# An Analysis of Social Equity Issues in the Montgomery County (MD) Transfer of Development Rights Program

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**September 3, 2002**

*Abstract*

Transfer of development rights (TDR) programs increasingly are being utilized as land preservation tools in local jurisdictions' growth management strategies. Issues of social justice are embedded in TDR implementation. This article develops a framework for analyzing social equity issues in TDR programs, and applies the framework to the program in Montgomery County, Maryland. While the Montgomery County program has gained a national reputation for protecting large areas of farmland, the social equity analysis finds several shortcomings with that program's design and operation. Recommendations are offered for improving the effectiveness and equity of the program, and these suggestions have implications for other TDR programs.

## Introduction

Communities across the U.S. currently are implementing land use policies and programs intended to produce "smart growth", characterized, in part, by downtowns and inner suburbs that are reinvigorated and farmland and other rural resource lands that are protected from sprawl (Burchell 2000; Downs 2001; Smart Growth Network 2001). To help address these smart growth objectives, dozens of communities have adopted transfer of development rights (TDR) programs. In a typical market-based TDR program, landowners in a local-government designated "sending area" (usually farmland or historical sites) voluntarily sell, to a developer, their rights to develop their own properties.[1] The developer then uses the rights to build in designated “receiving areas” in other parcels or parts of the jurisdiction at densities higher than allowed by the receiving area’s base zoning (Pruetz 1997; Johnston and Madison 1997). If the program works, rural lands are preserved and designated growth areas receive growth that might otherwise sprawl outward – all at little financial cost to the jurisdiction since the rights are purchased by developers, not the government.[2]

In 1980, Montgomery County, MD initiated a TDR program as part of a strategy to preserve agricultural land in the northern and western portions of the county. The Montgomery County program has been described as "the most successful" (Pruetz 1997,12), and "probably the best known" (Porter 1997,112) TDR program in the U.S. The American Farmland Trust (AFT) describes the Montgomery County program as "the best example of the potential of TDR to protect farmland" (American Farmland Trust 1997,125). An AFT survey of TDR use in 2000 (American Farmland Trust 2001) identified 53 jurisdictions that were utilizing TDRs. Of the 67,707 "acres of farmland protected" by the TDR programs in the U.S., Montgomery County's program accounted for 40,583 acres, or a whopping 59.9 percent of the national total. Of the 88,575 acres of *all* land that the AFT survey found to be "protected" by the TDR programs, the Montgomery County program accounted for 45.8 percent of the total acreage.

Despite its national reputation, the Montgomery County TDR program is facing serious challenges. The county is running out of receiving areas, the price for TDRs is falling, and the program is facing opposition from residents of some receiving areas who are resisting increased densities from TDR application. In addition, as will be argued in this article, in actuality the program may not be “preserving” farmland in the long term.

In the Fall of 2000, a planner with the Maryland-National Capital Park and Planning Commission (M-NCPPC) approached one of the co-authors (Cohen) with a request for assistance in developing strategies for generating more demand for TDR use. The M-NCPPC request led the University of Maryland Urban Studies and Planning Program to make the county's stagnant TDR market the subject for its Spring 2001 Community Planning Studio course. One of this paper's authors (Cohen) was the instructor for the studio course, the other (Pruess) one of the students. At the beginning of the semester, the studio team decided they were not interested in merely helping M-NCPPC come up with ideas for increasing the demand for TDRs, but wanted to examine issues of program effectiveness and social equity as well. The Studio Team presented its findings and recommendations to the Montgomery County TDR Task Force at the culmination of the study in May 2001 in order to help the county improve the program.

This article provides a summary of some of the major findings and recommendations of the Spring 2001 Community Planning Studio, but expands on the conceptual framework -- for analyzing social equity issues -- contained in the studio report. The article begins with a brief explanation of the mechanics of a TDR program, and a summary of how the TDR approach is part of Montgomery County's overall land use planning strategy. This is followed by a presentation of a framework for analyzing social equity issues in the county's TDR program, in which six main equity issues are identified. The article then outlines the findings of the Community Planning Studio team (hereinafter referred to as "Studio Team") study in relation to the six social equity issues. The article concludes with the Studio Team's recommendations for improving effectiveness and equity of the TDR program.

**TDR Mechanics; History of TDR Use in Montgomery County**

With a population of over 873,000 in 2000, Montgomery County is the most populous jurisdiction in Maryland. Located in the Washington metropolitan area, the county encompasses 323,000 acres and is bordered on the southwest by the District of Columbia, on the west by the Potomac River, and on the northeast by the Patuxent River. The county has grown from a primarily rural county in the 1950s to a robust urban county with a diversity of residential areas and commercial centers and a strong economy boasting a highly-educated workforce, many of whom are employed in the county's high-technology and biomedical industries.

Since the 1960s, Montgomery County has been at the forefront of innovative local planning. The county's 1964 'Wedges and Corridors' land use plan called for containing sprawl by concentrating development along the Interstate 270 corridor. To accommodate future population growth, the 1969 *Montgomery County General Plan Update* contained three key recommendations (Maryland-National Park and Planning Commission 1993,9): (1) increasing the stock of affordable and clustered housing (for which goal the county implemented a nationally-pioneering Moderately Priced Dwelling Unit [MPDU] program[3]); (2) protecting farmland and rural open space (addressed through clustering options and with TDR and other State and local programs); and (3) balancing development with provision of public infrastructure (addressed through adequate public facility requirements).

In 1974, Montgomery County changed the one- and two-acre zoning in the rural wedge to a density of one unit per five acres to stem conversion of farmland to residential use.

