

# reducing our footprint

more community  
sustainable  
walking  
nature  
transit  
time





## less

deforestation  
grass-cutting  
pavement  
emissions  
nitrogen  
garages  
energy  
carbon  
sprawl  
waste  
trips  
cars  
land  
oil



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## **executive summary**

### **2009-2011 growth policy**

#### **what is the growth policy?**

The County Council adopts the Growth Policy every two years after considering recommendations forwarded by the Planning Board. The Growth Policy resolution sets the rules the Planning Board will use to consider subdivisions over the following two year period, in the context of the Adequate Public Facilities Ordinance (APFO). The APFO ensures that there is enough school and road capacity to accommodate new development.

The Growth Policy originated during the era of suburban expansion and was designed to stage development so that there was no gap between the creation of new business and residential communities and the facilities needed to serve them. This sound policy prevented leapfrogging sprawl as vacant land was converted into new communities.

### **has the growth policy resulted in smart growth?**

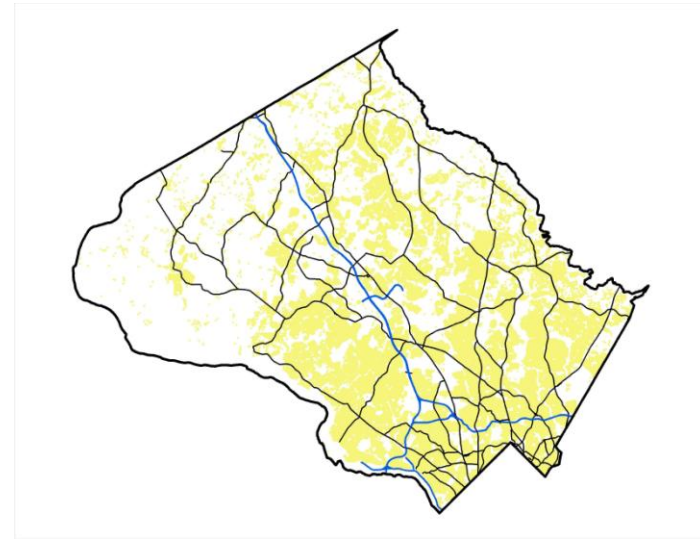
The Growth Policy has done a reasonable job of coordinating new development with the building of key facilities throughout the County. However, the Policy has had no visible impact on the total amount or pace of growth. The Policy has directed where growth will occur but it has often been in areas with lower densities, where the road and school capacity exists. These are also the areas where basic services and transit do not exist.

As a result, residents of these areas travel longer distances through more densely settled areas to get to jobs, buy groceries, visit the doctor, mail a parcel, or bring their children to school or soccer. The pattern has contributed to an increase in the number of vehicle miles traveled (VMT) by County residents.

### **can we continue the current pattern of growth?**

If we continue along the path of low-density suburban growth, the VMT will only increase. Separating homes, jobs, and services only creates longer commutes. Traffic problems will continue to worsen, creating a ripple effect throughout the roadway system. The road capacity will be used up by people driving longer distances from job centers. A road system with less capacity will increase the cost of developing in the urban areas where more mitigation will be required.

### **single-family residential zones**



*Single-family areas account for 97.5% of the County's residentially zoned property*

Examining our current growth pattern brings a new realization. We are almost out of new land to develop. But growth will continue and shifting demographics will demand new types and patterns of development.

How we grow impacts the amount of VMT. We can address this issue one of two ways. Either by building more capacity, meaning more and wider roads, or we can influence demand through development location and transit service. The first option is not viable nor would it reduce VMT. Instead, encouraging growth in smarter locations with transit can over time, reduce the levels of VMT relative to the growth in jobs and residents.

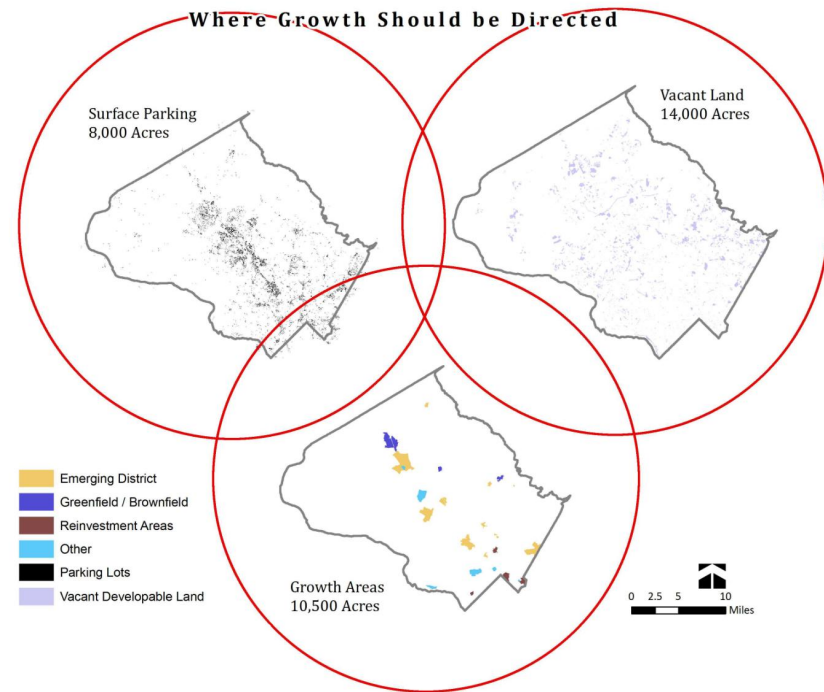
## what land is left to develop?

There is little vacant land left to develop.

- Only four percent of the County zoned for development, about 14,000 acres remains undeveloped. There is even less developable land when slopes, floodplains, and forest stands are included.
- 47 percent of County land is part of the Agricultural Reserve and various parks at all government levels.
- The County has 8,000 acres of surface parking, with more on the top of parking garages.
- Considering remaining land zoned for development, surface parking, and other strategic growth areas, the County has about 28,800 acres where development should be encouraged.

Growth Policy can contribute to sprawl by requiring unsustainable mitigation requirements where growth is desirable—such as underdeveloped areas around transit stations. These areas have higher development costs to begin with, and the cost of mitigation adds to them, especially when compared to traditional suburban, large-lot subdivisions. With little room left to grow, development will need to occur in areas where densities can be higher, on sites closer to transit, reusing underdeveloped sites, or redeveloping strip malls and surface parking lots. Development in these areas will reduce vehicle trips and make the best use of our infrastructure investments.

The question for this Growth Policy is how to establish policies and standards that direct growth near transit and within the Metro Station Policy Areas.



*With little vacant land left, the availability of surface parking lots as well as land in smart growth locations near transit or on existing strip malls, offers a considerable supply of land upon which to build. Development on these 28,800 acres can result in smarter locations for future growth.*

## what other factors impact how we should grow?

### changing demand

Most policy areas will experience little growth and little, if any, change in the way in which the Adequate Public Facilities Ordinance is administered. Changes are recommended for Metro Station Policy Areas that can reduce the demand for auto trips.

### housing affordability

Making it more difficult and costly to build near transit not only increases traffic congestion but also adds to the housing affordability problem. Transportation costs make up about 18 percent of the average County household budget. As energy costs rise, so will this component of household costs, leaving less income to pay for housing. An important part of growth strategy should be to provide people the opportunity to live closer to where they work so their housing, energy and transportation costs are more affordable.

### the environmental need for compact growth

Compact development has the potential to reduce VMT per capita by 20% to 40% relative to sprawl development. ULI – Growing Cooler, 2008

### growth

The Washington area remains one of the nation's most attractive for new growth. The Metropolitan Washington Council of Governments forecasts an additional 1.3 million people will live in the region by 2030, a growth rate of 25 percent. Montgomery County can expect to house 195,000 of them—a growth rate of 21 percent. This is about the same amount of growth that occurred over the past 20 years.

Sixty percent of workers who live in the County also work here. MWCOG forecasts 166,200 more jobs in the County by 2030, an increase of 33 percent. The County's highly educated workforce will continue to attract leading edge employers.

### job growth

Between 1986 and 2008 the number of jobs in the County increased by 136,832, to a total of 503,822, an increase of 37%. A further 166,200 new jobs are expected by 2030, a 33% increase above the current total.

### changing demographics

The County's demographics have been changing—and will continue to change.

- There will be an 81 percent increase in people over the age of 65 by 2030.
- The number of persons in prime income earning years will continue to fall.
- The percentage of two-parent households dropped precipitously, from 48 percent to 32 percent between 1970 and 1980 before leveling off to about 27 percent over the past two decades.
- The percentage of the County's minority population has more than doubled in the past two decades, from 21 percent in 1987 to 46 percent in 2008.
- Montgomery County is increasingly diverse, and by 2020 no single race or ethnicity will make up a majority of the population.
- The number of people living in a household has dropped from 3.6 persons in 1960 to 2.6 today.

### working age adults to seniors

There has been a steady decline in the number of working age adults to the number of seniors in the County. This decline is expected to drop dramatically by 2030, with implications for County revenues.

year	2005	2010	2030
ratio	5.5	5.2	3.4

### changing environment

In a time of growing commitment to reduce our carbon footprint, conserve energy, and protect the quality of our air, forest, and water resources, continuing a policy that works against these national and regional imperatives is counterproductive and unwise. The time has come to emphasize sustainability in the Growth Policy. A smart growth strategy for reducing VMT results in greener growth. Reducing VMT is a traffic capacity strategy that will also reduce



carbon emissions. Sprawling growth impacts the quality of our watersheds and ultimately the Chesapeake Bay.

The rising costs of energy, combined with the consequences of increasing greenhouse gas emissions are building strong support for policies at all government levels that effectively reduce our carbon footprint.

**increase in minority population**

The County population has increased 20% since 1990. Minorities make up 46% of the population, an increase of 5%, with Hispanics accounting for almost 50% of the growth. The foreign-born population has doubled, making up 30% of the population.

**what has changed and what is not changing?**

This edition of the Growth Policy provides an alternative review method that encourages changes in travel patterns by directing growth to the urban areas. The policy recommends an incentive that would replace some commercial space capacity with residential capacity to create a better jobs-housing balance. The outcome of this approach would be fewer vehicle miles traveled.

The County uses several tools to manage growth (see table). The Local Area Transportation Review (LATR) calculation will remain the same with some proposed changes to foster mitigation. A minor change in the school test is recommended that will slightly reduce mitigation fees on development, but not the threshold for moratorium.

Growth Management Tool	Application	Proposed
Master plans	where	same
Zoning	how	same
Subdivision regs	how	same
School capacity	when	minor change to monetary assessment
LATR	when	minor changes to mitigation types
PAMR	when	stay within general bounds of PAMR – encourage smart growth

**comparison of current and proposed requirements**

*The growth management tools used in the County along with an indication of whether changes are proposed.*

The proposed Growth Policy includes eleven recommendations for changes that would take effect January 1, 2010, plus a twelfth recommendation describing future studies needed to inform the 2011-2013 Growth Policy.

## Summary of Proposed Changes

Category	Description	Current Process	Proposed Process	Motivation for Change	Appendix
<b>Smart Growth Criteria:</b>  1. Transit Proximity	Alternative Review Procedure for Policy Area Mobility Review (PAMR)	None	For compact, mixed-use projects near transit that exceed otherwise required energy efficiency, PAMR mitigation resources will be directed to transit, additional affordable housing, and a reduction in development costs.	Encourage mixed-use projects with proximity to transit to reduce vehicle trip generation rates.  Promote affordable housing and Climate Protection Plan goals.	N
<b>APFO Transportation:</b>  2. Balance Between Land Use and Transportation	Establish symmetry in transit and arterial LOS standards	Relative Arterial Mobility must be LOS D or better regardless of transit service	Relative Arterial Mobility of LOS E allowed in areas where Relative Transit Mobility is LOS B	Promote more efficient utilization of scarce transportation resources	M
<b>APFO Transportation:</b>  3. Non-Auto Facility Values	Expand the range of candidate non-auto facility types eligible for impact mitigation and set values at \$11,000 per vehicle trip	Candidate Non-auto facilities limited to twelve types of projects, each valued based on outdated cost information, and most types no longer accepted by County DOT	Non-auto facility types expanded to include additional projects, with all but sidewalk/bike path connectivity projects valued at \$11,000 per vehicle trip.	Encourage candidate project identification based on area needs rather than lowest cost. Improve predictability for applicants. Obtain projects appropriately valued at the cost of the trips being mitigated.	M
<b>APFO Transportation:</b>  4. APF Transferability	Allow vested APF rights to be transferred into a Metro Station Policy Area from an adjacent Policy Area	APF rights not transferable	APF rights transferred with joint subdivision application between sending and receiving sites to apply unused/remaining APF capacity in suburban areas.	Encourage development approvals in urban areas. Applies/reduces pipeline of approved but unbuilt projects.	K
<b>APFO Transportation:</b>  5. TOD Trip Generation Rates	Expand the geographic application of residential trip generation rates	Customized trip generation rates provided by staff for only Bethesda, Silver Spring, and Friendship Heights CBDs	Lower residential trip generation rates based on TCRP Report 128 allowed for TOD applications in MSPAs.	Encourage residential development near all transit stations.	M

**Summary of Proposed Changes**

<b>Category</b>	<b>Description</b>	<b>Current Process</b>	<b>Proposed Process</b>	<b>Motivation for Change</b>	<b>Appendix</b>
<b>APFO Transportation:</b>  6. White Flint APF approval process	Replace LATR and PAMR with public entities and funding mechanisms to be determined through the Draft Sector Plan	LATR and PAMR applies	LATR and PAMR replaced by public entities and funding mechanisms as recommended in the Draft Sector Plan.	Streamline funding and delivery of master plan transportation infrastructure.	M
<b>Other:</b>  7. Policy Area boundary changes	Establishment of Life Sciences Center Policy Area, revision to White Flint, Germantown Town Center, and R&D Village Policy Area boundaries	Policy Area boundaries established per 2007-2009 Growth Policy	Changes to Policy Area boundaries as recommended in Draft Sector Plans.	Improve relationship between planned land uses, transit services, and Policy Area boundaries as recommended in Draft Sector Plans.	H
<b>APFO Schools:</b>  8. School Facility Payment Threshold	Establish the threshold for the application of the school facility payment	The application of a school facility payment occurs when projected enrollment exceeds 105% of projected program capacity at any school level by cluster	Set the threshold for application of a school facility payment at projected enrollment greater than 110% of projected program capacity at any school level by cluster.	Several school clusters have a projected enrollment slightly over 105% of projected capacity yet more significant deficits are required for CIP programming.	M
<b>APFO Schools:</b>  9. Moratorium Threshold	Retain the current threshold for moratorium	A moratorium on residential subdivision occurs when projected enrollment exceed 120% of projected program capacity at any school level by cluster	Retain the threshold for moratorium at projected enrollment greater than 120% of projected program capacity at any school level by cluster.	No change recommended.	M
<b>APFO Schools:</b>  10. Grandfather Completed APFO Applications	Grandfather all applications completed 12 months prior to the imposition of a moratorium on residential subdivisions	All projects not approved by the Planning Board at the date of moratorium are restricted from proceeding to Board approval	Grandfather all applications completed 12 months prior to the imposition of a moratorium on residential subdivisions.	To limit the impact of moratorium on the development process for projects with completed applications working toward a Board approval date.	M
<b>APFO Schools:</b>  11. APF Transferability	Allow vested APF rights to be transferred within a school cluster	APF rights not transferable	APF rights transferred with joint subdivision application between sending and receiving sites to apply unused/remaining APF capacity to other sites within a school cluster.	Improve efficiency of the pipeline, reducing approved but unbuilt projects.	K

## conclusion

The Growth Policy needs to be smarter.

It should guide new development to make the most efficient use of available land and existing and planned infrastructure, where it can add value to the County's economy and improve the quality of life for all. Policies and standards should encourage mixed uses near transit and provide a framework for minimizing the carbon footprint and environmental impacts of new growth.

It means fostering development that is more dense and diverse, that provides wide choices in housing, employment, and mobility, and that connects our neighborhoods and activity centers to each other, to the region, and to the world. And it means insisting on high design standards that can create great places for active and creative living, and that can respect and add value for established nearby neighborhoods.

### compact development advantages

As sprawl decreases, average vehicle ownership, daily VMT per capita, the annual traffic fatality rate, and the maximum ozone level decrease to a significant degree. At the same time, the share of work trips by transit and walk modes increase significantly. ULI – Growing Cooler – 2008

Density is a major factor in where people decide to live. More people living closer together reduces VMT, carbon emissions and air quality, and stimulates new investment and jobs.

The Growth Policy must address ways to stimulate growth that attracts young professionals. Bethesda and Silver Spring, like D.C. and Arlington, remain the primary places where the majority of this group wants to live. We must strategically replicate those urban nodes in

metro station policy areas to provide space for compact, denser growth to attract younger workers and employers.

