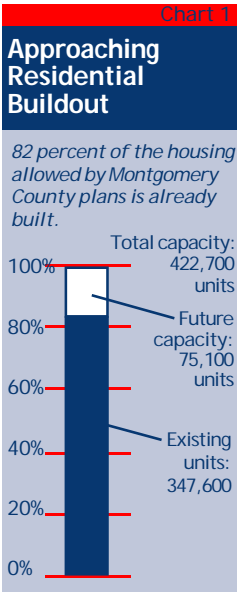


Residential Capacity Estimate

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Current plans allow 75,000 more housing units.

by Matthew Greene, Research Planner



Source: M-NCPPC Research & Technology Center (as of July 2003)



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As of July 2003, the total future residential capacity in Montgomery County is 75,100 dwelling units. The number of existing housing units in July 2003 was 347,600, thus bringing the total of existing and future housing units to 422,700. This means that future residential capacity represents 18 percent of the total of existing and future units, and that 82 percent of the total residential capacity has been built.

The 75,100-unit estimate of residential capacity suggests that, as of July 2003, Montgomery County had the capacity to accommodate between 20 and 25 years of residential development.

One of the ways that the County can increase its residential capacity is by finding opportunities for additional housing when master plans are prepared. In the draft Shady Grove Sector Plan, the Planning Board proposes increasing the County's residential capacity by 4,000 - 5,000 units. These additional units would increase the County's housing capacity to almost meet the projected housing demand through 2030.

Expect Smart Growth

The location and density of future units confirms the Commission's smart growth priorities. More than 85 percent of future units are located within designated Priority Funding Areas (PFAs) and in existing or planned central sewer service areas. Moreover, a full 54 percent are within a ten-minute

Measuring Residential Capacity

In recent years, there has been a question underlying many of the land use planning and policy debates in Montgomery County: how many more housing units can be built in the County? Another way of putting it: How close are we to "buildout?"

To answer this question, the Montgomery County Department of Park and Planning began a "Residential Capacity Study" over a year ago.

The purpose of the Residential Capacity Study is to provide public officials, planners, and the public with the best possible estimate of the amount of housing that can be built in Montgomery County under current conditions. Every effort was taken to make sure that the residential capacity estimate would be realistic, conservative, and objective. This means that the estimate reflects the actual, rather than maximum theoretical, number of housing units developers typically build on residentially-zoned land.

There are several benefits to having an accurate, realistic estimate of the development capacity of Montgomery County based on current plans and regulations, current development practices, and taking into account current regulatory and physical development constraints. This estimate will help officials prepare

continued page 4

Existing and Future Housing Units by Structure Type

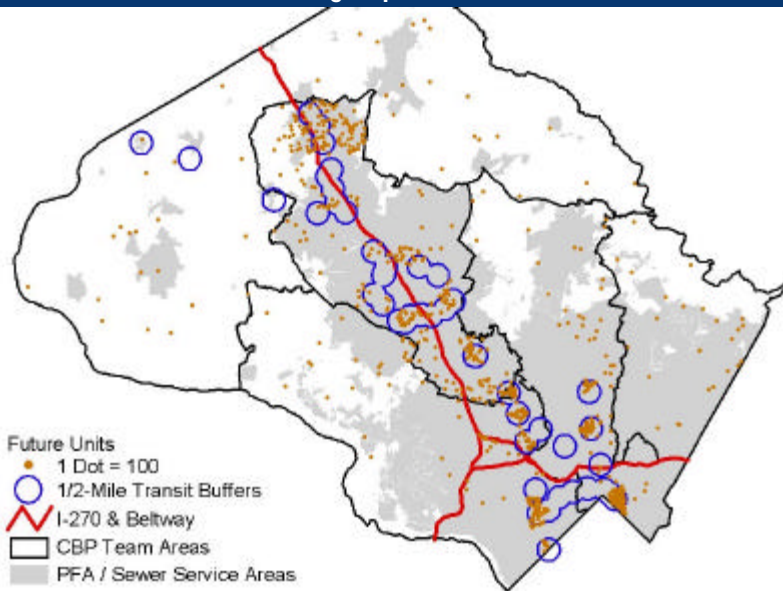
While the majority of existing units are single-family detached, the majority of future units are multi-family (apartments and condos).

Structure type	Existing	%	Future	%
SF detached	176,600	51%	20,000	27%
SF attached	65,000	19%	8,300	11%
Multi-family	106,000	30%	46,800	62%
Total	347,600		75,100	

Source: M-NCPPC Research & Technology Center (as of July 2003). SF= single family.

Over half of future housing units are located within a 10-minute walk of an existing or planned transit station.

