

TRANSFERABLE DEVELOPMENT RIGHTS

INTRODUCTION

Transferable development rights (TDR) is a modification of zoning that has great potential to protect land, buildings, or both. It has been in use for 40 years with the first program being in New York City in 1968 where it was used for historic structure preservation. There are, by our count, 68 TDR programs that have been adopted. It is very likely that there are more that have not been reported in various studies.

The concept behind TDR is quite simple – it was intended as a means to allow for the preservation of resources, farmland, or historic sites, without destroying or badly damaging the property values. The original discussions about TDR addressed the inequities of zoning between areas of very low or greatly reduced intensity and those with high intensities. This was described as “windfalls and wipeouts.” The land owner who was zoned to protect a resource suffered a value wipe out compared to the land owner who received zoning for high residential densities or commercial development. This remains an accurate way to describe the differences in value between the different zoning districts. This is not to say that the very low density zoning is illegal. The agricultural zoning in force in Fitchburg and other Wisconsin communities is well within the legal boundaries of zoning. The terms windfall and wipeout are comparative descriptions of the way land owners feel about the differences. TDR was proposed by some as a means of balancing the inequities. The land owner zoned for agricultural would be able to sell development rights to the person with the higher density zoning, thus reducing the difference in values by requiring the purchase of development rights by the land owner with high density zoning. Thus, the one land owner who otherwise would suffer a wipeout would gain value through the sale of development rights. The owner receiving the windfall would get less because TDRs would have to be purchased to achieve maximum density.

In the following section, the history of TDR and the economics of a successful TDR market will be reviewed. The next section sets context in Fitchburg and the concerns of citizens. The following section sets the land basis for developing a TDR program. Lastly the next steps will be identified.

SUCCEEDING WITH TDR

The History of TDR

The TDR system has generally been set up with a sending area (agricultural land) where TDRs are awarded to the land owners and with a receiving area where developers would have to purchase TDRs to build at the higher density. The theory and general system outline sound simple and easy and is attractive to those developing comprehensive plans. As it turns out, it is far from simple. After 40 years, the success of TDR programs is not overwhelming. In looking

at the 60 TDR programs,¹ 47 percent had either been revoked or there had been no sales of TDR. The top three programs had protected 80.3 percent of the land. There is a clear lesson from this study. The execution of the program is complex and subject to error by well intended people. **Table 1** is a summary of 68 TDR programs. Messer's chart was supplemented with data from the consultant's files and other sources.

Adopting Jurisdiction (County with multiple codes)	State	Year Initiated	Mandatory?	Acres Protected	Notes
Malibu ¹	CA	1979	No	260	
Malibu ¹	CA	2002	No	0	
Marin County	CA	1981	No	670	
San Mateo County	CA	1986	No	40	
San Luis Obispo County	CA	1996	No	0	
Boulder County	CO	1981	No	3,200	
Windsor	CT	1993	?	0	
Collier County	FL	1974	No	700	
Hillsborough County	FL	1985	No	0	
Palm Beach County	FL	1992	No	6,573	
Monroe County	FL	1987	No	2,000+	
East Everglades	FL	?	?	50,000	see text
Sarasota County	FL	1982		0	
Fremont County	ID	1991	No	200	
Cape Elizabeth	ME	1982	No	0	
Calvert County	MD	1978	No	11,652	
Caroline County	MD	1989	No	345	
Cecil County	MD	2006	No		NA
Charles County	MD	1992	No	2,208	
Hartford County	MD	1992	No		NA
Howard County	MD	1992	No	1,350	
Montgomery County	MD	1980	Yes	48,584	
Queen Anne's County	MD	1987	No	2,644	
St. Mary's County	MD	1990	No	1,800	
Talbot County	MD	1989	No	770	
Groton	MA	1980	No	292	
Hadley	MA	2000	No	0	
Sunderland	MA	1974	No		NA

¹ Kent D. Messer, *Transferable Development Rights Programs: An Economic Framework for Success*, Journal of Conservation Planning, Volume 3 (2007), 47-56. Note this study has only 60 not 68 programs.