Nevertheless, farmland conversion continued, and the county claims that it lost 18 percent of its agricultural land in the 1970s (M-NCPPC 1980). A task force appointed to study the county's options eventually recommended a combination of downzoning and a transfer of development rights program. In 1980, the Montgomery County Council adopted a functional master plan, *Preservation of Agriculture and Rural Open Space*, that created an Agricultural Reserve with 110,00 acres, or slightly over one-third of the county's land area. Over 91,000 acres of land in the Agricultural Reserve were rezoned from a density of one unit per five acres to one unit per 25 acres. To compensate landowners from the loss in land value from the downzoning, the county allowed development rights to be transferred from sending sites in the Rural Density Transfer (RDT) zone in the Agricultural Reserve to designated receiving areas at the rate of one development right for every five acres of land.

The effect of the downzoning and introduction of the county's TDR program gave farmland owners in the RDT zone four main options with regards to the TDR program, although all these options were never explicitly outlined:

- not developing any of their land nor selling any development rights;
- not developing any of their land and selling development rights;
- developing their land at one unit per 25 acres and not selling their development rights; or
- developing their parcels at one unit per 25 acres *and* selling up to 80 percent of their development rights, an option which utilizes the development opportunity of "the fifth TDR" (to be discussed later in this article).

From 1980 through 1990, the County amended master plans for nine community planning areas outside of the Agricultural Reserve, each of which allowed for development rights to be transferred into the area from the RDT zone. As of 1998, 5,243 development rights had been used in 11 master plans areas with receiving areas (out of a total of 18 planning areas in the county).

**Social Equity and TDR Programs: Developing an Analytical Framework**

As with other land preservation strategies, issues of social equity permeate transfer of development rights programs. Social equity can be most simply described as “a just distribution, justly arrived at” (Harvey 1972,98). This means that the *process* of developing a TDR program must be fair and inclusionary, and that outcomes of the program must not disproportionately overburden certain stakeholders, especially in relation to the benefits received by others.

Jacobs (1995,160-1) provides a framework for examining equity issues in agricultural land protection programs, by identifying the five equity criteria that may be used to critique the program: intergenerational equity; tenure equity for existing landowners; tenure equity for prospective homeowners; tenure equity for new farmers; and process equity. Each of the Jacobs criteria is presented below, followed in some cases with commentary.

<u>Intergenerational equity</u> – the land preservation policy should preserve long-run options for land resource use. Jacobs stated that this criterion is fulfilled when future residents are allowed to determine, at a later date, how agricultural lands will be used.

The Jacobs definition if intergenerational equity is different from that of the ethical principle of "sustainability", which is focused on the preservation of natural resource land for food production, wildlife habitat and environmental integrity (McDonald 1996; Rees 1990; Van Der Ryn and Calthorpe 1990; World Commission on Environment and Development 1987). Under the Jacobs criteria, at some time in the future, Montgomery County residents might decide that the best use for Agricultural Reserve land is for affordable housing production. While such a land use decision might address social equity criteria related to the meeting of a basic human need such as housing (Rawls 1971), it does not preserve the landscape, in perpetuity, for food production, environmental protection or aesthetic appreciation.[4] A responsibility to protect the land for the latter purposes is expressed by Beatley (1994,267) as the obligation of humans "to protect landscapes and resources which may enrich the lives of future residents . . ." The original, express purpose of the Montgomery County's TDR program was to protect, over the long term, farming and farmland in the Agricultural Preserve.

Tenure equity for current landowners – the policy should provide the opportunity for a fair return on land value. The determination of what constitutes a "fair return" has been the subject of numerous federal and state court cases over the last century. Most recently, in *Lucas vs. the S. Carolina Coastal Commission* (112 S. Ct. 2886 [1992]), the U.S. Supreme Court ruled that a land regulation that removed *all* economic value from a property would constitute a "taking" unless a state's common law in place at the onset of the regulation allowed such total diminution in value to prevent a nuisance. However, state courts have made their own determinations of what constitutes a "taking" under interpretations of their state constitutions.

Maryland courts generally have been supportive of land regulations that greatly restrict development on farmland, as long as the local government 's ordinance has a clearly-documented police power purpose and the means used (e.g. large-lot zoning) are rationally connected with the goals of the regulation.[5] As a constitutional and practical matter, local government are rightfully concerned that their regulations do not prevent competent farmers from continuing to make a living in agriculture.

<u>Tenure equity for prospective homeowners</u> – the policy should not adversely affect housing prices by unduly restricting the supply of land for residential development. As discussed briefly above, this criterion is at odds with a "farmland preservation" interpretation of the *intergenerational equity* criterion. In the long run, any given jurisdiction has a finite amount of land area and cannot guarantee that the land supply for residential development will not eventually be depleted. Nevertheless, the jurisdiction should take steps to insure that the development offers housing choices for households of different income levels. Since such inclusionary housing programs are not within the purview of a given agricultural preservation strategy, they are a more appropriate criterion for evaluating the local government's overall package of land use policies and programs, not TDR per se.

<u>Tenure equity for new farmers</u> – the policy should moderate the price and availability of land so that farmers can acquire land for agricultural use.

<u>Process equity</u> – the policy should provide access for a wide range of groups and interests to be involved in policy formulation and administration. A level political playing field

helps insure that various stakeholders can have a meaningful influence on the outcomes of land use decisions (Beatley 1994).

The Jacobs framework is a good starting point for developing equity criteria for Montgomery County's TDR program, but two additional dimensions are needed. First, a new stakeholder group needs to be added: *residents in TDR receiving areas*.[6] Second, the process equity criteria need to be expanded, since involvement in policy formulation does not automatically guarantee a just outcome for TDR residents. The added criterion is "*promise keeping*". In Beatley's (1984) words: "public authorities should, wherever possible, keep the promises and respect the expectations they have created in the minds of individuals and groups in the community." As will be shown, landowners in Montgomery County's sending areas, developers who purchase development rights, and residents in the county's receiving areas, have concerns related to promise keeping in the TDR program.