Figure 2



Corridor and in the Urban Ring. Among Community-Based Planning areas, the I-270 Corridor accounts for fully 43 percent of the County's residential capacity, with the Cities of Rockville and Gaithersburg, which comprise most of the southern portion of this planning area, accounting for 41% of the I-270 Corridor capacity. The urban areas of Bethesda-Chevy Chase/North Bethesda and Silver Spring/Takoma Park account for 33 percent. Eastern Montgomery County and Potomac each account for only 4 percent of the County's capacity for future residential development while the Georgia Avenue area will accommodate 10 percent. The Rural Community-Based Planning Area contains about 5 percent of the County's residential development capacity, as measured in units.

At the CBP Team area level, all but Eastern County and the Rural area have a higher percentage of multi-family in the future than in the present. The Rural area succeeds in remaining rural in character by providing limited development opportunities for a predominantly single-family structure type. The Eastern County area represents only 4% of all future growth opportunities and includes no existing or planned fixed-transit facilities, where a majority of the County's higher-density housing opportunities lie.

Future Housing Units by Location

Table 2

89% of future units are located within designated "priority funding areas" and over half are located within a 10-minute walk of existing or planned transit stations.

Location	Units	%
Inside Priority Funding Areas	66,800	89%
10-minute walk of transit	40,600	54%
Gaithersburg & Rockville	13,200	18%
County Metro station areas*	28,600	38%

* Bethesda CBD, Friendship Heights CBD, Glenmont, Grosvenor, Silver Spring CBD, Shady Grove, Twinbrook, Wheaton CBD, and White Flint. Source: M-NCPPC Research & Technology Center (as of July 2003).

walk (half-mile radius) of existing MARC and Metro rail stations or proposed stations under the Corridor Cities Transitway and the Georgetown Branch transit projects.

Capacity by Community-Based Planning Areas

The Residential Capacity Study shows that the County's capacity for future housing development is primarily in the I-270

Future Units by Community-Based Planning Area

Table 3

Consistent with the County's General Plan, about 75% of future units are located in the urban ring (Bethesda and Silver Spring) or along the I-270 Corridor.

Community-Based Planning Team Area	Units	%
Bethesda, Chevy Chase	7,900	11%
North Bethesda	7,200	10%
Eastern County	2,800	4%
Georgia Avenue	7,900	10%
I-270 Corridor	32,500	43%
Potomac	2,900	4%
Rural	3,900	5%
Silver Spring/Takoma Park	10,000	13%

Source: M-NCPPC Research & Technology Center (as of July 2003).

The Cities and Metro Station Policy Areas

Together, the Cities of Rockville and Gaithersburg account for 18% of future residential development. Of the remaining 82 percent, about half is located inside the County's Metro Station Policy Areas, which include the four central business districts of Silver Spring, Wheaton, Bethesda, and Friendship Heights.

Parcels or Plans With Capacity for 20 or More Units

The Residential Capacity Study identified 435 parcels or plans with the capacity for at least 20 housing units. These parcels account for 61,659 housing units, or 82 percent of the residential development capacity in Montgomery County. This is important because the Moderately Priced Dwelling Unit (MPDU) law mandates the provision of MPDUs in developments of 20 or more units.

Forecast: Capacity for 20-25 Years of Growth

The 75,100-unit estimate of residential capacity suggests that, as of July 2003, Montgomery County had the capacity to accommodate between 20 and 25 years of residential development.

The current forecast shows 420,000 households in Montgomery County by 2030. This is an increase of 80,600 households from July 2003. Household forecasts are prepared by the M-NCPPC Research & Technology Center in cooperation with other metropolitan area localities through the Metropolitan Washington Council of Governments.

This study, therefore, suggests that the July 2003 residential capacity of the County was about 5,500 units lower than the forecast for new households between July 2003 and 2030.

Of course, market forces and government actions over the course of the next few decades will affect the number of years of growth that can be accommodated. These actions can include changes to master plans to

increase allowable densities on developable parcels to policies or market changes that encourage developers to build more of the density already permitted. It is also useful to remember that the assumptions underlying this residential capacity estimate are conservative (see "Measuring Residential Capacity" starting on page 1).

Comparison to the Region and State

Montgomery County currently has the largest number of households of any locality in the State of Maryland. Additionally, over the next 20 years, Montgomery County will add the largest number of new households of any locality in the state. Currently the County has 16.4 percent of the state's households; by 2025 the percentage will increase slightly to 16.6 percent. Over the 2005-2025 period, Montgomery County will absorb 17 percent of the state's household growth.

Montgomery County's forecast for 2005-2025 shows the number of households increasing by 68,000. The next-highest household growth forecast in the state is Prince George's County, which is forecast to add 52,975 households between 2005 and 2025. The top 5 is rounded out, in order, by Frederick County (33,500), Anne Arundel County (33,000), and Howard County (27,850).

