Guidebook for Creating a Municipal TDR Program

1995
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INTRODUCTION

Over the past few decades, many Montgomery County communities have tried to preserve their rural character while accommodating growth. One constant question these communities ask is: “How can we preserve rural character, farmland, and the environment while still protecting property rights?” Changing the minimum lot size to 10 or 15 acres may work in some places, but it is difficult in Montgomery County where landowners have such high expectations for the selling price of their land and may challenge the legality of very large lots.

One zoning tool communities can use to preserve rural areas and protect property rights is a transfer of development rights (TDR) program, which allows someone to transfer the right to develop a property in one part of a community to a property in another part. This guidebook provides a step-by-step procedure communities can follow to create a transfer of development rights program and zoning ordinance.

There is an accompanying brochure, titled Save Your Rural Landscape by Using TDRs, which explains how TDRs work. This brochure should be read first if you are unfamiliar with TDRs.

This guidebook is divided into six chapters. The first chapter describes how to get started in designing a TDR program. The next two chapters provide different step-by-step guides for creating a TDR program. The fourth chapter explains alternative uses of TDRs. The fifth chapter describes municipal administration of a TDR program. And the last chapter provides a model TDR ordinance. Because it takes time to absorb the different elements of TDRs, please read the whole guidebook before beginning to design a TDR program. Keep in mind that this guidebook is technical in nature and intended for people who are actually designing a TDR program.
CHAPTER 1
GETTING STARTED

To get started, communities need an overall understanding of the process used when creating a TDR program and zoning ordinance. This chapter briefly describes this process. Chapters 2 and 3 provide a detailed description of the process of designing a TDR program and break it down into a number of specific steps.

In addition, municipalities will need to determine if a TDR program can be successful in their community. This chapter lists the most important criteria for a successful TDR program.

Finally, communities must choose the type of TDR program they want to create. The two major types are described at the end of this chapter, and their relative advantages and disadvantages are compared. If the community chooses the first type, it should follow the steps in Chapter 2. If the second type is chosen, the steps in Chapter 3 should be followed.

Basic Process for Creating a TDR Program

Identify Sending Area

First, communities identify what they want to preserve. This could be farm-land, open land, or environmentally sensitive land. In a TDR program, this land is called a sending area, and the development that would normally take place is transferred to other parts of the community.

Identify Receiving Area

Next, communities identify areas that will receive the development being transferred from the sending area. In the TDR program, land that will receive the sending area’s development is called the receiving area.

To find room for development coming from the sending area, the density of the existing zoning in the receiving area will need to be increased, or the minimum lot size will need to be decreased. Acceptable levels of increased density or decreased lot size need to be estimated in this step.

Balance Sending and Receiving Areas

Communities need to make sure that the receiving area has enough room for all the development coming from the sending area. In fact, experience has shown that the receiving area should allow more development than the sending area generates, perhaps two or three times as much. This need is explained later in this chapter when the two different types of TDR programs are contrasted.

To create a balance, the receiving area is compared with the sending area. If the receiving area doesn’t have enough room for the development of the sending area, it may be necessary to go back and change the sending or receiving areas.

Adjust TDR Model Zoning Ordinance

Finally, the model TDR ordinance in Chapter 6 will need to be adjusted to fit the unique circumstances of different communities, based on the decisions made while creating the TDR program.
Criteria for a Successful TDR Program

Before any community starts designing a TDR program, the community should meet each of the following criteria:

1. The municipality should be encountering development pressure. This pressure can take different forms. Perhaps land is being developed at a rapid rate, or perhaps developers are often requesting increases in their permitted housing density. Either signifies that the community is under development pressure. If a community is not getting any growth or is not getting any interest from developers, it is unlikely a TDR program will work. There must be someone who will buy the development rights.

2. The community’s leadership must be committed to the TDR concept. The community’s leadership must be willing to support the TDR program. Many people will not understand or will not like the TDR program. The community’s leaders must be willing to explain and defend TDRs. In addition, if developers in the receiving area feel they can get higher housing densities by convincing the town’s elected officials to give them a rezoning, then these developers are not going to spend money buying development rights. The community’s elected officials must be willing to stick with the TDR program and not give rezonings to higher densities, so the only way developers can get higher densities is by buying development rights.

3. The community must permit the sewers and other infrastructure needed for concentrated development. The community must be willing to allow concentrated development in the receiving areas. This concentrated development will need sewers, water, sidewalks, and road improvements. The community must be willing to allow these types of improvements. If the community is unwilling to allow sewers, the concentrated development probably will not occur, and no development rights will be purchased.

In addition to meeting the above three criteria, local communities must design a simple and accurate TDR ordinance. This guidebook shows communities how to do this.

Decide what type of TDR Program is appropriate for your community

Alternative A
Agricultural TDR Program

Turn to Chapter 2 and follow the 4 steps

Alternative B
Incentive TDR Program

Turn to Chapter 3 and follow the 5 steps
Alternative Types of TDR Programs

There are two main types of TDR programs. Both are intended to preserve open land. The first type, an Agricultural TDR program, is outlined in detail in Chapter 2. It involves a substantial increase of the minimum lot size in the sending area to agricultural lots. The minimum lot size might be increased from 1 or 2 acres to 10 or more acres. The second type, called an Incentive TDR program, is outlined in Chapter 3 and does not involve any change to the sending area minimum lot size but does involve an incentive for developers in the receiving area. If the sending area were zoned for 1- or 2-acre lots before TDR zoning was enacted, it would still be zoned for 1- or 2-acre lots after the TDR zoning.

While first figuring out what to do, communities should choose to use one or the other of these two types of programs, whichever fits a community’s situation the best. However, some communities may want to create a hybrid program that uses agricultural lots in the sending area and an incentive for developers in the receiving area.

Both the agricultural and incentive TDR approaches have advantages and disadvantages. And, each approach has a different impact on the design of the TDR program. These approaches are described below in detail.

Alternative A: Agricultural TDRs

If the community increases the minimum lot size in the sending area, landowners will have the choice of either developing very large agricultural lots, such as 10-acre parcels, or selling their development rights at the zoning density that existed before, which might have been one or two homes per acre. For example, a property previously zoned for 1-acre lots is now zoned for 10-acre lots under the TDR program. The property owner can subdivide the property into 10-acre lots or can sell one development right for each acre, based on the previous zoning of 1-acre lots. This approach strongly encourages landowners to sell their development rights since they can sell more development rights than the number of lots they could subdivide on their property. Even if these landowners develop, they are doing so at an agricultural density of one home per 10 acres instead of a suburban density of one home per acre.

The community must be able to legally defend the large minimum lot size in the sending area. In Pennsylvania, this is easiest to do if the sending area encompasses a true, viable agricultural area. If it does not, the state courts may strike down the large-lot zoning; therefore, we generally recommend this approach be used when the community is trying to preserve agriculture.

Using this approach for any other purpose besides agricultural preservation, such as preserving woodlands or rural character, is possible but much riskier and should only be done with the strong support of the municipal solicitor.

This approach also affects the receiving area. Because the minimum lot size of their land has been substantially increased, sending area landowners need to be able to sell their development rights to get back some of the value of the land. To make sure there is a market for these development rights and the price is high enough, the receiving area should be able to accommodate twice as many development rights as the sending area can send. This ratio is based on a national rule of thumb. If the receiving area can do this, the demand for development rights will exceed the supply from the sending area, thereby keeping the price higher than it would be otherwise.

There are two major advantages to using this approach:

1. The sending area will be preserved
one way or the other. Either sending area landowners sell their development rights, or they only develop with large agricultural lots, such as 10-acre lots. This approach fulfills the primary reason for having a TDR program: the land is preserved.

2. Sending area landowners have an incentive to sell their development rights, since they can sell development rights based on the old lot size rather than the new, large lot size. This means they are more likely to sell their development rights, which means the TDR program will be more likely to succeed.

However, there also are disadvantages to this approach:

1. Sending area landowners may not want their zoning changed, since they no longer have the right to develop small rural lots, such as 1-acre lots. These landowners may generate political opposition to the TDR program.

On the other hand, some TDR programs in Pennsylvania have come into place because the sending area landowners wanted to preserve agriculture and have agricultural zoning. The TDR program allows these landowners to have agricultural zoning while getting back some of the development value of their land by selling development rights.

Municipalities may want to compute the value of development rights, so that sending area landowners understand the impact of the program on their property values.

2. Even though sending area landowners can sell their development rights based on the old lot size, the new, larger minimum lot size in the sending area may be more vulnerable to legal challenge, especially if the sending area is not a viable, active farming area.

**Alternative B: Incentive TDRs**

If the municipality does not change the sending area minimum lot size, landowners can develop their land in a normal manner or sell their development rights. For example, a landowner zoned for 1-acre lots can subdivide the land into 1-acre lots or can sell one development right for each acre, provided the land is restricted from future development. This approach is completely optional and is much less likely to preserve the sending area, since landowners may opt to develop in a conventional manner. On the other hand, it does not put any new restrictions on the sending land.

Choosing this alternative has an effect on the receiving area. With this approach, sending area landowners can either sell their development rights or sell their land for development. Because of this choice, the price of the development rights must be roughly comparable to the price of selling the land for development. However, developers in the receiving area may not want to pay full price for a development right because the value of a small receiving area lot, such as a quarter acre, is usually less than the value of a large sending area lot, such as 2 acres. Because of this, developers may need to be given an incentive; perhaps they are allowed to put up one and one-half additional homes for each development right they purchase. For instance, a developer may buy a development right from a farmer whose land is zoned for 2-acre lots and get the ability to build one and one-half extra ¼-acre lots.

There are two major advantages to this approach:

1. This approach is easier to defend legally, since the sending area minimum lot size is unchanged. This legal
defensibility is especially important if the community is trying to preserve rural character, historic land, woodlands, or any other feature besides agriculture.

2. Sending area landowners will prefer this approach, since they will have the option of developing under regular zoning or selling development rights.

There are also a few disadvantages with this approach:

1. The sending area is less likely to be preserved. Landowners may simply choose to develop in a conventional manner rather than sell their development rights.

2. For this approach to work, developers are given an incentive and allowed to build more than one home for each development right purchased. This means, if the program is successful and development rights are purchased, more homes will be built in the community than there would have been otherwise.

3. When the TDR ordinance is created, difficult financial analysis has to be conducted to determine the incentive.

Using the Rest of this Guidebook

To use the rest of this guidebook, communities must decide which of the alternative approaches they want to follow: Agricultural TDRs or Incentive TDRs. If a community wants to use Agricultural TDRs, then it should follow the step-by-step procedure outlined in Chapter 2. On the other hand, if a community wants to use Incentive TDRs, then it should turn to Chapter 3, which has the step-by-step procedure for that approach.

Chapters 2 and 3 include examples of TDR programs that preserve the vast majority of a community; however, TDRs can be used to preserve small areas within a community that have unique characteristics. Chapter 4 describes this alternative use of TDRs and includes another example TDR program.

Some communities may be concerned about the administration of a TDR program; however, this administration should be easy. Chapter 5 discusses the administration needed for a TDR program.

The actual ordinance language that will be inserted into a community’s zoning ordinance is shown in Chapter 6, which provides a model ordinance for both the Agricultural and Incentive TDR approaches.

Appendix A describes how to conduct the financial analysis used in the Incentive TDR approach.

Finally, Appendix B provides examples of two of the legal instruments needed to complete a TDR transaction. These are the Deed of Transfer of Development Rights and the Transfer of Development Rights Restrictive Covenant Agreement. These legal instruments would be used by the receiving area developer and sending area landowner to finalize the sale of development rights.

Throughout this guidebook, certain terms that may be unfamiliar to some people are used repeatedly. These are listed and defined on the following page.
DEFINITIONS USED THROUGHOUT THIS GUIDEBOOK

SENDING AREA
The area proposed for preservation, called a sending area because it sends development that would normally be built there to other parts of the municipality. The sending area is usually farmland or open, rural land.

RECEIVING AREA
The area that will take, or receive, additional development coming from the sending area. The receiving area is usually, but not always, around a town or village.

DEVELOPMENT RIGHT
The right to develop one residential lot or dwelling unit in the sending area, based on zoning.

BASE DENSITY
The number of lots that can be developed on a receiving area tract of land without purchasing development rights.

ADDITIONAL LOTS
Building lots that can be developed on a receiving area tract of land with the purchase of development rights. These lots are permitted in addition to the lots permitted under the base density. For example, if a receiving area tract had a base density of 10 lots and could have 30 lots under TDR zoning, this tract would have 20 additional lots, lots that are above and beyond those permitted by the base density.
CHAPTER 2
HOW TO CREATE AN AGRICULTURAL TDR PROGRAM

This chapter provides a step-by-step procedure for creating an Agricultural TDR program, where the sending area minimum lot size is increased substantially. Often, the existing minimum lot size is 1 or 2 acres, while the new minimum lot size will be 10 or more acres. This type of TDR program should be used when:

- The community is trying to preserve a viable agricultural area.
- The community's solicitor feels the large minimum lot size, with the option of selling development rights, is legally defensible. (The Pennsylvania courts have upheld large-lot, agricultural zoning). If a community wants to use this approach for preserving resources other than agriculture, such as woodlands, the township solicitor must be very comfortable with the rationale for the program.

There are four steps used to create this type of TDR program. These are shown below in the flow chart, briefly discussed on the following page, and explained in detail throughout the latter part of this chapter.

Designing an Agricultural TDR Program:

1. **STEP A-1** Identify Sending Area
2. **STEP A-2** Identify Receiving Area
3. **STEP A-3** Balance Sending and Receiving Areas
4. **STEP A-4** Adjust TDR Model Ordinance
STEP A-1
Identify Sending Area

Communities must identify what area they want to preserve and must keep in mind that, if they choose to preserve a large area, the receiving area will have to be fairly large or dense in order to accommodate all the development that will come from the sending area.

STEP A-2
Identify General Receiving Area

Next, communities must identify where the development coming from the sending area will go. After development rights are transferred from the sending area, the receiving area will have a higher density of housing than it would have had otherwise.

STEP A-3
Balance Receiving Area Units with Sending Area Development Rights

This is the most critical step in making sure that the TDR program will work.

With an Agricultural TDR program, the sending and receiving areas must be designed so the receiving area can accommodate twice as many additional dwelling units as the sending area can send. This fact is crucial and should be kept in mind during steps A-1 and A-2. If the sending area is huge, the receiving area must also be huge. And, if the receiving area is tiny, the sending area cannot be very large.

STEP A-4
Adjust TDR Model Zoning Ordinance

Finally, the community will have to write the TDR ordinance. The model ordinance in Chapter 6 can be used as a guide.

While preparing the ordinance, the municipality should hold a series of public meetings to explain the TDR concept and get public feedback. This is especially important for the Agricultural TDR approach, where the sending area lot size is being increased. These sending area landowners should understand the program and its implications; otherwise, they might generate enough political opposition to defeat the program.

The rest of this chapter describes each of the four steps in detail and applies them to a hypothetical community, called Farming Township.
STEP A-1: Identify Sending Area

The first step is to identify what the community wants to preserve and determine how much development could normally be constructed in these preservation areas. The community must answer the question: Why do we want to have a TDR program? The community may want to preserve farmland, rural character, unique environmental features, historic landscapes, or some other element.

The community must also answer another question: Can we legally justify an increase in the sending area lot size? For farmland, it is fairly easy to justify large lot sizes. For other types of land, such as rural land or woodlands, it is much more difficult. The Pennsylvania courts have upheld large lot sizes of 10 acres or more for agricultural zoning, but have not upheld large lots for other purposes.

Because of this legal issue, we recommend that sending areas be designed to preserve farmland when the minimum lot size is being substantially increased in the sending area. This new lot size should be 10 acres or more to truly preserve farmland. Communities that want to preserve other features, such as rural character, should use the TDR approach described in Chapter 3, which does not increase the minimum lot size in the sending area.