An additional outcome criterion to be added is what Beatley (1984,463) terms "rewards to contribution", in which "individuals and groups in society should receive benefits in proportion to the extent to which they contribute to the common good." Residents in Montgomery County's receiving areas are subjected to greater densities than permitted under the original base zoning for their neighborhoods, so that landowners in the receiving areas can sell development rights. In return, they deserve to have at least one of the following three expectations fulfilled: (a) that any negative impacts from increased densities will be mitigated (through timely and adequate provision of infrastructure and amenities); (b) that their acceptance of increased density will result in permanent protection of the rural land from which rights have been sold; and (c) that they may obtain some benefit from the preserved agricultural land, whether it is of a direct form (such as driving to the receiving area to enjoy the rural landscape, riding horses or buying fresh produce) or an indirect form (such as simply knowing that the rural landscape and farm culture is being preserved).[7] For the analysis herein, the "rewards to contribution" criterion is synonymous with "*receiving area resident equity*".

Finally, an outcome criterion needs to be added that addresses what James and Gale (1977) identify as inequities in the distribution of development rights. Owners of agricultural land with little or no development potential (due to topography, soil conditions, etc.) could, in one type of TDR system, receive the same number of development rights as owners of like-sized parcels with great development potential or pressure. Similarly, owners of farmland with low-class soils and unsustainable agricultural practices might, under one type of TDR program, receive the same number of development rights as a like-sized parcel whose owner has high quality soils and who employs soil conservation practices. This issue is somewhat related to the *intergenerational equity* criterion in that a TDR system that gives higher development rights sales opportunities or returns to owners of high quality, developable farmland, may more likely to be effective in preserving such farmland. We will use the term *development rights assignment equity* to describe this TDR equity concern.

Based on the above analysis, we can use the following framework for analyzing equity issues in Montgomery County's TDR program:

1. *Intergenerational equity*, which we use to denote the program's long-term effectiveness in preserving farmland.

2. *Tenure equity for current landowners*, used in the same sense that Jacobs did in referring to the program's capacity for assisting farmland owners to get a fair economic return on their land.

3. *Tenure equity for new farmers*, used in the same sense that Jacobs did in referring to the program's capacity to ensure the availability of land affordable for new farmers.

4. *Receiving area resident outcome equity*, in which residents receive benefits in exchange for accepting residential densities higher than allowed in base zoning. We will demonstrate how this criterion is tied to the intergenerational equity criterion (i.e. TDR program effectiveness in preserving farmland).

5. *Development rights assignment equity*, referring to the capacity of the program to provide greater rewards to owners of higher quality farmland.

*6. Process equity*, consisting of two components: (a) opportunities for participation in TDR policy-making and program development; and (b) promises kept to sending area landowners and receiving area residents.

The following section discusses how each of these social equity criteria was analyzed with regard to the Montgomery County TDR program's record in providing compensation to landowners in the sending area, effectiveness at land preservation, and distribution of development rights in receiving areas.

## Analysis of Social Equity in Montgomery County's TDR Program

Analysis of the Montgomery County TDR program in terms of the six social equity criteria indicate some shortcomings in program design and implementation. The analysis points the way to some needed reforms to sustain the Montgomery County TDR program.

In analyzing the County's program, the Studio Team conducted the following:
a) structured interviews with key stakeholders; b) data analysis, including decennial census, agricultural census, and TDR-related records kept by the county, data on county schools, and relevant demographic data as well as use of geographic information system (GIS) information drawn from a variety of the county's databases; c) analysis of Montgomery County documents, including general plans, local planning area master plans, open space plans, TDR Task Force reports, and other documents; d) review of TDR programs in over 35 jurisdictions throughout the U.S.; e) review of county and state farmland protection programs other than the Montgomery County TDR program; and f) field trips to the county's agricultural reserve.
The following are the results from the Studio Team's analysis that are relevant to the six social equity criteria.

### *Tenure Equity for Current Landowners*

Montgomery County's TDR program was intended to provide county farm owners with compensation for the downzoning of their lands and the subsequent decline in property value. Ability to sell rights at the pre-1980 zoned density of one unit per five acres allowed owners to receive more financial equity from their land than at the post-1980 zoning of one unit per twenty-five acres. County officials created the market of sending and receiving areas and opened the market to unhindered trade. A TDR bank was established at the onset of the program' in case the market needed stabilization, but was not needed in the first few years and so was phased out.

Twenty years later the story is not as simple. For reasons discussed below, opportunities for developers to use TDRs have drastically declined, which is troublesome given the fact that thousands of development rights still exist in the RDT zone. County officials explain these events by pointing to a change in the rate of development, but RDT landowners put the responsibility on county officials. The issue of tenure equity for rural landowners becomes problematic as owners are unable to sell rights at "reasonable" prices and support their farms through the added revenue.

One reason the county has not intervened in the price change over the past twenty years is the perceived importance of relying on the "free market" of development rights. Stakeholders decided that a county-controlled bank of development rights or a dictated exchange process would involve too much government interference. However, the "free market" in development rights is quite constrained. Although landowners and developers are free to enter into TDR sales agreements without county intervention, the market is tightly controlled by the number of available receiving rights.

At the start of the TDR program, 9,927sending rights and 14,427 receiving rights were created (M-NCPPC 1997a).[8] Today, 4,332 sending rights remain and 4,867 receiving rights. The ratio has changed from 68 sending rights per 100 receiving rights at program's onset, to 89 sending rights per 100 receiving rights at present. As the ratio approaches one, the potential for sale decreases because of the lack of opportunity. The market cannot create additional demand to rectify that ratio because receiving areas are only designated through the county's master plan process. Tenure equity to the existing landowners is thus in jeopardy.

Developers of the remaining receiving areas are under considerable neighborhood pressure to build at the base zoned density, not the TDR zoned density. This pressure has been generated by receiving area resident perception that the county has not provided sufficient compensating benefits and services. The proportion of development rights designated but not used in receiving areas throughout the county varies significantly, as detailed in receiving area resident outcome equity discussion. Olney and Damascus developed receiving areas to nearly maximum densities, while master plan areas such as North Bethesda, Germantown and Potomac/Travilah reduced their TDR zoning potential by more than 30 percent (M-NCPPC 1997a). In several planning areas, citizens have organized to reduce developments rights utilization in specific development projects and as well as to remove some remaining receiving areas from master plans as well.

