

## TRANSFER OF DEVELOPMENT RIGHTS IN THE PHILADELPHIA REGION – HOPE OR HYPE?

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**ABSTRACT:** *This paper is a culmination of research looking at the experience and effectiveness of Transfer of Development Rights (TDR) programs in the Philadelphia region. A number of communities in the Philadelphia region adopted or attempted to adopt TDR programs over the past 15 years. Local comprehensive plans routinely recommend TDR programs as a tool to protect open space, sensitive environmental lands and farmland. The record of success with TDR programs, however, is not great. Using a case study of West Brandywine Township, Chester County, of an initiative to develop a TDR program and a survey of municipalities in the region that have TDR programs, a number of practical obstacles are identified. Of the programs that have been adopted, only four municipalities have indicated general success. Other communities have repealed the programs or discouraged use of the programs after they proved to be far too complicated and politically undesirable. There are a number of lessons to be learned from these local TDR initiatives that raise general questions regarding the efficacy of their use. TDR exchanges have geographic and economic scale elements that need to be considered in the development of programs. As with any land use tool, the local political environment also has to be considered in the development of TDR programs. In the face of potential significant obstacles to the use of TDR, some municipalities have adopted alternative density transfer mechanisms to enable the positive planning aspects of density transfer while avoiding the barriers to Township-wide TDR programs.*

### INTRODUCTION

Over the past two decades, transfer of development rights, or TDR, has been promoted in Pennsylvania as an opportunity for municipalities to protect farmland areas, woodlands, watersheds and open space. A number of TDR programs have been enacted during this time by local municipalities in suburban Philadelphia locations. In most cases, the programs have proven to have had limited success in achieving development density transfers over the entire municipality, and the subsequent protection of farmland and open space. Indeed, recent actions in a number of communities have seen the repealing of TDR programs. Using a case study in West Brandywine Township, Chester County, of an attempt to enact a TDR program and a survey of all municipalities in the Philadelphia region with TDR programs, this paper evaluates efforts to date with local TDR programs and explores the practical obstacles to their enactment and use. The findings provide important information regarding the potential limitations in the use of TDR as a growth management tool as well as the necessary elements to enact a successful program.

### TRANSFER OF DEVELOPMENT RIGHTS IN THEORY AND PRACTICE

TDR is often proposed as a solution to sprawl forms of development. As a market-based technique, TDR encourages the voluntary transfer of growth from the places where a community would like to see less development (called “Sending Areas”) to areas that are more appropriate for development (called “Receiving Areas”). TDR is the sale of one parcel’s development rights to the owner of another parcel, which allows more development on the second parcel while reducing or preventing development on the originating parcel. With TDR, development rights are severed from the lots in areas designated for protection in the sending area and the severed rights are transferred to a lot in an area where additional development is permitted in the receiving area. Development rights are conveyed by a recorded deed. In Pennsylvania, the deed must bear the endorsement of the local municipal governing body having jurisdiction over the property or properties involved in the conveyance of rights.

The underlying principle in TDR is that real property is a bundle of rights rather than a single entity. Just as mineral rights can be separated from land, so can the right to develop (Wright, 1993; Rose, 1975; Pruetz, 1997). The development rights can be

transferred from one site to another, from an area to be preserved or protected to an area where growth can be accommodated and is desirable. The property owner whose land is being restricted would therefore be fairly compensated. With TDR, development pays for preservation, and is more financially equitable to property owners.

TDR has a firm basis in the planning literature. As a planning tool, TDR is used to further a variety of objectives, including the protection of agricultural land and wildlife habitats, the preservation of watersheds, woodlands, and other sensitive environmental lands, and to direct growth to areas of communities that have adequate infrastructure and public services (Pruetz, 1993). It is widely postulated that TDR programs provide the proper economic incentive to preserve undeveloped land while allowing development to occur (Pizor, 1986; Gottsegen, 1992). Much of the literature on TDR has examined statewide and regional TDR programs (Johnston and Madison, 1997). In comparison, there has been little attention to local municipal programs. Machemer and Kaplowitz (2002) evaluate both regional and local programs. The literature acknowledges the complexities of the programs and the difficulties related to administration, but there is little review of failed programs. Case studies typically highlight successful programs. There has been no systematic evaluation of TDR programs in Pennsylvania.<sup>1</sup>

### **Where it is Working**

Johnson and Madison (1997) evaluated four successful TDR programs in Montgomery County, Maryland, the New Jersey Pinelands, Lake Tahoe Basin, California and Nevada, and the California Coastal Commission. The TDR programs in Montgomery County, Maryland and the New Jersey Pinelands are often cited as models of successful programs (Pruetz, 1997).