Replicating the successes of Silver Spring and Bethesda will create opportunities for new job growth in an environment that attracts young professionals—thus ensuring a robust economy that supports Montgomery County's quality of life for people living here and still to come.

Creating this future requires shifting the Growth Policy from a regulatory framework that implicitly emphasizes what cannot be done, to one that enables growth to occur where it should and in ways that advance the Smarter Growth agenda. Our effort will be framing the technical and policy changes to the County's growth management tools to align policy with that agenda.

## direction

The 2009-2011 Growth Policy continues the County's commitment to balancing growth with adequate facilities. It introduces a new strategy for more productive use of existing infrastructure and services, focusing on promoting growth near public transportation. The goal is to manage growth to meet the needs of current residents as well as prepare for the new residents who will choose the County as a place to live and work.

This version of the Growth Policy recommends minor changes to school capacity measures and introduces an alternative review procedure for meeting the traffic adequacy requirement. The goal is to offer an incentive for growth that results in fewer VMT. We cannot build our way out of congestion. We can direct growth to strategic locations where people will drive less and make shorter trips, in effect, reducing demand.

To manage that growth, to provide better connections to where and how people move about their daily lives, we introduce four themes that position the County to grow sustainably and stay competitive.

### connections

To transit, jobs, services, parks, schools and recreation

### environment

Growth that is more compact, uses less land and resources, and generates opportunities for lowering carbon footprints of individuals and business

### diversity

In economic activity, land uses, housing styles and costs, mobility

### design

That results in great public space, energy efficiency, smart building practice and outstanding buildings and neighborhoods

The built area has pushed to the edge of our development envelope. We must now look inward, at how we can grow differently, to enhance the quality of place and its long-term value for future residents.

These themes reflect the smart growth principles expressed in the County's Climate Protection Plan and the goal of directing development to areas with infrastructure.

## the challenge of growth – balance and evolution

The current growth policy tends to be ad hoc and reactive, focusing on the impacts of individual projects. Growth Policy should continue the commitment to adequate schools and transportation. At the same time, there is a growing number of factors like public awareness of climate change, the economy, and emerging national policies all pointing to reorienting growth to balance jobs and housing, and create quality of place.

### new variables for growing smart

- defining strategic growth
- moving from sprawl to infill development
- encouraging growth that reduces our impacts on the environment
- using existing infrastructure
- providing mobility options

### the past and its impact on the future

The County has developed in accordance with its General Plan. However, development occurred at a low density of less than five people per acre.

### land consumption

To accommodate the last 195,000 residents since 1990, 40,000 acres of land was developed with 72,000 housing units, at a density of two units per acre. Also, 20 million square feet of office space was built.

In addition to single-family homes, much of the development since has been for office parks and malls with large surface parking lots. This car-centric pattern has a considerable carbon footprint.

### single-family home statistics

At 97,000 acres, land occupied by single-family detached housing accounts for

- 30 percent of County's land area and
- 75 percent of all developed land in the County—more area than the Agricultural Reserve.

Only four percent of County land zoned for development remains undeveloped (approximately 14,000 acres), less when factoring in the environmentally sensitive areas. Most of that land is scattered with few large assemblies. That four percent represents only 35 percent of the land built on to house and service the last 195,000 residents.

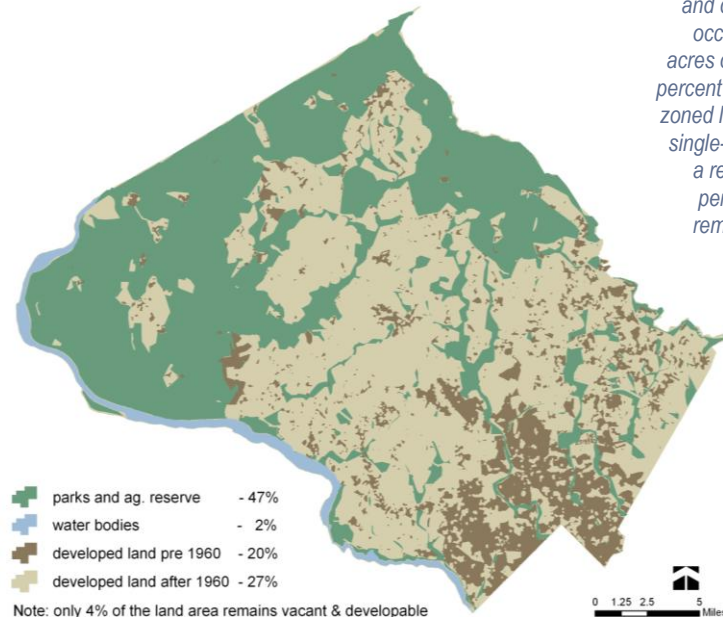
There are few choices about how to grow. We must redevelop, refocus and be strategic about growth.

### growth comparison

	1960	2008	increase
population	340,928	946,100	178%
households	92,433	356,395	286%
jobs	73,870	503,822	582%
acres used	63,752	152,627	139%

Between 1960 and 2008, the ratio of jobs to households has more than doubled, highlighting the County's increasing role as an employment center. This trend is expected to continue.

### historic growth



*The Agricultural Reserve and dedicated parkland occupy about 151,000 acres of the County. 97.5 percent of the residentially zoned land is reserved for single-family housing. As a result, less than four percent of the County remains undeveloped, much less when environmental considerations are applied.*

## future growth cannot be more of the same

For many years, master plans and Growth Policy directed development to greenfield sites. Recent master plans are reversing that trend. Shady Grove, Twinbrook, Germantown, Gaithersburg West, White Flint, Kensington, Takoma/Langley Crossroads, and Wheaton plan for more balanced jobs-housing ratios. Each plan builds on current or planned transit infrastructure to manage where growth occurs, how it occurs, and when it occurs.

### commuting patterns

Over the past two years, commuting patterns have shifted as energy costs increased:

- annual VMT dropped by 93 billion miles nationwide between 2006 and 2008, with a one percent drop in Montgomery County
- transit use increased five percent nationally in 2008 compared to 2007. The WMATA system alone increased by 13 million additional riders (three percent).



### reducing commuting through compact development

In 2000, the relatively compact Portland Oregon metropolitan area generated 23.6 VMT per capita, while the sprawling Raleigh-Durham metropolitan area produced 31.0 VMT per capita, a difference of 24%. ULI – Growing Cooler – 2008

### where can we grow?

The County is expected to grow by 195,000 people by 2030. We do not have 45,000 acres left to build the houses and retail space for them that were developed for the last 195,000 people. That means growth must occur in underdeveloped areas near transit where we can use existing infrastructure facilities more efficiently and upgrade where necessary.

Infill development on parking lots along Rockville Pike or Route 29 brings a different set of challenges than building 1,000 new single-family homes in Cabin Branch. It also brings about a different set of expectations.

### infill lowers VMT

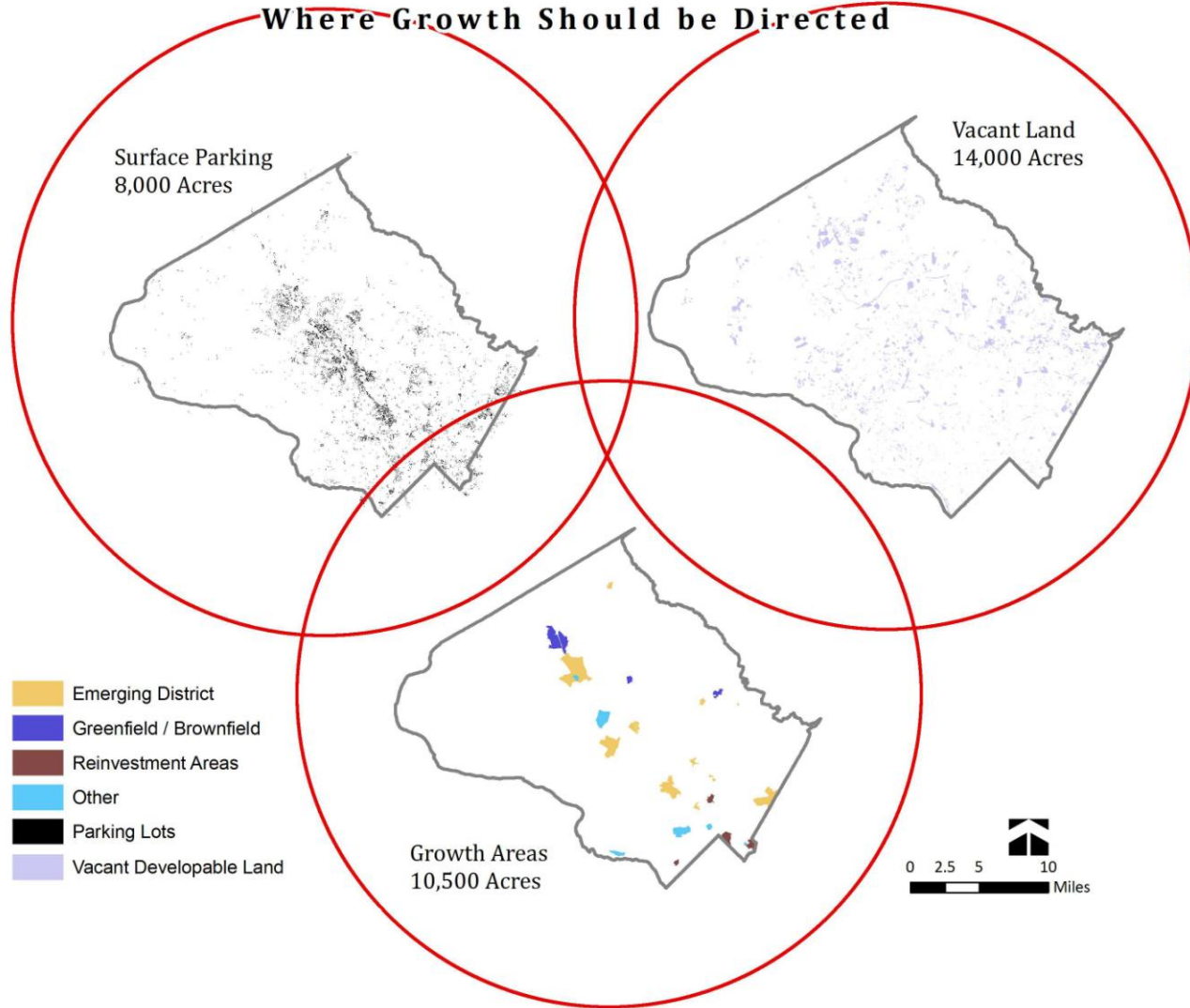
Infill locations generate substantially lower VMT per capita than do greenfield locations, from 13% to 72% lower. ULI – Growing Cooler – 2008

Considering the overlap between these areas, future growth should be guided toward a limited supply of less than 28,800 acres of land, or about nine percent of the County.

Infill and higher densities at strategic locations benefit the community:

- more efficient use of existing utilities, transit, parks, and other infrastructure
- lower maintenance costs for existing and future facilities and services
- redevelopment of strip malls into mixed-use centers improves connectivity for existing and new residents
- better pedestrian environments for all residents
- decreased VMT per capita
- lower carbon emissions per capita
- more housing closer to employment opportunities.

## Where Growth Should be Directed



*Developable land is a scarce resource in Montgomery County. Only 14,000 acres are left as greenfields to develop and 10,500 acres are identified as growth areas in master plans. Surface parking lots cover about 8,000 acres, representing a redevelopment opportunity currently being examined throughout the County.*



## strategic growth map

### infrastructure costs

The Envision Utah scenario resulted in a compact growth plan estimated to save the region about \$4.5 billion in infrastructure spending, leave 171 square miles of open space, and reduce per capita water use by more than 10%. ULI

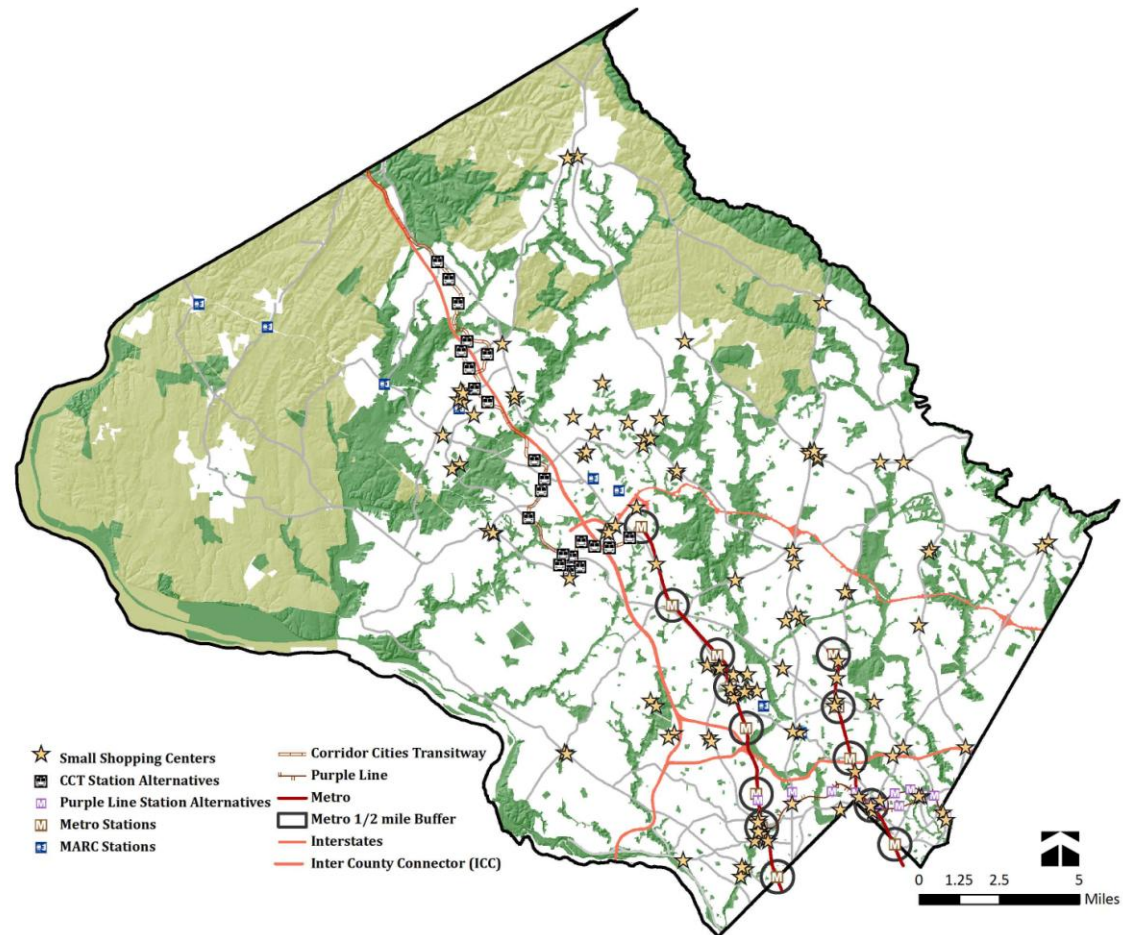
– Growing Cooler – 2008

### neighborhood typologies

The Strategic Growth map uses land typologies, based on the character of the existing neighborhoods, to illustrate a clear pattern of where infill development should occur.

The map has been built using a number of variables:

- the location of surface parking lots
- radius around transit stations
- areas of established residential neighborhoods
- recyclable land uses like shopping malls



*Strategic infill can be directed through the master planning process, taking advantage of existing infrastructure while preserving established neighborhoods. The areas around Metro stations as well as the many strip malls represent opportunities for strategic growth.*

### land typologies

**established neighborhoods**  
These neighborhoods are firmly established and will see little change. Development may occur in the form of small lot infill and strengthening neighborhood retail at existing locations.



*Infill housing on Georgia Avenue*

### greenfield/brownfield

There are few greenfield areas left, and much of it is difficult to build on or prohibited through environmental controls. The brownfield areas should be reserved for light industry that offers services and job development, close to residential areas.



*Brownfield near Rockville Pike*

### reinvestment areas

Downtown Silver Spring is an example of successful reinvestment. Proximity to Metro, new businesses, and an enhanced pedestrian environment have revitalized the area.



*Wheaton Central Business District*

Wheaton and Takoma/Langley Crossroads provide opportunities to replicate that success. The pending master plans will address how we can strengthen those community centers with a mix of new uses.