Effects of this hands-off approach are seen in the changing TDR price and rate of sale. As the ratio of sending to available receiving rights changed, so did the market price. Figure 1 presents the change in price, in unadjusted and in 1999 dollars.

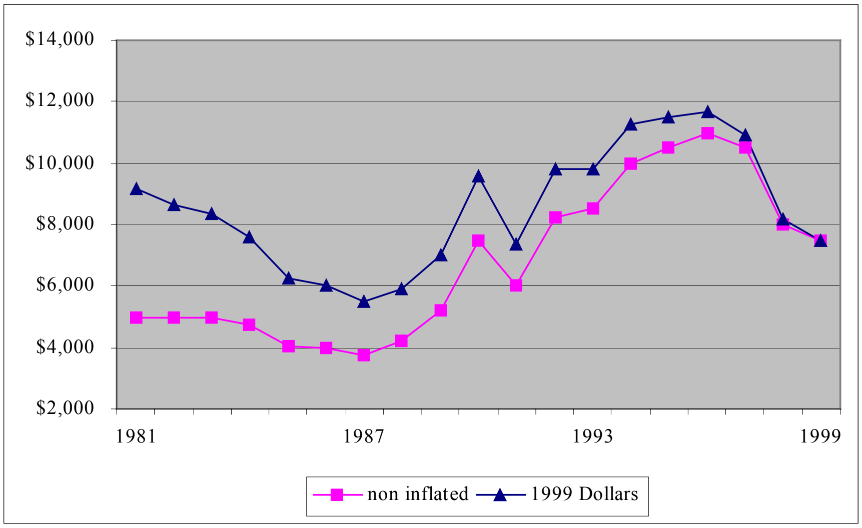



**Figure 1.** *Prices of Montgomery County (MD) TDRs: 1981 to 1999*

Source: M-NCPPC (1997).

Although reaching a peak in 1996 with an adjusted price of $11,680, the 1999 price of $7,500 is significantly below the starting price of $9,160 (in 1999 dollars). Only from 1985 to 1989 was the price per development right lower.

This change in price is reflected in the number of development rights sold each year. While there was an active TDR market in the 1980s, in the past few years lower numbers of rights have been sold for development. No TDR sales were recorded in the years 1996 and 1997, and only 42 TDR sales were recorded in 1998, the last year for which data was available to the Studio Team (Daniel 1999). One developer found it easier to purchase agricultural lands, sell himself the TDRs, and apply them to his development in receiving areas, rather than to find a willing seller (Flanagan 2001).

From one perspective responsibility to adjust this “free” market, as opposed to letting it take its course, lies with the county. Tenure equity for RDT farmland owners would dictate that the number of receiving area rights needs to be increased and secured, so that increased demand will raise the price. However, TDR demand will only increase if receiving area resident concerns are addressed, thereby reducing opposition to TDR-related upzoning and TDR use.

From another perspective, current landowner tenure equity concerns are tied to a promise-keeping criterion. There is no legal or constitutional reason why the county needed to compensate farmland owners in the agricultural reserve. Baltimore County has instituted one-unit per 50 acre zoning in its agricultural preserve without a companion TDR or other reimbursement program. However, for political, and what it judged to be equity, reasons, Montgomery County officials tied the downzoning to the TDR compensation program. Because the farmland owners view this as a compensation program, they believe it is the county's responsibility to revive the TDR market.

*Intergenerational Equity (Effectiveness in Long Term Protection of Farmland)*

Tenure equity for the RDT zone landowners has less moral force if the TDR program is not achieving its primary goal of agricultural land preservation. Considerations of intergenerational equity and receiving area resident outcome equity, take precedence when one considers that the program is not ensuring long-term preservation of TDR participating lands. Although promoted in receiving area master plans in the early 1980s as a method to preserve agricultural lands from development, the TDR program preserved the opportunity for farmland owners to develop their lands at the zoned density (M-NCPPC 1981). Landowners have secured the privilege to sell development rights from RDT zone acreage, but are not required to downzone their lands in the process -- a fact which led Daniels and Bowers (1997,180) to describe the county's program as "compensable zoning".

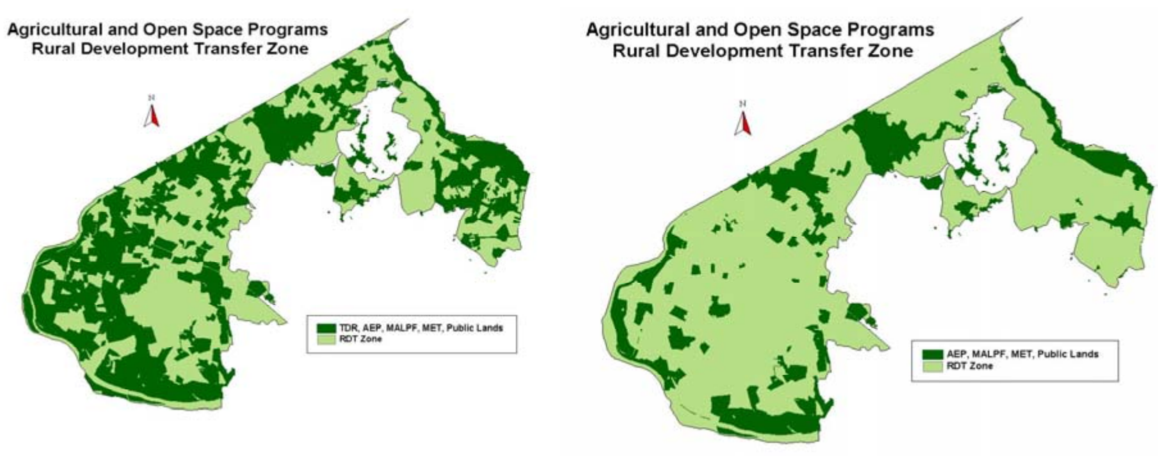
The process of selling development rights may have decreased the pressure to sell agricultural land for development in the short-term, but no easement protects these lands from development. Unlike agricultural preservation programs such as the county's Agricultural Easement Program (AEP) and the Maryland Agricultural Land Preservation Foundation (MALPF), sale of development rights through the TDR program does not place an easement on the parcel of participating land. For each 25 acres, a landowner may sell 5 development rights, although the zoned density is one unit per 25 acres. When selling rights to a developer, the landowner may sell 4 of the 5 rights and retain the fifth right on the land. The landowner receives compensation for the rights sold, but still may subdivide the land into 25-acre parcels, using that remaining right for development.