*Montgomery County, Maryland*, near fast growing Washington, D.C., established its TDR program in 1980. By the end of fiscal year 1997, the TDR program had protected 39,180 acres (out of a total sending area of 89,000 acres) under protective easement. Prior to 1980, the county lost an average of 3,500 acres of farmland per year to development. In the first decade following the establishment of the TDR program, the county lost a total of 3,000 acres to development, a drop of approximately 92 percent.

*The New Jersey Pinelands*, an environmentally unique and sensitive area of about one million acres, was targeted for protection through The New Jersey Pinelands Protection Act of 1979. The Pinelands Commission, the regional land use

authority, established a TDR program in 1980. According to Johnson and Madison (1997), the program had protected 5,300 acres by 1991.

### **Enabling Legislation**

In Pennsylvania, transfer of development rights is enabled by the Pennsylvania Municipalities Planning Code (MPC), the enabling legislation for planning law in Pennsylvania.<sup>2</sup> With recent amendments to the MPC that encourage multi-municipal planning, development rights are now transferable beyond the municipal boundary. However, any inter-municipal transfer of a development right may only occur if the municipality is participating in a joint municipal zoning ordinance or where a written agreement exists between the affected municipalities.

## **CASE STUDY OF WEST BRANDYWINE TOWNSHIP**

West Brandywine Township is located in the western edge of the Philadelphia metropolitan region. Largely undeveloped, the Township has faced significant development pressures in recent years as development pushes west in the region. With large tracts of land still undeveloped, the township was actively engaged to try to manage growth in order to preserve farmland and open space. West Brandywine adopted a new comprehensive plan in 2005. In the plan, they recommended the use of TDR to preserve farmland and open space areas. Initially, there seemed to be general political support for the use of TDR. Two of the five members of the governing body were strong advocates for the use of TDR, and a third member had indicated general support for the concept. The Supervisors, as a body, charged the Township staff to develop a TDR program.

While the Township was in the process of adopting the new comprehensive plan, a large development proposal was submitted to the Township. A national housing developer proposed an active adult community on 322 acres of land. The development was proposed on two separate parcels. The larger of the two was a 278-acre parcel comprised of four discontinuous tracts under single ownership; the second was a separately-owned 45-acre parcel, located adjacent to one of the tracts of the first parcel. The larger parcel was undeveloped and portions were used for farming. The smaller parcel was used as a summer campground, with facilities for temporary seasonal use.

The properties had limited development constraints. Each had some environmental features that were protected under the zoning ordinance, including areas of hydric soils, wetlands and floodplain. The parcels were largely flat, so there was minimal steep slope. All together, the protected areas of the property accounted for approximately 25% of the overall site.

Two of the four tracts on the larger parcel and part of the third tract were in areas designated for low density development in the comprehensive plan. The fourth tract of the larger parcel was located adjacent to East Brandywine Township, the neighboring municipality, and in an area targeted for higher intensity development in the comprehensive plan. The smaller separate parcel was located adjacent to this tract in the same higher intensity development district. East Brandywine had recently approved higher density development for parcels immediately adjacent to the subject parcel in West Brandywine. As proposed, the new development in West Brandywine would be integrated into the overall development in both Townships.

The five tracts on the two parcels were spread over three different zoning districts. Two were situated in a low density residential district, one in a slightly higher density residential district and two parcels were located in a district targeted for higher density residential uses. The zoning permitted large-lot single-family detached residential units at densities that ranged from 0.55 du/acre in the low density district to 2 du/acre in the high density district. Under the zoning, the combined properties could yield 265 single-family detached homes. Figure 1 shows a conceptual "By-Right" Plan for the four tracts of the larger parcel (the smaller parcel is outlined on the plan). The plan complied with the provisions of the zoning ordinance. Single-family lots were spread over each of the tracts. As the plan illustrates, strict application of the zoning ordinance would result in a conventional sprawl pattern of development over the tracts.

The developer proposed to develop an age-restricted community of 300 homes, approximately 10% higher density than what was permitted under the zoning. The units would be single-family detached homes on small lots. All the development would be clustered on two of the five tracts, the two located in the area targeted for higher intensity development. Figure 2 shows the proposed development plan. Over 200 acres of land in the remaining three tracts would be permanently protected as open space and dedicated to West Brandywine Township. The developer further committed to working with the Township and fully

funding the effort to amend the zoning ordinance to include provisions for TDR.