**Table 1
TDR SUMMARY**

Adopting Jurisdiction (County with multiple codes)	State	Year Initiated	Mandatory?	Acres Protected	Notes
Townsend	MA	1989	No	0	
Blue Earth County	MN	1977	No	3,000	
Gallatin County	MT	1981	No	670	
Springhill Community	MT	1992	Yes	200	
Chesterfield Twp. (Burlington Cty.)	NJ	1975	No	3,710	
Lumberton Twp. (Burlington Cty.)	NJ	1996	No	850	
Hillsborough Twp. (Somerset Cty.)	NJ	1975	No	0	
New Jersey Pinelands (Somerset Cty.)	NJ	1981	Yes	44,000	
New Jersey Highlands	NJ	2007	Yes		NA
Eden	NY	1977	No	38	
Perinton	NY	1993	No	82	
Central Pine Barrens Long Island	NY	1995	Yes	307	
Southampton	NY	1972	No	232	
Buckingham Twp. (Bucks Cty.)	PA	1975	No	280	
Doylestown Twp. (Bucks Cty.)	PA	1990 ?	No	0	
Warrington Twp. (Bucks Cty.)	PA	1985	No	0	
Washington Twp. (Berks Cty.)	PA	1994	No	0	
Birmingham Twp. (Chester Cty.)	PA	1978	No	0	
East Nantmeal Twp. (Chester Cty.)	PA	1994	No	0	
London Grove Twp. (Chester Cty.)	PA	1995	No	0	
Mannheim Twp. (Lancaster Cty.)	PA	1991	No		Revoked
Chanceford Twp. (York Cty.)	PA	1979	No	0	
Codorus Twp. (York Cty.)	PA	1990	No		Revoked
East Hopewell Twp. (York Cty.)	PA	1984	No		NA
Hopewell Twp. (York Cty.)	PA	1988	No		NA
Lower Chanceford Twp. (York)	PA	1990	No	200	
Shrewsbury Twp. (York)	PA	1991	No	100	
Springfield Twp. (York)	PA	1996	No	0	
Tooele	UT	1995	No	0	
Jericho	VT	1992	Yes	0	
South Burlington	VT	1992		250	
Williston	VT	1990	No		NA
Blacksburg	VA	1996	No	23	
Black Diamond	WA	2003	No		NA

**Table 1
TDR SUMMARY**

Adopting Jurisdiction (County with multiple codes)	State	Year Initiated	Mandatory?	Acres Protected	Notes
Island County	WA	1984	No		Revoked
Issaquah Basin	WA	2005	No	0	
Thurston County	WA	1995	Yes	0	
King County	WA	1993	No	91,000	
Snohomish County	WA	2005	No	71	
Redmond	WA	1995	No	350	
				278,651	

¹ Malibu's first program was developed prior to the City's incorporation; the second program is similar, but under the City. It was primarily aimed at eliminating platted lots in environmentally insensitive areas.

Sources: Kent D. Messer, Transferable Development Rights Programs: An Economic Framework for Success; Kendig Keast Collaborative, Inc.; Siemon & Larsen, and Margaret Walls & Virginia McConnell. Transfer of Development Right in U.S. Communities.

Three programs have accounted for the majority of the land preserved: the New Jersey Pinelands; Montgomery County, Maryland; and King County, Washington. Another program, the East Everglades project, was also very successful, but its primary success involved one land owner Aerojet, and transfer for height, and tax relief and is, thus, not similar to the other programs². If it is included, the four programs result in 84 percent of the total. The consultants know of additional communities that have sought to use TDR and failed. Our revision indicates a 45 percent failure. However, five counties that have had programs for 16 to 32 years have averaged less than 22 acres per year (1.8 to 21.8 acres per year), which would be a failure rate of 53 percent. While Fitchburg is correct to pursue the use of TDR, it is clear that in structuring the program, the effort should concentrate on making it work. The history of TDR suggests that it is very easy to go astray and create an unworkable program.