Within the Council of Governments member jurisdictions, Montgomery County is second only to Fairfax County in the total number of current and forecast households. In 2000, Montgomery County had 324,600 households; Fairfax County had 350,700; and the region had 1,711,000. According to the current forecast, Montgomery County will grow by 95,400 households by 2030 – a 29% increase. This is more than Fairfax County in both absolute numbers and rate of growth, but it lags the region's 37% rate of growth for the 2000 – 2030 period. As a result, Montgomery County's share of the region's households will fall from 19% to 18% by 2030.

The County can increase its residential capacity by finding opportunities for additional housing when master plans are prepared. In the draft Shady Grove Sector Plan, the Planning Board proposes increasing the County's residential capacity by 4,000 - 5,000 units. This would increase the County's housing capacity to almost meet the projected housing demand through 2030.

Many of the County's vacant residentially-zoned parcels are covered by an approved or pending preliminary plan. When this is the case, the Residential Capacity study uses the number of units in the approved or pending plan for those parcels.

The Four Major Approaches to Estimating Capacity

The development capacity of a Montgomery County parcel was determined in four main ways:

- 1) By counting the number of units in an approved or pending preliminary plan,
- 2) By applying development capacity guidance in master plans when different from current zoning (“assigned capacity”),
- 3) By applying 12-year historical yields to vacant, non-CBD parcels based on their current zoning (“vacant model”), and
- 4) By applying 15-year historical yields to vacant and redevelopable parcels in the County's Central Business Districts (“CBD model”).

Approved and Pending Development Plans

If a parcel is covered by an approved preliminary plan or pending preliminary plan, the Residential Capacity Study counted for that parcel the number and type of units in the approved or pending plan. There were two main reasons for this approach: the preliminary plan is a much better “educated guess” about how much development can take place on a parcel than any model could generate; and second, already approved development is a large part of Montgomery County’s future development.

Plans and Policies (“Assigned Capacity”)

Although Montgomery County comprehensively rezones parcels when a new master plan is adopted, there are still many parcels where the current zoning does not accurately reflect the development capacity that is achievable. In some cases the master plan may have restrictions that undercut the density permitted by the current zoning; in others the master plan may recommend a floating zone that would permit higher densities. Capacity for these parcels was determined in a number of ways. One way involved consultations with

community-based planners, environmental planners, and development review staff in order to understand the significance of various plan elements and also other situations affecting specific parcels. This approach accounts for such things as recommended or floating zones or areas where redevelopment or parcel assemblage is advised or likely.

This collaborative process also accounts for certain instances of local knowledge affecting what would otherwise be determined for a given parcel only by its zoning. Examples of this would be a unique environmental feature limiting development on a parcel or the likely application of a special exception,

Measuring Residential Capacity

continued from page 1

realistic growth forecasts and will serve as a baseline for measuring the need for, and impact of, changes to current plans, practices, and regulations.

Among the uses of the Residential Capacity Study will be: for the preparation of master plans, for the review of housing and other land use policies, and for analysis of proposed zoning changes and development regulations. A primary use will be to help prepare forecasts of future households, which, in turn, are used to determine demand for public facilities – such as schools and transportation – and impacts on the environment.

The estimate in this report reflects plans, policies, development regulations and market conditions as of July 2003. This means that the residential capacity estimate does not assume future changes to master plans, future changes to zoning (unless allowed in currently adopted master plans) and does not assume changes to approved and pending preliminary plans of subdivision. Research & Technology Center staff is now updating the study findings to account for events that changed the County’s development capacity since July 2003. In addition, staff is exploring options for streamlining and, to the greatest extent possible, automating the update process.

age-restricted housing project that would significantly increase a parcel’s capacity.

Vacant Model

The third method used to estimate the development capacity of vacant parcels is called the “vacant model.” This method calculates historical “yield factors” – the number of housing units built per acre – for each zone that allows housing to be built. The vacant model then multiplies each vacant parcel’s acreage by the yield factor for the parcel’s zone.

Almost all of the yield factors used in this Residential Capacity Study are based on the average historical yield on parcels with the same zone for plans approved during the period from 1990 to 2002. Although we use the word “historical,” it is important to remember that much of future development is covered by preliminary plans approved between 1990 and 2002.

The yield factors prepared by the Research and Technology Center take into account the availability (or lack) of sewer. The factors also take into account whether the parcel has environmental constraints that would reduce the number of future units. Environmental constraints include stream valley buffers and wetlands, slopes greater than 25%, and slopes greater than 15% where erodible soils are also present. Finally, the Residential Capacity Study adjusts its estimate of future units based on the likely use of transferred development rights (TDRs).