Most communities know where their important farmland is concentrated and may have shown this in their comprehensive plans or through their zoning ordinances; however, some communities may

Figure 1: PLANNING BACKGROUND
want to update their planning or create special inventories of their farmland. Generally, farmland proposed for preservation should already be zoned low-density residential or agricultural, so that the number of units being transferred is kept as small as possible.

In our Farming Township example, we have assumed the township wants to preserve farmland. With this goal in mind, we used existing township planning documents to identify the sending area where farmland will be preserved. Figure 1 summarizes some of the township’s existing planning, including proposed growth areas, agricultural security districts, and proposed agricultural preservation areas. From this information, we created the boundaries of a sending area that preserves the township’s primary agricultural area, shown in Figure 2.

Later on, in Step A-3, depending on how big the receiving area will be, it may be necessary to come back to this step to change the size of the sending area.

Keep in mind, the bigger the “sending area” becomes, the bigger or denser the “receiving area” must be.

Next, the development potential of the sending area needs to be computed to see how many dwelling units might be transferred to the receiving area. To do this, it is necessary to determine the amount of vacant land in the sending area and compute the number of homes that could be built on this vacant land under existing zoning.

Figure 2: SENDING AREA
In Farming Township’s proposed sending area, there are 2,122 undeveloped acres that could be developed. Farms that have sold their development rights to the state through its farmland preservation program are not available for development and were not included.

Next, the number of homes that could be built on these 2,122 acres needs to be estimated. Unfortunately, it is too difficult to draw a site development plan for every parcel of land. Instead, we used a mathematical approach for estimating potential development. Based on studies conducted by the Montgomery County Planning Commission, we subtracted out 25% of the total acreage for roads, environmental constraints, and oversized lots. Usually, at least 10% of a site will be used for roads. The remaining 15% is used for oversized lots, which are needed to take into account environmental constraints, such as streams, or to fill up land around the edges of a tract, since tracts are rarely shaped so that every inch can be covered with a minimum-sized lot.

In Farming Township’s case, subtracting out 25% of the tract area leads to 1,592 developable acres out of 2,122 total acres. After determining the developable acreage, the amount of potential development can be computed by dividing the acreage by the minimum lot size, in acres. For Farming Township, we divided the 1,592 developable acres by the minimum lot size, 1 acre, to derive the total number of units that could be built, which is 1,592 units.

THE NUMBERS: FARMING TOWNSHIP EXAMPLE

\[
\begin{align*}
2,122 & \quad \text{Vacant, available acreage.} \\
- & \quad 530 \quad 25\% \text{ of vacant acreage subtracted for roads, environmental constraints, and other constraints} \\
\hline
1,592 & \quad \text{Developable acreage} \\
\hline
\end{align*}
\]

\[
\begin{align*}
1,592 & \quad \text{Developable acreage} \\
\div & \quad 1 \quad \text{Minimum lot size (in acres)} \\
\hline
1,592 & \quad \text{Number of lots that can be developed}
\end{align*}
\]
STEP A-2: Identify General Receiving Area

Next, the community must identify areas where it wants to direct the development coming from the sending area. In this step, the community answers the question: Where are we willing to accept some additional development?

Most communities know where they want to direct growth and have shown this in their comprehensive plan or through their zoning ordinance. These areas are usually zoned for high- and medium-density residential, with commercial zoning nearby. However, some communities may want to update their past planning, especially if they have a relatively small growth area that cannot accept many development rights.

These receiving areas should be served or capable of being served by public or central sewers and water, so that additional development is feasible.

In our Farming Township example, we identified the southern end of the township, below the sending area, as the township's receiving area. Once again, the township's existing planning documents, shown in Figure 1, especially the comprehensive plan, were used as a guide.

Then, we identified all undeveloped land in this receiving area, as shown in Figure 3. Overall, we identified 1,563 vacant residential acres in the receiving area.

Figure 3: PROPOSED RECEIVING AREA
STEP A-3: Balance Receiving Area Units with Sending Area Development Rights

This step pulls together the previous two steps. The municipality must make sure the receiving area is able to accommodate double the number of development rights produced by the sending area. To accommodate the development rights, the zoning in the receiving area must be changed so that, when developers use development rights, they can build more homes than they could under the existing zoning. Each additional home allowed under the new zoning can be built only if the developer buys a development right for that home from a sending area landowner.

With this type of TDR program, one additional unit in the receiving area equals one development right from the sending area.

Some communities may not want to allow more homes to be built in the receiving area but still want to have a TDR program. This can only be done by decreasing the density in the receiving area initially and then allowing receiving area landowners to get back the density they lost by buying development rights. For example, a receiving area zoned for 20,000 square foot lots is rezoned to 60,000 square foot lots after the TDR zoning is enacted, with the provision that the receiving area landowners can have 20,000 square foot lots if they buy development rights. If they are unwilling to buy development rights, they will have to develop 60,000 square foot lots. Receiving area landowners will not like this approach, which rezones their land to a lower density. Because of this problem, this guidebook has been written with the assumption that changing the existing zoning in the receiving area to a lower density will not be done; however, some communities may want to do this. If they do, the substeps outlined below can easily be adjusted to take into account the initial rezoning of the receiving area.

Once the zoning is adjusted in the receiving area, however it is done, the receiving area should be able to accommodate double the number of sending area development rights. Often, however, the receiving area is too small. If this is the case, then either the sending area should be reduced in size, the receiving area should be increased in size, or the receiving area density should be increased. If, on the other hand, the receiving area is too large, the opposite adjustments should be made.

This step is fairly complicated and can be broken down into a number of substeps. Each substep is outlined and explained below, using the Farming Township example.

### Substep 1

First, the municipality must take the number of development rights generated by the sending area and double it. This is the number of additional dwelling units the receiving area must be able to accommodate.

As shown in Step 1, Farming Township’s sending area has 1,592 development rights; therefore, the receiving area should be able to accommodate 3,184 additional units.

\[
\begin{align*}
1,592 \text{ Development rights} \\
\times 2 \\
= 3,184 \text{ Additional units}
\end{align*}
\]

Farming Township’s receiving area will not actually have 3,184 additional units built. It will have, at most, only 1,592 additional units built. Receiving area developers can build only one additional home for each development right they buy. Since they can buy only 1,592 development rights, they can build only 1,592 additional
units. The receiving area is designed to accommodate double the number of development rights of the sending area to keep demand high for development rights. Since there will not be enough development rights for every receiving area piece of land, the receiving area developers will compete against each other to buy the development rights. This should increase the value of the development rights.

This is necessary because the sending area landowners do not have any other option for getting the development value of their land besides selling their development rights. They can’t sell their land to a developer who wants to have 1-acre lots, because their zoning has been changed to 10-acre or larger lots. This puts them at a disadvantage when negotiating with receiving area landowners. However, the doubling of the sending area development rights improves their negotiating position.

Substep 2

Second, it is necessary to determine the number of units that could be built in the receiving area under existing zoning. These units comprise the base density of the receiving area, the density developers are allowed without buying any development rights.

In Farming Township, based on the different zoning districts in the receiving area, we determined that 2,085 dwelling units could be constructed under existing zoning standards, as summarized in Figure 4 and shown in Figure 5.

Substep 3

Third, the municipality needs to examine the receiving area and determine the increased density or decreased lot size that will be put into the zoning ordinance for this area. This increased density or decreased lot size should provide room for double the number of development rights being transferred from the sending area. If there isn’t enough room, the density, sending area size, or receiving area size may need to be adjusted later in this step.

The municipality should increase densities or decrease lot sizes to a level that it is comfortable with. For instance, areas zoned for 1-acre lots might be changed to half-acre lots if development rights are purchased. Owners of this land could develop 1-acre lots no matter what, but if they wanted to develop half-acre lots, they would have to buy development rights for any additional lots. For example, if a developer could build ten 1-acre lots under normal zoning and 22 half-acre lots under the TDR zoning, he would have to buy 12 development rights for the 12 additional lots he could build under the TDR zoning.

Figure 4:
RECEIVING AREA LAND
Farming Township Example

<table>
<thead>
<tr>
<th></th>
<th>R-3 District</th>
<th>R-2 District</th>
<th>R-1 District</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Vacant Acreage</td>
<td>75</td>
<td>672</td>
<td>816</td>
<td>1,563</td>
</tr>
<tr>
<td>Net Developable Acreage</td>
<td>75</td>
<td>504</td>
<td>612</td>
<td>1,191</td>
</tr>
<tr>
<td>By-Right Minimum Lot Size or Dwelling Units</td>
<td>5 dui/acre</td>
<td>20,000 sf</td>
<td>43,560 sf</td>
<td></td>
</tr>
<tr>
<td>Potential By-Right Dwelling Units</td>
<td>375</td>
<td>1,098</td>
<td>612</td>
<td>2,085</td>
</tr>
</tbody>
</table>

Net Developable Acreage: For the R-2 and R-1 zoning districts, the net developable acreage is derived by subtracting out 25% of the gross acreage for roads, larger lots sizes, and environmental constraints that will occur whenever a piece of land is carved into individual lots. However, in many communities, when land is not carved into lots and the number of units that can be built is based on dwelling units per acre, the amount of land that is used for measuring the amount of permitted development is gross acreage rather than net acreage. This was used for the R-3 district.
In Farming Township, we increased the density in the R-3 district from 5 to 7 dwelling units per acre; decreased the minimum lot size in the R-2 district from 20,000 square-foot lots to 10,000 square-foot lots; and decreased the minimum lot size in the R-1 district from 1-acre lots to 20,000 square-foot lots.

Figure 6 shows the proposed changes for these districts and also shows that a total of 4,052 homes could theoretically be built under the TDR zoning.

The difference between the lot size under existing zoning and the lot size under the TDR zoning should be as large as possible to encourage the receiving area developer to actually use the development rights. For example, if a receiving area developer can build on 20,000 square-foot lots under existing zoning and 15,000 square-foot lots under the TDR zoning, this developer will probably just build on 20,000 square-foot lots to avoid the extra work involved with buying development rights. On the other hand, if the existing zoning allows 60,000 square-foot lots and the TDR zoning allows 15,000 square-foot lots, the developer has a real incentive to buy development rights if this developer wants to develop relatively small lots. The extra work of buying the development rights is worth it in this case.

Figure 5: EXISTING ZONING OF VACANT RESIDENTIAL RECEIVING AREA LAND
### Figure 6:
**INITIAL RECEIVING AREA LAND WITH TDR PROGRAM**

**Farming Township Example**

<table>
<thead>
<tr>
<th>R-3 District</th>
<th>R-2 District</th>
<th>R-1 District</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Vacant Acreage</td>
<td>75</td>
<td>672</td>
<td>816</td>
</tr>
<tr>
<td>Net Developable Acreage</td>
<td>75</td>
<td>504</td>
<td>612</td>
</tr>
<tr>
<td>By-Right Minimum Lot Size or Dwelling Units</td>
<td>5 du/ac</td>
<td>20,000sf</td>
<td>43,560sf</td>
</tr>
<tr>
<td>Potential By-Right Dwelling Units</td>
<td>375</td>
<td>1,098</td>
<td>612</td>
</tr>
<tr>
<td>Min. Lot Size or Dwelling Units w/ Purchase of TDRs</td>
<td>7 du/ac</td>
<td>10,000sf</td>
<td>20,000sf</td>
</tr>
<tr>
<td>Potential Dwelling Units with TDRs</td>
<td>525</td>
<td>2,195</td>
<td>1,332</td>
</tr>
<tr>
<td>Total Additional Dwelling Units with TDRs</td>
<td>150</td>
<td>1,097</td>
<td>720</td>
</tr>
</tbody>
</table>

**Net Developable Acreage:** For the R-2 and R-1 zoning districts, the net developable acreage is derived by subtracting out 25% of the gross acreage for roads, larger lots sizes, and environmental constraints that will occur whenever a piece of land is carved into individual lots. However, in many communities, when land is not carved into lots and the number of units that can be built is based on dwelling units per acre, the amount of land that is used for measuring the amount of permitted development is gross acreage rather than net acreage. This was used for the R-3 district.

### Substep 4

Then, the number of units that could be built under existing zoning in the receiving area, shown in Substep 2, should be subtracted from the number of potential units that could be built with TDR zoning. The resulting difference is the number of additional units allowed by the increased densities. Developers must buy development rights to build any of these additional units.

For Farming Township’s receiving area, 2,085 units could be built under existing zoning and 4,052 units with TDR zoning. Subtracting 2,085 units from the 4,052 units yields 1,967 units, which is the number of additional units allowed with the TDR zoning. Receiving area developers must buy development rights to build any of the 1,967 potential additional units.

\[
\begin{align*}
4,052 \quad \text{Units with TDR Zoning} \\
- 2,085 \quad \text{Units with Existing Zoning} \\
= 1,967 \quad \text{Additional units}
\end{align*}
\]

### Substep 5

Next, the number of additional units allowed in the receiving area should be compared with double the number of sending area development rights. Generally, the number of additional receiving area units should be equal to or slightly greater than double the number of sending area development rights.

For Farming Township, the sending area has 1,592 development rights; therefore, by doubling the 1,592 sending area development rights, the receiving area should be able to accommodate 3,184 additional dwelling units. However, in Farming Township’s case, the proposed receiving area at the proposed densities is not able to accommodate 3,184 units; it can only accommodate 1,967 additional units. Either the receiving area size, sending area size, or receiving area density will need to be adjusted for Farming Township.

### Substep 6

Finally, if the receiving area cannot accommodate double the sending area development, then one or both areas need to be adjusted until they are balanced.

As shown previously, Farming Township’s receiving area does not have enough room for double the number of sending area units. This means something needs to be adjusted to make the two areas match. The sending area has
been specifically defined to cover the township's primary agricultural area and should not be adjusted. This leaves the receiving area for any adjustments. There isn't much room to make the receiving area any bigger, which means the density will have to be increased (minimum lot size decreased).

After analyzing the alternatives, we decided to decrease the lot size in much of the R-1 Zoning District within the receiving area to 10,000 square-foot lots instead of 20,000 square-foot lots. In effect, we have split the R-1 receiving area into two districts, an R-1A district and an R-1B district. When this adjustment is made, the receiving area will be able to accommodate 2,996 additional units, which is approximately double the 1,592 development rights generated by the sending area. Figure 7 summarizes these changes. Figure 8 shows the final sending and receiving area sites for Farming Township.

Figure 7:
ADJUSTED RECEIVING AREA LAND WITH TDR PROGRAM
Farming Township Example

<table>
<thead>
<tr>
<th></th>
<th>R-3 District</th>
<th>R-2 District</th>
<th>R-1A District</th>
<th>R-1B District</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Vacant Acreage</td>
<td>75</td>
<td>672</td>
<td>604</td>
<td>212</td>
<td>1,563</td>
</tr>
<tr>
<td>Net Developable Acreage</td>
<td>75</td>
<td>504</td>
<td>453</td>
<td>159</td>
<td>1,191</td>
</tr>
<tr>
<td>By-Right Minimum Lot Size or Dwelling Units</td>
<td>5 du/ac</td>
<td>20,000sf</td>
<td>43,560sf</td>
<td>43,560sf</td>
<td></td>
</tr>
<tr>
<td>Potential By-Right Dwelling Units</td>
<td>375</td>
<td>1,098</td>
<td>453</td>
<td>159</td>
<td>2,085</td>
</tr>
<tr>
<td>Min. Lot Size or Dwelling Units w/ Purchase of TDRs</td>
<td>7 du/ac</td>
<td>10,000sf</td>
<td>10,000sf</td>
<td>20,000sf</td>
<td></td>
</tr>
<tr>
<td>Potential Dwelling Units with TDRs</td>
<td>525</td>
<td>2,195</td>
<td>1,973</td>
<td>346</td>
<td>5,039</td>
</tr>
<tr>
<td>Total Additional Dwelling Units with TDRs</td>
<td>150</td>
<td>1,097</td>
<td>1,520</td>
<td>187</td>
<td>2,954</td>
</tr>
</tbody>
</table>

Net Developable Acreage: For the R-2 and R-1 zoning districts, the net developable acreage is derived by subtracting out 25% of the gross acreage for roads, larger lots sizes, and environmental constraints that will occur whenever a piece of land is carved into individual lots. However, in many communities, when land is not carved into lots and the number of units that can be built is based on dwelling units per acre, the amount of land that is used for measuring the amount of permitted development is gross acreage rather than net acreage. This was used for the R-3 district.