Characteristics of an Effective TDR Market

TDR systems work best in markets featuring both willing buyers and willing sellers. If the program design hinders either buyers or sellers from entering the market, then the TDR's potential to achieve preservation goals becomes highly limited and failure commonly ensues. What is meant by willing buyer/willing seller? Willing buyers and sellers approach the TDR transaction in good faith and without duress, able to protect their interests, choose from an array of alternatives, and initiate a deal that makes economic and practical sense for them. Both buyers and sellers – receivers and senders – need to perceive the system as secure and fair. TDR systems that foster transactions feature “loose” structures that err in favor of making deals,

² Aerojet was an unsuccessful bidder on the space shuttle rocket and had most of the land. They sold their land for state tax relief. The actual number of transfers for height was far smaller, so this is not pure TDR. The County did not have enough land to absorb the development potential because of the numerous municipalities.

rather than “tight” structures that leave no room for the market to respond to different expectations. Choice assures land owners in both sending and receiving areas –and developers –that the system is fair and equitable.

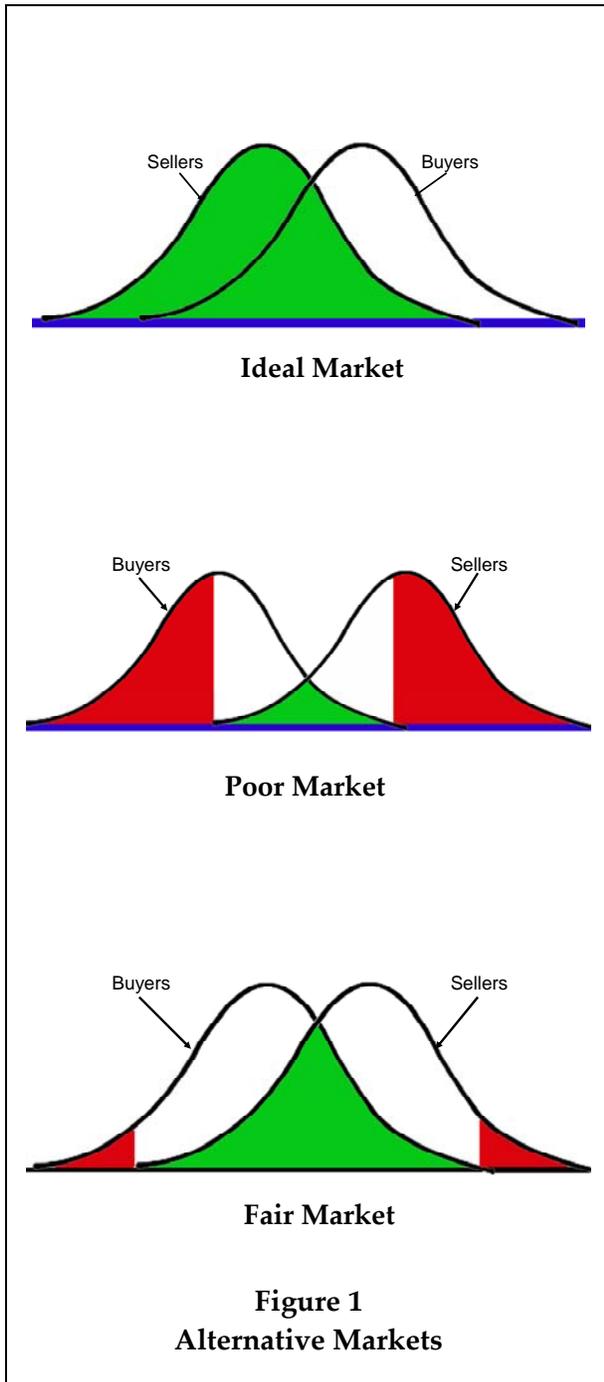


Figure 1 shows the importance of designing a TDR system that enables deals to occur. In any market, both sellers and buyers have price expectations that fall along a bell curve. This same bell curve will hold true for transactions involving development potential via a TDR system. In an ideal TDR market, every sending zone seller can find a receiving zone buyer, indicated in Figure 1 in green. When buyers expect to pay more than sellers expect to receive, every seller can make a deal; the curves will move together until they overlap perfectly. The Poor Market graphic illustrates what happens when there is a substantial mismatch in price expectations. When most sellers expect to receive more than most buyers expect to pay, few transactions can occur (green); many buyers and sellers will have no options at all, as indicated in red. The white zone corresponds to frustrated transactions; willing buyers could not find enough willing sellers at a given price point or vice versa. Moreover, in a fair market, there are still mismatches, leaving some sellers without buyers at their desired price, but more transactions occur and trades take place at price points closer to participants’ expectations.