For example, on a 100-acre farm, the landowner may sell 16 of the 20 rights and use the remaining 4 rights to develop the farm at the zoned density of one unit per 25 acres. Although the infusion of money from the sale of rights most likely helped many farm owners continue farming over the short-term, no long-term farmland preservation has been ensured. Because of the option of "the fifth TDR", intergeneration equity (when defined as long-term protection of farmland) is not guaranteed under the Montgomery County TDR program.

Because of the phenomenon of "the fifth TDR," the effectiveness of the Montgomery County TDR program, in protecting farmland, is vastly over-rated. Figure 2 illustrates the limited, long-term agricultural preservation that has taken place in Montgomery County.

Although all darkened areas in the left hand image are participating in some type of agricultural program, permanent easements are located only in the dark areas of the right image. All of the remaining lands in lighter shading are available for development at the zoned Agricultural Reserve density of one unit per 25 acres.

**Figure 2.** *Acreage in All Agricultural Protection Programs, and in all Easement Protected Agricultural Protection Programs, Montgomery County (MD), 2000*




**All Agricultural Program** **All Easement Protected Ag Programs**

Source: M-NCPPC; Community Planning Studio. Figure by Ann Piesen.

This is reflected in the ranking of Maryland counties that implement agricultural preservation programs as well. Montgomery County ranks first when all easement and TDR program lands are included with over 50,000 acres of participating lands. However, if only easement-protected lands are included, Montgomery County drops to 14 in the State ranking, with about 11,260 acres preserved.

Recent economic expansion in the Washington DC area has created an environment in which 25-acre homesteads are a reality. Without protection, the growing market for 25-

acre parcels will place increasing development pressure on the Agricultural Reserve.[9] The 40,000 acres from which development rights have been sold, could still be sold for large-lot homesteads. As that occurs, landowner tenure equity rights will be achieved at the expense of intergenerational equity, tenure equity for new farmers, and receiving area resident outcome equity.

Although this paper is critical of the long-term effectiveness of the program in ensuring protection of farmland, two important considerations need to be emphasized. First, farmland owners interviewed by the Studio Team believe that the program has played an important role in preserving farmland in the short-term. Said one farmer: ". . . if not for the agricultural land use tax, downzoning and TDRs, there would be no farms left in the county" (Montgomery County Farmers Survey 2001).

Another consideration is that factors other than the effectiveness of the TDR program are helping shape the fate of the farmland in the agricultural reserve. International produce prices, the willingness of future generations to choose an agricultural career, government price supports, demand for land for affordable housing, availability of financing of other state and county farmland preservation programs, the capacity of farmers to diversify their production to target new markets, the maintenance of a critical mass of agricultural support businesses (farm equipment, seed stores, etc) are among the factors that will influence the future of the County's farmland. While strengthening the effectiveness of the TDR program may be a necessary condition for farmland preservation in Montgomery County, it is not a sufficient condition.

*Development Rights Assignment Equity*

Montgomery County's TDR program does not rate well under the criterion of development rights assignment equity. Any type of agricultural land in the RDT zone may participate in the TDR program. In contrast, the AEP and MALPF easement programs mentioned above, require (a) significant portions of Class I, II or III soils; (b) water and soil management plans; and (c) continuation of farming on the participating lands. Attempts are made through other Montgomery County and Maryland State programs to protect the most valuable agricultural and historic lands in the county. The county's TDR program allows any landholder in the RDT zone to sell one development right for every five acres, regardless of soil quality, uniqueness of farmland, conservation practices or farming continuance.

*Tenure Equity for New Farmers*

The Montgomery County TDR program has mixed ratings on the criterion of tenure equity for new farmers. One the one hand, theoretically, the 25 acre zoning in the RDT zone reduces development pressure in the short-term, thereby keeping farmland prices lower. On the other hand, farmland on which landowners have retained the "fifth TDR" is much more valuable. The Studio Team was not able to estimate how many parcels have been developed at one unit per 25 acres, or to discern now many landowners have sold their "fifth TDRs", because the county does not keep such records. Farmland owners interviewed by the Studio Team reported that farmland owners are reluctant to sell their "fifth TDRs" due to their high value. According to some farmers, 25 acre parcels with all development rights can be valued between $125,000 to $150,000. The sale price per acre varies between about $3,000 and $6,000 depending on whether the development rights are removed or still remain on the property (Criss 2001).

For a new farmer, buying a farm from an owner who has retained the "fifth TDR" may be more expensive than a farm from which all development rights have been sold, but there is great benefit in purchasing such land. The high value makes it possible for the new landowning farmer to obtain large loans for agricultural purposes.

*Receiving Area Resident Outcome Equity*

One measure of receiving area resident outcome equity in the Montgomery County TDR program is the pattern of assignment and utilization of development rights outside of the agricultural reserve. As noted earlier, about 26 percent of the assigned rights have been eliminated prior to use (M-NCPPC 1997a). The distribution of the rights eliminated is shown in Table 1, which shows that the location of the used rights throughout the planning areas is skewed. Many rights are concentrated in a few areas, contributing to problems in levels of public service provided and compromising receiving area resident outcome equity.