The R-1 zoning has been split into two districts: R-1A and R-1B.
Figure 8: FINAL TDR PROGRAM
STEP A-4: Adjust TDR Model Zoning Ordinance

Once Steps A-1 through A-3 are done, the biggest part of creating a TDR zoning ordinance is over. In Step A-4, the model ordinance for Agricultural TDR programs, outlined in Chapter 6, must be adjusted to meet the needs of the municipality.

A number of items that are unique to each municipality need to be added to the model ordinance, such as affected zoning districts, lot sizes, densities, and intent of the TDR ordinance. In addition, the ordinance will need to reflect the fact that the minimum lot size in the sending area has been increased. These issues are explained in detail in Chapter 6.

In addition to adding the model ordinance to the zoning ordinance, the municipality will have to add references to the TDR ordinance in all receiving and sending area zoning districts. Also, new definitions, as shown in Chapter 6, will have to be added to the zoning ordinance.

Farming Township will have to create a new zoning district for the sending area. This could be called the AGR Farmland Preservation District. In this district, the minimum lot size will be 10 acres, although property owners will be allowed to sell one development right per net acre. In the receiving area, the R-1 district will have to be split into two new districts. One will allow 10,000 square-foot lots with the purchase of development rights, while the other will allow 20,000 square-foot lots. These two new districts can be called the R-1A and R-1B zoning districts. The R-2 and R-3 districts will also have to be amended to permit higher densities or smaller lot sizes when development rights are purchased.

Because TDR ordinances are complicated, the municipality needs to familiarize its residents, especially affected landowners, about the procedures involved with a TDR program. All landowners in the sending area should be informed about the program, so they understand the available options and are comfortable with the idea of selling their development rights. The Appendix contains a sample contract of sale for TDRs as well as a sample restrictive covenant agreement for limiting development. Both of these can be shown to landowners as examples of documents they will have to use if they sell their development rights.

Even after the ordinance is adopted, the municipality may have to bring together prospective developers with landowners who want to sell their development rights, to take an active role in making the TDR program a success. The TDR program probably will work best when the municipality is actively involved. The municipality could even choose to buy development rights from sending area landowners, with the intent of selling these to receiving area developers in the future.

Finally, Farming Township needs to stay on top of the TDR program and assess how it is working. The township should create a list of all sending area sites, along with an estimate of dwelling units available from each site. This list could be shown to potential developers of receiving area land to expedite sales of development rights and thereby promote rural preservation, the final goal of having a TDR program. The more involved the township becomes in matching sending area landowners with receiving area developers, the more likely the TDR program will be a success.

In addition, the program should be reviewed after a number of years.

The administration of a TDR program is straightforward and can easily be done by any municipality in Montgomery County. Chapter 5 provides a detailed description of the administration of a TDR program.
CHAPTER 3
HOW TO CREATE AN INCENTIVE TDR PROGRAM

This chapter provides a step-by-step procedure for creating an Incentive TDR program, where the sending area minimum lot size is unchanged. With this approach, unlike the one described in Chapter 2, the TDR program has no impact on the ability of sending area landowners to subdivide their property. If these landowners could subdivide 1-acre lots before the TDR program was enacted, they'll still be able to subdivide 1-acre lots after the program is enacted. Although the Incentive TDR approach will not preserve the sending area as well as the Agricultural TDR approach, this type of TDR program is beneficial and should be used when:

- The community is trying to preserve rural character, historic land, woodlands, or any other resource besides agriculture.
- Although the community is trying to preserve agriculture, the community's solicitor is not comfortable with a large minimum lot size that would be used with the Agricultural TDR program described in Chapter 2.

There are five steps used to create this type of TDR program. These are shown below in the flow chart, briefly discussed on the following page, and explained in detail throughout the latter part of this chapter.

Designing an Incentive TDR Program:

1. **STEP B-1** Identify Sending Area
2. **STEP B-2** Identify Receiving Area
3. **STEP B-3** Calculate Developer Incentive
4. **STEP B-4** Balance Sending and Receiving Areas
5. **STEP B-5** Adjust TDR Model Ordinance
STEP B-1
Identify Sending Area

Communities must identify what area they want to preserve and must keep in mind that, if they choose to preserve a large sending area, the receiving area will have to be fairly large or dense in order to accommodate all the development that will come from the sending area.

STEP B-2
Identify General Receiving Area

Next, communities must identify where the development from the sending area will go. After development rights are transferred from the sending area, the receiving area will have a higher density of housing than it would have had otherwise.

STEP B-3
Calculate Developer Incentive

This step is fairly complicated and involves an in-depth real estate financial analysis to determine the developer incentive. This incentive will create a match between the amount receiving area developers will pay for a development right and the amount sending area landowners want for selling a development right. The incentive needs to be calculated by the municipality and put into the TDR ordinance.

STEP B-4
Balance Receiving Area Units with Sending Area Development Rights

This is the most critical step in making sure that the TDR program will work. In this step, the sending area and receiving areas are designed so the receiving areas can accommodate all the sending area development rights, multiplied by the developer incentive. For example, if the sending area can generate 100 development rights and the developer incentive is 1.5 to 1, which means the developer can build 1.5 homes for each development right purchased, then the receiving area has to accommodate 150 additional dwelling units (100 development rights x 1.5 additional units per development right = 150 additional units).

The fact that the receiving area will have to accommodate more dwelling units than the sending area generates should be kept in mind during Steps B-1 and B-2 described later in this chapter. In Step B-1, if the sending area is huge, then the receiving area will also have to be huge. And, in Step B-2, if the receiving area is tiny, then the sending area cannot be very large.

STEP B-5
Adjust TDR Model Zoning Ordinance

Finally, the community will have to write the TDR ordinance. The model ordinance in Chapter 6 can be used as a guide. While preparing the ordinance, the municipality should hold a series of public meetings to explain the TDR concept and get public feedback.

The rest of this chapter describes the individual steps of the Incentive TDR approach and applies them to a hypothetical community, called Scenic Township.
STEP B-1: Identify Sending Area

Figure 9: PLANNING BACKGROUND

The first step is to identify what the community wants to preserve and to determine how much development could normally be constructed in these preservation areas. The community must answer the question: "Why do we want to have a TDR program?" The community may want to preserve farmland, rural character, historic landscapes, unique environmental features, or some other element.

Most communities know what they want to preserve and may have shown this in their comprehensive plans or through their zoning ordinances; however, some communities may want to update their planning or create special inventories of their resources. Generally, areas proposed for preservation should already be zoned low-density residential or agricultural, so the number of units being transferred is kept as small as possible.

Scenic Township has not received much suburban growth, and the vast majority of the township has a rural character. We have assumed Scenic Township officials want to protect rural areas, which can be done by transferring development rights from rural preservation areas to growth areas. Figure 9, taken from the township's comprehensive plan, shows Scenic Township's proposed growth and rural preservation areas.

In this example, all of Scenic Township's residential rural preservation area is proposed to be a sending area, although the size of the area may have to be reduced in Step B-4 if there isn't enough room for all the development rights in the receiving area. Figure 10 shows the proposed sending area.
Later on, in Step B-4, depending on how big the receiving area will be, it may be necessary to come back to this step to change the size of the sending area.

**Keep in mind, the bigger the “sending area” becomes, the bigger or denser the “receiving area” must be.**

Next, the development potential of the sending area needs to be computed to see how many dwelling units might be transferred to the receiving area. To do this, it is necessary to determine the amount of vacant land in the sending area, then compute the number of homes that could be built on this land under existing zoning.

Scenic Township's large sending area has a lot of vacant land, more than 5,100 acres. If developed under existing zoning standards, which require 90,000 square-foot lots, this land would yield 1,850 dwelling units. Under a TDR program, these 1,850 units could be sold as development rights to receiving area landowners.

The 1,850 potential dwelling units were estimated by using the following procedure:

1. First, we estimated how much of the total of 5,100 acres could actually be developed into lots. It is too difficult to draw a site development plan for every parcel of land. Instead, we used a mathematical approach for estimating potential development. Based on studies conducted by the Montgomery County Planning Commission, we subtracted out 25% of the total acreage for roads, environmental constraints, and oversized lots. Usually at least 10% of a site will be used for roads. The remaining 15% is used for oversized lots, which are
needed to take into account environmental constraints, such as streams, or to fill up land around the edges of a tract, since tracts are rarely shaped so that every inch can be covered with a minimum-sized lot.

In Scenic Township’s case, subtracting out 25% of the tract area leads to 3,825 developable acres out of 5,100 total acres.

2. After determining the developable acreage, the amount of potential development can be computed by dividing this acreage by the minimum lot size, in acres. A 90,000 square-foot lot equals 2.066 acres. For Scenic Township, we divided the 3,825 developable acres by the minimum lot size, which is 2.066 acres, to derive the total number of units that could be built, which is 1,850 units.

THE NUMBERS: SCENIC TOWNSHIP EXAMPLE

- 5,100 Vacant, available acreage
- $\div 1,275$ 25% of vacant acreage subtracted for roads, environmental constraints, and other constraints

$= 3,825$ Developable acreage

- 3,825 Developable acreage
- $\div 2.066$ Minimum lot size (in acres)

$= 1,850$ Number of lots that can be developed
STEP B-2: Identify General Receiving Area

Next, the community must identify areas where it wants to direct the development coming from the sending area. In this step, the community must identify potential receiving area land, estimate development of this land under existing zoning, and determine acceptable increases in density on this land.

Most communities know where they want to direct growth and have shown this in their comprehensive plan or through their zoning ordinance. These areas are usually zoned for high- and medium-density residential, with commercial zoning nearby. However, some communities may want to update their past planning, especially if they have a relatively small growth area that cannot accept many development rights.

These receiving areas should be served or capable of being served by public or central sewers and water, so that additional development is feasible.

Because receiving areas will get growth and development, we put Scenic Township’s receiving area sites in the growth areas designated in the township’s comprehensive plan (shown in Figure 9). Parts of these growth areas are already developed or proposed for nonresidential use, which means they cannot be used as receiving sites for residential development. Other parts are already zoned for high-density residential, which allows 4 to 5 dwelling units per acre. We assumed the township is not interested in increasing the density in these high-density areas, which means that, if there is no increase in density, no development rights can be transferred to these high-density areas. The remaining portions are currently zoned for 90,000 square-foot lots but proposed for medium-density
land use. These sites will function as receiving area parcels of land and are shown in Figure 11.

Once the receiving area is identified, it is necessary to determine the number of units that could be built on vacant land in this area under existing zoning. These units comprise the base density of the receiving area, the density developers are allowed without buying any development rights.

Scenic Township’s proposed receiving areas have about 365 undeveloped acres and are currently zoned for 90,000 square-foot lots. Under this existing zoning, these 365 acres would normally yield about 130 residential lots. This was calculated following the same procedure outlined in Step B-1.

Next, the community must determine the smallest lot size or highest density that it would find acceptable in this receiving area.

For instance, areas zoned for 1-acre lots might be changed to quarter-acre lots if development rights were purchased. Owners of this land would be permitted to develop 1-acre lots no matter what, but if they wanted to develop quarter-acre lots, they would have to buy development rights for any additional lots. For example, if a developer could build ten 1-acre lots under normal zoning and 40 quarter-acre lots under the TDR zoning, this developer would have to buy development rights for the 30 additional lots he can develop under the TDR zoning.

The community must choose a lot size or density that it finds acceptable for the receiving area after TDRs are purchased. In the next step, where the developer’s incentive is calculated, this smaller lot size or higher density will be used as one of the variables in the calculation.

Scenic Township is willing to accept lots that are as small as 11,000 square feet. However, the township would prefer larger lot sizes and would be interested in having 22,000- and 43,560-square foot lots in the receiving area.

The difference between the lot size under existing zoning and the lot size under the TDR zoning should be as large as possible to encourage the receiving area developer to actually use the development rights. For example, if a receiving area developer can build on 20,000 square foot lots under existing zoning and 15,000 square foot lots under the TDR zoning, this developer will probably just build on 20,000 square foot lots to avoid the extra work involved in buying development rights. On the other hand, if the existing zoning allows 60,000 square foot lots and the TDR zoning allows 15,000 square foot lots, the developer must buy development rights if this developer wants to develop relatively small lots. The extra work of buying the development rights is worth it in this case.

In the example and discussion outlined above, the receiving area density is proposed to be increased with the purchase of development rights; however, some communities may not want to allow more homes to be built in the receiving area but do want to have a TDR program. This can only be done by decreasing the density, or increasing the lot size, in the receiving area initially and then allowing receiving area landowners to get back the density they lost by buying development rights. For example, a receiving area zoned for 20,000 square foot lots is rezoned to 60,000 square foot lots after the TDR zoning is enacted, with the provision that the receiving area landowners can have 20,000 square foot lots if they buy development rights. If they are unwilling to buy development rights, they will have to develop 60,000 square foot lots. Receiving area landowners will not like this approach, which rezones their land to a lower density. Because of this problem, this guidebook has been written with the assumption that changing the existing zoning in the receiving area to a lower density will not be done; however, some communities may want to do this. If they do, the steps outlined in this chapter can easily be adjusted to take into account the initial rezoning of the receiving area to a lower density.
STEP B-3: Calculate Developer Incentive

In this step, the developer incentive is calculated. With the incentive, a developer in the receiving area is allowed to build one or more additional dwelling units for each development right purchased. The developer might be allowed to build 1½, 2, 3, or some other number of homes for each development right purchased.

Developers need to be given an incentive because the value they are willing to pay for a small receiving area lot is probably not as high as the value a sending area landowner wants for a large sending area lot or development right. The process used for determining this incentive is explained below and shown in Figure 12, using Scenic Township as an example.

The three basic steps we used to calculate these incentives are listed below and shown in Figure 12:

1. First, the municipality must determine the value of development rights for sending area landowners, determine how much these landowners will want for their land.

In the example shown in Figure 12, a sending area property is zoned for 90,000-square-foot-lots. The landowner normally could sell this land for $33,000 per 90,000 square feet of area. This farm is worth $6,000 per 90,000 square feet for farming purposes, which means the owner would be willing to sell the development rights for $27,000 per 90,000 square feet.

\[
\begin{align*}
\text{$33,000$ (total value per 90,000 sq. ft.)} \\
- \text{$6,000$ (farm value per 90,000 sq. ft.)} \\
= \text{$27,000$ (value of development right)}
\end{align*}
\]

In this case, 90,000 square feet equals one development right.

2. Next, the municipality needs to compute how much developers in receiving areas are willing to pay for being allowed to put up an extra home.

3. Finally, the two values should be compared and an incentive should be computed for the receiving area landowner. This incentive should be designed to create a fit between the amount the sending area landowner wants with the amount the receiving area landowner is willing to pay.