Designing a TDR system that produces the ideal market scenario is useful, albeit an elusive goal: the closer the better. Some land owners’ expectations will always be more than the market can accommodate. Neither local government nor land owners have any

sympathy for the developer who does not offer enough to close a deal with a land owner. Nor is there sympathy for the land owner who asks far more than his neighbor. In defining the two sides of the TDR program, the objective is to encourage sales.

For TDR the issue is different; the City has a vested interest in deals being made at the normal rate of development. If deals are not made, land is not preserved. It may also mean that development that would normally occur in Fitchburg is going to neighboring communities. The goal of the TDR program is that new development preserves the agricultural land. Worse yet, for both the developer and the land owner, failure to make deals sours them on the program, thus creating distrust, which is likely to make it more difficult for the program to work. If land owners do not offer to sell TDRs, the entire system collapses. In fact, the system is more complex than shown. The curves in Figure 1 also apply to developers purchasing land in the urban growth boundary. The same matching goes on there. If not properly balanced, the developers may not be able to afford to buy land in the urban growth area and also purchase development rights.

TDR IN FITCHBURG

Fitchburg Comprehensive Plan³

The City's new comprehensive plan sets a goal of protecting and maintaining agriculture within Fitchburg. Its objective is for the adoption of a long-term growth area and limiting all undeveloped areas to agriculture, as well as wooded lots and other natural areas. Policy 1 would use TDR or PDR (purchase of development rights) as a means of preserving this land. Policy 2 calls for the maintenance of the agricultural use by exclusive agricultural zoning with a minimum of 35-acre lot size. This is consistent with smart growth, and a 50-year urban growth boundary for the City is an excellent time horizon. A 50-year horizon provides real guidance as to the City's intention when compared to the normal process where land reserved for agriculture in 2030 is eroded every ten years as the plan is updated. This strategy approaches a build out plan and the use of TDR or PDR is intended to preserve the rural land.

This is an excellent planning strategy. Fitchburg is doing what growth management and, now, smart growth have been advocating. The challenge is in converting policy to action. Because of the neighborhood planning effort and the fact that the tables of growth end in 2030 provides no guidance on the capacity of the 50-year growth boundary. One thing rural land owners need is a statement in the plan – in a manner that is clear – as to the City's intention.

Land Owner Concerns

There are three groups of people involved in a TDR program. There are land owners in the sending area who will receive development rights. A second group of land owners own land in the receiving area where TDRs will have to be acquired to achieve the desired development. Developers make up the third group that is usually involved. Most often, developers buy land from land owners in the development area and will also have to acquire the development rights. There are some land owners who will take on the role of the developer, and speculative land owners could acquire land and development rights.

³ Undated draft supplied to the consultant. Some of the comments on the plan may not reflect current thinking.

In PDR, the rural land owner continues to be involved. Developers and land owners in the urban growth area are not involved, but a fourth group becomes very important -- the City resident. In general, with PDR, the citizens will need to support the program by voting for a bond issue to fund the purchase of development rights.

On August 5th and 6th, 2008, the consulting team met with some 26 people representing families owning significant acreages in both the receiving and sending areas. One other family has been contacted by phone. All shared several common concerns. The most important of these was a distrust of the City government based on past experiences, a lack of understanding of the purpose of TDR, fears that the program would result in an adverse impact on their interest in land, and a lack of understanding of TDR and PDR and how they would work. Some elements of this are correctable, and this paper and the alternatives and recommendation papers are intended to address the purpose, fears of the unknown, and an understanding of how the system would work. This distrust is serious, because from the beginning it will undermine any approach to a TDR or PDR program. In the following paragraphs, the concerns of the different groups will be identified.

Rural Land Owner – Sending Area. The distrust is highest in this group. Many of them related some bad experience with the City regarding the use of their land, their plans for succession to a new generation, or stories they had heard about such problems. In general, they felt they were on the receiving end of decisions made by the City. This concern was exacerbated by the fact that the TDR program is seen as having few advocates among the land owners. The exclusive agricultural zone has dramatically lowered property values. The point system that covers rural development depresses values well below that which would occur with 35-acre zoning because it often makes it impossible to do a rural land division. While this makes it difficult to split off 35 acres to a wealthy individual, it creates major problems for farm families that want to stay on the family land as they age and need to deal with succession. Several families were frustrated because the point system prevented them from building another residence (or several) on their farm, even though they owned plenty of acreage.