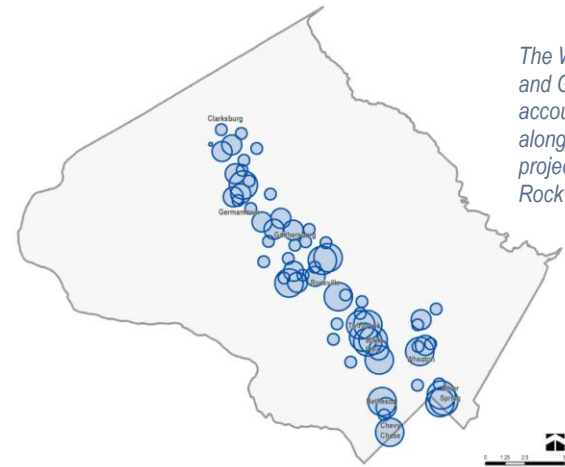


*In Gaithersburg West planners envision a vibrant pedestrian environment near transit.*

### emerging districts

The plans for White Flint and Gaithersburg West both advance strategic new districts that focus on transit station planning and life sciences. A future planning area that fits this category is the FDA site on New Hampshire Avenue.

The 2009-2011 Growth Policy recognizes the effect of running out of land to build single family houses and proposes ideas to encourage strategic infill development. New ideas such as LEED for Neighborhoods as well as emerging trends to encourage smarter growth near transit are factored into the growth equation.



*The White Flint, Germantown, and Gaithersburg West plans account for much of the growth along the I-270 Corridor projected out to 2030, outside of Rockville and Gaithersburg.*

Communities around the nation are coming to grips with the same challenges. Can we have smarter buildings and neighborhoods that reduce dependence on the automobile for many daily travel needs?

Both Silver Spring and Bethesda are national models of how growth can be a catalyst for better urban neighborhoods. Twenty years ago neither were destinations for living, working, or recreation. Today, they are vibrant activity centers that offer a wealth of amenities for the people who live and work there as well as the thousands of visitors who move through these places each day.

## silver spring and bethesda – core area comparison

Along with considerable growth came busy streets and sidewalks. People flock to the restaurants, stores, and events. Home values are among the highest in the county and new businesses and jobs are being created.

And when visitors come, they may either use transit or drive, but if they drive, they expect urban traffic conditions.

### age

Between 1987 and 2005, the age of persons living in the downtown areas of Silver Spring and Bethesda dropped considerably, while the same figure for the County rose. This is a telling statistic when considered with the projections for an 81-percent increase in the over-65 population by 2030. Clearly, younger, working-age people want to live in our urban areas if provided the opportunity. They represent the people who will fill in the gaps of the prime wage earners as County demographics shift.

This also demonstrates that people are seeking opportunities to live in multifamily buildings, counter to the decades-long trend of young families moving into large, single-family homes.

	average age of residents		
	1987	2005	% change
County	35.3 years	36.9 years	+4.5%
Silver Spring	45.8 years	35.5 years	-22.5%
Bethesda	43.4 years	38.1 years	-12.2%

### children

More children are living in the downtown areas of Silver Spring and Bethesda, a change partially reflected in the recent increase in projected enrollment in Bethesda-area schools. People with children are moving into downtown areas as multifamily units offer relatively affordable housing.

	percentage of population under 17 years	
	1987	2005
Silver Spring	6.0%	10.8%
Bethesda	6.8%	10.9%

### cultural diversity

Silver Spring's and Bethesda's cultural diversity compared to the County is relatively consistent, with some differences. The downtown areas are increasingly playing a role in providing housing for minorities. Across the County and in the downtowns, the percentage of Hispanic population has almost doubled. The jump in the Asian population in downtown Bethesda stands out as a major demographic shift while the Black population in Silver Spring continues to far outpace the percentage in Bethesda or the County.

	minority population							
	Asian		Black		Hispanic		White	
	1987	2005	1987	2005	1987	2005	1987	2005
County	6.3%	13.4%	9.3%	16.6%	5.4%	13.9%	84.2%	64.0%
Silver Spring	5.1%	9.4%	35.0%	43.2%	6.6%	11.3%	58.2%	43.1%
Bethesda	2.0%	12.2%	3.0%	5.8%	8.0%	14.1%	95.1%	75.2%

### income

Income levels in the downtown areas rose at a higher than they did across the County. Combined with the statistics above, these numbers show that many younger, well-paid residents are choosing the urban areas as a better fit for the lifestyles they seek. The Growth Policy recommendations foster opportunities for the County to attract this high wage-earning segment of the economy, rather than see them move to more urban centers evolving in Virginia or downtown D.C.

	income levels		
	1993	2004	% increase
County	\$59,083	\$83,880	42.0%
Silver Spring	\$31,011	\$48,715	57.1%
Bethesda	\$43,090	\$70,230	63.0%

### value of compact, urban growth

As growth occurred in the urban areas, the assessed value of the properties on a per-acre basis soared in the downtowns. Land values in the CBDs increased considerably more than the rest of the County from 1988 to 2008. Assessment of growth was \$9.7 million per acre in Bethesda; \$4.1 million per acre in Silver Spring; and \$417,000 per acre across the rest of the County. The potential of compact, higher density growth in strategic areas on County revenues is considerable.

	assessed value per acre		
	assessment growth	acres	20 year assessment growth per acre
County	\$131,959,241,118	315,736	\$417,942
Silver Spring	\$1,572,957,949	377	\$4,172,302
Bethesda	\$1,521,040,254	156	\$9,750,258

### house prices

House prices increased dramatically in the Bethesda CBD compared to the County at large. The popularity of living in an urban environment that offers proximity to services and transit is evident. Combined with the other statistics, these numbers add to the potential of the urban areas of the County to play a significant role in providing services, revenue, and a place of choice for people to live including families.

	change in median house price		
	single detached	single attached	condos
County	62.1%	70.4%	85.7%
Bethesda	90.4%	270.9%	144.1%

**“Nobody goes there anymore because it’s too crowded” Yogi Berra**

### can we achieve greener growth?

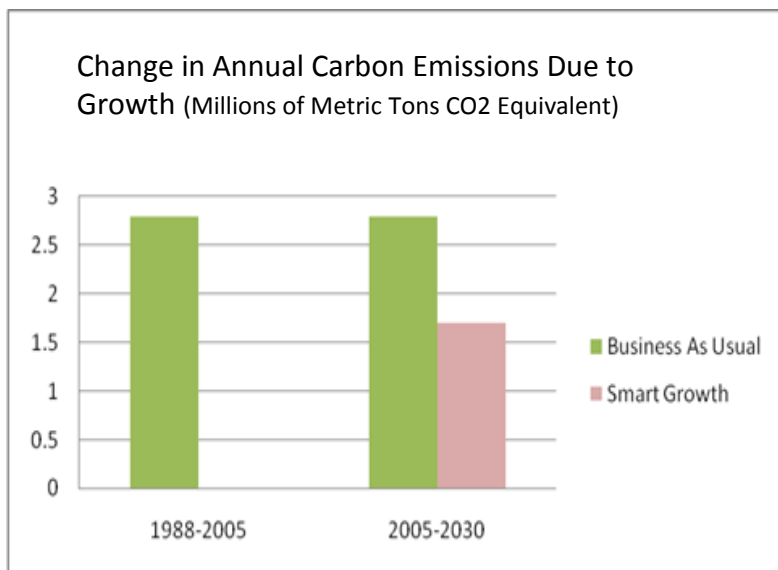
We must. Our car-centric communities have staggering carbon footprints with health and economic impacts that limit children, the elderly, and those who cannot afford a car from fully experiencing life in the County.

### carbon impacts

Since 1990, just 38 percent of the 72,000 dwelling units built in the County have been multifamily units. Between now and 2030 we forecast that 80 percent of the new dwellings units will be multifamily units.

Compact development can lower the proportion of carbon emission growth relative to continuing past development patterns.

## greener growth



*The next 195,000 people in the County will have a dramatically smaller carbon footprint than the last 195,000 people, due in large part to the higher number of multi-unit buildings vs. the past pattern of single-family home construction.*

### infill and compact growth reduces carbon output and VMT

Comparison of an infill compact development in the heart of Atlanta vs. the equivalent amount of commercial space and the number of units in a sprawl pattern in the outer suburbs, found that the infill location would generate about 36% less driving and emissions than the outlying comparison sites. ULI – Growing Smarter – 2008

### energy consumption

Montgomery County is a big energy consumer due to a development pattern that frequently separates homes in low-density neighborhoods from services and amenities. The average condominium or apartment uses 40 percent less energy than a single-family detached house. Our past development has been “energy negative.”



*The County's surface parking lots contribute to stream pollution, increase heat island impacts, reduce tree cover, and waste land.*

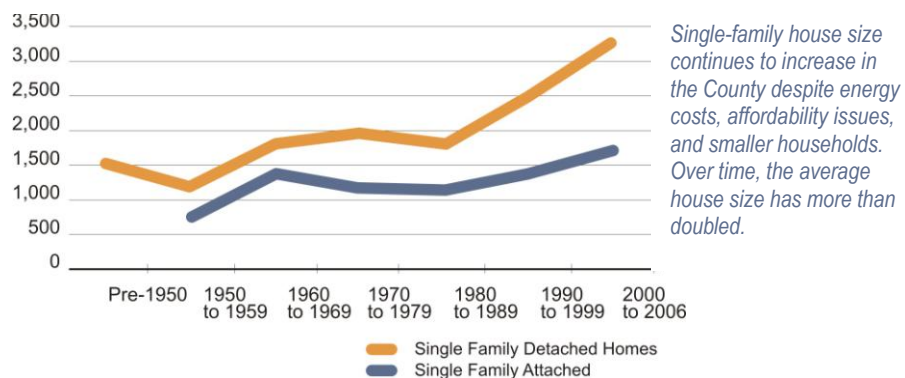
### county climate protection plan

The Plan states that “The Growth Policy should direct growth to areas with significant existing or planned transit resources, and promote development that fulfills smart growth criteria such as those required as part of the LEED for Neighborhood Development or more stringent County standards.”

### larger homes for smaller households

In 1960 the average County house had 3.6 residents. In 2008, that number dropped to just over 2.6 residents. Despite this decrease, home size continues to increase. Even the larger, more energy efficient homes use more energy.

### house size



*Single-family house size continues to increase in the County despite energy costs, affordability issues, and smaller households. Over time, the average house size has more than doubled.*

### change in unit types

Since 1990, the number of units in multifamily buildings has kept pace with single-family detached house construction, a positive trend. Since 1990, the ratio of unit types is:

- 38% single-family detached
- 24% townhouse
- 38% multifamily

### lot sizes grew as households got smaller

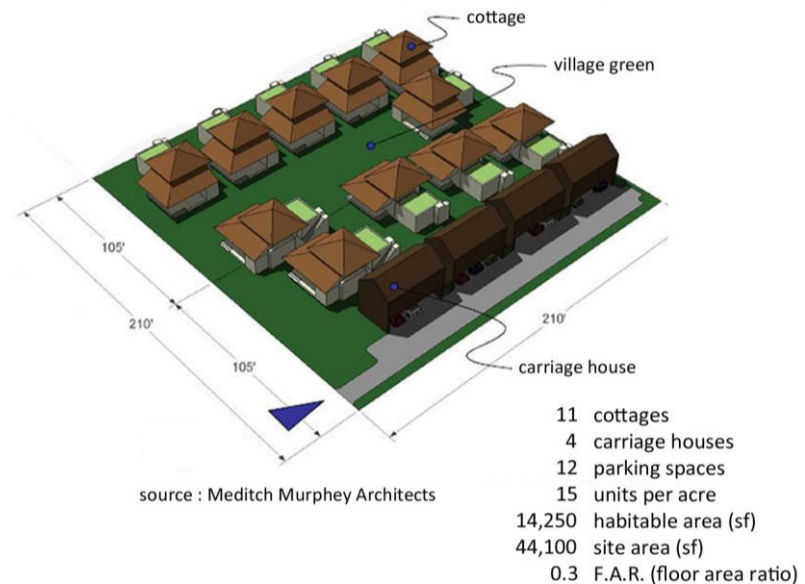
The average lot size for a single-family detached house built in the County after 1980 is 58 percent larger than lots created before 1980. Lot sizes for townhouses decreased 23 percent during the same period, a more efficient use of land.

Since 1980, the average lot size for a new single-family detached house is 16 times greater than a townhouse lot. The difference increases dramatically if comparing houses to multi-unit buildings. From an environmental standpoint, County housing trends are unsustainable on several fronts:

- the amount of building materials consumed per house increased
- energy used per person increased
- energy consumed to get to and from houses located farther away increased
- the amount of land consumed is inefficient, relative to the number of people being housed.

Growing smarter means considering what we are building, not just where we are building it. Encouraging growth near transit stations will result in significant energy reductions if the new units are in a multi-unit building.

### cottage housing



*Recent subdivisions in the Pacific Northwest provide examples of more compact, neighborhood oriented, pedestrian-friendly developments that are geared to a range of lifestyles. House sizes range between 800 and 2,200 square feet. (First Addition development, Portland, OR)*

## can we grow healthier?

We must. The average suburban dweller is more likely to be overweight than the average resident of a more compact community where services and jobs are accessible by walking.



*A typical Montgomery County subdivision includes large lots, big houses, and car-centric design, with clustered commercial activity that still requires car trips for daily errands.*

Obesity levels, especially among children have increased through the decades as we have built car-dependent environments isolated from schools, services, and jobs.

Several new schools in the County do not have sidewalks. Children are discouraged from walking or riding their bikes to school. A survey of 83 metro areas shows that only 18 percent of children walk or bike to

school compared to the rate of 71 percent when their parents attended school.

### housing density and obesity

Housing density in Europe is three times greater than the U.S. while the level of obesity there is one third of what it is in this country. Several studies have linked suburban growth patterns to increases in obesity. In sprawling counties, 21 percent of residents are obese as compared to 19 percent of residents in compactly developed counties.

### connections

The statistics are surprising. On average, 86 percent of daily trips taken by Americans are made in a car. As a result, the average American only walks about 5,000 steps a day, or just about half what is recommended to sustain a healthy lifestyle.

In America only 9.4 percent of daily trips are made on a bicycle or by walking. The percentage drops to six percent for persons over the age of 75. Many towns and cities around the country are providing opportunities for residents to walk and bike to services and work.

In Montgomery County, the built environment often discourages walking through design that makes it dangerous and/or unpleasant. But where pedestrian systems are attractive and continuous, as in Bethesda, 70 percent of the people boarding the Bethesda Metro Station walk there, demonstrating how smart growth can improve transit connections.

### walk mode share expectations

Walk mode shares can rise to 20% or more in mixed use neighborhoods even without high quality transit service. ULI – Growing Cooler – 2008

### diversity and design

Recent development in downtown Silver Spring highlights how design and the diversity of services can result in greater numbers of people walking to services, transit, and work. With two grocery stores within blocks of each other, and services like dry cleaners, restaurants, and coffee shops, a lot of people can do most of their errands on the walk home, or drive a shorter distance to services.

### the need for growth

The County's assets—top public schools, both legs of the Red Line, recreation and cultural opportunities, working farmland, and urban and suburban lifestyle choices—are the foundations on which we can build the future.

### more density is cost efficient

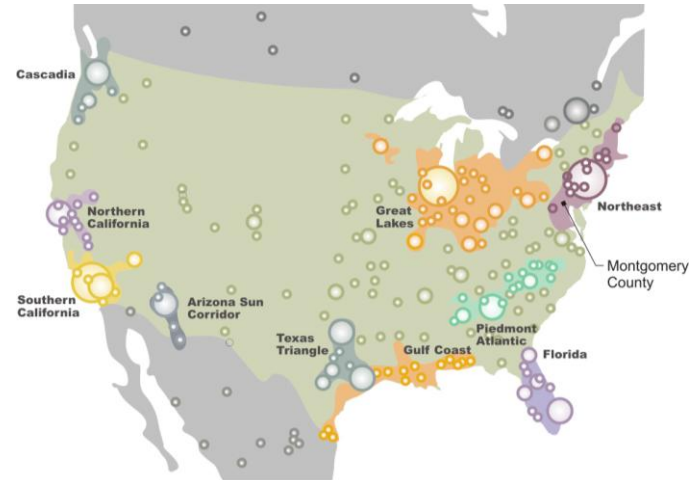
For every one percent increase in density (persons per acre) infrastructure costs decrease by \$1.86 per person.

### megaregions

Eighty percent of the nation's economic growth and 70 percent of its new residents through 2050 are expected to occur in a few megaregions (America2050.org). The growth will prompt a construction boom.

The County is an important part of the Northeast megaregion, where it is expected that Montgomery County will experience growth pressures, especially considering its historical position as a first-tier suburb of Washington, D.C. Consider:

- 100 million new people in the US by 2040
- most of the growth will be through immigration and minority population increase
- 35 million new residential units (EPA).



Source: America 2050.org

The D.C. region is within the Northeast megaregion extending from Virginia to Maine. The region produces 20 percent of the nation's gross domestic product with 18 percent of the population and only two percent of the land area (America2050.org).

