area and featuring the undeveloped properties; and tables showing unit yields under the various alternative scenarios.

Planning Board discussion at the previous worksessions on housing and land use has centered on balancing three public policies-- preservation of open space, maintenance of low-density residential character and provision of affordable housing. At the March 6 worksession, the Planning Board concluded that the Rural Neighborhood Cluster Zone would allow development in keeping with the low densities prevalent in this part of Upper Rock Creek, that the RNC Zone's development standards would require significant amounts of open space and that the zone's site plan review requirements afforded an opportunity to insure that new development is compatible with existing communities.

The Planning Board devised a sliding scale of allowable RNC densities that is predicated on provision of Moderately Priced Dwelling Units. For the Casey, Dungan and Freeman properties, the draft recommendations set four allowable densities that can be achieved only when specific conditions are met. The densities range from 0.2 units to the acre if the properties develop using septic systems to 0.488 units to the acre with community sewer service if 20 percent of the units are Moderately Priced Dwelling Units. For the Dungan property, the draft recommendations add the option of combined development with the adjacent Casey property, location of all development on the Casey property and dedication of the entire Dungan property to parkland. The Dungan property also has the option of developing with septic systems. These options eliminate the need for environmentally damaging new sewer lines. The draft recommends the RNC Zone for the Woodlawn property and sets a single recommended density, 0.4 units to the acre.

## **PUBLIC COMMENT**

The Planning Board invited public comment on these draft recommendations and heard from a variety of interested individuals, civic associations and advocates. In general, speakers agreed on the importance of insuring an adequate supply of affordable housing throughout Montgomery County. They differed on whether the draft recommendations appropriately balanced the three public policy goals.

- Affordable housing advocates stressed the seriousness of the County's affordable housing shortage and endorsed the draft recommendations as a means of involving all parts of the County in addressing affordable housing issues. Use of the Rural Neighborhood Cluster Zone would generate affordable housing while preserving open space.

- Environmental advocates acknowledged the importance of providing affordable housing, but recommended that it be located closer to public services and public transit. Advocates also reiterated support for an environmental overlay zone and a 10 percent imperviousness cap on new development, and highlighted the need for a balanced land use and transportation policy that would reduce housing in areas like Upper Rock Creek while increasing it in the I-270 Corridor. They noted that this alternative land use policy was proposed in the Transportation Policy Report. They stressed the importance of preserving blocks of contiguous forest and headwaters areas.
- Civic association representatives also acknowledged the importance of affordable housing, but raised concerns about the impacts of the increased densities that accompany developments with Moderately Priced Dwelling Units on area roads and schools. Their comments highlighted overcapacity enrollments at Magruder High School and Redland Middle School as well as congested conditions on local roadways and at intersections. Other civic representatives and some individuals expressed dismay at the timing of the draft recommendations and reiterated assertions that the master plan process was fraught with conflicts of interest.
- Several civic representatives indicated support for cluster development using community sewer service with MPDUs at reduced densities. There was some support for adopting the Public Hearing Draft Plan's recommendation (0.4 units per acre maximum on the Casey, Freeman and Woodlawn properties), with MPDUs derived from development on approval of a draft zoning text amendment adding MPDUs to the large lot zones. Others supported the setting of a single density—12.5 percent—for MPDUs in Upper Rock Creek.
- Finally, representatives of the Casey, Dungan and Freeman properties offered refinements of previously outlined proposals for those properties. Representatives of the Dungan property asserted that the draft land use recommendations did not provide enough incentive for combined development of the properties. Their proposal increased density on the Dungan property and slightly decreased density on the Casey property as a means of creating additional incentive for combined development. Representatives of the Freeman property showed two schemes for their property. Their treatments increased densities somewhat from those proposed in the draft recommendations.

## **DEVELOPMENT OPTIONS**

### **Option 1: Refinements to Existing Land Use Recommendations**

After hearing public comment on April 10, the Planning Board asked the staff to review the RNC development scenario it devised in March, devise an option that reflected the desire for less dense development articulated by a number of people at the worksession and analyze the revised proposals put forth by the development community.