An ideal set of conditions existed to establish a TDR program – a strong basis in the comprehensive plan, an appropriate development opportunity, a source of private funding, and an early indication of political will. However, after two years of effort trying to develop the program, the whole initiative was terminated. An alternative zoning mechanism was devised to support the approval of the proposed plan.

## LIMITATIONS OF TDR PROGRAMS

In working with the Township regarding the development proposal, a number of questions arose regarding the use of TDR. While most elected officials and staff were amenable to the concept of density transfer and to the proposed plan, as the details emerged regarding practical implications of enacting a TDR program, resistance developed. The most significant concerns related to the complexity of applying the program, where to establish receiving areas in the Township and the municipal administrative burdens of running the program



Figure 1. Conceptual by-right plan showing development yield under zoning. Plan prepared by Glackin Thomas Panzak, Inc. and reproduced with permission.

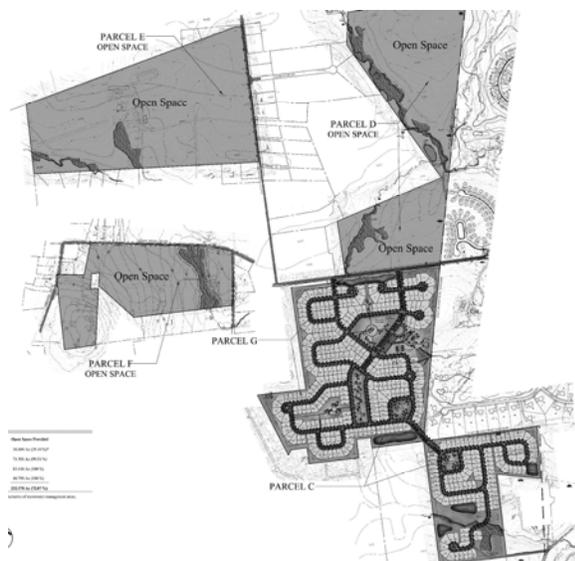


Figure 2. Conceptual active adult plan. This plan shows the developer's proposed plan with the density transfer. Plan prepared by Glackin Thomas Panzak, Inc. and reproduced with permission.

As the effort to develop a TDR program in West Brandywine Township became more difficult, I surveyed local municipalities in the region to learn how other Townships had addressed these issues. The findings were striking. TDR was being used, but on a limited basis, and communities faced many similar struggles in employing the programs. All the zoning ordinances in the four-county area surrounding Philadelphia were reviewed to identify Townships that had TDR programs. Of the 238 municipalities in Bucks, Montgomery, Chester and Delaware Counties, only 16 had TDR provisions in their zoning ordinances. Each of the Townships with TDR was approached for an interview. Thirteen of the 16 Townships were successfully contacted and the Township Manager, a Township Supervisor, or the Township Planner was interviewed.

Of the 13 Townships interviewed, three were in the process of repealing their programs; four indicated the programs had never been utilized (although in one case it was ten years old); two indicated that the program had been used in one development plan (the plan had initiated the zoning amendment to incorporate TDR) and four indicated success and an overall satisfaction with the program.

### Comparative Evaluation of TDR Programs

The programs had a number of commonalities. The planning objectives were generally the same: they were all used for the

preservation of open space, farmland, agricultural soils and natural features. The planning settings were generally similar. All the Townships were largely undeveloped, roughly the same size, and were located in areas facing significant development pressure. All programs were zoning based programs, and, as required under Pennsylvania law, all programs were voluntary, not mandatory. In most of the Townships surveyed, a "hand-off" approach was used to administer the programs.<sup>3</sup> Exchanges of development rights were left to the market in private exchanges between willing sellers and willing buyers. In the Townships that had utilized the programs, the county land records office was relied upon to handle the majority of the record keeping, although the transfer of rights and the availability of development rights were tracked in the local Township office. Requirements for sending zones were similar, requiring large minimum lot sizes or the existence or certain natural features to qualify.

There were some differences among the programs. Requirements for receiving areas varied. Most ordinances specified zoning districts that permitted higher density housing as qualifying receiving zones. Some had significant density bonuses tied to the use of TDR to create incentives for their use, while others included small density bonuses.<sup>4</sup> While most ordinances permitted density transfers between residential uses, two Townships allowed the transfer of density from residential use to commercial use. Table 1 summarizes the major provisions of each of the programs.

### Problems Identified

The survey revealed common sets of problems with the TDR programs. The problems fall into two general areas: the complexity of administering and utilizing the programs, and; political challenges in identifying receiving areas from NIMBY attitudes towards higher densities in these areas.