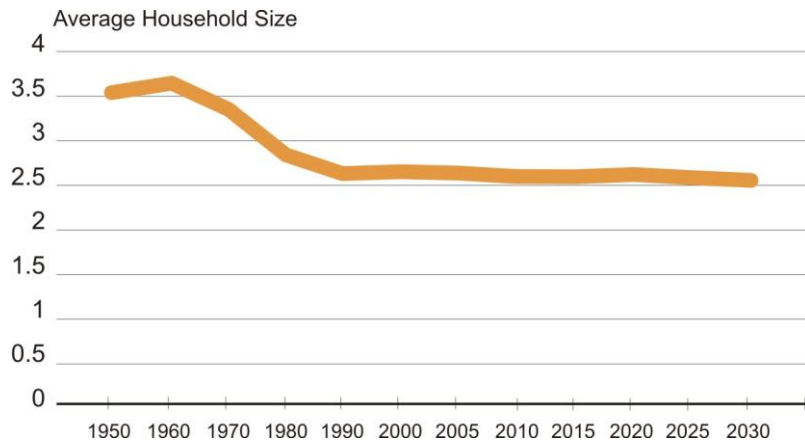
### population growth

The County's 1964 General Plan projected a year 2000 population of 994,894. The actual census total for that year was 873,341. The estimate for January 2008 is 946,100. We're still a little behind the old forecast, yet close for a 40-year-old estimate.

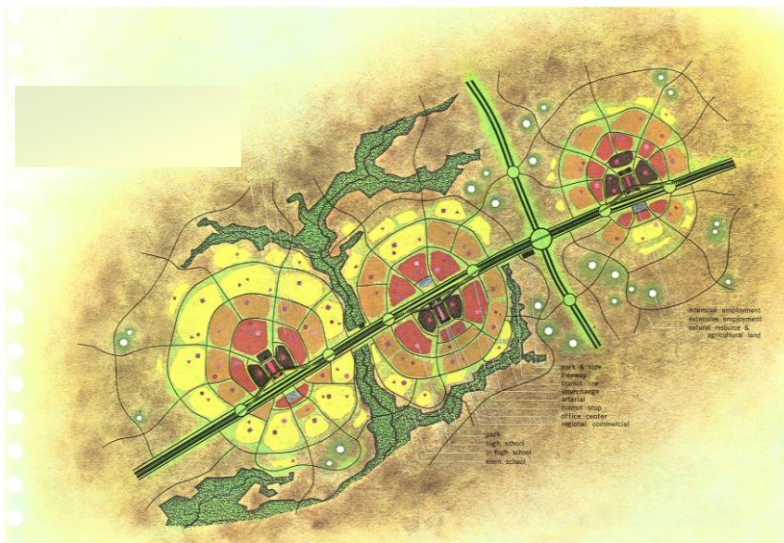
### population growth by 2030

- County growth – 194,900 new residents, a 21 percent increase
- regional growth – 1.3 million people, a 25 percent increase
- national growth – 67 million people, a 22 percent increase





The average number of persons living in a household in the County has generally been dropping since a peak in 1960.



The 1962 On Wedges and Corridors plan set the pattern for growth in the County. The envisioned nodes have developed, though their jobs-housing ratios are not ideal. The adverse environmental effects of single-family sprawl were not anticipated. This Growth Policy reinforces the concepts first laid out 40 years ago.

### migration trends

From 2002 to 2007, greater domestic out-migration exceeded foreign immigration with the net loss of 60,500 residents leaving the County offsetting the entry of 45,100 international immigrants. This trend reversed in 2008 when a consistent gain of 7,100 foreign immigrants outpaced the sharply reduced net outflow of 5,600 residents due to the recession.

### an aging population

The County population is aging. Estimates show an 81 percent increase in persons 65 years or older by 2030. To maintain a balanced population, the County needs to attract and maintain a corresponding increase in residents 25 to 60 years old to fill the loss of high income wage earners as people retire.

### working age adults to seniors ratios

There has been a steady decline in the ratio of working age adults to the number of seniors in the County. This decline is expected to accelerate dramatically by 2030, as the population pyramids (next page) indicate.

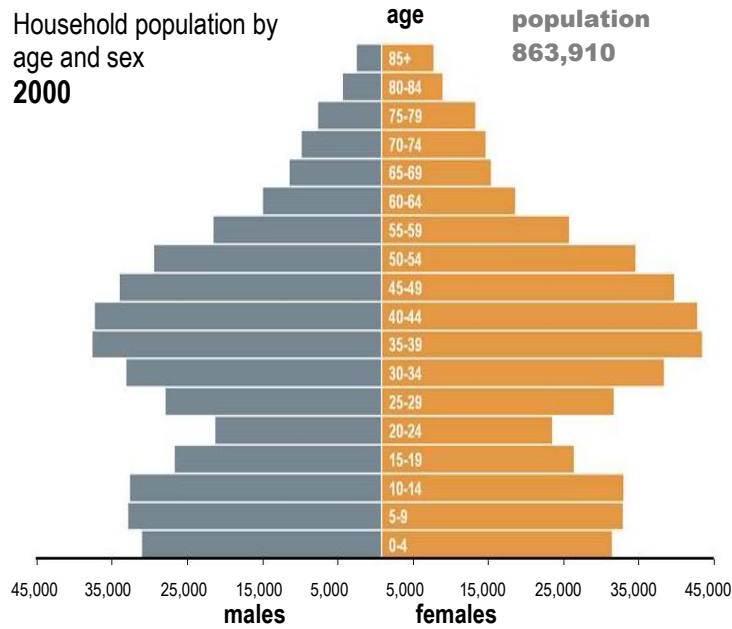
year	2005	2010	2030
ratio	5.5	5.2	3.4

The number of County residents in each age category is expected to shift to a larger percentage of the population over 60 years old. The County needs to attract new residents to fill the age groups under that age.

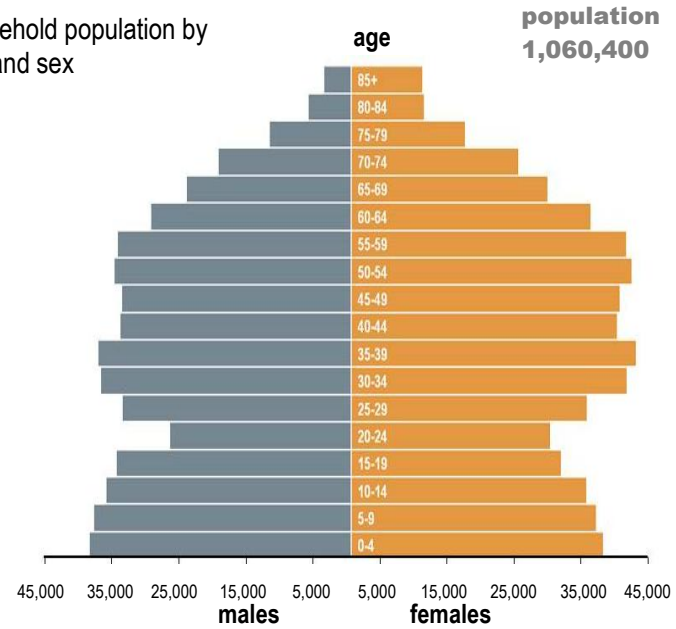
### job growth

Job growth will continue to be strong and is an important consideration in growth policy. A key objective of pending master plans is to improve the jobs-housing balance and to identify ways to bring people and jobs closer together, shortening commutes and enabling people to walk or ride transit.

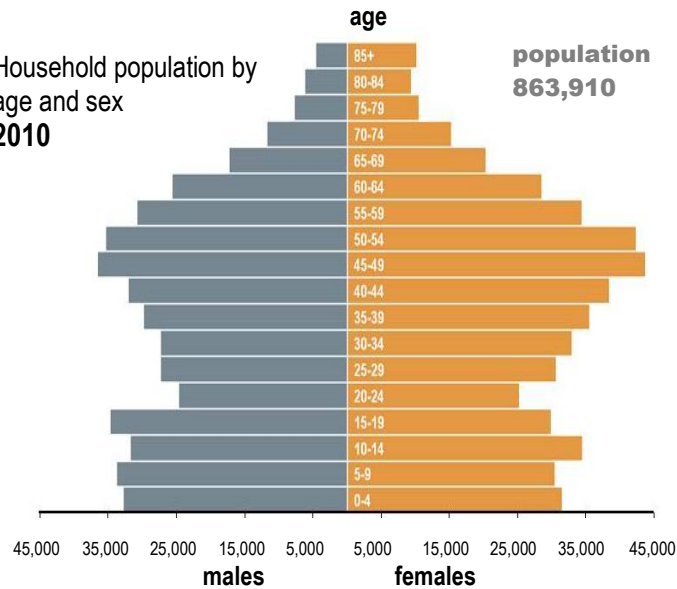
Household population by age and sex  
2000



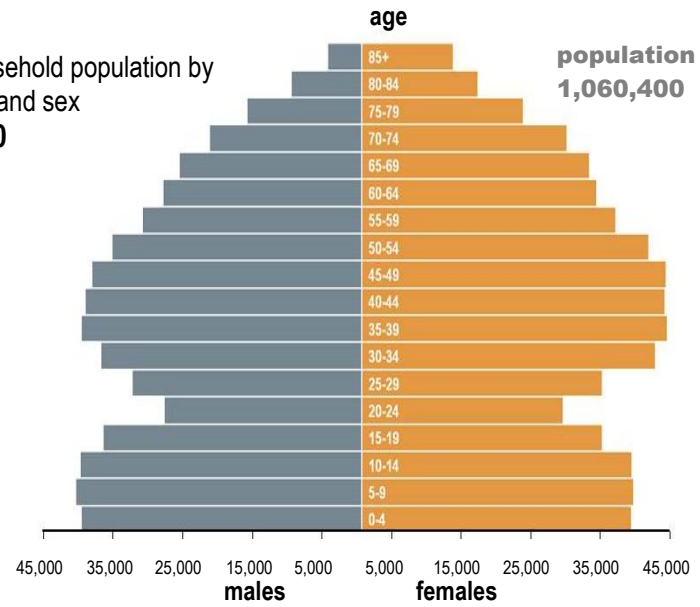
Household population by age and sex  
2020



Household population by age and sex  
2010



Household population by age and sex  
2030

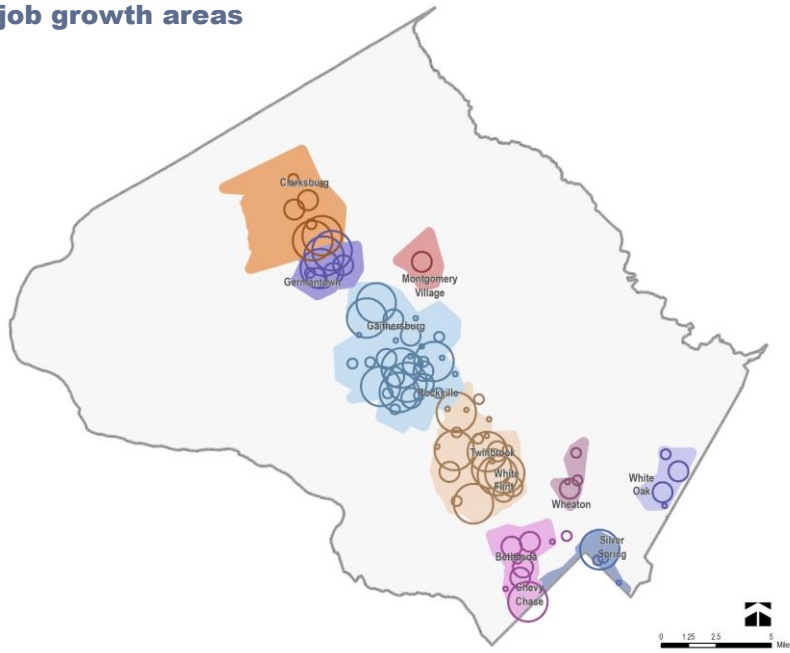


The number of County residents in each age category is expected to shift to a larger percentage of the population over 60 years old. The County needs to attract new residents to fill the younger age groups.

### jobs forecast

By 2030, the number of jobs in the County is expected to increase by 166,200, a 33-percent increase. Regionally, 1 million more jobs are predicted—a 32-percent increase.

### job growth areas



*The White Flint, Germantown, and Gaithersburg West plans will help balance jobs and housing along the I-270 Corridor. This map highlights the changes in job growth between 2008 and 2030.*

Appendix B includes a table that projects growth in population, housing and number of jobs to 2030, by Policy Area. In pending master plans, one objective is to improve the jobs-housing ratio in those areas. Overall, projections show an improvement over the next 20+ years as the ratio moves from 1.41 to 1.52, closer to the target ratio of 1.6.

### where are the jobs and housing?

In 2009, only 20% of the County's jobs and 9% of its households are in urban areas. There is a need to achieve a better balance. The forecast for 2030 shows that 20% figure holding steady with the households in urban areas rising to 17% of the County total. That would be a 49% increase for the total of urban households.

- In 2009, the jobs to household ratio in urban areas is 4.64 compared to 1.11 in the rest of the County
- By 2030, the ratio is forecast to drop to 2.74 in urban areas and to increase in the rest of the county to 1.31

### coordinating growth policy, master plans, and zoning

Within a year, the Planning Department will have introduced five area master or sector plans and three functional plans including the Purple Line. Three of the master plans are game changers that redefine how growth can occur.

These will be followed within months by another sector plan as well as two functional plans focused on the environment. Those efforts embody the approach of this Growth Policy: sustainable development that matches our current and future needs.

Strategic infill offers a different set of challenges. In higher density areas, motorists perceive congestion differently, accepting higher levels as expectations of travel time are not the same as in lower density suburbs.

### transit development

People moving to transit-adjacent development areas are twice as likely not to own a car. (tcrp report 128)

## **zoning**

The current revision of the zoning ordinance is addressing transit proximity, green building techniques, and promotion of diverse retail and services that will bring activities closer together, reducing VMT. This approach also mirrors the recommendations of the Growth Policy. The coordination of the Growth Policy, master plans, and zoning creates a unified approach to encouraging new development to be smarter and greener.

## how we manage growth

### how does the APFO manage growth?

The Planning Board uses several tools to manage growth (see table). Master plans recommend basic land uses and densities. Zones contain key development standards. When a subdivision is proposed, the Board applies Growth Policy rules for administration of the Adequate Public Facilities Ordinance to determine whether there is sufficient capacity in the transportation and school systems to serve the new project.

Growth Management Tool	Application	Proposed
Master plans	where	same
Zoning	how	same
Subdivision regs	how	same
School capacity	when	minor change to monetary assessment
LATR	when	minor changes to mitigation types
PAMR	when	stay within general bounds of PAMR – encourage smart growth

#### comparison of current and proposed requirements

*Growth management tools used in the County and whether changes are proposed.*

### transportation APF

#### definition and measurement of transportation adequacy

The County's transportation adequacy system requires that new development be measured two ways.

- Local Area Transportation Review (LATR) evaluates the level of congestion forecasted at specific intersections near a development site.
- Policy Area Mobility Review (PAMR) evaluates the average level of congestion forecasted throughout the neighborhood of a proposed development.

Both LATR and PAMR share certain features:

- both measure roadway adequacy in terms of congestion; the County's policy is to allow higher levels of congestion in areas with good transit service
- both consider the impact the proposed development will have on traffic, when added to existing traffic and traffic that will be generated by previously approved, but as yet unbuilt "pipeline" development.

Both LATR and PAMR require the applicant to mitigate unacceptable traffic impacts generated by the development. The Department's *Local Area Transportation Review and Policy Area Mobility Review Guidelines* sets out mitigating actions in five categories (trip reduction, transit, non-auto facilities, intersection improvements, and roadway construction) to satisfy LATR or PAMR guidelines.

## LATR/PAMR guidelines

Priority	Mitigation Approach	PAMR Mechanism	LATR Mechanism	Single mitigation action addresses	Examples of mitigation actions
1	Peak hour vehicle trip reduction	Traffic mitigation agreement (TMAg)	Traffic mitigation agreement (TMAg)	Both PAMR and LATR impacts	Vehicle trip caps, flex-time/telecommute programs, shuttle services
2	Public transit capacity	Service provision	Not applicable	PAMR impacts only	Purchase of Ride-On bus with 12 years of operation
3	Non-auto facilities	Project implementation	Project implementation	Both PAMR and LATR impacts	Offsite sidewalks and bus shelters
4	Intersection improvements	Not applicable	Project implementation	LATR impacts only	Turn lanes, change of lane use configurations
5	Roadway link improvements	Project implementation	Project implementation only if site-specific LATR impacts are addressed	PAMR impacts, LATR impacts if applicable	Roadway widening

Staff forecasts PAMR conditions every year to update mitigation requirements and ensure a uniform approach for each neighborhood regardless of application type, size, or location.

LATR conditions are developed from information submitted by the applicant (and checked by staff) and vary significantly based on an application's type, size, and location.