In examining the RNC development scheme and its sliding scale of allowable densities, planning staff noted an inconsistency in the relationship between bonus densities and provision of MPDUs. By increasing the provision of MPDUs from 12.5 percent to 15 percent, a developer receives a 22 percent density bonus, from 0.33 units per acre to 0.4 units per acre. To achieve an additional 22 percent density bonus, however, the developer must increase the MPDU contribution from 15 percent to 20 percent. To maintain consistency in the relationship, the Planning Board could consider reducing the maximum MPDU percentage from 20 percent to 17.5 percent, which would make each step in the sliding scale equal. Table 2 shows the sliding scale, and includes for comparison the original 20 percent MPDU requirement as well.

Table 2 reflects the draft land use recommendations from the March 13 worksession; the lowest density, 0.2 dwelling units per acre, contemplates septic development, and the highest density, 0.488 dwelling units per acre, assumes cluster development, community sewer service and the provision of 17.5 percent MPDUs. The second step of the sliding scale, 0.33 dwelling units to the acre, provides 12.5 percent MPDUs, the only level at which several speakers supported such development. For the Casey property, this option assumes that the entire property is classified in the RNC Zone and that the whole property receives community sewer service. This assumption differs from the Public Hearing Draft recommendation for the Casey property, which classifies a portion of the property RE-2C and places the rest in the RE-2 Zone without community sewer service. Only the RE-2C part of the property would be required to provide MPDUs.

### **Option 2: Addressing Density Concerns**

Residents' options provide some Moderately Priced Dwelling Units while keeping densities very low; these options result in densities of about one dwelling unit for every three acres. Maintaining the sliding scale devised in March and reducing the allowable per acre densities would have the effect of lowering the total number of units recommended in Upper Rock Creek, which addresses residents' desire for reduced densities, while continuing to require MPDU contributions as high as 17.5 percent, which increases the affordable housing inventory in the master plan area. Table 3 sets out a range of allowable densities, with a minimum density of 0.2 dwelling units to the acre without community sewer service and a maximum of 0.4 dwelling units to the acre with cluster development, sewer service and a requirement for 17.5 percent MPDUs. A comparison of the tables shows that densities can be reduced somewhat without a substantial loss of MPDUs. At a density of 0.488 units per acre, the Casey property yields 164 units and 33 MPDUs; at 0.4 units per acre, the same property yields 134 units and 24 MPDUs.

### **Option 3: Developer Proposals**

As noted above, representatives of the Casey, Dungan and Freeman properties offered refinements of their development schemes for the three properties. Combined development of the Casey and Dungan properties continues to be the focus of the development teams. The combined team has prepared two options. The first proposal, for 250 lots in the RNC Zone, shows lots that range from 15,000 square feet to two

acres, and contains several 10-acre conservation lots. It includes 38 Moderately Priced Dwelling Units, 15 percent of the total. A second option increases the total number of lots to 260 and increases the number of MPDUs to 52, 20 percent of the total. In both options, all development is located on the Casey property and the Dungan property is dedicated as parkland. Open space in both options totals about 69 percent.

Representatives of the Freeman property also proposed two refined development options. The first, with 196 units, proposes lots ranging in size from 7,000 square feet to one acre, with several 10-acre conservation lots. It includes 30 MPDUs, 15 percent of the total. The second option increases the total number of lots to 225 and increases the number of MPDUs to 45, 20 percent of the total. Open space totals 70 percent in the first option and 65 percent in the second.

## **IMPERVIOUSNESS**

Three questions were posed by the Planning Board in response to imperviousness issues raised by the public comment. Planning Board members wanted to know why the imperviousness percentages presented by the developers were different from those presented by the staff. Second, they wanted to know if the imperviousness levels anticipated from the RNC Zone with MPDU's threatened the achievement of the environmental protection goals in the Public Hearing Draft Master Plan. Third, the Planning Board wanted to know what specific guidelines should be put in the plan to assure that the environmental goals were met.

**Planning staff estimates of imperviousness are more comprehensive and conservative, based on actual subdivisions.** A careful review of the imperviousness calculations provided by the developers indicates that they are similar to the imperviousness currently under review for lots of similar sizes in Germantown under an imperviousness cap. Calculations for the schemes proposed by all three developers yielded between 0.14 and 0.15 acres of hard surface imperviousness per lot (buildings, roads and sidewalks) taking into account the total acreage of the property. Staff calculations for existing RNC properties yielded about 0.16 acres of hard surface imperviousness per lot. This is a difference of up to 430-870 square feet per lot. This is the information staff used to prepare the imperviousness in the table below. Staff feels use of the larger figure is justified given that it is based on approved subdivisions and the tendency of developers to respond to market conditions by designing larger houses. In addition, more sidewalks or bikeways, and different road configurations, are often required as part of a Planning Board approval. In order to make the figures compatible with our modeling efforts, staff has added in a small amount of imperviousness for grass and trees that tends to increase the percentage by one percent to two percent. Staff also added the six-lane ICC (as well as right-of-way acreage) to both Casey and Dungan. A table showing a more detailed comparison of the calculations is attached.