The land owners find farming to be increasingly difficult as the support businesses the farm community requires – equipment dealers, grain, feed, and other services – dwindles in Dane County. It increases the travel time to find the services and reduces their options and potentially ties the hands of future generations. Increasing regulations, particularly affecting manure spreading and conflicts with non-farmers (e.g., rude drivers honking at tractors or complaining about smells) add to the pressure. Mitigating some of these situations will require a very substantial investment in equipment or other improvements. While the City has ongoing neighborhood planning efforts for developing neighborhoods that encourage local participation, there is no rural neighborhood planning. The rural land owners feel they lack sufficient numbers to be an effective voice in the public policy development process. The comprehensive plan and zoning regulations are imposed on them. If the ultimate TDR/PDR program can recognize and address many of the residents' concerns, it is hoped that this distrust can be eliminated.

The residents are a very diverse group. There are very few farm operations where the owner is the operator farming all the land and often renting additional land. A significant number of the land owners either farm only a portion of the land, or lease the land to other farmers, or hire the operators. For many of these families, this change came about as farmers aged or patriachs passed away. At least one of the families has always leased the land and never farmed it themselves. Other operations come close to being hobby farms. While some land owners are interested in selling their land, the vast majority are interested in holding the land and maintaining it in agriculture use for the long haul. Other families want to hold the land as the family heritage even though they are no longer very active in farming.

There is great worry that the land will lose value once associated development rights are sold, which makes the TDR question take on an importance out of proportion to its short-term economic value. The other major concern is that the system will peg the combined TDR value and agricultural value too low, thereby cheating the land owner. There is also some fear that when land owners want to sell TDRs, there will be no buyers. Last, but not least, the land owners fear that the TDR system will fail to recognize (and compensate for) inherent differences in value that stem from location and other factors: proximity to the path of growth, soil quality, contiguous acres, etc.

Land Owners in Receiving Area. These land owners expect to sell to a developer at development values that are extremely higher than the value of the current zoning. The vast majority of vacant land in the existing and future urban service areas is zoned for 35-acre lots. These land owners fear that the value of their land will be dramatically reduced. They track prior sales and expect to get as much or more when they sell. They see, correctly, that developers will press them for lower sales prices because the developers will need to buy development rights, as well as land. Many of these land owners are passive holders of land, simply waiting for the right offer and largely uninvolved with the City. Some, however, are looking for a piece of the development action and, because they are farmers, see no rationale for purchasing development rights from other farmers.

Developers. Developers are a key element of the equation. They will generally purchase both land and TDRs and have a number of valid concerns. They understand that TDR adds another layer to the development process, because they must find TDR sellers and negotiate purchase of TDRs, as well as the land. Possibly, this entails multiple transactions and purchase options, a lengthy entitlement process that can create a cash flow burden. The second fear is that the combined cost of land, development rights, and infrastructure (roads, sewer, water, etc.) will make their product infeasible. In particular, developers fear that the cost of TDRs will bear no relationship to the planned project's value, e.g., its ability to support them. Lastly, if TDR applies to the City's requirements for detention, open space, recreation land, and neighborhood planning, there will be even less margin for development costs or profit. The increased cost is seen as hindering their ability to compete with developers offering a similar product in other area communities. Fitchburg's small size also complicates the situation for developers; with only a small pool of land owners with development rights to sell, competition is close at hand

and timing becomes critical to success. Some developers believe that the City is advocating a system they know will stifle growth rather than simply manage it.

Failure to account for all these concerns in the design of the TDR system could result in a program failure. The analysis of the alternatives needs to address the concerns of all three groups. Answering the questions about how the system will work and the value and cost of TDR is an important element in gaining the trust of all the participating parties.

BASE CONDITIONS

Sending Area

The sending area is the land beyond the urban growth boundary. It is zoned Exclusive Agriculture. There are, within the general boundaries of the sending area, a number of residential lots that are occupied by homes. These all appear to be zoned to reflect the size of the lots. In addition, there are a substantial number of undeveloped nonconforming lots less than 35 acres. **Table 2** provides a breakdown of the land in the sending area.