Across the country, most jurisdictions require a site-specific transportation test like LATR; very few use an area wide test like PAMR.

### the local test – local area transportation review

LATR examines pipeline developments within a half-mile of an application. These projects will likely have the greatest impact on local intersections. However, approved projects several miles away may each also generate small amounts of traffic through the same

intersections, and traffic flows may be affected by roadway improvements outside the immediate area. Tracking these minor but cumulative impacts requires a travel demand model.

The County's policy allows more congestion in Metro Station Policy Areas and these areas have robust street grids. So LATR has not generally been a limiting factor in encouraging smart growth near transit.

### the area wide test – policy area mobility review

Assessing a development's traffic impacts can be thought of as looking at the ripples generated by a raindrop falling into a pond; the larger the drop, the bigger the ripple. As the ripple moves outward, it gets smaller until it is no longer noticeable. If two drops fall into the pond simultaneously, they generate overlapping ripples.

PAMR evaluates the cumulative effect of approved and anticipated development and of programmed transportation system improvements County wide. In short, it tracks the effect of an entire rainstorm.

### what is policy area mobility review?

PAMR is an area wide assessment of mobility that considers how much delay motorists experience during rush hour and how competitive transit service is compared to the automobile.

PAMR uses Level of Service (LOS) grades like those in school: A is best and F is worst. One important difference is that while LOS A provides the best service for each customer, the most efficient use of resources to move people and goods on roadways occurs at LOS E, when roads are well used (but not gridlocked), even though all customers experience some delay.

Requirements for area wide arterial LOS and transit LOS reflect County policy that transportation mobility should be multimodal. Areas with better transit service are not as reliant on auto travel; consequently more congestion can be accepted as transit LOS improves.

LOS grades are given to each of the 21 PAMR policy areas by measuring current and forecasted conditions and by considering approved development and roadway and transit improvements.

PAMR mitigation requirements for all development in a policy area are based on the area's forecasted travel conditions and the LOS standards. PAMR mitigation techniques include trip reduction agreements and construction of off-site improvements like streets, sidewalks, or transit service.

Trip reduction strategies and provision of non-auto facilities count towards both LATR and PAMR mitigation.

**Impact of PAMR on smart growth**

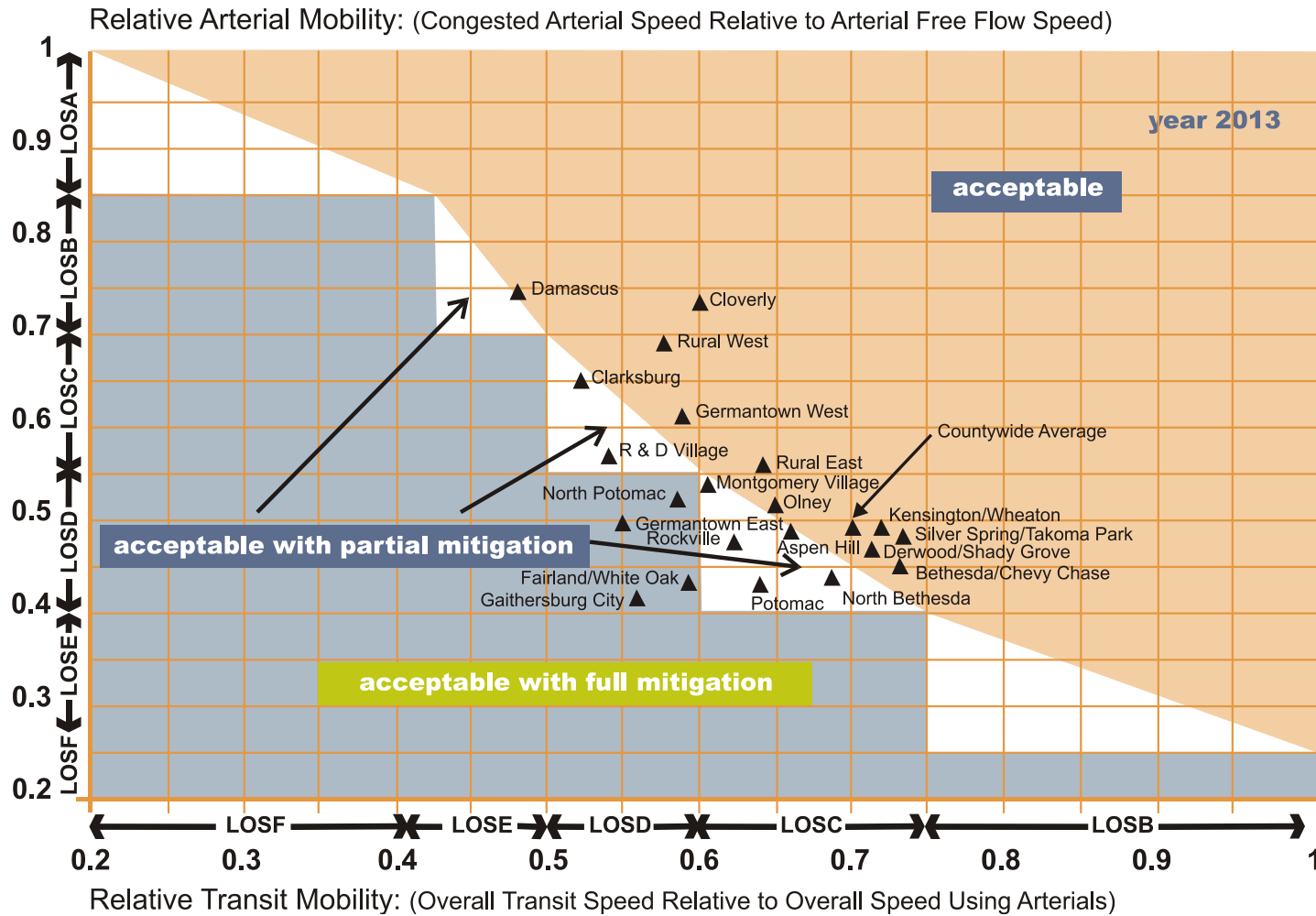
The current definition of PAMR is criticized by many stakeholders as being insensitive to smart growth elements such as location and mix of uses. Development applicants are concerned that uniform PAMR criteria penalize smart growth and that mitigation proposals are unpredictable. Residents are concerned that mobility issues along roadway segments are not adequately examined in the development of average area wide conditions and that mitigation strategies often are not proportionate to a development's impacts.

**PAMR concerns and recommendations**

Four types of changes to PAMR are recommended, from Smart Growth Criteria to administrative improvements. These proposals are summarized in the table and additional information is contained in appendices K, M, and N.

Element	Concern	Proposed Changes
Location	PAMR applies to all development, even in Metro Station Policy Areas, because any development will generate traffic that impacts adjacent communities.	Smart Growth criteria provide an Alternative Review Procedure for development applications within ½ mile of transit.
Mixed-Use	Trip generation rates do not adequately reflect development that blends commercial and residential uses or that offers basic services within walking distance.	New trip generation rates based on household survey data available for the County's Metro Policy Station Areas  Smart Growth criteria include a 50% minimum residential component.
Travel Expectations	The level of desired mobility for car travel in most suburban and urban areas is higher than the level of mobility that is practical to provide. The most efficient use of transportation infrastructure is a system where all users experience some delays.	Revise PAMR congestion standards to require LOS A arterial service where transit is at LOS F and allow arterial conditions to degrade to LOS E if transit is LOS B.
Predictability and relevance in impact mitigation	The current PAMR mitigation process requires a burdensome amount of interagency coordination. Some suggested mitigation facilities, such as bus shelters, are not approvable. Values of allowed mitigation yield irrelevant solutions, such as an over-reliance on curb ramps.	Revise non-auto facility mitigation criteria to define mitigating impacts based on \$11,000 per vehicle trip.

Year 2013 PAMR chart with “symmetrical” level of service standards





## school APF

### defining and measuring school adequacy

The annual school test determines if residential subdivisions in a school cluster should be subject to either a school facility payment or a moratorium.

School adequacy evaluation is based on three factors:

- Montgomery County Public Schools (MCPS) enrollment projections
- existing capacities of schools
- any additional capacity (additions and new schools) programmed in the Capital Improvements Program (CIP) adopted by the County Council

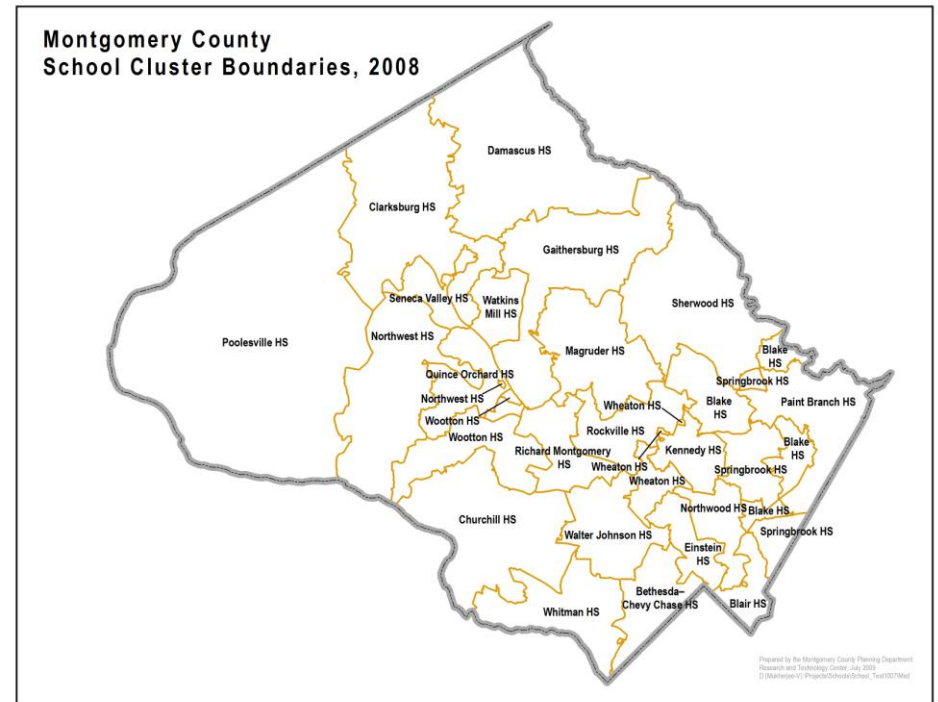
The school system evaluates 25 school clusters each year to measure facility capacity in the coming five years. The five-year period represents the estimated time for development to proceed through the review and construction phases to occupancy. Additional students are counted at occupancy.

If a cluster's projected enrollment exceeds projected capacity, residential subdivision approvals can be halted or assessed. The Growth Policy is used to determine the level of "overcrowding" that warrants an assessment (school facility payment) or moratorium.

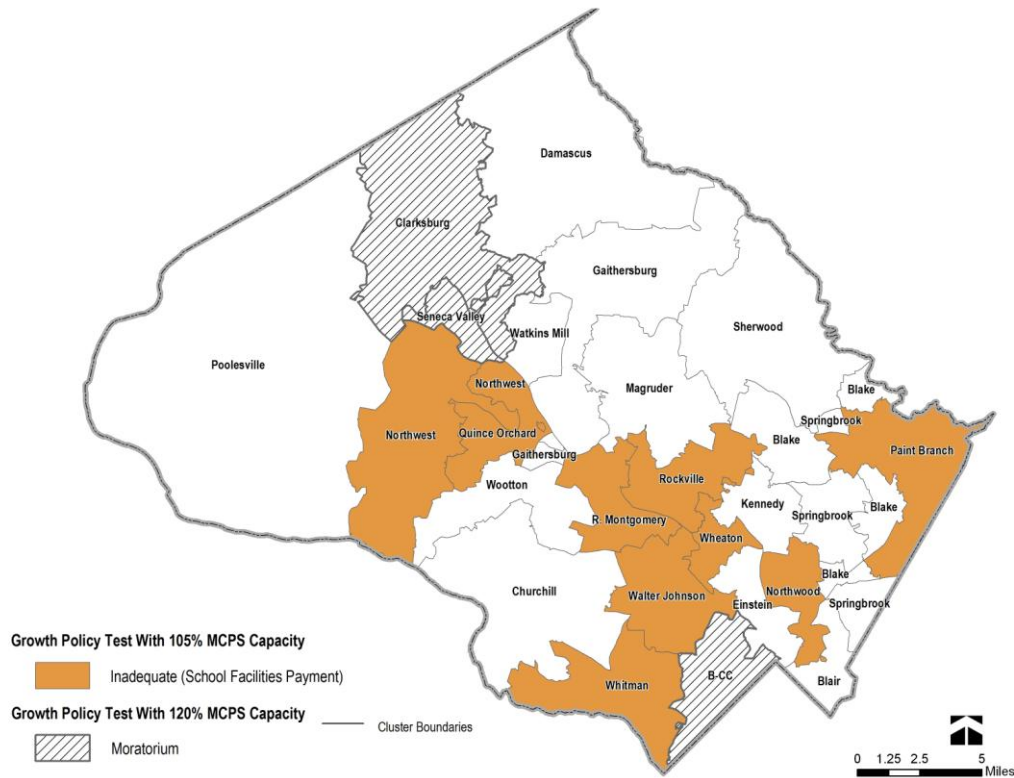
The 2007-2009 Growth Policy stipulated that at each level—elementary, middle, and high school—enrollment must not exceed 105 percent of program capacity. Borrowing capacity from adjacent clusters is not permitted. If projected enrollment at any level exceeds 105 percent of program capacity, residential subdivisions in the affected cluster will be required to make a school facility payment. The school facility payment is derived from the per-student cost for new schools, using student generation rates for each school level by housing type.

In FY2010, residential development in nine school clusters will require a school facility payment to proceed.

### school clusters



**FY2010 school test results at 105 percent**



*A residential development in any of these nine school clusters requires a School Facility Payment to proceed. Three other clusters, Bethesda/Chevy Chase, Clarksburg, and Seneca Valley are in moratorium and no new residential developments can occur until funds are programmed to construct additional classroom space.*

In addition, at all three school levels, if projected enrollment exceeds 120 percent of projected program capacity ("borrowing" prohibited), residential subdivisions in the affected cluster will be in moratorium.

## how we will manage growth

The Growth Policy recommendations are based on the following ideas and approaches:

- fostering development that lowers carbon emission through reduced VMT and better buildings
- creating a mix of commercial and residential uses to reduce the high VMT created by commercial uses and shorten trip distances
- higher levels of congestion resulting in the more efficient use of the existing road infrastructure, particularly in urban areas with better transit service
- trading existing, unused adequate public facilities capacity for schools and roads to encourage shifting potential VMT from suburban areas into urban areas where infrastructure and transit already exist and higher levels of congestion are acceptable
- developing traffic mitigation strategies that can impact capacity
- using exactions and mitigation fees that cannot fully fund our transit facilities, but can help create a base to leverage additional funding
- setting the threshold for requiring a school impact fee at a level that will foster action by the school system to increase capacity

Minor changes to the school capacity tests and the Local Area Transportation Review (LATR) calculation are proposed.

Four major changes are proposed to the Policy Area Mobility Review test:

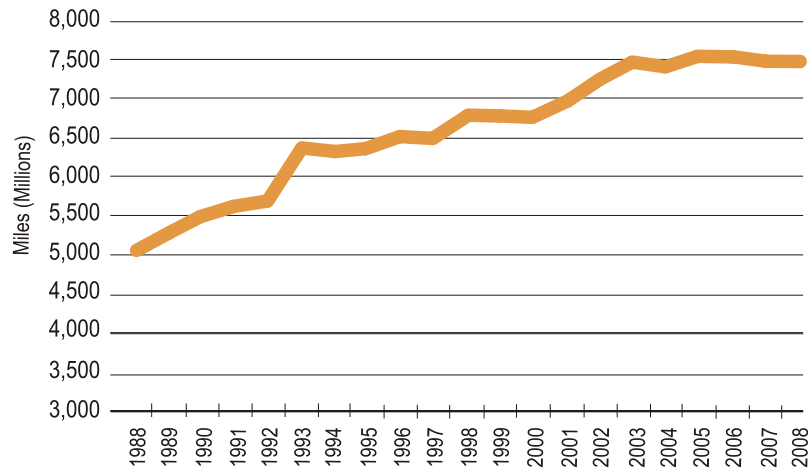
- a smart growth offset for mitigation
- trading approved school and road capacity from unbuilt approved projects
- rebalancing mobility standards
- increased value of transportation mitigation.

The best way to reduce automobile trips is to not generate them at all. The second way is to mitigate them. The reality is that we can never build our way out of congestion. Accordingly, the growth policy should provide an alternative that reduces demand for automobile travel. The by-product of this approach is a start at creating a greener environment for residents through reduced carbon emissions.