**The imperviousness levels estimated from the RNC zoning up to the 0.4 units/acre for all the properties in question would be similar to that anticipated under the existing master plan or the Public Hearing Draft Master Plan (see table below).** While the potential for more concentrated stormwater facilities may affect thermal loads, current stormwater management requirements for Use III streams

emphasize techniques that minimize thermal loads. On balance the protection of existing resources and potential for enhancement of those resources on the new parkland outweighs any potential additional thermal loading. Staff feels that the environmental goals of the plan will be met if densities are kept at or below 0.4 units/acre and open space requirements are configured so that the resources are protected and adequate space outside environmentally sensitive areas is provided for hard surface trails and stormwater management facilities.

**Table 1. Imperviousness Estimates for Selected Properties**

	<b>Casey Alone</b>	<b>Dungan Alone</b>	<b>Averaged Casey and Dungan</b>	<b>Freeman</b>
<b>1985 Master Plan (Low Septic Estimate)</b>	10.4%	10.3%	10.4%	9.5%
<b>Public Hearing Draft (Dungan as Park)</b>	12.6%	3.7%	10.1%	10.3
<b>Public Hearing Draft (Dungan on Septic)</b>	12.6%	10.3%	12.0%	10.3
<b>Casey RNC @ 0.4 and Dungan Septic</b>	9.9%	10.3%	10.0%	
<b>Casey RNC @ 0.4 and Dungan, combined on Casey</b>	12.4%	3.7%	10.1%	
<b>Freeman RNC @ 0.4</b>				8.4%

**Specific guidelines need to be incorporated into the plan to assure that the environmental goals are achieved.** Clear guidelines are critical to maintaining the desired areas for conservation and park dedication, resource protection and enhancement and impervious limitations. Specific wording for these guidelines will be developed and presented to the Planning Board as part of the final worksession. Important guidelines include:

- Specific language to indicate that sewer service for Casey and Dungan must be provided only via the sewers in Bowie Mill and Muncaster Mill Roads to the mainstem of Rock Creek.
- Areas for park acquisition must be clearly indicated (minimum size and configuration), and provide sufficient room to allow construction of hard surface trails recommended by this plan outside of sensitive environmental areas, including environmental buffers.
- Stormwater facilities should be located outside of the areas proposed for park acquisition and configured to allow any hard surface trail (and the stormwater facilities themselves) to be outside of environmental buffer areas.
- Imperviousness should be minimized via use of private roads, use of sidewalks on one side of the road, clustering of lots and other techniques.

- Clear indication that the densities allowed are a maximum, and that stormwater management, use of larger lots, the need to preserve environmentally-sensitive areas as undisturbed natural areas, and other considerations will almost surely yield lower numbers of lots at time of subdivision and site plan review.
- Requirements that all unforested stream buffers be planted in forest prior to park dedication, as part of or in addition to other forest conservation requirements. Excess forest may be used as a forest bank to be sold to others needing off-site forest planting.
- Recommend that all artificial drainage used for agricultural purposes be removed to allow regeneration of natural wetland conditions.

## **RELATIONSHIP TO THE TRANSPORTATION POLICY REPORT**

Several speakers at the April 10 worksession suggested that land use recommendations in Upper Rock Creek fell short of the recommendations in the Transportation Policy Report, which stated that shifting of housing units from rural areas like Upper Rock Creek to more developed areas of the I-270 Corridor should occur as the County moves towards full development.

For the Transportation Policy Report, staff prepared two land use options for future development in the County. One option used land use and zoning recommendations in current master plans as a basis for forecasting traffic flows on recommended roadway networks. The recommended land use option reduced jobs and housing in developing areas like Clarksburg and in less densely developed areas like Upper Rock Creek.