The following major concerns for the sending district fall under the category of equity:

- Does the allocation fairly address rural land values?
- Does the allocation formula reflect existing differences in value?

The rural land owners must feel that the allocation of development rights is based on a reasonable current value. The test is whether the allocation of one development right reasonably represents the value of the land area required to receive a development right. This is a value that will have to be determined. The formulation of this value should be liberal or generous. If the valuation seeks to minimize the number of rights in the system, the land owners will view the system as unfair.

Table 2 Sending Area		
Type of land	Acres ¹	Percent
Total Area out side the Urban Service Area	15,156	
In Urban Growth Boundary	4,217	
- Residential – Zoned residential or less than 5 acres	804	
- Federal, State, and County owned	1,170	
- City of Fitchburg	68	
- Specialized Industrial	0	
= Total Available for TDR	8,997	
- Floodplain (wetlands not included)	28	
- Wetland	270	
= Upland	8,599	
Agriculture or Vacant under 35 acres	2,912	
Agriculture or Vacant 35 acres or more	5,687	
TDR Eligible Land		
¹ No right-of-way is included		

If all the land was Exclusive Agricultural zoning (A-X), the only issue here would be whether there were other factors that significantly altered individual land values. There are, however, areas zoned Agriculture Transition (A-T) and Rural Development (R-D). It is clear that land zoned R-D has a different value than A-X as it may be subdivided into five-acre residential lots. It is an open question as to whether there is a difference in value between A-X and A-T land, which needs to be answered. One concern is that agricultural uses that adjoin the urban growth boundary have increased pressures. Despite the right-to-farm laws, rural land owners feel pressure from their urban neighbors and are constrained because they do not want to have problems.

Another aspect of this is the treatment of smaller land units. If the allocation were based on 35-acre units, what happens to the owner of 30 acres? Is there a different answer if the owner has other parcels that are not contiguous? Many TDR programs allocate fractional development rights. If the allocation unit is small, say one acre, the rounding problem is small. At 35 acres, it represents a greater issue that will have to be evaluated.

Receiving Area

As noted previously, the receiving area is more complex. Ultimately, building in the receiving area requires two purchases – the land and the development rights.⁴ This means that there are two separate groups who must judge the system. The developer is concerned that:

⁴ While, in some cases, a speculator could acquire development rights and then sell the property for the developer, the single price is composed of the two elements.

- The cost of the raw land and development rights is affordable.
- The product desired can sustain the cost.
- The total cost is uncompetitive with neighboring communities.

The raw land has another person involved, the land owner. The land owners' concerns are similar to those expressed by the land owners in the sending area. The difference is that they have very different expectations. If existing land owners in the present urban service area will be subject to TDR, they have well developed perspectives on land value based on zoning and prior sales. Any attempt to lower the value of their land will be met with hostility because it would represent a defacto downzoning even though they are currently zoned A-T. The situation for the land owners in the 50-year urban service area will be different from those in the existing urban service area.

The developer has costs for raw land, development rights, and improvement costs. It is abundantly clear that a person building a fast food restaurant pays a different price for raw land than the developer of single-family or apartments. This presents a problem. If development rights are to be purchased at a single price regardless of density or zoning, the maximum value of land must be affordable by the developer of the least profitable product. This raises the issue of whether this treats land owners fairly. An owner of land fronting on Fish Hatchery Road normally would have a substantial premium over a parcel on the west of Persimmon Drive that has no access to South Seminole Highway. The evaluation will have to determine whether raw land values can continue to have their present values and sustain the cost of development rights, or whether the developer will seek less expensive development rights. If the allocation is not correct, both the land owner and developer may not be in the market, and TDR program could stall.