The sending area landowner wants at least $27,000 for each development right. The receiving area landowner is willing to pay no more than $24,000 for the right to build one more lot. Because these two prices are not comparable, no deal would occur between these two persons, unless one of them were willing to take a loss. To compensate for this, the receiving area landowner should be allowed to build 1½ extra lots for each development right purchased. Then, the developer would be willing to pay $36,000 ($24,000 for one extra lot plus $12,000 for half an extra lot) for a development right. The sending area landowner wants at least $27,000. The two should be able to strike a deal somewhere between these two values.
1. Value of Development Rights for Sending Area Landowner

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Zoning (Minimum Lot Size)</td>
<td>90,000 sf lots</td>
</tr>
<tr>
<td>Value of Raw Land per Lot</td>
<td>$33,000 per 90,000 sf lot</td>
</tr>
<tr>
<td>Farmland Value of Land per Lot</td>
<td>$6,000 per 90,000 sf lot</td>
</tr>
<tr>
<td>Development Value of Land per Lot (This is a Development Right)</td>
<td>$27,000 per 90,000 sf lot</td>
</tr>
</tbody>
</table>

2. Value of One Additional Lot for Receiving Area Developer

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acreage</td>
<td>40 Acres</td>
</tr>
<tr>
<td>Existing Zoning (Minimum Lot Size)</td>
<td>90,000 sf lots</td>
</tr>
<tr>
<td>Number of Potential Lots under Existing Zoning</td>
<td>14 lots (90,000 sf each)</td>
</tr>
<tr>
<td>TDR Zoning (Minimum Lot Size)</td>
<td>11,000 sf lots</td>
</tr>
<tr>
<td>Number of Potential Lots under TDR Zoning</td>
<td>118 lots (11,000 sf each)</td>
</tr>
<tr>
<td>Number of Additional Lots with TDR Zoning</td>
<td>104 additional lots (118 - 14 = 104)</td>
</tr>
<tr>
<td>Value of Each Additional Lot to the Developer</td>
<td>$24,000 per lot</td>
</tr>
</tbody>
</table>

3. Comparison of Sending and Receiving Area Values

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sending Area Landowner: Value of One Development Right</td>
<td>$27,000 for one development right</td>
</tr>
<tr>
<td>Receiving Area Developer: Value of One Additional Lot</td>
<td>$24,000 for one additional 11,000 sf lot</td>
</tr>
<tr>
<td>Incentive Given to Receiving Area Developer</td>
<td>15 additional lots for each development right purchased</td>
</tr>
<tr>
<td>Price Receiving Area Developer is Willing to Pay with Incentive of 15 Lots for each Development Right</td>
<td>$36,000 per development right</td>
</tr>
</tbody>
</table>

The numbers used above are based on the Scenic Township example.
Figure 12 shows how this process might work. The receiving area landowner has 40 acres and can build fourteen 90,000 square foot lots under existing zoning. Under the TDR zoning, where the lot size is reduced to 11,000 square feet, this developer can build 118 lots, which is 104 more lots than normally permitted. With an incentive of 1½ homes for each development right purchased, this developer needs to purchase 70 development rights for the 104 extra lots. (The developer does not need to purchase any development rights for the 14 lots allowed under the existing zoning. These lots can be built regardless of the TDR program.) The receiving area landowner must find sending area landowners who are willing to sell 70 development rights. Once these development rights are sold, the sending area land will have to be deed restricted from future development.

The receiving area may have a variety of zoning districts. If this is the case, the developer incentive will need to be calculated for each different change in lot size or density that could occur with the TDR zoning. For example, the receiving area zoning is divided into two districts. In one of these districts, the base zoning allows 80,000 square-foot lots and the TDR zoning allows 20,000 square-foot lots. In the other district, the base zoning allows 60,000 square-foot lots but the TDR zoning allows 11,000 square-foot lots. In this case, the developer incentive would have to be calculated for each of these zoning districts.

In the Scenic Township example, the township is interested in having three different lot sizes in the receiving area. Some of the receiving area will go to 43,560 square-foot lots, some to 22,000 square-foot lots, and some to 11,000 square-foot lots. These areas have not been identified yet, but the township has a general interest in having a variety of lot sizes in the receiving area. The developer incentive for the areas that would have 11,000 square-foot lots has already been calculated at 1½ additional lots for each development right purchased. In this case, after another financial analysis was conducted, the developer incentive for the 43,560- and 22,000 square-foot lots turned out to also be 1½ additional lots for each development right purchased.

The developer incentive derived in this step will be put into the TDR ordinance when the ordinance is drafted, in Step B-5.
STEP B-4: Balance Receiving Area Units with Sending Area Development Rights

This step pulls together the previous three steps. The municipality must make sure that the receiving area is able to accommodate all of the development rights of the sending area multiplied by the developer incentive. As discussed in Step B-2, the zoning in the receiving area must be changed so developers can build more homes than allowed under existing zoning.

Once the zoning is adjusted in the receiving area, the receiving area should be able to accommodate all of the sending area development rights multiplied by the developer incentive. If it cannot accommodate this many development rights, then either the sending area should be reduced in size, the receiving area should be increased in size, or the receiving area density should be increased. If, on the other hand, the receiving area is too large, then the opposite adjustments should be made.

This step is fairly complicated and can be broken down into a number of substeps. Each subprocess is outlined and explained below, using the Scenic Township example.

Substep 1

First, the municipality must determine the number of units that could be built in the receiving area with the increased densities or smaller lots sizes chosen in Step B-2. If the receiving area will have multiple lot sizes and they have not yet been identified, they should be identified at this time.

As shown in Step B-2, Scenic Township wants to see a variety of lot sizes in the receiving area, including 11,000 square-foot, 22,000 square-foot, and 43,560 square-foot lots. The areas that will have each of these lot sizes must be specifically identified. These are shown in Figure 14.

Based on the vacant areas shown in Figure 14 and listed in Figure 13, Scenic Township’s proposed receiving area could accommodate a total of 640 lots.

Substep 2

Second, the municipality must determine the number of additional units being generated by the increased densities or smaller lot sizes. This is done by subtracting the number of lots that could be built under existing zoning in the receiving area, which was derived in step B-2, from the number of potential units that could be built with TDR zoning. Developers must

Figure 13:

INITIAL RECEIVING AREA LAND

Scenic Township Example

<table>
<thead>
<tr>
<th>Gross Vacant Acreage</th>
<th>11,000 sf Lot Zoning</th>
<th>22,000 sf Lot Zoning</th>
<th>43,560 sf Lot Zoning</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Developable Acreage</td>
<td>99</td>
<td>197</td>
<td>67</td>
<td>363</td>
</tr>
<tr>
<td>By-Right Minimum Lot Size or Dwelling Units</td>
<td>74</td>
<td>148</td>
<td>50</td>
<td>272</td>
</tr>
<tr>
<td>Potential By-Right Dwelling Units</td>
<td>90,000 sf</td>
<td>90,000 sf</td>
<td>90,000 sf</td>
<td></td>
</tr>
<tr>
<td>Min. Lot Size or Dwelling Units w/ Purchase of TDRs</td>
<td>35</td>
<td>71</td>
<td>24</td>
<td>130</td>
</tr>
<tr>
<td>Potential Dwelling Units with TDRs</td>
<td>11,000 sf</td>
<td>22,000 sf</td>
<td>43,560 sf</td>
<td></td>
</tr>
<tr>
<td>Total Additional Dwelling Units with TDRs</td>
<td>295</td>
<td>295</td>
<td>50</td>
<td>640</td>
</tr>
<tr>
<td></td>
<td>260</td>
<td>224</td>
<td>26</td>
<td>510</td>
</tr>
</tbody>
</table>

Net Developable Acreage: The net developable acreage is derived by subtracting out 25% of the gross acreage for roads, larger lots sizes, and environmental constraints that will occur whenever a piece of land is carved into individual lots.
buy development rights to build any of the additional units allowed in the receiving area.

In Scenic Township, with 90,000 square-foot lots, developers in the receiving area could get 130 lots. With the reduced lot sizes under TDR zoning, these developers could get 640 lots. Therefore, developers would be allowed to build 510 additional lots with the TDR zoning.

\[
\begin{align*}
640 & \text{ TDR lots} \\
-130 & \text{ regular lots} \\
= 510 & \text{ additional lots}
\end{align*}
\]

Substep 3

Third, the municipality must determine the number of development rights that need to be purchased by receiving area developers to build all the additional lots. If there is only one developer incentive in the receiving area, the number of additional lots in the receiving area should be divided by the developer incentive derived in step B-3.

In Scenic Township, the proposed receiving area can accommodate 510 additional lots. As shown in step B-3, the developer incentive is 1½ additional lots for each development right purchased. Dividing the number of additional lots, 510, by the developer incentive of 1½ yields 340 development rights. Therefore, in order to build the 510 additional lots that could feasibly be put into the receiving area, the developers would have to buy 340 development rights from sending area landowners.
If the receiving area has more than one developer incentive, the calculation is a little more complicated. In this case, the number of development rights which needs to be purchased must be computed for each portion of the receiving area that has a different developer incentive. For each of these portions, the number of additional lots permitted in each portion would be divided by the developer incentive for that area. This is done for each different developer incentive. The resulting quotients are then added together to determine the total number of development rights that will have to be purchased.

For example, a township’s receiving area might have areas with two different developer incentives. In one of the areas, the developer incentive is two additional lots for each development right. This area can accommodate 180 additional lots. The second area has a developer incentive of 1½ to 1. This area can accommodate 300 additional lots. The number of development rights to be purchased must be derived for each of these areas and then added together. The first area will need 90 development rights.

\[
\begin{align*}
180 \text{ additional lots} & \div 2 \text{ additional lots per development right} \\
& = 90 \text{ development rights}
\end{align*}
\]

The second area will need 200 development rights.

\[
\begin{align*}
300 \text{ additional lots} & \div 1\frac{1}{2} \text{ additional lots per development right} \\
& = 200 \text{ development rights}
\end{align*}
\]

Overall, to build 480 additional lots, developers in the receiving area will have to buy 290 development rights from sending area landowners.

\[
\begin{align*}
90 \text{ development rights for the first area} & + 200 \text{ development rights for the second area} \\
& = 290 \text{ development rights for the whole receiving area}
\end{align*}
\]

Substep 4

Fourth, the number of development rights that might be purchased by receiving area landowners should be compared with the number of development rights being generated by sending area landowners. If possible, these should be roughly the same. If they are not the same, either sending area landowners will soon find they have no one who can buy their development rights because the receiving area is filled up, or receiving area developers will find they cannot buy any more development rights because all the sending area development rights have already been purchased.

As shown in Step B-1 above, Scenic Township’s proposed sending area will generate 1,850 development rights. As shown earlier in this step, developers in the receiving area need to buy 340 development rights. These two numbers, 1,850 and 340, are not even close. If the TDR program were left with these numbers, the vast majority of sending area landowners would be unable to sell their development rights, and the land would not be preserved.

Substep 5

Finally, if the receiving area development rights number does not equal the sending area number, then one or both areas should be adjusted until they are balanced.

In Scenic Township, we first tried increasing the density of the receiving area sites shown in Figure 13 by making the minimum lot size of all of the sites 11,000 square feet, instead of allowing some of them to be 22,000 square feet and 43,560 square feet. With this reduced lot size, the number of additional homes that could be built in the receiving areas increases from 510 to 947. This calculation is shown in Figure 15. Using the ratio of 1½ additional homes per development right, these 947 homes equal 631 development rights, still much less than the 1,850 development rights generated by the proposed sending area.

Therefore, it is necessary to do something else. We decided to increase the size of the receiving area. In Scenic Township’s case,
Figure 15:
INITIAL RECEIVING AREA LAND WITH ONLY ONE LOT SIZE
Farming Township Example

<table>
<thead>
<tr>
<th></th>
<th>11,000 sf Lot Zoning</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Vacant Acreage</td>
<td>363</td>
<td>363</td>
</tr>
<tr>
<td>Net Developable Acreage</td>
<td>272</td>
<td>272</td>
</tr>
<tr>
<td>By-Right Minimum Lot Size or Dwelling Units</td>
<td>90,000 sf</td>
<td>90,000 sf</td>
</tr>
<tr>
<td>Potential By-Right Dwelling Units</td>
<td>130</td>
<td>130</td>
</tr>
<tr>
<td>Min. Lot Size or Dwelling Units w/ Purchase of TDRs</td>
<td>11,000 sf</td>
<td>11,000 sf</td>
</tr>
<tr>
<td>Potential Dwelling Units with TDRs</td>
<td>1,077</td>
<td>1,077</td>
</tr>
<tr>
<td>Total Additional Dwelling Units with TDRs</td>
<td>947</td>
<td>947</td>
</tr>
</tbody>
</table>

Net Developable Acreage: The net developable acreage is derived by subtracting out 25% of the gross acreage for roads, larger lots sizes, and environmental constraints that will occur whenever a piece of land is carved into individual lots.

where the whole township is either a sending or receiving area, the land being added to the receiving area has to come from the sending area, which means the sending area will be reduced in size.

We adjusted the boundaries of the sending and receiving areas a number of times and eventually determined that the receiving area needs to be increased by 580 acres, with all of this land having 11,000 square-foot lots. This will bring the receiving area and sending area into balance, so there is enough room in the receiving area for all of the development rights of the sending area.

These 580 acres have to be added to the township’s growth areas and subtracted from the township’s rural preservation areas, which have been designated as receiving and sending areas respectively. The additional receiving area sites are listed in Figure 16 and shown in Figure 17. Once these receiving area sites are added, the growth area boundaries need to be expanded to encompass the proper ties. Figure 17 also shows the expanded growth boundary, which can be compared with the original growth boundary in Figure 9.

With these expanded receiving area sites and growth areas, the township can preserve the entire rural preservation area, although this area is slightly smaller than the original sending area, since some of it had to be changed to a receiving area. When the sending area has been reduced slightly, it equals 4,520 acres and would generate 1,640 development rights.

In the end, the receiving area will have 943 vacant acres and will be able to accommodate 2,460 additional lots, which will require 1,640 development rights to be purchased (2,460 additional lots divided by 1 1/2 additional lots per development right equals over 1,640 development rights). The sending area will have 4,520 acres and will be sending 1,640 development rights.
Figure 16: 
ADJUSTED RECEIVING AREA LAND
Scenic Township Example

<table>
<thead>
<tr>
<th></th>
<th>Initial TDR Land</th>
<th>Added TDR Land</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Vacant Acreage</td>
<td>363</td>
<td>580</td>
<td>943</td>
</tr>
<tr>
<td>Net Developable Acreage</td>
<td>272</td>
<td>435</td>
<td>807</td>
</tr>
<tr>
<td>By-Right Minimum Lot Size or Dwelling Units</td>
<td>90,000sf</td>
<td>90,000sf</td>
<td>340</td>
</tr>
<tr>
<td>Potential By-Right Dwelling Units</td>
<td>130</td>
<td>210</td>
<td></td>
</tr>
<tr>
<td>Min. Lot Size or Dwelling Units w/ Purchase of TDRs</td>
<td>11,000sf</td>
<td>11,000sf</td>
<td></td>
</tr>
<tr>
<td>Potential Dwelling Units with TDRs</td>
<td>1,077</td>
<td>1,723</td>
<td>2,800</td>
</tr>
<tr>
<td>Total Additional Dwelling Units with TDRs</td>
<td>947</td>
<td>1,513</td>
<td>2,460</td>
</tr>
</tbody>
</table>

Net Developable Acreage: The net developable acreage is derived by subtracting out 25% of the gross acreage for roads, larger lots sizes, and environmental constraints that will occur whenever a piece of land is carved into individual lots.

Figure 17: FINAL TDR PROGRAM
STEP B-5: Adjust TDR Model Zoning Ordinance

Once Steps B-1 through B-4 are done, the biggest part of creating a TDR zoning ordinance is over. In Step B-5, the model ordinance for Incentive TDR programs, outlined in Chapter 6, must be adjusted to meet the needs of the municipality.

A number of items that are unique to each municipality need to be added to the model ordinance, such as affected zoning districts, lot sizes, densities, and intent of the TDR ordinance. These issues are explained in detail in Chapter 6.

In addition to adding the model ordinance to the zoning ordinance, the municipality will have to add references to the TDR ordinance in all receiving and sending area zoning districts. Also, new definitions, as shown in Chapter 6, will have to be added to the zoning ordinance.