**Table 1. Percent of TDRs Removed From Potential Use by 1997, by Planning Area**

| Planning Area | % TDRs Lost |
|---|---|
| Aspen Hill | 20% |
| Bethesda | 43% |
| Clarksburg | 17% |
| Damascus | 2% |
| Darnestown | 24% |
| Gaithersburg | 27% |
| Germantown | 39% |
| Kensington/Wheaton | 16% |
| N. Bethesda | 36% |
| Olney | 21% |
| Potomac | 29% |
| Travilah | 35% |
| East County | 18% |

Source: M-NCPPC, 1987 Census Update Survey, Planning Area Profiles 1991, 1997 TDR Status Report & Studio Team 2001

Table 2 illustrates the distribution of built TDRs in Montgomery County.[10] While each of the aggregated areas of Olney, White Oak/Fairland/Cloverly and the Gaithersburg group contain a large portion of total county TDRs, the units are a small percentage of each area's total housing - except for Olney. Conversely, more than 15 percent of the housing available in Olney and Damascus is from TDRs, constituting added density above the base zoned density for each area.

**Table 2. Percentage of Housing Units Comprised by TDR Units, by Area, 1997**

| General Area | % of Total County TDRs | Percent of Area's Housing |
|---|---|---|
| Olney | 34.3% | **16.7%** |
| Damascus | 8.7 | **15.1** |
| White Oak, Fairland, Cloverly | 16.8 | **2.8** |
| Gaithersburg, Darnestown, Travilah, Bennett, Goshen, Potomac/ Cabin John | 28.7 | **1.9** |
| Germantown, Aspen Hill | 9.1 | **1.0** |
| North Bethesda | 1.2 | 0.4 |
| Wheaton, Kensington, Silver Spring, Takoma Park | 0.8 | 0.1 |
| Bethesda, Chevy Chase | 0.4 | 0.1 |
| Poolesville | - | - |
| Rockville | - | - |
| Clarksburg | - | - |
| Rock Creek | - | - |
| Totals: | 100% | |

Source: M-NCPPC (1997); Community Planning Studio (forthcoming).

Note: May not total to 100 percent due to rounding.

An analysis of density of TDRs per square mile also indicates the unevenness of TDR distribution. Table 4 shows that Damascus (53.6) and Olney (38.4) and also have the highest density of TDR units built per sqare mile, with the White Oak area a close third (25.8). This is in contrast with the average density of 15.2 TDRs per square mile in those planning areas with TDRs. The additional density of development rights may be simply due to the timing of development in these areas in the 1980's, but application of these rights has also increased population densities above planned levels.

The inequity is also seen in the allowance of TDR development even though development moratoria had been placed on these areas because of lack of road capacity. Mass transit was discussed but never constructed, while base densities were exceeded (M-NCPPC 1997b). According to the 2001 Annual Growth Policy of Montgomery County, the planning area of Damascus (a receiving area) was under a residential development moratorium from 1986 to 2000 because of road levels of service, as illustrated in Table 3. Nevertheless, an additional 244 TDR units were allowed to be developed (M-NCPPC 2001). Similarly, the Fairland/White Oak and the Cloverly planning areas were under moratoria for 19 and 12 years, respectively, while TDR development was taking place. The Fairland policy area is projected to be under moratorium through 2002. Leaders of those communities claim, in effect, that tenure equity for sending landowners took precedence over the infrastructure needs of their areas. Table 3 does show that other planning areas have been in moratoria for similar lengths of time, such as Montgomery Village and Aspen Hill. Yet, these areas did not receive any large additions of housing units during their moratoria. Additional research is necessary to determine the degree to which the differences of development in planning areas during the moratoria were specifically due to the county's desire to accommodate TDR use, versus a more general inattention to necessary infrastructure occurring through the county's growth.

**Table 3: Planning Areas Under Moratorium for 10 Years or More and Units of Development Allowed, Montgomery County (MD)**

| Policy Area | Start Year | End Year | Total Years | Approvals Total Units |
|---|---|---|---|---|
| Cloverly | 1982 | 1994 | 12 | 322 |
| Damascus | 1986 | 2000 | 14 | 244 |
| Fairland/White Oak | 1983 | 2002 | 19 | 365 |
| Montgomery Village | 1992 | 2002 | 10 | 27 |
| Aspen Hill | 1990 | 2002 | 12 | 12 |

Source: Montgomery County, MD Annual Growth Policy, Staff Draft Fiscal Year 2002 AGP Ceiling Element, November 2000.

The Fairland planning area case reveals a situation in which TDR application occurred at the expense of area infrastructure needs. In 1990 the Montgomery Council waived the school capacity standard in this planning area so that the area would not be in a building moratorium for school capacity. According to the county's adequate public facilities ordinance, each school was required to have capacity of 110 percent of the size of the projected student body. The high school lacked adequate capacity for a number of years, and the overflow students were sent to neighboring school districts until a new high school was constructed in the late 1990s.

Receiving area equity outcome is closely connected to intergenerational equity. For some receiving area communities, there is evidence that the impacts of increased densities have not been mitigated, although this claim needs more extensive research than the Studio Team was able to accomplish within the 3.5 month duration of their study. Whether receiving area acceptances of higher densities is matched by long-term preservation of the county's farmland remains to be seen, since we argue that there is nothing in the design of this program to guarantee that outcome. Finally, only a statistically valid study of receiving area households can determine the nature and degree of benefits that they receive from the county's agricultural reserve.

Without the provision of adequate services to planning areas with added TDR densities, no citizen would readily accept any new receiving areas. Equity to the receiving area residents (as well as their process equity in some cases, discussed below) took lower priority to sending area landowner tenure equity. Because of these perceived inequities, receiving area resident organizations had understandable reasons for fighting to remove remaining receiving areas and/or challenging developers from applying any added densities because of the exposed inequities. Other impacts such as effects on utility provision, watershed quality, among others, were not measurable by the Studio Team due to the absence of county data that could be disaggregated by receiving area.