CBD Model

The final method for estimating residential development capacity is the CBD Model, which estimates capacity of parcels in high-density, mixed-use zones within the Metro Station Policy Areas.

There are two steps in this process. The first step is identifying vacant and “redevelopable” parcels where additional future development is likely to occur. The second step is developing valid “yield factors”

to estimate the residential capacity of these parcels.

A challenge of this part of the process is identifying which parcels are “redevelopable.” Researchers reviewed a number of alternative definitions of “redevelopable” and chose the following: a redevelopable parcel is one where the land value is equal to or exceeds the value of the improvement on that land. This is a definition of redevelopable that has been used successfully in the past. Yields factors were applied to these properties and the existing residential portion was netted out.

Development of historical yields for CBD zones was relatively challenging because these are mixed use zones and the allowable density can change depending on whether the developer uses the standard method of development or the optional method of development, or if the developer takes advantage of the density bonus allowed under the moderately-priced dwelling unit ordinance. Researchers reviewed the past history of the use of these zones to determine the most likely, or “average” residential yield for these zones based on fifteen years of approvals.

The Residential Capacity Study estimates the number of future housing units on vacant parcels by looking at the number of units that have been approved on similar parcels in the past 12 years. Among the factors that are taken into account: zoning, the availability of sewer, and environmental constraints.

Table 4

Future Units by Estimation Method

40% of future units are in already-approved or pending preliminary plans. About one-fifth of residential capacity will involve development or redevelopment in the County's Central Business Districts.

Method	Units	%
Approved preliminary plans	23,300	31%
Pending preliminary plans	6,900	9%
Vacant parcels - historical yields of zone	7,500	10%
Vacant/redevelopable parcels - assigned yields	21,600	29%
Central Business District - historical yields	15,800	21%
Total	75,100	100%

Source: M-NCPPC Research & Technology Center (as of July 2003).

Nearing buildout: implications and opportunities

The most practical and effective locations for adding new housing capacity are within existing centers and along the major transportation routes that connect them. These locations make jobs and housing more accessible to the population that needs them, conserve land and watershed resources, and reduce the cost of adding roads, sewers, and other infrastructure.

As Montgomery County approaches buildout of its residentially-zoned land, it faces a future that builds on trends begun decades ago. Throughout its history, much of the County's development occurred on large tracts of vacant land. This development transformed the County from primarily rural to largely suburban in character. More recently, the County has also accommodated growth by permitting urban levels of density, concentrated in areas near high-quality transit: the central business districts of Bethesda, Friendship Heights, and Silver Spring are three examples.

Now that most of the large vacant parcels are developed, Montgomery County's challenge is to continue to accommodate growth while remaining true to the vision of the General Plan. Among the implications and opportunities:

Growing up, not spreading out: An extraordinary commitment by Montgomery County has resulted in the preservation of 148,000 acres – 47 percent of the County – as “forever green” open space. As the supply of vacant developable parcels declines, there will be increasing pressure to allow more development in the agricultural reserve. This pressure can be offset by finding opportunities to add housing within already-developed areas.

Increasingly urban and multi-family: Builders are already finding and developing infill sites within urban areas of the County. This is a trend that will continue as a greater proportion of residential development will be infill and involve redevelopment of already-developed land. Many of the infill and redevelopment opportunities involve higher densities, so that much of future residential development will be multi-family: apartments and condominiums.

Meeting the challenge of high home prices: Supply constraints can exacerbate the upward pressure on housing prices that are already very high in this region. However, because Montgomery County is part of a much larger housing market, and because it would take a very large increase in the supply of housing

sites to have a measurable impact on home prices, public officials have very limited ability to affect the market price of housing. Strategies for improving housing affordability must assume a constrained supply of land for new housing construction. This points again to multi-family housing because it is generally more affordable to the County's workforce. Challenges include: how to make apartments and condominiums more family-friendly, and how to meet the needs of workers who continue to prefer single-family homes.

Adding new capacity for housing in the future will not be easy, but has many benefits. As the County looks to infill sites to add housing capacity, it will be challenged by nearby residents to produce plans that both add housing and add to the quality of life of the whole neighborhood. The potential benefits include: replacing aging centers with a revitalized and lively mix of uses; housing that is generally more affordable to the County's workforce; and development that takes advantage of existing infrastructure in the most efficient way.

As it matures, Montgomery County's planning focus is changing. The outward expansion of infrastructure is no longer a priority. Instead, the County must reinvest in its existing residential and business communities. As the County continues to mature, exciting new opportunities are emerging. Community-scaled redevelopment, infill, and multi-modal transportation initiatives will provide a new dimension for innovative and imaginative planning that will create livable and inspiring places to live and work for future generations.

For More Information

Residential Capacity Estimate

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The Residential Capacity Estimate is a project of:

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