Table 3		
Receiving Area		
Type of land	Acres	Percent
Total Area inside the Urban Service Area	6,538	
In existing Urban Growth Boundary	6,538	
- Developed Land	3,665	
- Wetlands or Other Unbuildable Land	782	
- Recreation and Detention Donation	1,034	
= Buildable Land	1,057	
In Future Urban Growth Boundary (No ROW)	4,217	
Neighborhood 1 - Northeast Neighborhood	703	
- Developed Land	117	
- Wetlands or Other Unbuildable Land	19	
- Recreation and Detention Donation	8	
= Buildable Land	559	

Table 3		
Receiving Area		
Type of land	Acres	Percent
Neighborhood 2 - McGaw Neighborhood		680
-	Developed Land	52
-	Wetlands or Other Unbuildable Land	15
-	Recreation and Detention Donation	54
=	Buildable Land	559
Neighborhood 3 - North Stoner Prairie		317
-	Developed Land	70
-	Wetlands or Other Unbuildable Land	0
-	Recreation and Detention Donation	6
=	Buildable Land	241
Neighborhood 4 - South Stoner Prairie		289
-	Developed Land	55
-	Wetlands or Other Unbuildable Land	0
-	Recreation and Detention Donation	0
=	Buildable Land	234
Neighborhood 5 - East Hwy 14		423
-	Developed Land	25
-	Wetlands or Other Unbuildable Land	8
-	Recreation and Detention Donation	4
=	Buildable Land	386
Neighborhood 6 - Greenfield		928
-	Developed Land	184
-	Wetlands or Other Unbuildable Land	49
-	Recreation and Detention Donation	11
=	Buildable Land	684
Neighborhood 7 - Southeast		426
-	Developed Land	144
-	Wetlands or Other Unbuildable Land	1
-	Recreation and Detention Donation	0
=	Buildable Land	281
Neighborhood 8 - Study Area		451
-	Developed Land	64
-	Wetlands or Other Unbuildable Land	88
-	Recreation and Detention Donation	0
=	Buildable Land	299

The City comprehensive plan creates problems because there is no way to estimate the total value of development associated with the purchase of development rights. This is true both of the composition of the growth and of the incremental value of the development. The growth projections to 2030 show an increase of about 5,000 units per decade. A straight line projection would suggest an increase in population of 15,000 from 2030 to 2060. Unfortunately, there is no way to verify whether this is accurate or not. If the increase is substantially greater, there will not be a problem. Should the growth not occur, the market may not sustain a higher per unit cost of development.

TDR and PDR

Both of these systems involve rural land owners being compensated for the restrictions that have been placed on their land through the sale of development rights. This can also be viewed as nearly identical to the purchase of a conservation easement, which, likewise, reduces the development potential of the land. The major difference between PDR and TDR is who purchases the development rights and how that occurs. With PDR, the government is purchasing the rights.⁵ When government purchases the rights, they are extinguished and disappear, lowering the overall development potential of the City. TDR is set up by the City as an element of its zoning, providing a mechanism by which developers purchase development rights and use them to build buildings on land owned by the developer. For the seller of development rights, the end result is generally the same – a conservation easement is placed on their land, and they receive a payment for that. In both cases, it is assumed that the rural land value for development is higher than farm value, which is true in Fitchburg.

A second difference is the degree to which land owners controls their future. This primarily revolves around whether it is voluntary or mandatory. Generally, PDR is voluntary; the land owner is under no obligation to participate in the program and makes the decision to join or not. The ideal TDR system is mandatory in that the only way to use the land's development potential is to sell development rights. Thus, one often thinks of PDR being voluntary and TDR being mandatory. In fact, both can be mandatory or voluntary. If a local government chooses to exercise its condemnation powers, it can force the sale of the development rights. TDR can be either voluntary or mandatory. For a TDR program to be truly voluntary, the land owner should have a development option on their own land that is somewhat related to the value of a development right. Calling it a voluntary system is not enough. The development option and selling option need not have identical values; providing an incentive to sell development rights is common practice in workable voluntary systems. In Fitchburg, where there is no real development value even if the program is described as voluntary, functionally, it is a mandatory system in terms of the market.

PDR might on the surface seem nearly identical, but the land owner has a lot more control over the price. In the end, the government must offer a price that results in a purchase of development rights. In a small market with few sellers, they have a lot of control. The City has an obligation to purchase development rights. The electorate, whose taxes are paying for the bond, will ultimately force purchases, even if that means at higher than anticipated costs. If a funding mechanism like an impact fee is used, the people paying the fee can eventually force the money to be returned if it is not used. This places the land owner in a stronger position. To a degree, this is true of a mandatory PDR system where the community is willing to exercise eminent domain to achieve the results.⁶

⁵ There are also local, state, and national nonprofit organizations that also have programs for the purchase of development rights although they more generally talk about it as a program to protect or conserve land.