Eight of the responding Townships cited programmatic complexities as an impediment to utilization of their TDR programs. They stated that the programs were difficult to understand and difficult to apply in individual development project scenarios. Two of the respondents indicated that they actively discouraged developers and property owners from using the programs because of the complexities of applying the ordinances. For instance, to determine the development potential of a site, a set of plans and complex calculations were required to determine net-out requirements and development yields on sending and receiving parcels. The complexity also generated some skepticism about the

Table 1. Selected characteristics of TDR programs surveyed

County	Township	Eligible Receiving Areas	Density Bonus	Experience with program
Bucks	Buckingham	Three residential districts	Large	Used Extensively
	Warrington	Three residential, one commercial, three industrial districts	Large	Used Extensively
	Doylestown	Two residential, three commercial, one industrial districts	Small	Limited use – inadequate receiving areas, used once
	Bedminster	One industrial district	Small	Unused - too complex
	Plumstead	Three residential district	Small	Unused – no appropriate development proposal
Chester	East Pikeland	One each residential, mixed use, commercial and industrial district	Large	Not used – too complex, little development
	East Nantmeal	ALL districts	Small	Unused – too complex
	Honey Brook	Three residential, one commercial, one industrial district	Large	Used extensively
	South Coventry	Two residential, two commercial districts	Small	Not used - inadequate receiving areas, too complex
	West Pikeland	No receiving areas designated	Small	Not used – recently enacted
	East Vincent	Three residential, two commercial, one industrial district	Small	Not used – too complex
	West Vincent	Five residential, two commercial districts	Large	Used in three development applications
	Birmingham	One residential, one institutional district	Small	Limited success – used in one development, too complex

programs as there was a perceived potential for abuse. Three of the respondents indicated that difficulties in establishing prices for a development right impeded the use of the program.

NIMBYism was compelling problem for nine of the responding Townships as they attempted to apply their programs. In order for a TDR program to work, one or more areas of the Township have to be granted higher development densities to allow the transfer of development rights from the sending areas. This was a political challenge in each of the nine municipalities that indicated dissatisfaction with their program. Opposition to the use of programs typically came from residents in and around receiving areas. Six of the municipalities surveyed indicated that opposition to new development in receiving areas was the reason the program would likely be repealed. Without a useable receiving area, the programs cannot operate.

**Successful Programs**

The four responding Townships that indicated success and satisfaction with their programs had, to some extent, addressed these concerns. Two programs had simplified requirements for determining development yield on sending and receiving sites. Three had trained the Township staff in working with landowners and developers in applying the programs. All four had clearly defined

receiving areas.<sup>5</sup> Additionally, the four Townships actively promoted their programs and incorporated density bonus incentives to encourage their use.<sup>6</sup>

**ANALYSIS OF FINDINGS**

What do these findings suggest for the future of TDR in the Philadelphia region? While the results, at first blush, are not encouraging, there are lessons from these attempts that can be employed in future efforts to develop TDR programs. TDR is an important land use tool that offers an opportunity for managing growth and encouraging appropriate development. However, in order to design an effective TDR program, it is important to consider the potential obstacles and limitations. Like most land use programs, TDR programs have economic dimensions, political dimensions and legal dimensions. The appropriate design of a program has to consider these elements.

As market-based programs, TDR needs some level of institutional support from the local government to operate. Development rights are complicated commodities. To allow for their free exchange, the local government needs to assist in various aspects of the transaction, such as by establishing prices, identifying buyers and sellers and facilitating their interactions, and generating

awareness of the program. There are a number of associated administrative costs. If these costs are too high or if it is perceived as too complicated, the local municipality will be reluctant to utilize the program, and the programs will likely fail. In order to establish a basis for a successful program, local governing bodies have to commit adequate resources to administer the program. Municipalities can encourage transactions by providing assistance and simplifying the exchange of development rights.

The success of a TDR program also depends on identifying adequate receiving areas and allowing new development in those areas. NIMBY attitudes present serious challenges to TDR programs. Concerns over density are often the reason that TDR programs are repealed. Density is innately a political issue as residents routinely resist development. When TDR programs become politicized, it often leads to their demise. Locating appropriate receiving areas points to a question of geographic scale. Locally-based programs have to be particularly sensitive to geographic scale as identifying areas for appropriate density might require looking beyond the local municipality. Nationally, many of the programs that have been identified as successful have operated over a regional geographic scale that bridged the urban-rural divide (Johnston and Madison, 1997). There is hope that future use of TDR in Pennsylvania will occur over an inter-municipal region as now permitted in recent changes to the Pennsylvania Municipalities Planning Code.