*Process Equity*

For purposes of this study, process equity was defined as having two components: opportunities for participation in TDR policy-making and program development; and promises kept to sending area landowners and receiving area residents. In terms of participation, interviews by the Studio Team indicated that farmland owners' voices were clearly heard in the drafting of the TDR plan. In fact, landowners' negative attitudes towards potential downzoning influenced creation of the TDR program. Farmland owner representatives are on the Montgomery County TDR Study Task Force, which is developing recommendations on how to sustain the program.

While representatives of receiving area communities are also on the county's TDR Study Task Force, they still believe that they were left out of the program in its early stages. The worst case is the Fairland planning area. In 1981, the Fairland Master Plan was created subject to formal public review. According to Bill Barron, M-NCPPC planner for the East County, when the plan reached the County Council the TDR zoning was applied to the area and subsequently approved without further public review. Clearly, Fairland residents were not afforded process equity in the designation of receiving areas in their community.

The 1997 East County master planning process was very different. According to Barron, the county took extra steps to insure that residents were involved in the planning process. A consultant was brought in to facilitate a collaborative process for citizen involvement. The result was a plan that refocused development towards the community vision selected by participating residents. Among other features, the 1997 East County master plans called for: increasing zoning potential for single-family detached home development; eliminating TDR zoning from parcels with environmental and access constraints; extension of additional bus service; designation of new parkland and a recreational center; designation of a site for a new elementary school; and diffusion of additional MPDUs, instead of the prior practice of concentrating them in high-density areas (M-NCPPC 1997b).

With regard to promise keeping, both sending area landowners and receiving area residents feel somewhat betrayed by the county. Farmland owners interviewed by the Studio Team view the TDR program as intending to compensate them for the 1980 downzoning, and feel that the county has not lived up to its promise to designate sufficient receiving areas to maintain a strong market and high prices for development rights. Leaders of receiving area community associations interviewed by the Studio Team believe that the county has not fulfilled its promises to provide infrastructure, facilities and services needed to support the increased density resulting from TDR use. According to Bill Barron, M-NCPPC's East County planner, infrastructure promised in the East County planning area was not built in a timely manner. Barron reports that improvements to roads and schools that were included in the 1981 East County Master Plan did not begin construction until 2001.

**Recommendations and Conclusions**

Inequities apparent in the TDR program of Montgomery County have created an environment in which the popularity of the program is declining. Sale of rights is not designed effectively to preserve agricultural lands from development. Some receiving areas have not been afforded timely provision of infrastructure and amenities to accommodate increased densities resulting from TDR use. Development rights are assigned to sending parcels regardless of land characteristics or farm practices. Sending area landowners and receiving area residents are not satisfied with the process of TDR program planning and implementation.

In order to address the social inequities in the Montgomery County TDR program, a number of changes are necessary. The following is a list of two general recommendations for strengthening the TDR program, and several options the county could take to improve the program's social equity. The list was developed by the Community Planning Studio Team and presented to the Montgomery County TDR Task Force in May 2001.

*General Recommendations*

<u>County Long-term Vision</u>. Montgomery County continues to prosper and attract new residents, as seen currently in tight housing sales and rental markets. The future economic viability of farming is unknown and the long-term continuation of farming may not be possible for a variety of reasons, including international market forces. Without a long-term vision of the balance of open space versus provision of housing (especially affordable housing) for the next 50 years, the county may become subject to haphazard development of the remaining developable lands. There is already a conflict between the goals of preserving open space and provision of affordable housing. The county should focus its attention on identifying the important open spaces to preserve long-term, on outlining development goals for the remaining areas, and on evaluating the feasibility and desirability of preserving remaining agricultural lands. It is therefore recommended that MNCPPC organize a county-wide, resident visioning process to identify long-term goals and design a potential 50-year land use map.

<u>Evaluation and Data Collection</u>. Current available data are insufficient to fully analyze the needs of residents in the rural and urban zones. Trends in agricultural land uses, the location of remaining "fifth TDRs", and the subdivision of parcels for non-agricultural use, among others, need to be documented and analyzed. Change in the environment, quality of life and infrastructure provision should be more closely monitored for the receiving areas. A centralized data bank needs to be created to coordinate the provision of information between county departments and to the public. Benchmark data should be collected and analyzed for policy decision-making. Accordingly, a county committee on data exchange should be created to facilitate the establishment of a data bank, and new

technologies for the web and GIS should be used to make this information available to the public.

*Options for Improving Social Equity*

The following are a selection of alternative options under which the Montgomery County could improve social equity in its TDR program, as recommended by the Studio Team. Following the description of each option are the social equity criteria that are addressed by that option.

Farmland Preservation Fund and Administration. Under this option, a fund would be created to provide farm landowners with subsidized mortgage rates when they sell any of their "fifth TDRs". Numerous farmers interviewed by the Studio Team noted that they needed to retain the last development rights in order to guarantee their loans at reasonable interest rates. That is because the removal of the "fifth TDR" dramatically decreases the value of the farmland and therefore the value of the land's collateral for securing these loans. Because commercial lenders typically have established standards, which cap the loan to value ratio permitted, it is logical that farmers are reluctant to sell their "fifth TDRs" even if they never intend to develop their property. *(Intergenerational equity; tenure equity for current sending area landowners; tenure equity for new farmers; process equity.)*

Fair Share Distribution of Added Densities. Following the creation of a long-term plan, the fair-distribution of future densities throughout the planning areas requires that each portion of the county accept additional housing through redevelopment or new development. This includes the selected rural areas, over the long-term, such as rural villages and MARC station areas. While it is important to retain the different characteristics of the planning areas, this distribution will be necessary to provide adequate housing for future residents. When this is required in each planning area, the likelihood increases that any individual area will accept new receiving areas. This proposal may be resisted by the lower-density planning areas. A unifying process needs to be developed for the distribution, similar to the "social contract" approach of the county's Moderately Priced Development Unit program, in which all developing areas of the county are expected to accommodate developers' construction of below-market-price units in exchange for increased densities. (*Tenure equity for current sending area landowners; receiving area outcome equity; process equity*).