⁶ If condemnation is used too much for open space programs, there is generally a backlash, which can derail future funding. Most PDR programs involve multiple bond issues.

Another major difference is that TDR is far more complex because the system requires the zoning to set in place a situation where the value of the development right to the developer is equal or greater than the value the land owner expects to receive. As was pointed out earlier, nearly half the nation's TDR systems have failed. Those failures can be attributed to several related causes, nearly all of which result from not having a willing buyer/willing seller system. Sometimes this is a failure to conduct a proper economic analysis; other times it is the result of attempting to force TDR to meet policy expectations that do not account for market reality, and some others fail because the approval process is too complex or uncertain. Ultimately, both TDR and PDR must rely on willing buyers and willing sellers. Getting the values right is essential in TDR because it is market driven.

PDR is voluntary, so government or nonprofits enter the program knowing that they must offer fair compensation. Particularly for municipal governments, it must make offers that are accepted.⁷ The differences become important to the design of the TDR or PDR system. For Fitchburg, the choice of the system should be based on what works, or works best.

NEXT STEP

The next step is to look at the system proposed by the City and determine values for sellers and buyers. Neither of the values can be arbitrary or the system will fail. Once those values are studied, it becomes possible to identify what the TDR program will preserve. There is some ability to modify the acres in the sending area through a process setting the allocation formula or reducing it in size. It is also possible under the guidance provided by the City to reconsider the size of the receiving area.

In the subsequent report, the reasonable value of development rights to the rural land owner will be assessed. A methodology for assessing the value of being placed in the urban growth boundary will be developed. This process is not too different from that which would be used in a normal land use related value process. The major difference is that land use is unknown, so base assumptions will have to be made to develop a value.

The other key variable is the ability of the system to maximize the sale of development rights. When a developer acquires development rights, they are purchased based on the marginal increase in net present value created by the additional unit in the context of plans to sell or to hold the property as an investment. Thus, one additional unit of expensive single-family is worth far more than one additional apartment to an apartment development. The value of different land uses is also a critical factor. Out parcel uses such as restaurants in shopping centers can support paying far higher prices per acre or square foot than can the rest of the

⁷ This is true because, once a bond issue is floated, the citizens expect results. So, government must meet the sale price even if it must pay more eventually. State and nonprofits get around this because the market is so large that sales will always be made. Conservation organizations have taken advantage of the current drop in real estate values to make significant purchases.

shopping center, and retail can pay more than industry and still deliver the same return on investment.

The objective of the TDR program is to permanently preserve the rural area outside the urban growth boundary by taking them out of the market. For a willing buyer/willing seller system to achieve this, the community must maximize the value of the development rights to developers so they can purchase all the allocated rights. If there is not enough value in the receiving area, then the system will have to cut back the amount of area to be preserved. While we have not yet evaluated this issue, the inability of the receiving area's development potential to support the purchase of the desired quantity of development rights is one of the most common reasons for implementing a voluntary transfer system. It also has frequently results in TDR programs where the allocations do not fairly address rural land values, thus dooming the system to fail. In Fitchburg, if an apparent inadequacy emerges, then the obvious place to trim the TDR allocation might be the R-D district where land owners would have to be given more development rights on a per acre basis than their counterparts in the A-X and A-T districts.

Conclusions

The committee and staff have made it clear that they favor a land-based TDR rather than a use-based system. In a land-based system, as envisioned by the City, the value of development rights is consistent City-wide. The approach reflects the fact that land use planning in Fitchburg is proceeding on a neighborhood-by-neighborhood basis rather than City-wide, so the ultimate potential for the purchase of development rights cannot be determined, as is usually the case with TDR programs. This report poses a number of questions. At this point, they are largely rhetorical. Once the economic analysis is done and a model built so that options can be illustrated, the committee will have decisions to make. The consultant team's experience leads us to question whether a use-based system is the most effective way to achieve the desired preservation of rural land. If our analysis confirms this, the team will then look at a zoning-based system that uses the intensity of the zoning districts as the means to determine value. We will look at the appraisal-based system of determining value of development rights on a project-by-project basis. For any of these approaches, however, it is difficult to determine the ability of the receiving area to achieve the desired result without knowing the eventual allowable land uses in the receiving areas – what the development community is buying.