### **Density Transfer without TDR**

The limited success with Township-wide TDR programs in the Philadelphia region should not be interpreted as a rejection of density transfer generally. While many of the responding Townships indicated difficulty with enacting a TDR ordinance for the entire municipality, they were none-the-less supportive of the general concept of transferring density to achieve their planning goals. A number of the Townships surveyed indicated that, while their Township-wide TDR programs were not directly utilized, they had made recent amendments to their zoning ordinances to allow the transfer of development rights across parcels for individual projects. Ultimately, the development proposal in West Brandywine Township was pursued by making amendments to the zoning ordinance that permitted the transfer of density over discontinuous tracts. The Township achieved the density transfer and the preservation of open space, but avoided having to develop the administrative capacity to support a Township-wide program. They also avoided the potential political struggle of identifying receiving

areas. In light of the local political obstacles that could put a stop to Township-wide TDR programs, it is important to identify opportunities for individual transfer of density in certain situations, and develop the density transfer mechanisms to allow such development to occur. With the limitations identified in establish a broad TDR program, Townships should consider these smaller, more narrow programs as a reasonable alternative.

## **CONCLUSION**

TDR programs have the advantage of using free market mechanisms to create the funding needed to protect valuable farmland, natural areas, and other open space. However, TDR programs can be complex, administratively challenging, and politically contentious, requiring the local unit of government to make a strong commitment to administering a potentially complicated program and educating its citizens and potential developers. For a TDR program to be successful at this scale, it must be combined with strong comprehensive planning to identify and justify receiving areas and local controls in order to be successful. With more multi-municipal planning efforts, TDR programs might be more effectively utilized. The record of success with some local programs suggests that TDR programs can work and can be effective. With attention to identifying receiving areas, simplifying the use of the programs, and designing proper incentives for their use, there is hope that TDR will continue as an important and effective tool in managing growth in Pennsylvania.

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## NOTES

<sup>1</sup> Daniels (1991) evaluates purchase of development rights (PDR) programs in Pennsylvania. Machemer and Kaplowitz (2002) include an evaluation of TDR programs in Manheim Township, York County, Pennsylvania and West Bradford and East Nantmeal Townships, Chester County and Buckingham Township in Bucks County

<sup>2</sup> Section 603(c) (2.2) of the Pennsylvania Municipalities Planning Code (MPC) provides for regulating transfer of development rights within municipal zoning ordinances and Section 619.1 of the MPC creates development rights as an interest in land that may be severed and conveyed separately from the parcel.

<sup>3</sup> Municipalities can administer programs in a number of ways. Options range from a hand's off approach where exchanges are left to the private market to the opposite extreme where municipalities operate TDR banks. With a TDR bank, the municipality temporarily buys and holds development rights as they become available, and then offers them for sale

to developers when the opportunities arise. Machemer and Kaplowitz (2002) found that the most effective programs had developed TDR banks. A TDR bank facilitates transactions by creating one stop where interested buyers can purchase development rights and limiting interactions between landowners and developers. However, TDR banks impose significant administrative and cost burdens to the municipality. To effectively operate a bank, a source of funding is required to purchase rights. The municipalities interviewed indicated that, with the hand's off approach, the administrative burden equated to one half-time staff person to maintain records and handle the required paperwork. The municipalities interviewed had small administrative staffs, which typically included a Township manager, Township planner and one or two support staff.

<sup>4</sup>With the density incentives, developers who utilize the TDR programs earn additional development rights than they would receive under a by-right development scenario and thereby have an incentive to bear the additional time and cost required to utilize the program.

<sup>5</sup> A fifth Township also indicated general satisfaction with their program, however, they acknowledged that they had not yet completed a transfer of density. The program was enacted on a political promise that additional development rights purchased from the receiving area would not be built in the Township. While the Township had purchased development rights under the program, they were anticipating that the development rights would be sold in a neighboring Township with which they were attempting to establish an inter-municipal agreement.

<sup>6</sup>Since Pennsylvania law requires that TDR use is voluntary, Townships must design the ordinance to encourage their use. Successful programs incorporate density bonus incentives as a means to encourage developers and landowners to utilize the program. Newer provisions in zoning ordinances that are geared toward encouraging "smart growth" patterns of development, such as open space and cluster design options are voluntary. Conventional, Euclidean zoning is typically the "by-right" alternative. Under the voluntary provisions, developers typically require conditional use approval. Conditional use processes are time consuming and they open development proposals to additional scrutiny and the imposition of certain conditions beyond the requirements of by-right development plans. Voluntary programs would not be expected to be used without incentives such as additional density.