### land use change can bring substantial changes to VMT

Using a reasonable rate of growth in the market share of compact development and the relationship between VMT and CO<sub>2</sub>, smart growth could, by itself, reduce the total transportation related CO<sub>2</sub> emissions from current trends by 7% to 10% by 2050. ULI – Growing Cooler – 2008.

## total vehicle miles traveled (vmt) on state highway in montgomery county, md



Source: Maryland State Highway Administration

*The total vehicle miles traveled in the County has leveled off in the past three years but still remains high. The average commuter in the D.C. area wastes 42 gallons of gas in traffic jams per year, second highest in the nation. Our development pattern of cul-de-sacs channels traffic to choke points.*

## recommendations

The proposed Growth Policy makes 11 recommendations for changes that would take effect January 1, 2010, plus a twelfth recommendation for future studies to inform the 2011-2013 Growth Policy.

The first eight recommendations are primarily related to transportation; recommendations 9-11 relate to schools.

More specifically, the PAMR mitigation process should improve the provision and application of transportation services to areas with the greatest need.

- Adopting **symmetrical level of service standards** for arterial and transit mobility will provide more realistic expectations for mobility across County land uses. Metro station areas like Bethesda, Silver Spring, White Flint, and Wheaton are planned to function in a more urban manner with slower roadway speeds as transit quality of service improves. Suburban communities will require greater roadway mobility where development densities limit the effectiveness of transit service.
- Establishing a **fixed value for non-auto facilities**, at \$11,000 per vehicle trip, will improve both the type and effectiveness of transportation mitigation associated with PAMR.
- Providing for the **transfer of APF approvals into Metro Station Policy Areas** will promote development where transit and community services are most robust as well as reduce the backlog of approved but unbuilt projects in parts of a policy area less well served by transit.

These recommendations will result in a net increase in resources for transportation system mitigation, as the increase in per-vehicle trip mitigation values will offset the reduction in the number of development cases requiring mitigation.

## transportation and land use-related recommendations

- 1. Provide an alternative review procedure for policy area mobility review (PAMR) within Metro Station Policy Areas, based on incentives to direct growth to areas served by regular public transit that meets the Smart Growth Criteria** (table, next page).

For projects meeting the Smart Growth Criteria, the PAMR mitigation costs should be allocated as follows:

- 50% applied to providing public transit improvements
- 25% applied to providing affordable housing near transit within the development, where the number of units provided may vary, provided the funding value is met, allowing for cost

differentials for providing the units in high rise construction vs. low rise

- 25% retained by the developer.

Fifty percent of the transportation impact tax required of a development should be applied toward the implementation of capital facilities that improve transit capacity or the quality of transit service, including the purchase of new (but not replacement) buses, the expansion of maintenance yards and facilities, bus shelters, or the installation of real time information systems. These improvements are to be directed toward benefitting riders within the PAMR policy area in which the development is located.

The best way to reduce traffic congestion is to reduce VMT. If VMT are reduced, congestion drops. In addition, development is much greener through less carbon emissions that benefits everyone.

The Growth Policy can be used to reduce VMT through incentives for smart development that locates in areas of higher infrastructure including transit service. Rather than building far out where capacity exists and commutes are longer, the growth policy can work in synch with master plans and zoning, to bring development into our existing urban areas.

The recommendation is based on five principles:

- housing near transit reduces VMT
- substituting housing capacity for commercial capacity reduces VMT
- providing funding for transit can help improve the transit system
- building to a minimum density helps reduce VMT by ensuring strategic sites near transit are not underutilized
- providing energy efficient buildings reduces carbon emissions.

## Montgomery County - Smart Growth Criteria

### All projects must meet the following criteria to be considered for an Alternative PAMR Review and 100% PAMR offset:

- Project must be located within ½ mile of an existing or planned major transit stop or high-quality transit corridor. A high-quality transit corridor means a corridor with fixed route bus service where service intervals are no longer than 15 minute during peak commute hours. A project shall be considered to be within one-half mile of a major transit stop if all parcels within the project have no more than 25% of their area farther than one-half mile from a transit stop or corridor and if not more than 10% of the residential units in the project are farther than one-half mile from the stop or corridor. A planned transit stop or corridor is one that is funded for construction within the first four years of the Consolidated Transportation Program and/or the Capital Improvement Program.
- Project must be mixed-use with a minimum 50% residential use.
- Project must seek to achieve the maximum density of the site using 75% or more of the maximum density allowed in the zone (including all applicable bonuses) subject to the limits specified in the master/sector plan.
- Building(s) exceeds energy efficiency standards by 17.5% for new buildings or by 10.5% for existing building renovation. Or, building(s) has on-site energy production such that 2.5% of the annual building energy cost is off-set by the renewable production system (*LEED New Construction/Major Renovation*).
- The project must provide additional affordable housing, either workforce housing or moderately-priced dwelling units, above and beyond that required for plan approval such that 25 percent of the PAMR mitigation resource being offset is applied to this obligation.

### The PAMR offset will be directed as follows:

- Fifty percent of the PAMR mitigation resource being offset must be directed to transit infrastructure.
- Twenty-five percent of the PAMR mitigation resource being offset must be applied to the provision of additional affordable housing, either workforce housing or moderately-priced dwelling units, above and beyond that required for plan approval.
- And, the remaining twenty-five percent of the PAMR mitigation resource will be retained by the developer.

The Smart Growth Criteria alternate review procedure for Policy Area Mobility Review is recommended as an incentive to development within one-half mile of a transit station or bus line with high frequency service.

### transit proximity

“The most effective strategy to increase ridership is to increase development densities in close proximity to transit.” (tcrp report 128)

This approach is based on pioneering sustainability initiatives:

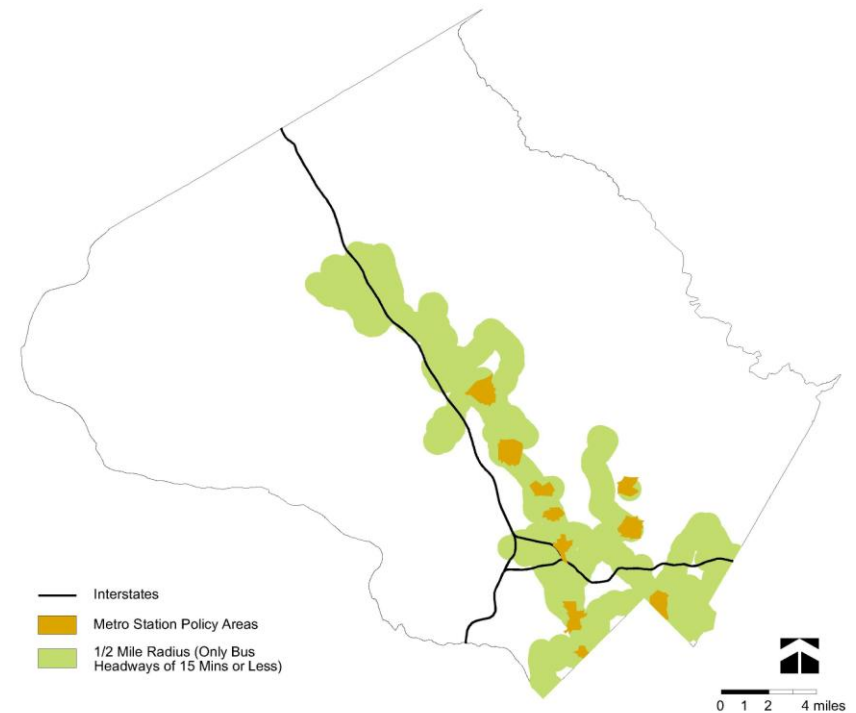
- proximity to transit is the cornerstone of new California legislation to reduce vehicle trips, stunt sprawl, reduce carbon emissions, and incentivize development close to transit facilities
- LEED for Buildings encourages energy efficiency standards in new development
- the Montgomery County MPDU requirement and Workforce Housing can be used to improve transit access and lower the combined household costs of housing, transportation and utilities
- creating area based transit funding sources, where development contributes funding to improve transit service and facilities within the area.

### car ownership and transit proximity

People living near transit typically own fewer cars, live in smaller houses and take advantage of the transit. (tcrp report 128)

The eligibility for a development to use the Smart Growth alternative review procedure (offset) borrows criteria from each of these strategies, to create minimum requirements that must be met to make use of the alternative review procedure.

### metro station policy areas



### Smart Growth Alternative Review Procedure Areas

Development in the areas shown on the map would currently be eligible for the alternative review procedure, if the criteria noted were met.

For projects electing to use the Smart Growth alternative review procedure, the PAMR calculation would still be made. However, the required value of the mitigation would be directed primarily to public transit and affordable housing and some could be retained by the developer.

### Smart Growth alternative review mitigation

The PAMR mitigation fee determined for a specific development would be split up so that 50% would be directed to transit funding; 25% for affordable housing; while the remaining funds would be available for the owner to help offset the costs meeting the basic requirements as noted above. Also, 75 percent of the transportation impact tax should be dedicated to improving public transit.

The policy encourages housing instead of more office space. Pending master plans may establish limits for both the overall density as well as how much of that total can be allocated for housing or commercial uses.

### trip generation: housing vs. office

Housing generates fewer trips than commercial development. A hundred high rise residential units take about the same amount of space as a 100,000 square foot office building, but generate just 28 percent of the peak hour vehicle trips. At the PAMR level, the recommendations reflect this reduction.

The goal is to achieve a more balanced jobs-housing ratio. In addition, the PAMR incentive to build closer to transit promotes strategic growth that results in fewer VMT, particularly beyond intersections near the development.

This offset approach will still require the school impact tax for residential uses and the LATR traffic calculation for local trip generation. Over time, capacity frees up as people shift from longer commutes through neighborhoods to transit and people close to the transit shift their travel patterns.

Whether builders take advantage of the alternate method will depend on costs and savings. Targeting transit payments is something several builders have indicated would be a positive influence on their decisions.

### demand for mixed use neighborhoods

“Because the demand is greater than the current supply, the price per square foot values of houses in mixed-use neighborhoods show price premiums ranging from 40% to 100%, compared to houses in nearby single use subdivisions”. (C. Leinberger)

Appendix N contains additional details and describes how the alternate procedure would apply to a hypothetical project.

### 2. Establish symmetrical treatment for level of service standards for transit and arterial mobility, allowing LOS for urban roadways to be assessed at LOS E, rather than LOS D.

Policy Area Mobility Review establishes criteria for Relative Transit Mobility and Relative Arterial Mobility that are based on Level of Service (LOS) criteria published by the Transportation Research Board. The details of the PAMR process are contained in the Planning Board’s LATR/PAMR Guidelines.

Requirements for area wide arterial LOS and transit LOS reflect County policy that transportation mobility should be multimodal. Areas with better transit service are not as reliant on auto travel; consequently, lower levels of service on arterial roads can be accepted as transit service improves.

The relationship between Transit LOS and Arterial LOS in the PAMR process should be symmetrical as shown below to provide an equitable level of multimodal transportation service across the County.

If Transit LOS is	Then Arterial LOS Must Be
F	A
E	B
D	C
C	D
B	E
A	F

PAMR symmetrical LOS standards relate arterial traffic levels to good transit service. Areas with better transit service that allow people to take transit rather than drive can function with higher levels of congestion.

The symmetrical LOS standards would change current County policy that states the area wide Arterial LOS should never fall below LOS D. A LOS E is recommended for two reasons:

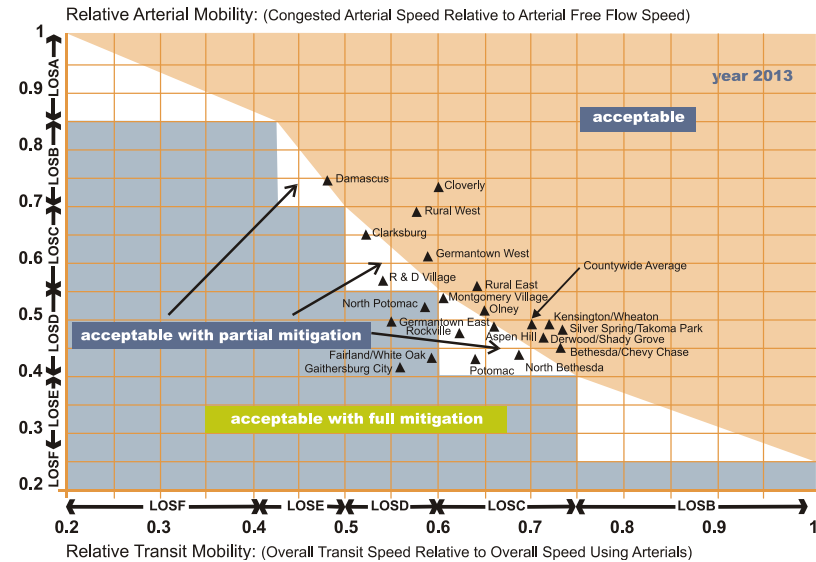
- At LOS E the movement of cars on a road is maximized. For drivers, LOS A represents the least delay, and therefore the best level of service. However, this level is not practical from fiscal or community-building perspectives. Most jurisdictions require conditions ranging from LOS C to LOS E.
- The County's current requirement for LOS D creates pressure to add turn lanes and widen roads in areas where this is not possible or desirable. In urban areas especially, the pedestrian environment should not be compromised to provide better access for cars.

### PAMR charts

The recommendation would shift the line delineating areas that are "acceptable" to a roadway level of service E. Those areas that would move from "partial mitigation" to "acceptable" are shown. Shifting the line would move the Bethesda/Chevy Chase, Derwood/Shady Grove, Kensington/Wheaton, Olney, and Silver Spring/Takoma Park PAMR mitigation areas from a partial mitigation requirement to an acceptable level. These are areas where new growth should be encouraged.

### year 2013 PAMR chart with "symmetrical" level of services standards

Year 2013 PAMR chart with "symmetrical" level of service standards

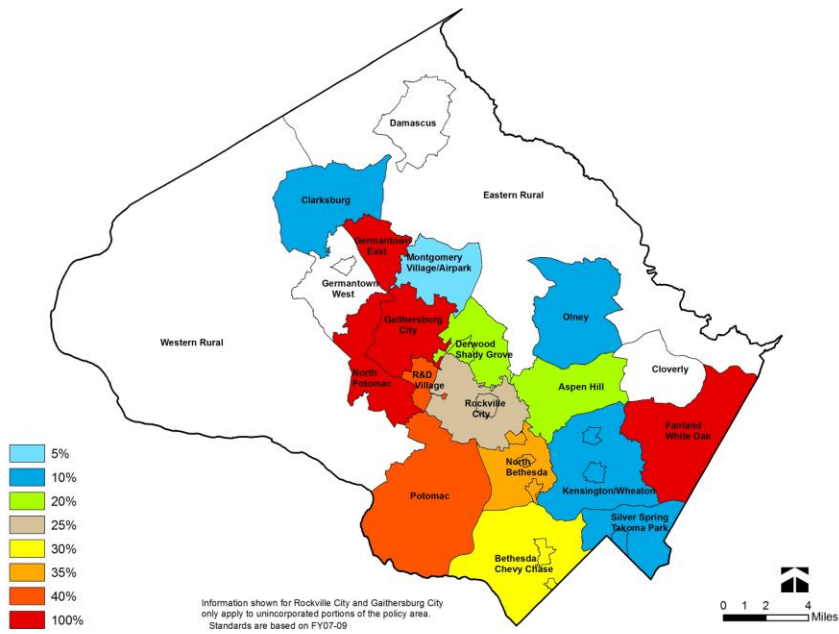


#### How slow is LOS E?

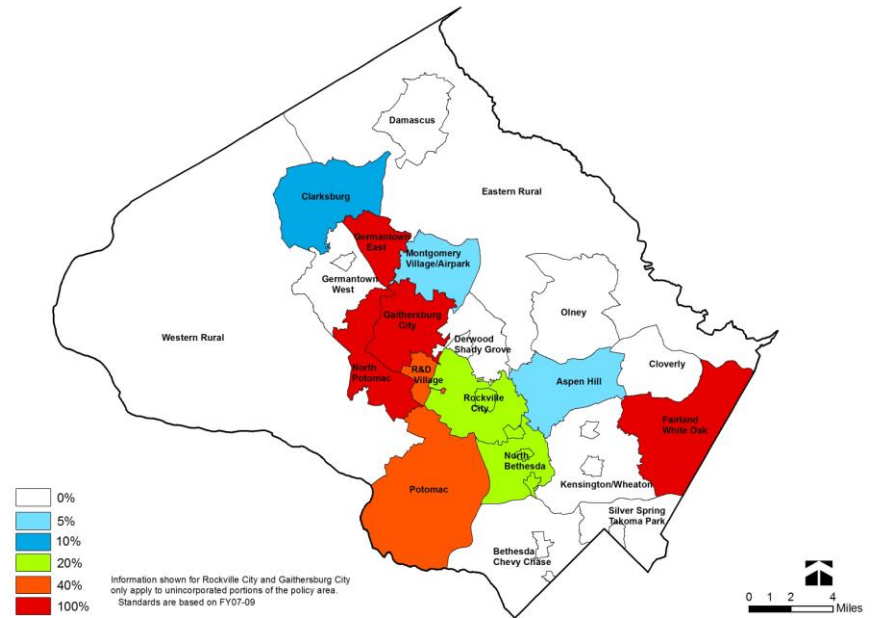
The Rockville Pike segment between the Capital Beltway and White Flint is 1.5 miles long. The time to drive this distance is:

- 2 minutes at LOS A or LOS B
- 3 minutes at LOS C
- 4 minutes at LOS D
- 5 minutes at LOS E





The 2007-2009 Growth Policy requires PAMR mitigation in 16 of 21 policy areas.