In addition to adopting the model ordinance, Scenic Township needs to amend other parts of its zoning ordinance. For the receiving area, a medium-density zoning district, which allows 11,000 square-foot lots with the purchase of development rights, needs to be written. For the sending area, the zoning in the rural preservation area needs to be amended to allow the sale of development rights. And definitions need to be added.

Because TDR ordinances are complicated, the municipality needs to familiarize its residents, especially affected landowners, about the procedures involved with a TDR program. All landowners in the sending area should be informed about the program, so they understand their options and are comfortable with the idea of selling development rights. The Appendix contains a sample contract of sale for TDRs as well as a sample restrictive covenant agreement for limiting development. Both of these can be shown to landowners as examples of documents they will have to use if they sell their development rights.

Even after the ordinance is adopted, the municipality may have to bring together prospective developers with landowners who want to sell their development rights, to take an active role in making the TDR program a success. The TDR program probably will work best when the municipality is actively involved. The municipality could even choose to buy development rights from sending area landowners, with the intent of selling these to receiving area developers in the future.

Finally, Scenic Township needs to stay on top of the TDR program and assess how it is working. The township should create a list of all sending area sites, along with an estimate of dwelling units available from each site. This list could be shown to potential developers of receiving area land to expedite sales of development rights and thereby promote rural preservation, the final goal of having a TDR program. The more involved the township becomes in matching sending area landowners with receiving area developers, the more likely the TDR program will succeed.

In addition, the program and the developer incentives should be reviewed after a number of years and adjusted if necessary.

The administration of a TDR program is straightforward and simple and can easily be done by any municipality in Montgomery County. Chapter 5 provides a detailed description of the administration of a TDR program.
CHAPTER 4

LIMITED USE OF TDRS

The previous two chapters presented a step-by-step process for creating a TDR program when significant portions of a community are proposed to be preserved. However, a TDR program can also be used to serve more limited goals or to preserve a smaller area. The TDR program might be used to preserve:

- Historic properties or landscapes
- Viewsheds
- Vulnerable or important natural resource areas, such as those with endangered plants, endangered animals, unique natural communities, and/or significant geologic formations
- Stream corridors, riparian woodlands, wetlands, or watersheds, if these resources are not adequately protected by other ordinances
- Greenbelts around towns, villages, or hamlets
- Woodlands

These are a few of the possible uses of a limited TDR program. The rest of this chapter describes an example community, Historic Township, where a TDR program is used to preserve a greenbelt around two historic villages. This green belt will help maintain these villages within their unique, historic landscape.

This example follows the step-by-step procedure outlined in chapter 3 for an Incentive TDR program.

STEP B-1: Identify the Sending Area

Historic Township has received quite a bit of growth over the past twenty years, especially around its Main Village, the township's designated growth area. Yet the township still has rural land and two historic villages that are relatively unspoiled. One of these villages in particular, Picturesqueville, is quite unique. Someone standing in the village looking out over the River Valley could imagine they have travelled back in time 100 years. Figure 18 shows the Main Village growth area, as defined in the township's comprehensive plan, and the location of Picturesqueville and Quaintsburg villages.

Unlike the main village, the historic portions of Picturesqueville and Quaintsburg villages have undeveloped land adjacent to them. In an attempt to preserve these historic villages within their historic landscape rather than in the middle of suburban tract housing, the open areas around these villages are designated as TDR sending areas. Figures 20 and 21 show the proposed sending sites.

The next step is to estimate the amount of development that could normally be built around these two villages. The six sites around Quaintsburg have a total of 164 acres. After taking out land for exist-
ing homes on these sites and taking out specific site constraints we identified on these parcels, these 164 acres would probably yield 61 new 80,000 square-foot lots based on existing zoning. The eleven sites around Picturesqueville have about 118 acres. This land could yield 40 new 80,000 square-foot lots. Overall, the proposed Quaintsburg and Picturesqueville sending areas could create 101 new residential lots. This data is summarized in Figure 19.

Figure 18: PLANNING BACKGROUND HISTORIC TOWNSHIP

Figure 19: SENDING AREA LAND Historic Township Example

<table>
<thead>
<tr>
<th>Gross Vacant Acreage</th>
<th>Quaintsburg Area</th>
<th>Picturesqueville Area</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>By-Right Minimum Lot Size</td>
<td>164</td>
<td>118</td>
<td>282</td>
</tr>
<tr>
<td>Potential By-Right Dwelling Units</td>
<td>80,000sf</td>
<td>80,000sf</td>
<td></td>
</tr>
<tr>
<td></td>
<td>61</td>
<td>40</td>
<td>101</td>
</tr>
</tbody>
</table>

GUIDEBOOK FOR CREATING A MUNICIPAL TDR PROGRAM
STEP B-2: Identify the Receiving Area

Next, the township needs to identify places where it is willing to accept additional development. Based on Historic Township’s comprehensive plan, we assumed the township wants to direct growth into the Main Village growth area or right next to it. Land in this area is currently zoned for 45,000 square-foot and 20,000 square-foot lots.

In 1992, there were about 142 acres of undeveloped land zoned R-3, which is located within the Main Village growth area and allows 20,000 square-foot lots. This acreage would yield about 230 lots, after subtracting out 25% of the acreage for roads and site constraints.

There were also about 373 acres of undeveloped land zoned R-1, which is located outside of, but near, the Main Village growth area and allows 45,000 square-foot lots. This land would yield about 270 lots. Taken as a whole, all of the R-1 and R-3 land would yield about 500 single-family detached lots. Figure 22 shows the location of this land, and figure 23 lists the potential units that could be built on the land.

What kind of increased density is appropriate for these areas? Based on what the community would accept, we proposed to allow the lot size to be halved when development rights are purchased and used, provided the new lot sizes would not create any sewage or water problems. With a TDR zoning ordinance, areas zoned for 45,000 square-foot lots could be developed with 20,000 square-foot lots if development rights were purchased and used, while areas zoned for 20,000 square-foot lots could be developed with 10,000 square-foot lots.
Figure 23: RECEIVING AREA LAND
Historic Township Example

<table>
<thead>
<tr>
<th></th>
<th>R-3 District</th>
<th>R-1 District</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Vacant Acreage</td>
<td>142</td>
<td>373</td>
<td>515</td>
</tr>
<tr>
<td>Net Developable Acreage</td>
<td>106</td>
<td>279</td>
<td>385</td>
</tr>
<tr>
<td>By-Right Minimum Lot Size</td>
<td>20,000sf</td>
<td>45,000sf</td>
<td></td>
</tr>
<tr>
<td>Potential By-Right Dwelling Units</td>
<td>230</td>
<td>270</td>
<td>500</td>
</tr>
</tbody>
</table>

Net Developable Acreage: The net developable acreage is derived by subtracting out 25% of the gross acreage for roads, larger lot sizes, and environmental constraints that will occur whenever a piece of land is carved into individual lots.

STEP B-3: Calculate Developer Incentive

Since the sending area zoning is unchanged, the TDR program must be designed to make the value of a development right high enough so landowners will want to sell these rights rather than develop their land, yet low enough so developers in the receiving area will want to buy these rights rather than develop without purchasing any development rights. The price of a development right needs to be good for both the sending area landowner and the receiving area developer. The Appendix explains how to estimate these prices, and the following paragraphs describe the estimates made for Historic Township.

By conducting a survey of land prices, including agricultural land values, we estimated that Historic Township’s sending area landowners would want about $25,000 for each development right sold. By conducting a financial analysis, we estimated that developers who got the right to build an extra lot for each development right they purchased would be willing to pay about $13,000 for the privilege of doing so, whether that lot was 20,000 square feet, which would be allowed in the R-1 zoning district, or 10,000 square feet, which would be allowed in the R-3 district.

As these two values ($25,000 and $13,000) show, the value of a development right and an additional lot is quite different for the landowner and developer. In this case, to bring the value to the same level, developers must be allowed to build two homes for every development right they purchase. The developer is willing to pay $13,000 for each additional lot and $26,000 for two extra lots, which means this developer is willing to pay $26,000 for a development right that is worth two additional lots. The sending area landowner wants at least $25,000 for selling a development right; therefore, the two should be able to come to an agreement, with the price somewhere between $25,000 and $26,000 for a development right.

GUIDEBOOK FOR CREATING A MUNICIPAL TDR PROGRAM 41
STEP B-4: Balance Receiving Area Units with Sending Area Development Rights

This step pulls together all of the previous steps. First, it's necessary to figure out how many additional units could be built in the receiving area with the increased densities discussed in Step B-2. When development rights are purchased, the R-1 areas could be developed with 20,000 square-foot lots instead of 45,000 square-foot lots. With the 20,000 square-foot lots permitted under the TDR zoning, the 373 R-1 acres would yield about 600 lots. With 45,000 square-foot lots, these 373 acres would yield 270 lots. This means there would be an increase of 330 lots when development rights are purchased and used.

\[
\begin{align*}
600 \text{ lots under TDR zoning} & \quad - \quad 270 \text{ lots under normal zoning} \\
= & \quad 330 \text{ additional lots}
\end{align*}
\]

Under TDR zoning, the R-3 areas could be developed with 10,000 square-foot lots instead of 20,000 square-foot lots, which means that about 460 lots could be developed instead of the 230 which would normally be created. With 10,000 square-foot lots, there would be an increase of 230 lots in the R-3 area.

\[
\begin{align*}
460 \text{ lots under TDR zoning} & \quad - \quad 230 \text{ lots under normal zoning} \\
= & \quad 230 \text{ additional lots}
\end{align*}
\]

Overall, the proposed increased densities in the R-1 and R-3 districts could yield 560 additional lots, lots which could be created only if development rights are purchased and used.

\[
\begin{align*}
330 \text{ R-1 additional lots} & \quad + \quad 230 \text{ R-3 additional lots} \\
= & \quad 560 \text{ total additional lots}
\end{align*}
\]

Figure 24 summarizes this data.

Next, Historic Township must determine the number of development rights that need to be purchased to build all these additional units. This is done by dividing the additional units by the developer incentive. Historic Township's proposed receiving area allows 560 additional units and has a developer incentive of two additional lots per development right, which means the developers in this area would have to buy 280 development rights to build the 560 lots.

\[
\begin{align*}
560 \text{ additional lots} & \quad + \quad 2 \text{ additional lots per development right} \\
= & \quad 280 \text{ development rights}
\end{align*}
\]

As discussed in Step B-1, the two sending area sites would yield 101 lots, which equals 101 development rights. However,

**Figure 24:**
RECEIVING AREA LAND WITH TDR PROGRAM
Historic Township Example

<table>
<thead>
<tr>
<th></th>
<th>R-3 District</th>
<th>R-1 District</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Vacant Acreage</td>
<td>142</td>
<td>373</td>
<td>515</td>
</tr>
<tr>
<td>Net Developable Acreage</td>
<td>106</td>
<td>279</td>
<td>385</td>
</tr>
<tr>
<td>By-Right Minimum Lot Size</td>
<td>20,000sf</td>
<td>45,000sf</td>
<td>650</td>
</tr>
<tr>
<td>Potential By-Right Dwelling Units</td>
<td>230</td>
<td>270</td>
<td>500</td>
</tr>
<tr>
<td>Min. Lot Size with Purchase of TDRs</td>
<td>10,000sf</td>
<td>20,000sf</td>
<td>30,000sf</td>
</tr>
<tr>
<td>Potential Dwelling Units with TDRs</td>
<td>460</td>
<td>600</td>
<td>1,060</td>
</tr>
<tr>
<td>Total Additional Dwelling Units with TDRs</td>
<td>230</td>
<td>330</td>
<td>560</td>
</tr>
</tbody>
</table>

Net Developable Acreage. The net developable acreage is derived by subtracting out 25% of the gross acreage for roads, larger lot sizes, and environmental constraints that will occur whenever a piece of land is carved into individual lots.
as shown above, receiving area developers would need to buy 280 development rights to build all of the additional lots. Therefore, the receiving area is capable of accommodating many more development rights than it needs and can be reduced in size.

The R-3 area, by itself, can accommodate 230 additional lots, which equals 115 development rights. This roughly matches the 101 development rights being generated by the sending area. For the time being, the township can limit the receiving area to the R-3 district. In the future, if some of this R-3 district were developed without TDRs and more room were needed to accommodate the development rights of the sending area, the township could add some of the R-1 land.

One advantage of only using the R-3 area is that this area falls into the township’s proposed growth area. Another advantage is that demand for development rights should be relatively high from developers in the R-3 district, since this district will provide the only vacant land in Historic Township that allows 10,000 square-foot lots. Developers who want to build on 10,000 square-foot lots in Historic Township will have to purchase development rights and use them in the R-3 district.

Figure 25 shows the final TDR program for Historic District.
STEP B-5: Adjust TDR Model Zoning Ordinance

Next, Historic Township needs to adjust the model ordinance to fit its needs. The second version of the model ordinance in Chapter 6 outlines changes that Historic Township would make.

In addition to adopting the model ordinance, Historic Township needs to amend other parts of its zoning ordinance. References to the TDR program must be added to the R-3 district. The sending area around Quaintsburg and Picturesqueville must be defined in the ordinance, perhaps by creating a new district or an overlay district. And definitions need to be added.

Finally, Historic Township needs to monitor the TDR program and assess how it is working. The township should create a list of all sending area sites, along with an estimate of dwelling units available from each site. This list could be shown to potential developers of receiving area land. The more involved the township becomes in matching sending area landowners with receiving area developers, the more likely the TDR program will succeed.
CHAPTER 5
ADMINISTRATION OF A TDR PROGRAM

Once the TDR ordinance is in place, the administration of the program is easy and can be done by existing staff in any municipality in Montgomery County, with input from their legal, engineering, and planning consultants, when necessary.

There are two main administrative tasks that need to be done outside of the plan review process. Each of these is very straightforward and will take a minimum amount of time. Each is described below.

In addition, communities can choose to take a more active role in encouraging the sale and transfer of development rights. Two different ways of taking this active role are described at the end of this chapter.

Administrative Task 1: Notification and Listing of Sending Area Landowners

When the TDR program is first adopted, the municipality should identify each property owner in the sending area and notify them that they now have the right to sell their development rights. Municipalities may also want to hold a meeting with these landowners to explain their new ability to sell development rights.

The work associated with identifying and listing sending area landowners can be done by the municipality itself or one of the municipality’s consultants, perhaps the planner or engineer. Communities would, however, normally do the actual mailing notifying the residents.

In addition, this list of property owners should be updated periodically, so that it can be shared with potential developers in the receiving area. This updating can be done by one of the community’s consultants, if desired.

This list will be more useful if, in addition to listing all sending area landowners, it also lists those landowners who are interested in selling their development rights. Creating and using this expanded list is one of the ways, explained below, that a community can take to have a more active role in the TDR transaction process.

Administrative Task 2: Tracking of Development Rights that are Sold

Most communities in Montgomery County which adopt a TDR program will have very few transactions in any given year. These communities are just too small to have a lot of TDR transactions occur. Because of the probable limited number of TDR transactions, tracking the development rights that are sold should be easy.

When the TDR transaction is completed, the sending area land will have to be permanently restricted from future development. This will be recorded at the Montgomery County Recorder of Deeds.

In addition to this recording, the township should keep track of all properties from which development rights
have been sold. This can be done with a map and a list, which is kept by the township administration or by one of the township’s consultants.

This list should be cross-checked with subdivision and land development plans submitted in the sending area to make sure that no development is proposed where development rights have already been sold.

**Active Municipal Participation in the TDR Transaction Process**

Usually, developers in the receiving area will buy development rights from landowners in the sending area and the municipality will be uninvolved in the process. However, municipalities can choose to take a more active role, either by helping the receiving and sending area parties come together or by actually buying development rights and reselling them to receiving area developers. Each of these options is briefly discussed below.