The draft Upper Rock Creek Area Master Plan recommends reclassifying land in the RE-1 Zone to the RNC Zone, and recommends densities of about one dwelling unit for every two acres. These recommendations effectively reduce by half existing zoning capacity on approximately 560 acres in Upper Rock Creek now in the RE-1 Zone. Limitations on sewer service may also reduce the likelihood that as-yet-undeveloped land recommended for septic development will develop to its full capacity. One reason for these recommendations was to keep new development in Upper Rock Creek at densities similar to those in place today. Recommended densities are higher than those that might occur if septic development was maintained throughout the planning area, but are less than those recommended in the Transportation Policy Report.

## **SCHOOLS**

Students in the areas affected by the Plan's land use recommendations attend schools in the Magruder and Sherwood clusters. As noted in a number of public comments, Magruder High School and Redland Middle School are currently exceeding their enrollment capacities. The County's Annual Growth Policy sets guidelines for determining local schools' ability accommodate ongoing development. The County Council "evaluates available capacity in each high school cluster and compare[s] enrollment projected by Montgomery County Schools for each fiscal year with projected school capacity five years out." Current AGP standards allow clusters to "borrow" enrollment capacity from adjacent clusters when capacity deficits occur.

The Magruder high school cluster is projected to be slightly over capacity (103 percent) in 2008-09, five fiscal years from today; the elementary school cluster is projected to be near capacity (98.8 percent) and the middle school cluster at about four-fifths capacity (81.5 percent). At these levels, any development will deepen capacity issues at the middle and elementary levels, and bring the middle school cluster nearer capacity. At the high school and middle school levels, the numbers of additional students, as forecast using Montgomery County Public Schools' enrollment factors, will be relatively small. As an example, the Casey and Dungan properties at a density of 0.488 units per acre would generate 32 high school students, 31 middle school students and 92 elementary school students. These added enrollments would deepen the deficit slightly at the high school, and create deficits at Redland Middle School and Sequoyah Elementary School. These deficits would trigger AGP review of capacity issues in the Magruder cluster. If capacity was unavailable in adjacent clusters, preliminary plans of subdivision could not be approved in the affected area. This plan recommends the retention of a vacant site for a future elementary school adjacent to the Freeman property.

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Attachments



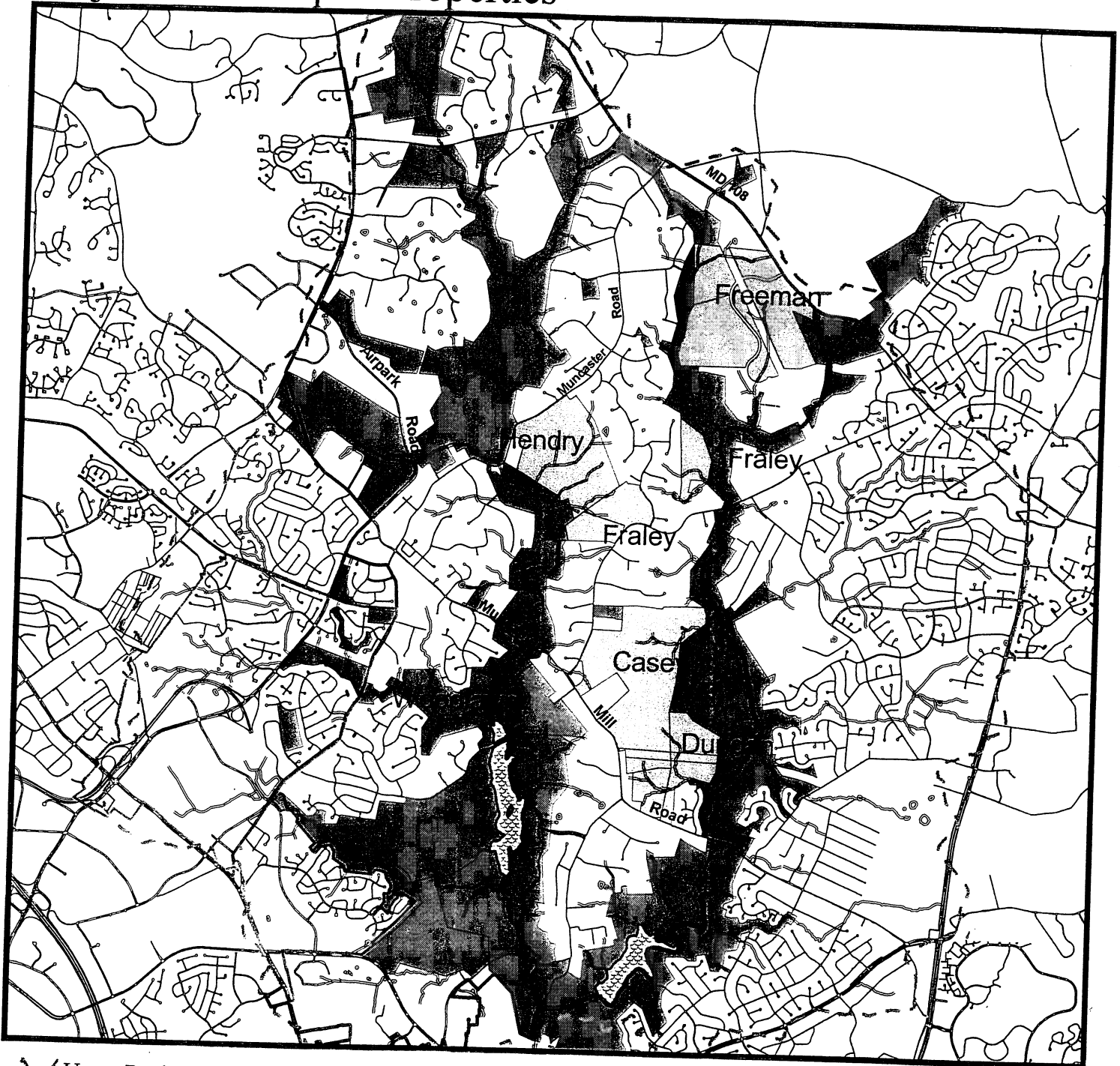
*Digest of Public Comment—April 10 Worksession*