The proposed 2009-2011 Growth Policy requires PAMR mitigation in 11 of 21 policy areas.

### 3. Set the value of each vehicle trip mitigated at \$11,000.

The Planning Board's LATR/PAMR Guidelines allow for facilities such as sidewalks, bike lockers, and bus shelters to offset car trips by improving alternatives such as walking or cycling. This practice has been used for over 10 years.

The LATR and PAMR Guidelines do not include a wide enough range of potential traffic mitigation solutions and the mitigation actions are not appropriately priced. For example, Montgomery General Hospital mitigated their PAMR impacts with a transit center that will ultimately serve the Georgia Avenue busway. This solution will provide service far beyond the specific development at the hospital to serve a broader community of bus riders. The facility however, was not on the pre-approved list of mitigation facilities.

An improvement to this approach would be to assess a uniform mitigation fee based on the capital value of the improvements. This solution ensures all applicants are treated fairly and directs the mitigation toward solutions that best benefit the community.

In October 2008, the Planning Board revised the LATR/PAMR Guidelines to allow applicants to pay the County an \$11,000 per vehicle trip mitigation fee where fewer than 30 peak hour vehicle trips needed to be mitigated. The \$11,000 value should be retained as the basis for mitigation with one exception. The cost of construction of offsite sidewalk and bike paths is a known quantity and should continue as an option for mitigation.

#### How much is a vehicle trip worth?

The Planning Board recommendation for \$11,000 per vehicle trip is based on average County costs and is in the middle of a wide range of mitigation examples:

- < \$1,000: Wheaton Hills mitigation
- \$3,000: City of San Jose policy
- \$6,500: Washington Adventist Hospital mitigation

- \$11,000: Cost of Montgomery County responsibility within regional plan
- \$21,000: Montgomery General Hospital mitigation
- > \$50,000: National Naval Medical Campus BRAC mitigation

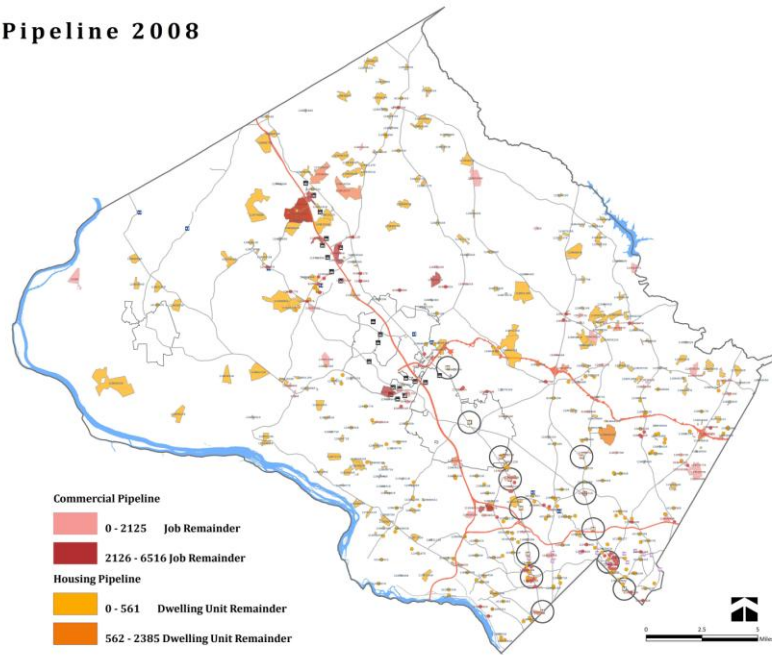
### 4. Permit the transfer of approved APF trips to Metro Station Policy Areas from within the same PAMR policy area.

The current pipeline of approved but unbuilt projects in the County includes 33 million square feet of commercial development and 29,000 housing units. Most of these projects are outside the County's Metro Station Policy Areas. When these projects were approved, the potential vehicle trips these developments could generate were included in the PAMR mitigation calculation. This means that any modeling for a new development application would include these hypothetical trips in the calculations. As a result, new development may have higher mitigation costs because of the unbuilt development which may or may not go forward.

The hypothetical trips are scattered throughout areas of the county less served by transit. They have the potential to create more and longer trips as people travel farther to job centers. If a portion of these trips could be shifted to the Metro Station areas, the same number of vehicle trips would, due to higher transit mode shares and shorter driving distances, have less of an impact on the road system. Vehicle trips are shorter in urban areas that have more destinations.

This recommendation would allow an applicant to meet his/her APF transportation requirement by acquiring previously approved capacity from another project in the adjacent or "parent" PAMR policy area. The "sending" project would then be unable to move forward.

## Pipeline 2008



*There are many approved but unbuilt projects in the development pipeline. Trading approved approvals to more dense areas would result in greater sustainability.*

### Where are the approved but unbuilt projects?

The 33 million square feet of approved but unbuilt commercial development is scattered around the County:

- only 13% is in Metro Station Policy Areas
- 27% is in the incorporated cities of Rockville or Gaithersburg
- 60% is elsewhere in the County.

The County has 16 urban areas in the Road Code. These urban areas have streets designed for a pedestrian environment, including wider sidewalks and slower travel speeds. Each of the urban areas already has a base of commercial development that provides some basic

services and a level of transit service higher than the surrounding suburban development.

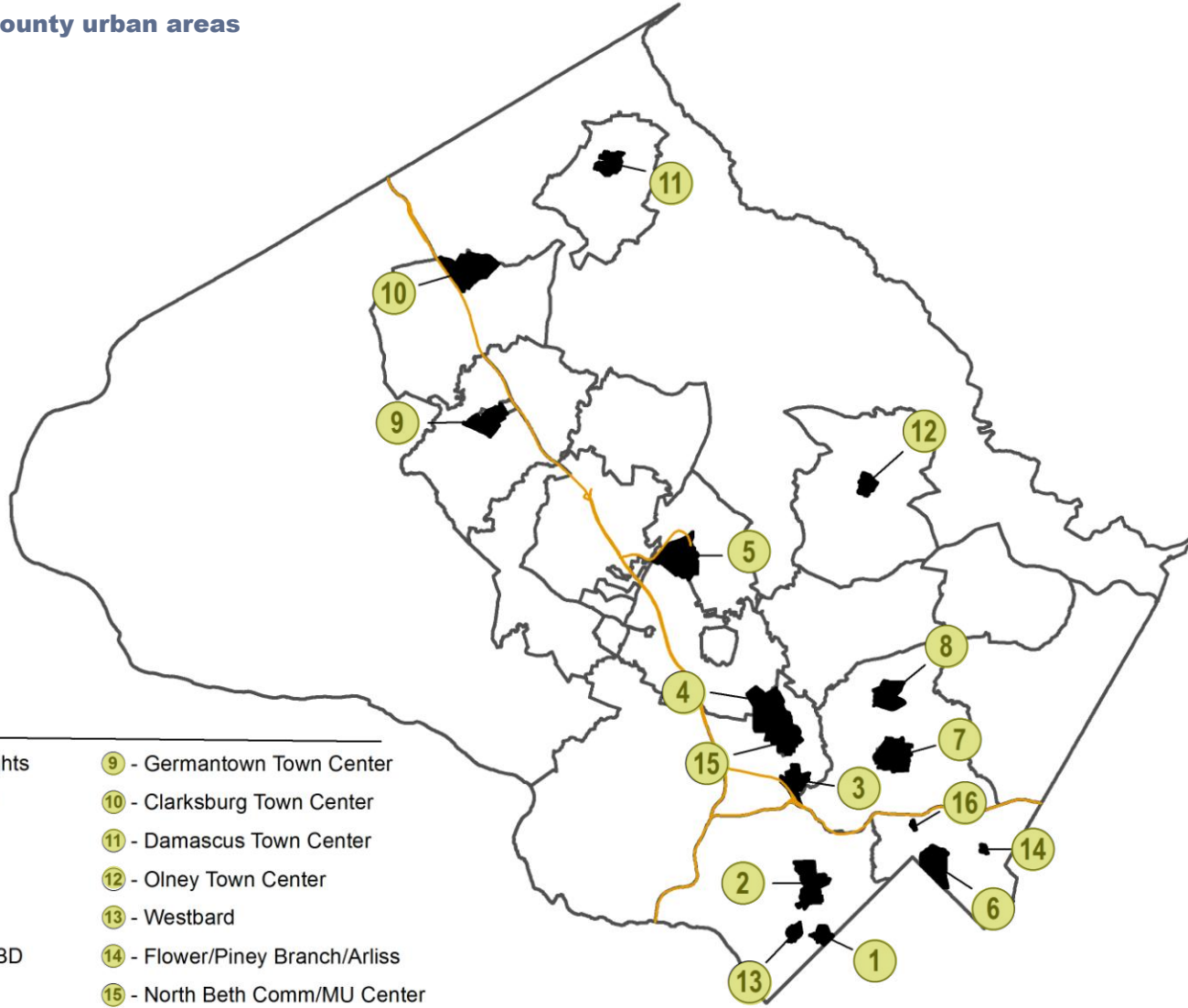
### 5. Adjust the residential trip generation rates by 18 percent in Metro Station Policy Areas only.

The LATR trip generation rates are based primarily on data collection efforts for developments County wide during the 1980s. Separate trip generation rates were developed for the Silver Spring, Bethesda, and Friendship Heights CBDs as sector plans for those areas were adopted in the 1990s. A discounting factor is available for offices near Metrorail stations to reflect the higher transit mode share at those locations.

Two recent studies add to the data on the value of transit-oriented development and proximity to basic services in reducing the reliance on auto travel. The Transit Cooperative Research Project (TRCP) Report 128, *Effects of Transit Oriented Development on Housing, Parking, and Travel*, released by the Transportation Research Board in fall 2008, contains data collected at 17 transit-oriented developments nationwide. Two of those sites are in Montgomery County (the Avalon at Grosvenor Station and the Lenox Apartments in the Silver Spring CBD), and create trip generation relationships that are similar to those already incorporated in our LATR/PAMR Guidelines.

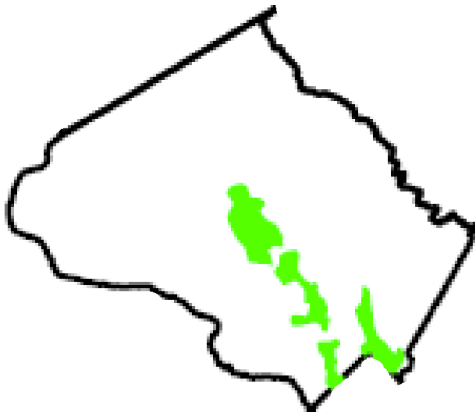
The Metropolitan Washington Council of Governments conducted a survey of 11,000 households between February 2007 and March 2008 to identify area wide travel patterns. The survey compares vehicle trip generation and VMT comparisons between residents in the region's Regional Activity Centers and Clusters compared to those who reside outside of the activity center areas.

montgomery county urban areas



**Urban Areas**

- ① - Friendship Heights
- ② - Bethesda CBD
- ③ - Grosvenor
- ④ - Twinbrook
- ⑤ - Shady Grove
- ⑥ - Silver Spring CBD
- ⑦ - Wheaton CBD
- ⑧ - Glenmont
- ⑨ - Germantown Town Center
- ⑩ - Clarksburg Town Center
- ⑪ - Damascus Town Center
- ⑫ - Olney Town Center
- ⑬ - Westbard
- ⑭ - Flower/Piney Branch/Arless
- ⑮ - North Beth Comm/MU Center
- ⑯ - Montgomery Hills Parking Lot District



*Residents in Regional Activity Centers and Clusters generate fewer VMT, 18% fewer auto trips (4.6 per day as compared to 5.6 per day) and 33% less VMT (19.6 per day as compared to 29.3 per day). Source: mwcog report 2009*

The study concluded that residents in these areas generate fewer vehicle trips and VMT than residents elsewhere in the region. This tendency is greatest in areas with the best transit service. The Planning Board proposes to reflect this finding in the LATR and PAMR Guidelines by establishing a residential vehicle trip generation rate for MSPAs that is 18 percent lower than County wide rates, a factor similar to the existing transit proximity reduction available for office uses in Metro Station Policy Areas.

Much of this difference in trips is due to demographic differences. Residents in Regional Activity Centers and Clusters have different household characteristics.

- fewer persons per household (24% of center/cluster households have three or more residents compared to 45% of households outside these areas)
- fewer workers per household (37% of center/cluster households have two or more workers compared to 51% of households outside these areas)

- fewer autos per household (18% of center/cluster households do not own a vehicle, compared to 3% of households outside these areas).

**6. For the White Flint area, replace the LATR and PAMR mitigation with designated public entities and other funding mechanisms.**

The White Flint Adequate Public Facilities (APF) approval process should be related to Council action on the *White Flint Sector Plan*. The Plan recommends replacing LATR and PAMR with a more coordinated approach to financing and building the street grid and transit facilities needed to support the planned growth. The *White Flint Sector Plan* includes a transportation staging ceiling and a detailed network of capital transportation projects, including the reconstruction of Rockville Pike into a multimodal boulevard.

Implementing these projects requires a comprehensive phasing plan to ensure the local street grid is in place to support Pike reconstruction. The implementation plan includes an alternative APF review procedure with an exaction process based on the proportional contribution of new development to the cost of planned transportation infrastructure. This process will improve the efficiency of both the development review process and infrastructure delivery by avoiding a piecemeal implementation of the transportation network.

**7. Amend the policy area boundaries as recommended in sector plans, including the Life Sciences Center recommended in the Gaithersburg West Plan; the revision to the White Flint policy area; and the boundaries defined for Germantown Town Center**

Three draft Sector Plans recommend changes to Policy Area boundaries that affect transportation APF review.

- The *Germantown Sector Plan* expands the Germantown Town Center Policy Area to be consistent with the Plan's Town Center neighborhood.
- The *White Flint Sector Plan* recommends expanding the White Flint Policy Area to be consistent with the White Flint Sector Plan boundary.

- The *Gaithersburg West Master Plan* for the Life Sciences Center recommends defining a new Life Sciences Policy Area to support the three new proposed Corridor Cities Transitway stations at the LSC Central, West, and Belward neighborhoods. This new Policy Area will have characteristics consistent with the Germantown Town Center Policy Area along the CCT.

These boundary changes:

- reflect the need for more urban, transit-oriented mobility and connectivity solutions at these transit stations
- incorporate municipal boundary changes and a more refined regional transportation analysis zone structure developed in coordination with MWCOG.

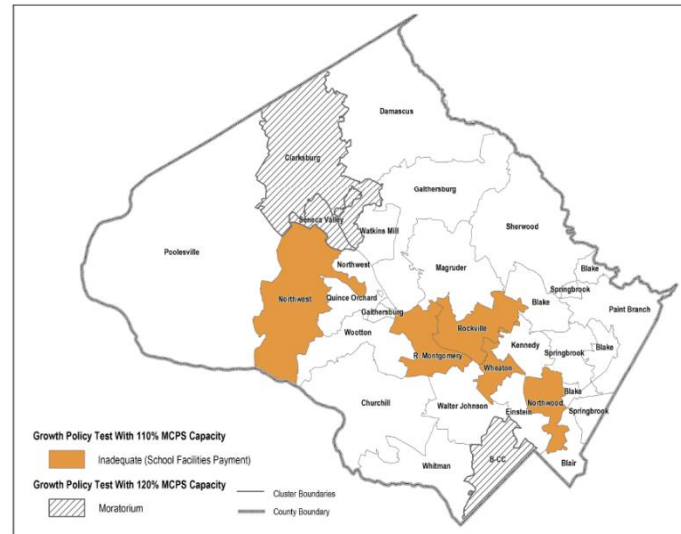
### school capacity related changes

#### 8. Set the threshold for application of a school facility payment at projected enrollment greater than 110 percent of projected program capacity at any school level by cluster.

The Planning Board recommends that the test for the adequacy of public school facilities be revised so that the threshold that triggers a School Facilities Payment is enrollment greater than 110 percent of MCPS program capacity.