To help the program work better, communities can help the sending and receiving area parties find each other. A receiving area developer who comes into a municipality will not know which sending area landowners are willing to sell their development rights. This developer may contact a few owners, be rejected, and end up frustrated, dropping the idea of buying development rights and simply developing under the regular zoning standards. On the other hand, sending area landowners who have no intent of selling development rights at this time may be annoyed by repeated contact from receiving area developers. To avoid this problem, the municipality can create a register of sending area landowners who are interested in selling their development rights. This register can be passed on to receiving area developers, who will then know whom to contact. The register can be created when the community initially contacts sending area landowners about the program, although it will have to be updated periodically thereafter.

If a community is interested in preserving the sending area quickly and has the money, the community itself can buy the development rights and sell them back to receiving area developers. This concept is known as a TDR bank, where the community “banks” the development rights until they are needed by the receiving area developer. The TDR bank gives sending area landowners a place to sell development rights when no receiving area developers are buying. It also makes the purchase of development rights easier for receiving area developers and gives these developers the assurance that the community is seriously behind the program.

TDR banks can probably only be used by municipalities with full-time staffs, since the creation and monitoring of these banks involves time and expertise. Communities will have to find the money for buying development rights, negotiate the purchase price with sending area landowners, and negotiate the selling price with receiving area landowners. This can be expensive. In addition, the municipal solicitor will have to be comfortable with the process of buying and reselling development rights. TDR banks should be used judiciously by local communities, when they feel there is a true need for a bank and have the ability to run this bank.
CHAPTER 6
MODEL ZONING ORDINANCE PROVISIONS

This chapter presents two model TDR ordinances that can be tailored to any municipality’s needs. The first model is designed for a community that uses the Agricultural TDR approach, such as the Farming Township example outlined in Chapter 2.

The second model ordinance is designed for a community that uses the Incentive TDR approach, such as the Scenic Township example outlined in Chapter 3 or the Historic Township example in Chapter 4.

Both of these ordinances are very similar and have the following organization:

- Section I. Legislative Intent
- Section II. Explanation of the Concept
- Section III. Sending Area Qualifications and Calculations
- Section IV. Receiving Area Qualifications and Calculations
- Section V. Plan Submittal Process

In each of the ordinances, the actual ordinance language is in the right hand column, while the left hand column provides an example and explanation.

In addition to the ordinances, the following definitions should be added to the municipality’s zoning ordinance:

Development Right
The right to develop one residential lot or dwelling unit, based on zoning, within a sending area tract of land in a transfer of development rights program.

Receiving Area
With a transfer of development rights program, an area designated to accommodate additional development when development rights are transferred from a sending area.

Sending Area
With a transfer of development rights program, an area designated for preservation where landowners may sell and transfer their development rights.

Transfer of Development Rights
The conveyance of development rights by deed, easement, or other legal instrument from a sending area landowner to a receiving area landowner.
Section I. INTENT

The primary purpose of the Transfer of Development Rights (TDR) Ordinance is to permanently preserve open land, agricultural land, sensitive natural areas, and rural community character that would be lost if the land were developed. In addition, this Ordinance is intended to protect property rights by allowing landowners whose land is intended for preservation to transfer their right to develop to other areas of (insert municipal name). Specific objectives are as follows:

A. To effectively achieve the land use planning goals identified in the (insert municipal name)’s comprehensive plan while preserving existing property rights.

B. To preserve unique community features in low density residential districts while creating a more efficient land use pattern and provision of services and infrastructure in areas of the municipality proposed for growth.

Section II. CONCEPT

The Transfer of Development Rights ordinance allows landowners in areas of (insert municipal name) proposed for preservation, called sending areas, to sell the right to develop their land to landowners in areas of (insert municipal name) proposed for additional development, called receiving areas. Transfer of Development Rights Provisions set forth below are specifically authorized under Sections 603(c)(2.2) and 619.1 of the Pennsylvania Municipalities Planning Code, under the terms of which development rights are acknowledged to be severable and separately conveyable from a sending area to a receiving area.

When landowners in the sending area sell their right to develop, they must deed restrict the land against any future development, although it may still be used for purposes that do not involve development, such as agriculture or forestry. When landowners in the receiving area buy the develop-
For the Farming Township example, the following would be inserted:

a. AGR Farmland Preservation District
This is a new district for Farming Township that was created when part of the R-1 District, but not all of it, was rezoned to 10 acre lots. This new district, which is the township's sending area, has 10 acre lots while the remaining R-1 district has 1 acre lots.

Municipalities may want to add other requirements, such as land must be located in an agricultural security district. We did not propose any additional requirements for Farming Township.

If a municipality already defines net developable area, it may want to substitute its definition for the one shown here so that there is a consistent definition throughout the zoning ordinance; however, the definition must exclude developed portions of the property.

development rights from landowners in the sending area, they receive the right to build more homes on their land than they would have been allowed if they had not purchased development rights.

Section III. SENDING AREA QUALIFICATIONS AND CALCULATIONS

A. Owners of tracts which meet the following requirements may sell their development rights:

1. The sending area tract of land shall be located in the following zoning district(s):

(Insert list of sending area zoning districts.)

(Insert other desired requirements for land to qualify as a sending area.)

B. The number of development rights which may be sold shall be computed as follows:

1. First, net developable area shall be determined by subtracting the following from gross tract area:

   a. All land restricted from future development by covenant, easement, or deed restriction.

   b. All land within ultimate rights-of-way of existing roads and land subject to easements or rights-of-way for railroads, power transmission lines, and other utility lines.

   c. The number of existing dwelling units on the tract multiplied by the minimum lot size of the zoning district in which the tract is located.

   d. Land used for non-residential purposes, unless used for agriculture, parkland, or similar use. The amount of land subtracted for each non-residential use shall be at least as large as the minimum lot size of the zoning
The net developable area is multiplied by .90 to take into account land that would normally be used in a subdivision for roads or access strips.

When there is an increase in the sending area minimum lot size, as in Farming Township, the number of development rights that can be sold should be based on the zoning that existed before any rezoning. For Farming Township, this is 1 acre lots; so the following should be inserted to the right:

43,560 square foot

Steps III.A.1 and 2 are designed for communities which have a minimum lot size in the sending area, such as 1 or 2 acre lots. Communities that use a density control in the sending area, instead of a minimum lot size, should substitute their method of deriving this density for steps III.A.1 and 2.

In Farming Township, 43,560 square foot should be inserted.

district in which the tract is located and shall be large enough to fully contain the use and all required yard setbacks for this use.

e. All land which lies within the 100 year floodplain boundaries, consists of alluvial soils, and/or has slopes of 15% or greater.

2. Second, the net developable area shall be converted to square feet, multiplied by .90, and divided by ...

(Insert the minimum lot size, in square feet, that existed in the sending area prior to an increase in the minimum lot size.)

This number, rounded off to the next lowest whole number, represents the number of development rights that may be sold.

3. Instead of following step 2 above, landowners may prepare a sketch plan showing development of the net developable area, based on ...(Insert the minimum lot size, in square feet, that existed in the sending area prior to an increase in the minimum lot size.) ...lots.

The number of residential lots, excluding lots with existing dwelling units, shown in this sketch plan represents the number of development rights that may be sold, provided the plan complies with all zoning ordinance, subdivision and land development ordinance, and other government requirements.

C. All land from which the development rights have been sold must be totally and permanently restricted from future development by a restrictive covenant which meets the following requirements:
1. The restrictive covenant shall permanently restrict the land from future development of any non-agricultural uses, except for public parkland, conservation areas, and similar uses.

2. The restrictive covenant shall be approved by the (insert municipal governing body title), in consultation with the (insert municipal name) solicitor. Final plan approval will be contingent upon the developer recording the restrictive covenant at the Montgomery County Recorder of Deeds.

3. The restrictive covenant agreement shall designate (insert municipal name) as the beneficiary/grantee, but shall also designate both (a) all future owners of all or a portion of the sending parcel, and (b) all future owners of any portion of the receiving parcel as having separate and independent enforcement rights with respect to the restrictive covenants.

4. The restrictive covenant may apply to a portion of a tract of land, provided the covenant applies to at least 50% of the tract area and provided that the number of development rights sold is based on the net developable area of the portion that is restricted. Areas subject to restrictive covenants may not be used for yard setbacks or lot area requirements of any development on portions of the tract not subject to the covenants.

Section IV. RECEIVING AREA QUALIFICATIONS AND CALCULATIONS

A. Owners of tracts which meet the following requirements may use development rights that are purchased from sending area landowners:

1. The tract of land shall be located in the following zoning district(s):

   (Insert list of receiving area zoning districts.)
Communities may want to have a minimum tract size so that a reasonably large number of development rights are purchased.

In Farming Township, we inserted the following:

a. In the R-3 District, the maximum permitted density for single-family attached developments is increased to 7 dwelling units per developable acre. All other standards of the R-3 district shall apply.

b. In the R-2 and R-1A Districts, the minimum lot area for single-family detached homes with central sewers is reduced to 10,000 square feet; the minimum lot width to 60 feet; front yard setback to 25 feet; and side yard setback to 15 feet, while maximum building coverage is increased to 20 percent. All other standards of the R-2 and R-1A districts shall apply.

c. In the R-1B District, when central sewers are provided, the minimum lot area is reduced to 20,000 square feet; the minimum lot width to 100 feet; and the front yard setback to 40 feet, while maximum building coverage is increased to 15%. All other standards of the R-1B district shall apply.

The term “density” refers to the number of dwelling units that can be built on a site. It is often expressed as number of units permitted per acre.

2. The tract shall be at least 5 gross acres in size.

B. Calculation of Potential Development in Receiving Sites

1. Landowners in receiving districts have the right to build 1 additional dwelling unit for each development right purchased.

2. In order to make the use of development rights feasible, the standards of the receiving zoning districts are modified as follows:

   (Insert list of alternative dimensional standards for each receiving area zoning district.)

3. The total number of additional dwelling units allowed to be built by the landowner shall be computed in accordance with the following provisions:

   a. To determine the base density of the site under existing zoning without the purchase of development rights, the landowner shall use one of the following formulas:

      (i) If density standards exist in the zoning district, multiply the tract’s ...(insert net, developable, or gross, depending on the municipality’s method of measuring acreage) ... acreage by the density standard in units per acre. The resulting number, rounded off to the next lowest whole number, represents the base density of the site.

      (ii) If there is no density standard in the zoning district, determine net developable area as outlined in section III.B.1, convert the resulting area to square feet, multiply by .90, and divide the resulting product by the minimum permitted lot size, in square feet, allowed
by the existing base zoning. The resulting number, rounded off to the next lowest whole number, represents the base density of the site.

b. To determine the maximum number of dwelling units that could be built with the purchase of development rights, follow the same procedure outlined above for determining base density, except substitute the modified density or lot size outlined in Section IV.B.2 that applies to the property, based on the zoning district in which the site is located and the proposed housing type.

c. The difference between the base density and the potential density with development rights is the maximum number of additional dwelling units that can be added with the purchase of development rights.

d. The landowner must propose to build at least half of the number of potential additional dwelling units derived above in section IV.B.3.c, in addition to the full number of base density dwelling units.

4. The applicant must purchase one development right for each additional dwelling unit proposed.

Section V. PLAN SUBMITTAL PROCESS

A. Applicants shall submit a preliminary plan showing development with purchase of development rights; this plan shall meet the requirements of the (insert municipal name)'s Subdivision and Land Development Ordinance.

B. Along with the preliminary plan, applicants shall submit:

1. An agreement of sale for all development rights proposed to be purchased from sending area sites.

2. A note on the plan showing the total number of dwelling units proposed on the site.

3. A note on the plan showing the total number

This standard requires that a significant number of development rights be purchased and assures that a receiving area developer will not simply use the program to get a small lot size.

To build any additional units, the developer will have to purchase development rights.
of dwelling units that could be built on the site when development rights are purchased, the number of dwelling units that can be built under base density, and the difference between the two. This difference represents the number of additional dwelling units that could be constructed on the site.

4. A note on the plan which shows the actual number of proposed additional dwelling units, as well as the number of development rights that must be purchased in order to build these additional units.

5. A plan of all sending sites from which the applicant proposes to purchase development rights. This plan shall show all information needed to determine the number of development rights which may be sold, as shown in Section III.B. In addition, the plan shall be accompanied by a metes and bounds description of the property(s), as well as each property's parcel number, owner name, and block unit number. If the applicant is purchasing development rights from a portion of a sending area site, this portion shall be shown on the plan and described with metes and bounds.

C. In order to receive final plan approval, the applicant must agree to record restrictive covenants for all sending area land whose development rights are being used by the applicant. These restrictive covenants must meet the requirements of Section III.C., above. The restrictive covenant on the sending area land shall be recorded first, followed by the Deed of Transfer which transfers the development rights from the sending area landowner to the receiving area landowner.
MODEL ORDINANCE

Transfer of Residential Development Rights

For Incentive TDR Program

The statement of intent should be tailored to reflect each municipality's own specific goals. For the Historic Township example detailed in Chapter 4, this intent would be modified to stress preservation of villages within their historic landscape.

Section I. INTENT

The primary purpose of the Transfer of Development Rights (TDR) Ordinance is to permanently preserve open land, agricultural land, sensitive natural areas, and rural community character that would be lost if the land were developed. In addition, this Ordinance is intended to protect property rights by allowing landowners whose land is intended for preservation to transfer their right to develop to other areas of the (insert municipal name). Specific objectives are as follows:

A. To effectively achieve the land use planning goals identified in (insert municipal name)'s comprehensive plan while preserving existing property rights.

B. To preserve unique community features in low density residential districts while creating a more efficient land use pattern and provision of services and infrastructure in areas of the municipality proposed for growth.

Section II. CONCEPT

The Transfer of Development Rights ordinance allows landowners in areas of (insert municipal name) proposed for preservation, called sending areas, to sell the right to develop their land to landowners in areas of (insert municipal name) proposed for additional development, called receiving areas. Transfer of Development Rights Provisions set forth below are specifically authorized under Sections 603(c)(2.2) and 619.1 of the Pennsylvania Municipalities Planning Code, under the terms of which development rights are acknowledged to be severable and separately conveyable from a sending area to a receiving area.

When landowners in the sending area sell their right to develop, they must deed restrict the land against any future development, although it may still be used for purposes that do not involve development, such as agriculture or forestry. When landowners in the receiving area buy the develop-
For the Historic Township example, the following would be inserted:

a. R-IA Village Greenbelt District
This is a new district for Historic Township that would only apply to the sending area sites around Pictures-queville and Quaintsburg villages.

Municipalities may want to add other requirements limiting the type of land that qualifies. For example, a municipality could require a minimum tract size for sending area parcels, if the resource being preserved with the TDR program needs to be a certain size to really be preserved. We did not propose any additional requirements for Historic Township.

If a municipality already defines net developable area, it may want to substitute its definition for the one shown here so that there is a consistent definition throughout the zoning ordinance; however, the definition must exclude developed portions of the property.

ment rights from landowners in the sending area, they receive the right to build more homes on their land than they would have been allowed if they had not purchased development rights.

Section III. SENDING AREA QUALIFICATIONS AND CALCULATIONS
A. Owners of tracts which meet the following requirements may sell their development rights:

1. The sending area tract of land shall be located in the following zoning district(s):

(Insert list of sending area zoning districts.)

(Insert other desired requirements for land to qualify as a sending area.)

B. The number of development rights which may be sold shall be computed as follows:

1. First, net developable area shall be determined by subtracting the following from gross tract area:

   a. All land restricted from future development by covenant, easement, or deed restriction.

   b. All land within ultimate rights-of-way of existing roads and land subject to easements or rights-of-way for railroads, power transmission lines, and other utility lines.

   c. The number of existing dwelling units on the tract multiplied by the minimum lot size of the zoning district in which the tract is located.

   d. Land used for non-residential purposes, unless used for agriculture, parkland, or similar use. The amount of land subtracted for each non-residential use shall be at least as large as the minimum lot size of the zoning district in which the tract is located and shall be large enough to fully
The net developable area is multiplied by .90 to take into account land that would normally be used in a subdivision for roads or access strips.