<i>Issue</i>	<i>Comment</i>
Affordable Housing	<p>Affordable housing advocates stressed the need for all sections of the County to share the responsibility for providing affordable housing. They argued that draft land use recommendations appropriately expand the County’s approach to providing affordable housing by extending the MPDU program to large lot zones, which includes developable areas with enough land to include significant numbers of MPDUs.</p> <p>Environmental groups, growth control advocates and some local residents argued that affordable housing issues should be explored in the context of a balanced overall land use policy. They stated that such housing is more appropriately placed nearer mass transit and other public services. They also argued that the impact of additional densities and extension of water/sewer service on sensitive resources outweighed benefits of additional affordable housing.</p>
Overall Densities	<p>Environmental groups, growth control advocates and some local residents asserted that overall densities recommended remained too high. Some civic associations continue to oppose any development using community water and sewer service; others consider the Public Hearing Draft recommendations (two-acre cluster development on Freeman and Woodlawn, a mix of two-acre cluster and two-acre septic development on Casey, septic development at existing zoning for Hendry and Fraley) acceptable.</p> <p>Representatives of development groups supported the draft land use recommendations, arguing that the proposed densities were in keeping with the residential character of the area. They showed refined development schemes for the Casey, Dungan and Freeman properties that they asserted would provide sufficient affordable housing without requiring contributions beyond those now required by law.</p>
Environmental Issues	<p>Environmental advocacy groups argued that protecting headwaters of Rock Creek is the key principle for the master plan and that degradation resulting from cluster development using stormwater management systems will irreversibly damage the stream system. They also assert that critical thermal impact studies have not been done as part of the master plan process.</p>

*Digest of Public Comment—April 10 Worksession*

Environmental Issues	<p>These advocacy groups continue to support a 10 percent imperviousness cap in the Upper Rock Creek watershed and creation of an environmental overlay zone to implement such a cap.</p> <p>Several civic associations and some individuals seek permanent written guarantees that open space preserved as part of development will remain undeveloped.</p>
Infrastructure	<p>Most individual residents and civic association representatives stressed the inability of the area's existing infrastructure—its roads and schools in particular—to accommodate additional growth. They noted that Magruder High School and Redland Middle School have exceeded their enrollment capacities and that needed improvements will not occur in a timely fashion. Local roads, they argued, are congested and the thousands of daily trips to be added by the draft recommendations or by developers' proposals posed an intolerable additional burden to already crowded roads.</p>
Process	<p>A number of local residents and civic representatives objected to the inclusion of the affordable housing issue near the end of the Planning Board's review of the Plan. Several suggested that the process should begin again with greater civic representation.</p>