Given periodic shifts in enrollment trends within clusters, either through new development, changes in neighborhood demographics or changes in the birthrate, it is fairly common to have utilization rates between five and 10 percent over or under capacity. Facility planning occurs in response to individual school capacity; the level at which an individual school requires additional infrastructure is an approximately six classroom deficit. For the average high school (1,600 student capacity) this would be equivalent to approximately 150 students over capacity; a utilization rate of 109.4 percent.

### fy10 school test results at 110 percent



#### 9. Retain the threshold for school moratorium on new residential subdivisions at projected enrollment greater than 120 percent of projected capacity at any school level by school cluster.

In moving to a stricter test on capacity during the 2007-2009 Growth Policy, the Planning Board and the School Board recommended increasing the threshold at which a school facility payment is required as well as increasing the threshold for moratorium.

The recommendation was to equate the capacity level at which a school facility payment would be required or a moratorium triggered under the prior (growth policy) capacity level to an equivalent threshold at the new (program) capacity level. Thus, the recommendation for the school facility payment threshold moved from 100 percent of "growth policy capacity" to 110 percent of "program capacity" and the moratorium threshold increased from 110 percent of "growth policy capacity" to 135 percent of "program capacity."

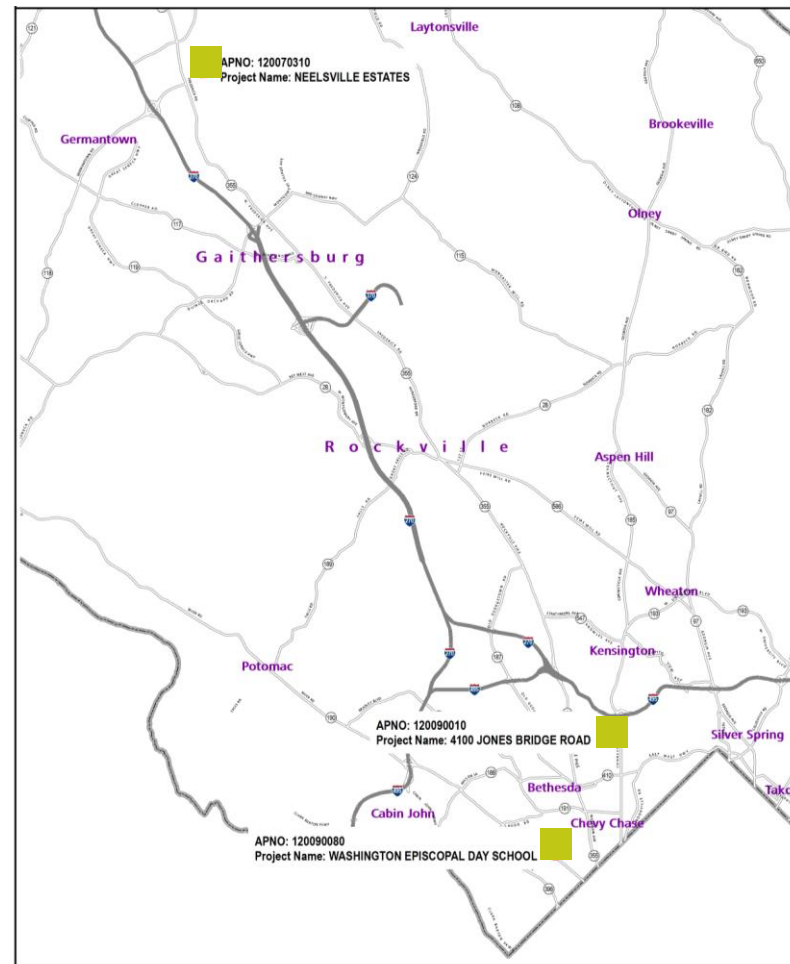
The County Council supported the switch from Growth Policy capacity to program capacity but did not agree with the school facility payment threshold or the threshold for moratorium. The Council's concern with the moratorium threshold was that at its equivalent level under Growth Policy capacity, the test was rarely failed. After committee and Council debate, the eventual compromise landed the threshold at 120 percent. The Board does not have any reason to recommend a change in the threshold for moratorium at this time, and recognizes that the choice of such a parameter is as much art as science.

Until recently, the threshold for imposition of a moratorium had rarely been exceeded, but when it was, new school facilities were promptly programmed. This suggests that there is some utility to retaining a standard that serves an alarm function when enrollment and capacity are out of balance. If this trigger is set relatively low, 120 percent compared to 135 percent then one could argue that programming to overcome capacity deficits may occur sooner.

**10. Allow residential subdivision applications that are complete within the 12 months prior to imposition of a moratorium but have not been acted upon to proceed.**

The most recent school test placed three school clusters into moratorium for residential subdivision approvals. Within these clusters,

**applications subject to fy10 grandfathering**



development applications were submitted and reviewed over the past few months to a year. A school queue was instituted as a result the last Growth Policy; it was meant to monitor school clusters as development applications were completed to gauge how quickly any one cluster was approaching either a School Facility Payment

threshold or a moratorium. The school queue did not predict the moratorium placed on the B-CC and Seneca Valley clusters.

One significant reason for this is that new development contributes only a small fraction of the enrollment changes occurring in most school clusters. In the Bethesda-Chevy Chase cluster, most of the overcrowding has been attributed to the unexpected rise in kindergarten enrollment. This is due, in part to the recent shift to all-day kindergarten, changes in the neighborhood demographics, and partly due to an increase in households choosing public education over private school, a reflection of the economy.

The APFO directs the Planning Board to approve preliminary plans of subdivision only after finding that public facilities will be adequate to serve the subdivision. For applicants who have completed their application and have engaged in discussions with Planning Staff about requirements to proceed to Board approval, the imposition of a moratorium near the end of this process can be costly and unpredictable.

The Board heard testimony that, on average, only 20 percent of the changes in enrollment are due to new development. Even though its contribution to change in enrollment is relatively small, the consequence of reaching a moratorium is placed completely on new development. To address this disparity, the Planning Board recommends grandfathering submitted applications that are completed up to 12 months prior to the moratorium.

For the three clusters now in moratorium, this would allow three projects to proceed to the Board; two projects in the Bethesda-Chevy Chase cluster (generating approximately six elementary, five middle and four high school students in total) and one in Clarksburg (generating two elementary, one middle, and one high school student). Grandfathering applicants that are within months of Board review provides predictability to the development community without significantly reducing the intent of a moratorium.

**11. Allow any approved school capacity for a specific development to be transferable to another development within the same school cluster.**

The Planning Board recommends extending to schools the same concept proposed for transferring transportation APF approvals for projects in Metro Station Policy areas. For schools, APF transfers should be limited to projects within the same school cluster. This approach can reduce unused potential school capacity and make room for students generated by “live” projects.

**future studies**

The recommendations of the 2009-2011 Growth Policy begin a discussion that has already started around the country. Communities are beginning to assess development in terms of sustainability with a much broader definition of quality of place than measuring just traffic congestion. In Montgomery County, the discussion has focused on three general areas.

First, how can compact development reduce travel demand? We have already incorporated some tools for assessing density, proximity to transit, and mixed uses into the APFO calculations. We need better information on how the provision of the right basic services in the right locations can be tailored to reduce, rather than increase, vehicle travel.

Second, how should we measure our expectations for connectivity? The LATR tools are focused on capacity. The introduction of PAMR in 2007 began a shift toward measuring mobility. Many feel that the PAMR tool still rewards car-centric development, while others feel that the assessment of forecasted improvements in transit level of service is too optimistic. However, in 2007 the PAMR test was found to provide the best combination of relevance, coherence, reliability, and availability of seven alternatives examined for thinking beyond the limited scope of the LATR process. Further consideration of changes to the LATR process that better reflect multimodal mobility was desired,



but not funded, in 2007 or 2008. These changes still need to be examined.

Finally, the discussion of APFO needs to keep pace with the discussion on climate change at both the national and local levels. We determined that our constituency is not ready for a total shift from the adequacy of transportation or schools to a broader analysis of carbon emissions or greenhouse gas impacts. However, the 2009-2011 Growth Policy recommendations begin to move the discussion in this direction. This is supported by the County's Climate Protection Plan. The 2011-2013 Growth Policy should continue this discussion.

The 2011-2013 Growth Policy should be informed by the following studies.

**12. Submit the following studies to the County Council prior to August 1, 2011.**

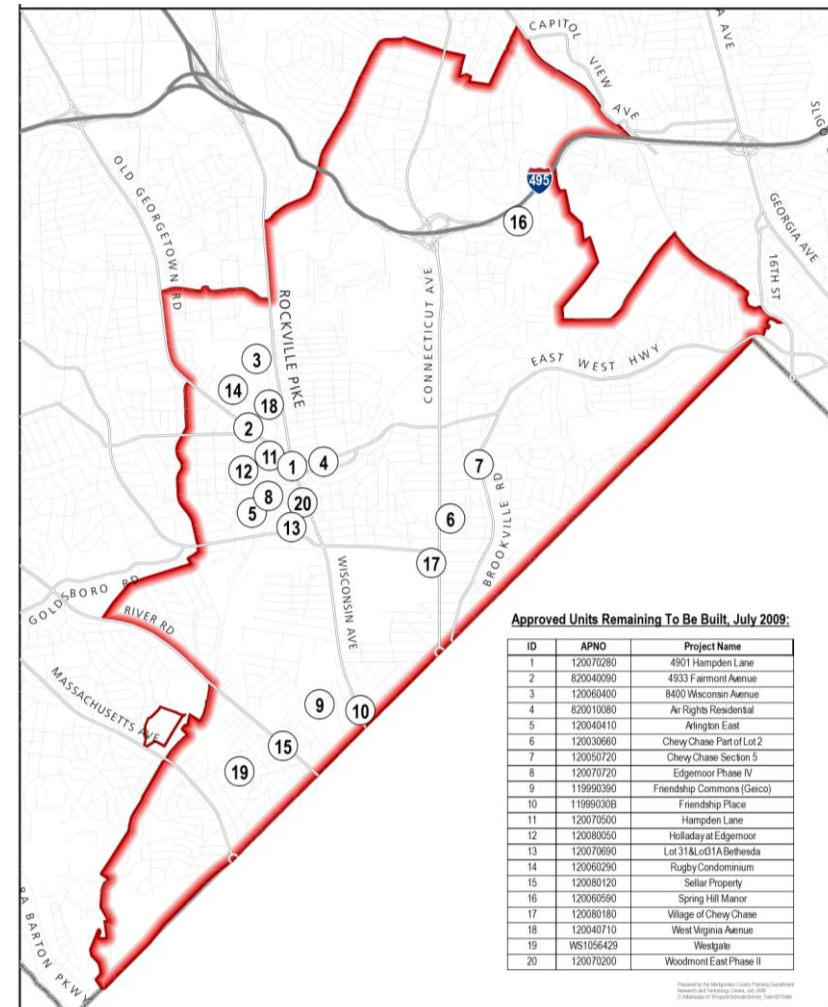
**F1. biennial growth policy report**

The Planning Board must submit a recommended Growth Policy by August 1<sup>st</sup> in two year periods. Starting in 2009, the Growth Policy must include:

- an analysis of current and future pace and pattern of growth and their factors in established communities
- an update on the success in meeting a set of indicators as developed under study F10 of the current Growth Policy
- an implementation status report for each master and sector plan including how development is proceeding and whether the public actions and facilities in the plan are occurring in a timely way
- summary of the Highway Mobility Report
- comprehensive list of priority facilities that are recommended for addition to the Capital Improvements Program
- recommendations on other public actions needed to achieve master plan objectives or improve the performance on adopted quality of life indicators
- 

- recommendations on any policy area boundary changes to be consistent with the adopted master plans or sector plans or municipal boundaries.

**bethesda/chevy chase cluster residential pipeline**



## **F2. compact subdivision development**

The recent water quality issue with the Clarksburg Stage 4 development raises the need to rethink sustainability factors in how land is developed. The 2011-2013 Growth Policy should build on the information from the Clarksburg Stage 4 master plan study as it relates to how land can be subdivided in more sustainable ways, reducing impacts on water quality, use of land, and green house gas emissions.

Future subdivision will be within urban areas as infill development and achieving low impact growth is an important element of defining how and where growth should occur. Planning staff will report on how state-of-the-art low impact design can be part of smarter growth policy.

## **F3. LEED Classification as a component of the Growth Policy**

Planning staff will report on including elements of both the LEED for Neighborhood and New Construction or Major Renovation classification systems into the growth policy. Staff did recommend that the basic services element of the LEED Neighborhood system should be used as an alternative method for PAMR, however the Planning Board requested further study.

Staff recommended that a PAMR offset of 50 percent should be applied if new development provided or was within one half mile of ten basic services such as grocery stores, libraries, etc. Proximity to a critical mass of services will reduce VMT.

## **F4. using carbon offsets as an element of sustainable growth**

Planning staff has started looking at the potential to use carbon offsets to mitigate the carbon created through vehicle trips by creating an equivalency between the carbon reduction achieved through a smart location, VMT reduction strategies, and energy efficient buildings to lower the carbon footprint created by a development.

For example, a building located near transit will generate fewer VMT and higher pedestrian activity; as well as provide walkable access to services. Coupled with energy efficient HVAC techniques, this building would emit far less carbon.

There is an emerging industry in “carbon accounting” that assesses the overall impact of an activity such as an office building, in terms of carbon emitted. Staff will consider the merits of assessing lower carbon emissions through buildings and the activity they create. For example, so many car trips over a year period would emit a measurable amount of carbon. If a building included methods for reducing an equivalent amount of carbon emissions, the development could occur. In effect, the lower building carbon emissions would be traded for the car emissions and rather than mitigating traffic impact, the offset would be mitigating carbon impacts.

This alternative review procedure would be limited to urban areas where there are transit alternatives to driving. Encouraging planned development in areas where increased congestion is supported by County policy would result in a higher proportion of people taking transit or walking while encouraging buildings that generate fewer emissions.

## **F5. dedicated transit revenue**

The Smart Growth alternate review method recommends that 75 percent of the PAMR mitigation offset be used to fund transit serving the PAMR area. The Planning Board also recommends that 75 percent of the transportation impact tax be dedicated to transit projects. County Executive staff should be requested to develop a funding allocation and reporting process to monitor and report on how the resources directed to transit are being effectively implemented.

## **F6. land use impact on vehicle miles travelled**

Planning staff should work with the County Executive to consider whether the impact of VMT vary for specific land uses by their location. For example, does a fast food restaurant in a Metro Station Policy Area

generate fewer VMT than the same use in a suburban location? How should that impact be weighed in the Growth Policy?

#### **F7. retail impacts on vmt**

Planning staff should work with the Executive to consider whether chain retail outlets generate higher VMT and parking demand than local retailers in the same business. If there is a difference, the report should consider different impact fee and mitigation requirements for different types of retail. The impact on small business growth should be considered.

#### **F8. impact tax issues**

The County Executive should complete the study requested as part of the 2007-2009 Growth Policy, which was to have reported on the collection and use of mitigation fees. That request should be made again as it is an important element in assessing the value of certain Growth Policy requirements.

This study should also look at the potential for including linkage fees between nonresidential uses and affordable housing. Currently nonresidential uses are not assessed to provide affordable housing, unlike many jurisdictions around the country. The County Executive should report on the economic feasibility of such a linkage fee.

#### **F9. highway mobility report funding**

Planning staff should complete the scheduled revision to the Highway Mobility Report in 2011 with data collection resources incorporated in the Planning Department budget, following coordination with the Executive on methods to improve data collection and reporting techniques that better address daily variability in traveler behavior. The 2011 report will continue to examine transit and pedestrian system performance as well as highway mobility.

#### **F10. fiscally sustainable development**

New development creates revenue through impact taxes, as well as the revenue created through the use of the building over its lifespan.

The County Executive should be requested to report on two issues linked to impact fees and revenue generation:

- does new development create more revenue through the taxes associated with the use of the building over its life-cycle than it creates through the one time taxes paid at permitting?
- should development impact taxes be reduced if tax revenue generated by the new development over the building's or project's life-cycle, exceed the cost of the County services provided to that development?

#### **F11. options to latr**

Planning staff should, with the aid of the Executive, study options to revise the LATR test including:

- using proximity to various levels of transit service and pedestrian connectivity as a basis for mitigation requirements
- developing a multimodal quality of service requirement to provide a more seamless integration of pedestrian, bicycle, transit, and auto modes
- considering feasible revisions of or alternatives to the Critical Lane Volume method to measure intersection performance.

*For examples that illustrate the impact of the recommendations, see Appendix N.*

## reducing our footprint

more community  
sustainable  
walking  
nature  
transit  
time



000000852

Planning Board Draft  
**2009-2011 Growth Policy**  
Montgomery County Planning Department  
**MontgomeryPlanning.org**