Steps III.A.1 and 2 are designed for communities which have a minimum lot size in the sending area, such as 1 or 2 acre lots. Communities that use a density control in the sending area, instead of a minimum lot size, should substitute their method of deriving this density for steps III.A.1 and 2.

Since there is only one sending area zoning district in Historic Township, the minimum lot size in this district could be inserted into steps III.B.2 and III.B.3.

contain the use and all required yard setbacks for this use.

e. All land which lies within the 100 year floodplain boundaries, consists of alluvial soils, and/or has slopes of 15% or greater.

2. Second, the net developable area shall be converted to square feet, multiplied by .90, and divided by the minimum lot size, in square feet, of the zoning district in which the tract is located.

This number, rounded off to the next lowest whole number, represents the number of development rights that may be sold.

3. Instead of following step 2 above, landowners may prepare a sketch plan showing development of the net developable area, based on the minimum lot size of the zoning district in which the tract is located.

The number of residential lots, excluding lots with existing dwelling units, shown in this sketch plan represents the number of development rights that may be sold, provided the plan complies with all zoning ordinance, subdivision and land development ordinance, and other government requirements.

C. All land from which the development rights have been sold must be totally and permanently restricted from future development by a restrictive covenant which meets the following requirements:

1. The restrictive covenant shall permanently restrict the land from future development of any non-agricultural uses, except for public parkland, conservation areas, and similar uses.

2. The restrictive covenant shall be approved by the (insert municipal governing body title), in consultation with the (insert municipal name) solicitor. Final plan approval will be contingent upon the developer recording the restrictive covenant at the Montgomery County Recorder of Deeds.

3. The restrictive covenant agreement shall
Some communities may want to allow less than 50% of a tract to be sold for development rights, so landowners can sell off small chunks of their property to get capital. The intent of requiring 50% to be preserved is to avoid small pieces preserved here and there.

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Section IV. RECEIVING AREA QUALIFICATIONS AND CALCULATIONS

A. Owners of tracts which meet the following requirements may use development rights that are purchased from sending area landowners:

1. The tract of land shall be located in the following zoning district(s):

(Insert list of receiving area zoning districts.)

2. The tract shall be at least 5 gross acres in size.

B. Calculation of Potential Development in Receiving Sites

1. Landowners in receiving districts have the right to build 1 or more additional dwelling units for each development right purchased in accordance with the following ratio(s):

(Insert list of ratios for each sending zoning district going to each receiving zoning district.)

2. In order to make the use of development rights feasible, the standards of the receiving zoning districts are modified as follows:
In Historic Township, we inserted the following:

a. In the R-3 district, the minimum lot size for single-family detached homes with central sewers is reduced to 10,000 square feet; the minimum lot width to 80 feet; front yard setback to 30 feet; rear yard setback to 25 feet, and side yard setback to 12 feet, while maximum building coverage is increased to 20 percent.

The term “density” refers to the number of dwelling units that can be built on a site. It is often expressed as number of units permitted per acre.

Municipalities that have limited types of receiving areas may be able to eliminate one of these formulas. In Historic Township, the R-3 district has a minimum lot size and no density standard. Therefore, formula (i) could be eliminated.

(Insert list of alternative dimensional standards for each receiving area zoning district.)

3. The total number of additional dwelling units allowed to be built by the landowner shall be computed in accordance with the following provisions:

a. To determine the base density of the site under existing zoning without the purchase of development rights, the landowner shall use one of the following formulas:

(i) If density standards exist in the zoning district, multiply the tract’s ...(Insert net, developable, or gross, depending on the municipality’s method of measuring acreage) ... acreage by the density standard in units per acre. The resulting number, rounded off to the next lowest whole number, represents the base density of the site.

(ii) If there is no density standard in the zoning district, determine net developable area as outlined in section III.B.1, convert the resulting area to square feet, multiply by .90, and divide the resulting product by the minimum permitted lot size, in square feet, allowed by the existing base zoning. The resulting number, rounded off to the next lowest whole number, represents the base density of the site.

b. To determine the maximum number of dwelling units that could be built with the purchase of development rights, follow the same procedure outlined above for determining base density, except substitute the modified density or lot size outlined in section IV.B.2 that applies to the property, based on the zoning district in which the site is located and the proposed housing type.
c. The difference between the base density and the potential density with development rights is the maximum number of additional dwelling units that can be added with the purchase of development rights.

d. The landowner must propose to build at least half of the number of potential additional dwelling units derived above in section IV.B.3.c, in addition to the full number of base density dwelling units.

4. To determine the number of development rights that must be purchased, the number of additional dwelling units proposed by the applicant must be divided by the applicable ratio shown in section IV.B.1 above which applies to the applicant’s zoning and the zoning of sending area sites from which development rights will be purchased.

Section V. PLAN SUBMITTAL PROCESS

A. Applicants shall submit a preliminary plan showing development with purchase of development rights; this plan shall meet the requirements of the (insert municipal name)’s Subdivision and Land Development Ordinance.

B. Along with the preliminary plan, applicants shall submit:

1. An agreement of sale for all development rights proposed to be purchased from sending area sites.

2. A note on the plan showing the total number of dwelling units proposed on the site.

3. A note on the plan showing the total number of dwelling units that could be built on the site when development rights are purchased, the number of dwelling units that can be built under base density, and the difference between the two. This difference represents the number of additional dwelling units that could be constructed on the site.

4. A note on the plan which shows the proposed number of additional dwelling units and the number of development rights that must be
purchased, based on the proposed number of additional dwelling units divided by the appropriate ratio shown in section IV.B.1, above.

5. A plan of all sending sites from which the applicant proposes to purchase development rights. This plan shall show all information needed to determine the number of development rights which may be sold, as shown in Section III.B. In addition, the plan shall be accompanied by a metes and bounds description of the property(s), as well as each property’s parcel number, owner name, and block unit number. If the applicant is purchasing development rights from a portion of a sending area site, this portion shall be shown on the plan and described with metes and bounds.

C. In order to receive final plan approval, the applicant must agree to record restrictive covenants for all sending area land whose development rights are being used by the applicant. These restrictive covenants must meet the requirements of Section III. C., above. The restrictive covenant on the sending area land shall be recorded first, followed by the Deed of Transfer which transfers the development rights from the sending area landowner to the receiving area landowner.
APPENDIX
APPENDIX A
FINANCIAL ANALYSIS

As discussed in step B-3 of chapter 3, when the sending area zoning is not changed, the TDR program must be designed to make the price of a development right high enough so sending area landowners will sell and low enough so receiving area developers will buy. This usually means that the receiving area developers will be allowed to build more than one additional home for each development right purchased as an incentive for buying development rights.

How do you figure this out? Unfortunately, there is no tried-and-true method for calculating these incentives. This Appendix discusses the technique we used to calculate the developer incentives shown for Historic and Scenic Townships; however, municipalities may want to develop their own methodologies for measuring these incentives. There are two sources that discuss methods for measuring the value of development rights or incentives. These are: Planning for Transfer of Development Rights: A Handbook for New Jersey Municipalities prepared by Burlington County, and Planning Advisory Service Report Number 401, Transferable Development Rights Programs by Richard Roddewig and Cheryl Inghram. Because this type of analysis is difficult to do, some communities may want to hire a consultant to do it for them.

In our analysis, we followed a number of steps to compute the developer incentives. First, we estimated the price that sending area landowners would want for their land. Then, we looked at the receiving area by creating a cash flow model of the developer’s profit when he develops under existing zoning. Finally, we created a cash flow model of the developer’s profit when developing under the TDR zoning, which has smaller lots or a higher density. This TDR cash flow model can be adjusted to see the impact of different developer incentives. Each of these steps is discussed below.

Step 1
Value of a Development Right for a Sending Area Landowner

The sending area landowner has the option to sell the land for development or to sell development rights. Because this landowner can sell either way, the landowner probably is not willing to take a significant financial loss when selling development rights; therefore, the price the landowner receives for development rights needs to be close to the price for selling all of the land to a developer, although the land itself, even without any development potential, still has some value.

To determine sending area land value, we estimated the value of raw land by researching past sales within a community and by conducting a survey of local developers and appraisers. For example, we estimated that in 1992 in Historic Township’s R-1A district, a sending area which allows 80,000-square-foot lots would have a land cost of about $13,000 per gross acre. This is the price which would be paid for raw land, with no approval or improvements.

In Historic Township, then, sending area landowners could get $13,000 per gross acre by selling to a developer. They would want a similar amount of money for selling development rights in a TDR program; however, these landowners would get to keep all the land. Even though the land couldn’t be developed after development rights were sold,
it would have some value as farmland or as a large residential estate. We decided to give land where development rights have been sold and development is no longer permitted, a value of $3,000 per acre, based on appraisals done by the county of the farmland value of land. These appraisals were done for the purchase of development rights program being offered by the state.

In this case, we estimated the value of raw land at $13,000 per gross acre if sold to a developer. We also estimated that this land would be worth $3,000 per acre if it could not be developed but could be used for farming or as a large estate. Therefore, we assumed landowners would be willing to sell their development rights in a TDR program for the difference between these two values, or $10,000 per gross acre.

Once we had this TDR gross acreage price, we converted it into a price per development right. Each potential lot in Historic Township’s R-1A district, the sending area, equals one development right. A typical 80,000-square-foot lot in this district uses 2.47 acres of total gross land, when site constraints are factored in. Therefore, for selling the right to one lot, a sending area landowner would want $10,000 X 2.47 acres per lot, which equals $24,700 per lot or per development right.

Step 2
Profit of Receiving Area Development
Under Normal Zoning

Our first step when looking at the receiving area was to estimate the profit a landowner would get for developing the property under regular zoning that does not deal with TDRs at all. To generate this estimate, we plugged a variety of factors into a cash flow model which we created on a personal computer spreadsheet program. This was done in the summer of 1992, and all the dollar amounts come from that time.

Basically, this cash flow model takes a number of assumptions about development and a number of varying factors, analyzes them over the life of a project, and looks at the profit that will be received. If the factors or assumptions are changed, the results of the model may change also. These assumptions and variables are discussed below and summarized in Appendix Figure A-1.

We included the following assumptions, based on data collected in early 1992, a survey conducted in 1992, and various publications:

a. A developer plans to fully develop a 40-acre piece of land.

b. Soft costs are 13% of the sales price of a home. These costs include marketing costs, sales costs, overhead, administrative costs, permits and fees, and commissions for professional services.

c. The interest rate on construction and base loans is 8%.

d. Any cash the developer has will be saved in an account that earns 5% interest, until that cash is needed.

e. The developer or investors will contribute 20% of the total cost of the development, while the remaining costs will be covered by loans.

f. Once construction starts, the first home will be completed and sold in six months.

g. The base loan, or permanent financing, will last for the life of the project.
**Figure A-1**

**RESULTS OF CASH FLOW ANALYSIS FOR THREE SAMPLE DEVELOPMENTS**

**SUMMER, 1992**

**ASSUMPTIONS**

a. Size of the tract of land  

b. Soft costs as a % of the salesprice of homes  
c. Interest rate on loans  
d. Savings interest rate  
e. Approximate equity as % of total costs  
f. Amount of time before the first homes are built and sold  
g. Base loan time period  
h. Construction loan time period  
i. Construction cost per square foot  
j. When there is a minimum lot size, the total site development is derived by multiplying the acreage by .75 and dividing by the minimum lot size. (This accounts for site constraints, such as roads and streams.)  
k. Base loans will be paid off as soon as possible.  
Construction loans will not be taken out if cash is available.  
The developer will earn interest on the base loan until all of it is used.  
Soft costs will be distributed evenly over the life of the project.  
Land will be bought at the beginning of the project.  
Land improvement costs will occur evenly during the first six months.  
Sewer and water fees will be paid in month six of the project.

<table>
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<tr>
<th>Variable Inputs</th>
<th>Historic Twp. 1-Acre Zoning SFD Homes</th>
<th>Historic Twp. 1/2-Acre Zoning SFD Homes</th>
<th>Scenic Twp. 2-Acre Zoning SFD Homes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Minimum Lot Size</td>
<td>45,000</td>
<td>20,000</td>
<td>90,000</td>
</tr>
<tr>
<td>B. Price of Land per Acre</td>
<td>$16,000</td>
<td>$28,000</td>
<td>$16,000</td>
</tr>
<tr>
<td>C. Salesprice of Homes</td>
<td>$200,000</td>
<td>$170,000</td>
<td>$260,000</td>
</tr>
<tr>
<td>D. Size of Homes (square feet)</td>
<td>2,300</td>
<td>2,000</td>
<td>3,200</td>
</tr>
<tr>
<td>E. Land Improvement Costs (per home)</td>
<td>$24,000</td>
<td>$21,000</td>
<td>$25,000</td>
</tr>
<tr>
<td>F. Sales Rate of Units (per month)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>G. Sewer Hookup Fee (per unit)</td>
<td>$8,500</td>
<td>$8,500</td>
<td>$4,820</td>
</tr>
<tr>
<td>Water Hookup Fee (per unit)</td>
<td>$2,700</td>
<td>$2,700</td>
<td>$2,700</td>
</tr>
</tbody>
</table>

**Outputs**

<table>
<thead>
<tr>
<th>Outputs</th>
<th>Historic Twp. 1-Acre Zoning SFD Homes</th>
<th>Historic Twp. 1/2-Acre Zoning SFD Homes</th>
<th>Scenic Twp. 2-Acre Zoning SFD Homes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Potential Units</td>
<td>29</td>
<td>65</td>
<td>14</td>
</tr>
<tr>
<td>Profit per Unit</td>
<td>$15,180</td>
<td>$15,400</td>
<td>$11,080</td>
</tr>
<tr>
<td>Total Profit</td>
<td>$440,220</td>
<td>$871,000</td>
<td>$155,120</td>
</tr>
<tr>
<td>Profit as % of Salesprice</td>
<td>7.6%</td>
<td>7.9%</td>
<td>4.3%</td>
</tr>
</tbody>
</table>
h. Construction loans will be received as needed for construction and will last four months.

i. The actual construction cost of the homes, not including any site improvement costs, land costs, profit, soft costs, or other costs not directly related to constructing the actual building, is $39 a square foot.

j. When there is a minimum lot size, rather than density, the total number of units that could be built is derived by multiplying the total site acreage by .75, to account for site constraints, and dividing by the minimum lot size.

k. We also made a number of assumptions about when costs would be paid, which are listed in Appendix Figure A-1.

We built these assumptions into the cash flow model. These assumptions apply to all potential development scenarios we examined.

Next, we looked at a number of variables that will change from development to development. These variables also need to be plugged into the cash flow model, although they will be different for each development scenario. These variables are listed in Appendix Figure A-1 and include:

A. **The minimum permitted lot size of the zoning district.** Developers will build as many lots as possible at the minimum lot size permitted in the district. This lot size varies from zoning district to zoning district.

B. **The price of raw land for a developer.** For example, we estimated that land zoned for 1 acre lots in Historic Township would cost $16,000 a raw acre; however, in Scenic Township, land zoned for 1-acre lots would cost $21,000 an acre. We estimated these costs by examining sales of large tracts of land over the past few years as well as results of our survey of local developers.

C. **The expected sales price of homes.** The sales price will depend on a number of factors, including location, home size, lot size, and construction cost of the home. We assumed developers will be building average, typical homes. The sales prices we generated were based on an analysis of past sales in the county, the survey results, the size of the home, and general rules of thumb for development. For example, we estimated that a single-family detached home on a 1-acre lot in Historic Township would cost $200,000. One in Scenic Township would cost $270,000.

D. **The expected size of a home.** We estimated the square footage of typical homes by looking at past sales in the county and our survey results. In Historic Township, the $200,000 home would have 2,300 square feet, while the $270,000 Scenic Township home would have 3,100 square feet. These numbers are based on what has been built in these communities in the past.