Infrastructure Fund. A infrastructure fund would be supported through general development fees, additional fees from development at densities lower than one unit per acre in the county, and taxes from the agricultural zone. Monies from the fund and other county expenditures would be directed to neighborhoods most in need of updated infrastructure. Improvement priorities would go towards neighborhoods that were receiving areas under the TDR program, neighborhoods with more than their "fair share" of Moderately-Priced Dwelling Units, and then by planning area density. King County, WA has a similar program through which a fee is charged for some TDR uses. By generating more support for receiving area residents, this option strengthens the market for TDRs, thus improving tenure equity for sending area landowners. *(Tenure equity for current sending area landowners; receiving area outcome equity; process equity*).

Packaging of Development Rights. Sale of any development rights would be directly linked to a reduction in density for the given parcel. Sale of each 20 percent of development rights would be linked to the sale of a “fifth TDR ”. The owner would not be allowed to preserve all of the rights at 1:25 acres and sell the remained rights. The rights would be sold with the fifth right each time to decrease to potential density of the sending parcel. For instance, an owner with 100 developable acres who owned 20 development rights would sell the rights in increments of 5. For each 5 sold, a right to develop at the existing density (1:25) would be sold as well. Because the “fifth TDR” currently has much higher value to sending area owners than the other four rights, the County would need either to create a fund to purchase the “fifth TDR” each time, or create a different exchange rate for that TDR (i.e. worth 10 development rights). The success of this recommendation would in large part depend on the simultaneous implementation of both the proposed Preservation Fund and the agricultural tax breaks. *(Intergenerational equity; tenure equity for current sending area landowners; tenure equity for new farmers; receiving area resident outcome equity; process equity.)*

<u>Focusing Efforts on Prime Soils</u>. Under this option, the County’s TDR program would be focused on prime farmland and farms with best practices, through prioritization of lands within the program. In order to provide owners of prime lands with greater incomes, the County could either provide a supplementary increment above the market rate for TDRs, or could assign development rights at one per each 2.5 acres (or some other ratio). This can also be accomplished through new emphasis on attracting the prime soils owners to the existing easement programs. Most prime lands would be downzoned to 1:50 acres, while owners would still have 1:5 acres (or 1:2.5) development rights to sell. To implement this option, county planning officials and the Planning Board would be required to prioritize lands for preservation and further downzone those identified as the most important for farming. Funding would need to be approved by the

County Council to supplement the pricing of TDRs from these lands. *(Intergenerational equity; tenure equity for current sending area landowners; tenure equity for new farmers; development rights assignment equity; process equity.)*

**Conclusion**

The Montgomery County TDR program is one of several planning tools that have earned the county a national reputation for innovative land use planning. Indeed the county was practicing "smart growth" decades before the term entered the planning lexicon. In referring to the findings of the University of Maryland's 2001 Community Planning Studio analysis, this article suggests that the county's TDR program has underlying problems that undermine its reputation as the nation's most successful. In particular, the study finds that, in its current form, the TDR program is inadequately addressing at least five of the six social equity criteria identified herein.

Under the right circumstances, transfer of development rights programs hold great promise for local government attempts to contain urban sprawl and preserve their rural landscapes. If the Montgomery County is successful in restructuring its TDR program to address social equity concerns, it may reinforce its status as a pioneer in this effort. However, as noted earlier in this paper, a variety of factors challenge the viability of farming in a metropolitan area jurisdiction like Montgomery County. While strengthening the effectiveness of the TDR program may be a necessary condition for farmland preservation in Montgomery or other similar counties, it is not a sufficient condition. Local jurisdictions will have realistic expectations about the role that can be played by TDR in reaching their smart growth goals.

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**Notes**

[1] In the inventory of TDR programs compiled by Preutz (1997), many programs do not utilize a market for the development rights. Instead, a landowners is given the option of transferring the right to develop on environmentally-sensitive or agriculturally important portions of one parcel to other portions of the same parcel, or to one of the landowner's other parcels.

[2] TDR programs differ from Purchase of Development Rights (PDR) programs. In the latter, the government or a private land trust buys development rights from the rural landowner and then retires the rights.

[3] Instituted in 1974, the MPDU program requires that all new developments of 50 or more units set aside at least 12.5 percent of the units as "moderately-priced", defined as affordable to households earning 65 percent of the county's median household income. In exchange for the set asides, developers receive density bonuses, which increase with the inclusion of higher proportions of MPDUs. The county's Housing Opportunities Commission has the option of purchasing up to one third of the MPDUs in a development and subsequently renting them to very low-income households.

[4] This assumes that agricultural practices are environmentally benign, so that long-term soil productivity is maintained, wildlife are not threatened by pesticides, and streams are protected from nitrogen and phosphorous loading resulting from fertilizer runoff.

[5] For example, the court upholding a challenge to Montgomery County's downzoning of the properties ruled that the downzoning did not constitute a "taking". The court held that under Maryland law, in order to effect a "taking" a zoning regulation must "deprive the owner of all beneficial use of the property" (*Dufour v. Montgomery County Council*,

Law Nos. 56964, 56968, 56970 and 56983 [Consolidated], Circuit Court for Montgomery County, MD Jan. 20, 1983).

[6] One of the earliest discussions of efficiency and equity considerations in TDR programs is Barrese (1983).

[7] The latter indirect benefit is also known as "contingent valuation" (Schulze et al., 1983).

[8] This number includes TDRs that may be transferred from the Reserve, and excludes public lands and 20 percent of the total development rights held for development in the RDT zone.

[9] Data are not available from the county to determine the number of 25-acre homesteads (primarily non-farming) that have been created over this period.

[10] The estimates were generated using Geographic Information System to combine county planning areas because data was available for geographical areas not coinciding with planning area boundaries. Planning areas were combined to create the general areas referred to in this calculation. All 18 planning areas are included.