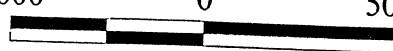
# Major Undeveloped Properties



-  Upper Rock Creek Watershed
-  Proposed Shady Grove Sector Plan Area
-  Master Plan Area Boundary
-  Major Undeveloped Properties
-  Parks



5000 0 5000 Feet



Upper Rock Creek Area Master Plan

## Option 1: Refinements to Existing Land Use Recommendations

Property	Acres	Density	Units	MPDU %	MPDUs
Casey	336	0.2	67	0.0%	0
	336	0.33	110	12.5%	14
	336	0.4	134	15.0%	21
	336	0.488	164	17.5%	29
	336	0.488	164	20.0%	33
Dungan	132	0.2	26	0.0%	
	132	0.33	44	12.5%	
	132	0.4	53	15.0%	
	132	0.488	64	17.5%	
	132	0.488	64	20.0%	
Casey/Dungan	468	0.2	93	0.0%	0
	468	0.33	154	12.5%	20
	468	0.4	187	15.0%	29
	468	0.488	228	17.5%	40
	468	0.488	228	20.0%	46
Freeman	339	0.2	67	0.0%	0
	339	0.33	111	12.5%	14
	339	0.4	135	15.0%	21
	339	0.488	165	17.5%	29
	339	0.488	165	20.0%	33
Woodlawn	79	0.4	31		

## Septic Yields at Current Zoning

Property	Acres	Density	Units
Casey septic	336		78 to 120
Dungan septic	132		26 to 34
Freeman septic	339		83 to 136
Woodlawn septic	79		15 to 20

Note: The new proposed maximum MPDU percentage is 17.5 percent. The original 20 percent maximum is shown for comparison.

Dungan property developers have the option of developing on septic systems or combining with the Casey property. Septic development would be at 0.2 units per acre. Greater densities occur under combined development.

Table 3

## Option 2: Addressing Density Concerns

Property	Acres	Density	Units	MPDU %	MPDUs	Market
Casey	336	0.2	67	0.0%	0	67
	336	0.268	90	12.5%	12	78
	336	0.327	109	15.0%	17	92
	336	0.4	134	17.5%	24	110
Dungan	132	0.2	26	0.0%	0	26
	132	0.268	36	12.5%	5	31
	132	0.327	44	15.0%	7	37
	132	0.4	52	17.5%	10	42
Casey/Dungan	468	0.2	93	0.0%	0	93
	468	0.268	126	12.5%	16	110
	468	0.327	153	15.0%	23	130
	468	0.4	186	17.5%	33	153
Freeman	339	0.2	67	0.0%	0	67
	339	0.268	90	12.5%	12	78
	339	0.327	110	15.0%	17	93
	339	0.4	135	17.5%	24	111
Woodlawn	79	0.4	31			

Note: The new proposed maximum MPDU percentage is 17.5 percent.

Dungan property developers have the option of developing on septic systems or combining with the Casey property. Septic development would be at 0.2 units per acre. Greater densities occur under combined development.

Table 4

Comparison of Imperviousness Calculations for Selected Developable Sites in Upper Rock Creek

Site and Zoning	Total Acres	Number of Units	Impervious Factor for Zone	Estimated Acres for Subdivision Houses, Roads and Sidewalks	Staff Estimates				Developer's Estimates	
					Impervious Acres from ICC & M83	Total Site Impervious Acres Including Forest and Grass	Percent Imperviousness Including ICC, Forest and Grass	Hard Surface Imperviousness Only (no ICC)	Hard Surface Imperviousness Only (no ICC)	Percent Imperviousness Including ICC, Forest and Grass
Casey and Dungan RNC@ 250	468	250	0.16	40.0	6.6	58.5	12.5%	9.0%	8.4%	12.0%
Casey and Dungan RNC@ 260	468	260	0.16	41.6	6.6	60.1	12.8%	9.3%	8.4%	12.0%
Freeman RNC @ 196	332	196	0.16	31.4		37.8	11.4%	9.4%	8.6%	10.5%
Freeman RNC @ 225	332	225	0.16	36.0		42.3	12.7%	10.8%	9.4%	11.4%