E. **The cost of improving the land.** This variable includes all earthmoving, storm water and erosion control, roadway and associated construction, landscaping, utility, and other costs. The cost will depend on the size of lots and the type of housing. For example, we estimated that single-family detached homes on half-acre lots would need $21,000 worth of land improvements. A single-family home on an acre would involve $24,000 of land improvement costs. These costs were estimated through an analysis of escrow funds submitted to local townships and through discussions with local developers and realtors.
F. The sales rates of units. The sales rates of units can vary from development to development. Some might be very hot, selling ten or more units a month. Others could be very slow, with only one unit sold a month. Based on surveys and data from a local real estate consulting firm, we generalized this data, assuming that single-family detached home developments will sell at three homes per month while townhouses will sell at four homes per month.

G. Fees, especially sewer and water hookup fees. Fees can vary from place to place. We decided to throw most fees, such as building permits and review fees, into the soft costs category discussed above under assumptions. However, sewer hookup and water fees can vary greatly, so we included these as separate variables. For example, Historic Township’s sewer hookup fee was $8,500 per home while Scenic Township’s fee was $4,820.

Once these variables were identified and the assumptions were made, we were able to generate profit figures from the cash flow analysis. Appendix Figure A-1 lists these variables and assumptions for three different development scenarios, two in Historic Township and one in Scenic Township, and shows the profits that would be generated by each of these developments. Profit is measured as a percent of the sales price of units. In the survey we conducted, local developers told us that they measure profit by looking at profit as a percent of the sales price of the homes they’re building. For example, if a developer sold a house for $200,000 and received $15,180 in profit, then the profit was 7.6% of the sales price of the home.

The profits shown in Appendix Figure A-1 provide a base line figure for the TDR program. With a TDR program, developers will be allowed to increase the density of the site. The profit figures generated by the cash flow analysis discussed above show what kind of profit is possible without getting an increase in density by purchasing development rights. This means that when developers get an increase in density by purchasing development rights, they will want a profit that is better than the profit they could have gotten without purchasing any development rights. The next section describes how to measure this.

Step 3

Profit of Receiving Area Development with Purchase of Development Rights

If a receiving area landowner purchases development rights, he is allowed to develop at a higher density. For instance, a developer may be allowed to build on 1 acre lots under normal zoning and half-acre lots with TDR zoning. The profit of building under the half-acre zoning has to be higher than the profit of building under 1-acre zoning.

Appendix Figure A-2 shows how the profit comparison was made for a possible development scenario in one of the example communities, Historic Township. In this figure, the first column shows the profit a developer would get under normal zoning, without purchasing any development rights. Columns 2, 3, and 4 show alternative profits the developer gets under TDR zoning after buying development rights. The profit varies from column to column depending on the incentive the developer is given. We compared the profits in columns 2, 3, and 4 with the profit in column 1 to determine which incentive was most appropriate. The steps we used are discussed on page A-7.
Figure A-2
SAMPLE TRANSFER OF DEVELOPMENT RIGHTS TRANSACTION
SUMMER, 1992

<table>
<thead>
<tr>
<th></th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal Zoning</td>
<td>TDR Zoning with 1 additional dwelling unit per right</td>
<td>TDR Zoning with 2 additional dwelling units per right</td>
<td>TDR Zoning with 3 additional dwelling units per right</td>
</tr>
<tr>
<td>Lot Size</td>
<td>45,000 sf</td>
<td>20,000 sf</td>
<td>20,000 sf</td>
<td>20,000 sf</td>
</tr>
<tr>
<td>Total Number of Units</td>
<td>29</td>
<td>65</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>Salesprice of a Home</td>
<td>$200,000</td>
<td>$170,000</td>
<td>$170,000</td>
<td>$170,000</td>
</tr>
<tr>
<td>Number of Additional Units with TDR Zoning</td>
<td>N/A</td>
<td>36</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Cost of Each Development Right</td>
<td>N/A</td>
<td>$24,700</td>
<td>$24,700</td>
<td>$24,700</td>
</tr>
<tr>
<td>Number of Additional Units Permitted for Each Development Right Purchased</td>
<td>N/A</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Number of Development Rights that must be Purchased to Build 36 Additional Units</td>
<td>N/A</td>
<td>36</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>Total Cost of Development Rights</td>
<td>N/A</td>
<td>$889,200</td>
<td>$444,600</td>
<td>$296,400</td>
</tr>
<tr>
<td>Profit per Unit</td>
<td>$15,180</td>
<td>$6,845</td>
<td>$13,954</td>
<td>$16,339</td>
</tr>
<tr>
<td>Total Profit</td>
<td>$440,220</td>
<td>$444,925</td>
<td>$907,010</td>
<td>$1,062,035</td>
</tr>
<tr>
<td>Profit as % of Salesprice</td>
<td>7.6%</td>
<td>4.0%</td>
<td>8.2%</td>
<td>9.6%</td>
</tr>
</tbody>
</table>

These results are based on a cash flow analysis for development of a 40-acre tract. The assumptions and inputs for this analysis are shown in Figure A-1.
Column 1

PROFIT UNDER NORMAL ZONING

First, we examined the profit under normal zoning. Column 1 shows how much profit a developer could get on 40 acres of land that is zoned for 1-acre lots (actually 45,000-square-foot lots, which is approximately 1 acre). This is the base line profit information shown in Figure 1 and derived above in step 2. This information shows what the developer could build and what profit the developer would get under normal zoning, without purchasing any development rights. In this example, the developer could get 29 homes on this land and would receive about 7.6% of the sales price of homes as profit.

Columns 2, 3, and 4

DEVELOPMENT POTENTIAL WITH TDR ZONING

Second, we determined the number of additional homes a developer could build under TDR zoning. If the developer were allowed to build half-acre lots (20,000-square-foot lots) with TDR zoning, this developer would be able to build 65 homes instead of the 29 homes permitted under normal zoning. The developer must buy development rights for all additional homes that he will be building, which in this example means the developer has to purchase development rights for 36 additional homes.

\[
\begin{align*}
65 \text{ homes with TDR zoning} & \quad - \quad 29 \text{ homes with normal zoning} \\
= & \quad 36 \text{ additional homes}
\end{align*}
\]

In the development scenarios shown in columns 2, 3, and 4, the developer is allowed to build 65 homes on 40 acres with the TDR zoning.

Columns 2, 3, and 4

PRICE OF DEVELOPMENT RIGHTS

Third, we noted the price of a development right, as discussed in step 1 above. In step 1, we determined that the sending area landowners who were zoned for 80,000-square-foot lots would want $10,000 per gross acre, or $24,700 per development right purchased. The sending area landowners must receive this price, or they will not sell any development rights.

So, if a developer had to purchase 36 development rights, the cost would be $889,200.

\[
\frac{\$24,700 \text{ per development right} \times 36 \text{ development rights}}{\text{ }} = \$889,200 \text{ total cost}
\]

Column 2

DEVELOPER BUYS ONE DEVELOPMENT RIGHT FOR EACH ADDITIONAL HOME

Fourth, we determined what type of profit a developer would get with the TDR zoning if the developer had to buy a development right for every additional home. This is shown in column 2. In this example, the developer gets 36 additional homes, which means 36 development rights have to be bought at a total cost of $889,200. We plugged this cost into our cash flow model and estimated that the developer would earn a profit of only 4%, much less than the 7.6% under 1-acre zoning. This is not a high enough profit, and the developer would probably choose to develop 1-acre lots.

The profit can be raised, however, by allowing the developer to construct more than one home for each development right purchased. This will lower the overall cost of the development rights, as explained below for columns 3 and 4.

The $889,200 the developer had to spend on the development rights in column 2 is an
additional cost, above and beyond the other costs a developer normally incurs. However, this cost is offset somewhat by the lower cost of the land. Land costs less because the developer buys the land at its value for 1-acre lots, not for half-acre lots.

Column 3
DEVELOPER BUYS ONE DEVELOPMENT RIGHT FOR EVERY TWO ADDITIONAL HOMES

Fifth, we looked at the developer’s profit if the total amount spent on development rights were lowered by allowing the developer to put up more homes for each development right purchased. The third column in Appendix Figure 2 shows the developer’s profit when allowed to build two additional homes for each development right purchased. Since the developer wants to put up 36 additional homes, only 18 development rights need to be purchased.

\[
\begin{align*}
36 \text{ additional homes} \\
\times 2 \text{ additional homes per development right} \\
= 18 \text{ development rights}
\end{align*}
\]

Since the developer has to buy only 18 development rights in this case, the total cost for development rights is less than under the scenario in column 2.

\[
\begin{align*}
\$24,700 \text{ per development right} \\
\times 18 \text{ development rights} \\
= \$444,600 \text{ total cost}
\end{align*}
\]

With two additional homes per development right, the developer gets a profit of 8.2% of the sales price of a home, which is greater than the 7.6% received with 1-acre lots. Therefore, allowing a developer to build two additional homes for each development right purchased is a viable ratio that can be used for the TDR program.

Column 4
DEVELOPER BUYS ONE DEVELOPMENT RIGHT FOR EVERY THREE ADDITIONAL HOMES

Finally, we examined another, better incentive for the developer. The fourth column shows the profit the developer would get when allowed to build three additional homes for each development right purchased, which means the developer would have to buy only 12 development rights for the 36 additional homes. In this case, the developer would receive a profit that was 9.6% of the sales price of a home.

Columns 2, 3, and 4
CHOOSE AN INCENTIVE LEVEL

With this analysis, we have three possible incentive levels. The first, shown in column 2, would allow a developer to build one additional home for each development right purchased. In this case, the profit was too low. The second, shown in column 3, would allow a developer to put up two additional homes for each development right purchased. Since the profit in this case was higher than the profit under normal zoning, Historic Township could choose this level. If it were chosen, the TDR ordinance would be written to require a developer to buy a development right for every two additional homes. Column 4 shows profit with three additional homes per development right. There is no need to choose this level since the incentive in column 3 worked fine.

In some cases, it may be necessary to look at more than three levels. Perhaps developers need four homes per development right, or one and a half. Any incentive level can be plugged into the cash flow model, and the resulting profit can be compared with the profit under normal zoning.
Clearly, the profits of 8.2% and 9.6% mentioned above are not so much greater than the profit under 1-acre zoning of 7.6% that developers will automatically want to develop at a higher density with TDRs; however, the profits are better. The TDR program really will work only if developers, for marketing or other reasons, want to develop at the higher density and to purchase development rights. Developers not only must receive higher profits but also must want the higher densities that are possible with the TDR zoning.

**Conclusion**

Using this Historic Township example and following the steps outlined above, we came up with a ratio of two additional homes for receiving area developers for each development right purchased. This ratio would be used in the TDR ordinance.
There are two legal instruments that play an integral role in the transfer of development rights. The first is the “Deed of Transfer of Development Rights,” which is a transaction between the sending area landowner and the receiving area landowner/developer. The second instrument needed for the transfer of development rights is a restrictive covenant agreement. The “Transfer of Development Rights (TDR) Restrictive Covenant Agreement” is a transaction between the property owner located in the sending area and the municipality. It permits the transfer of development rights from the sending area property in consideration of certain restrictions that prevent the property from being developed.

Below is a description, followed by examples, of the “Deed of Transfer of Development Rights” and the “Transfer of Development Rights Restrictive Covenant Agreement.” While the examples are provided for guidance, the municipal solicitor should review and approve all legal documents.

**Deed of Transfer of Development Rights**

The Deed of Transfer of Development Rights records the conveyance of the development rights, originally attached to the sending area property, to the receiving area property. The deed cannot be recorded unless it is endorsed for approval by the municipal governing body, as required by Section 619.1(c) of the Pennsylvania Municipalities Planning Code.

The following items are included in the Deed of Transfer of Development Rights:

1. The definition of “Transferable Development Rights,” as defined by the Pennsylvania Municipalities Planning Code.
2. The type of land the municipality desires to preserve.
3. A statement specifying the book and page number of the restrictive covenant agreement granted to the municipality and what type of restriction it imposes on the sending area property.
4. The number and cost of the development rights sold.
5. A description of the property to which the development rights were originally attached.

**Transfer of Development Rights Restrictive Covenant Agreement**

The TDR Restrictive Covenant Agreement is constructed to meet the requirements of Section III.C. of the model zoning ordinance. In addition, by placing a restriction on future development, the TDR Restrictive Covenant Agreement creates the actual development rights that may be transferred to the receiving area.

The terms and conditions of the restrictive covenant agreement are summarized as follows:

1. The restrictive covenant agreement will be in perpetuity, will run with the land as
an interest in the property, and can be enforced by the grantee (municipality).

2. For purposes of legal clarity, the agreement defines “Development” as an individual dwelling unit or any other improvement of the land for any use other than agriculture, parkland, conservation areas, and similar uses. This term is used throughout the agreement.

3. The restrictive covenant agreement states that for each “development” which is occupied or maintained, or which may be occupied or maintained in the future, one development right must be retained.

4. Restrictions imposed by the TDR Restrictive Covenant Agreement will be independent of the restrictions imposed by the property’s zoning.

5. The restrictive covenant agreement establishes the number of development rights on the property and how many “developments” will be retained on the property after restrictions are recorded, provided they are consistent with the property’s zoning. In addition, it does not prevent the reconstruction of an existing “development” that was destroyed or damaged.

6. The restrictive covenant agreement allows the grantee (municipality) to enter the property for inspection and enforcement purposes, provided reasonable notice is provided to the grantor (landowner).

7. The restrictive covenant agreement states that the TDR Restrictive Covenant Agreement does not convey to the public a right of access or use of the property.

8. The restrictive covenant agreement states that any breach of the contract cannot possibly be remedied by the recovery of monetary damages. Furthermore, the grantee (municipality), may institute an injunction against any violation and require the restoration of the property to its prior condition.

Finally, since the municipality, through the recording of the TDR Restrictive Covenant Agreement, is granting the property owner a specific number of development rights and will be the holder of the restrictive covenant agreement, a management system will need to be established. The management system will need to provide a method of numbering each development right and registering when the development right has been transferred to a property in the receiving area. The management program will also need to consider how the restrictive covenant agreements will be monitored and enforced.
EXAMPLE

DEED OF TRANSFER OF DEVELOPMENT RIGHTS (TDR)

THIS DEED, made this ___ day of 19___ by and between (include full name and address), hereinafter “Grantor” and (include full name and address), hereinafter “Grantee.”

RECEITALS

The Pennsylvania Municipalities Planning Code, 53 P.S. §10101, et seq. defines “Transferrable Development Rights” as: “The attaching of development rights to specified lands which are desired by a municipality to be kept undeveloped, but permitting those rights to be transferred from those lands so that the development potential which they represent may occur on other lands within the municipality where more intensive development is deemed by the municipality to be appropriate,” and enables municipalities to transfer development rights for the purpose of preserving (type of land municipality desires to preserve). An easement granted to (municipality), pursuant (municipal zoning ordinance), and recorded at Book __, Page ___ in the Recorder of Deeds Office of Montgomery County, Pennsylvania, restricts future development from being constructed, occupied, or maintained on property hereinafter described situate in (name of sending area), (municipality), Montgomery County, Pennsylvania, and thereby authorizes the conveyance of Development Rights.

NOW, THEREFORE, in consideration of _______________, and other good and valuable considerations, the receipt of which is hereby acknowledged, Grantor does grant and convey to Grantee, his/her heirs, successors, and assigns, for attachment to and use in conjunction with development of Grantee’s property situate in (name of receiving area) (municipality), Montgomery County, which property was acquired by Grantee by deed dated ________ and recorded at Book __, Page ___ in the Recorder of Deeds Office of Montgomery County, Pennsylvania, ______________ Development Rights, numbered _______ originally attached to property situate in the (name of sending area) (municipality), Montgomery County, described as:

(Insert description of sending parcel, including street address, if any)

BEING the same property which Grantor acquired by deed bearing date the ___ day of ______________, 19__, and recorded in the Montgomery County Recorder of Deeds Office in Book __, Page ___.

AND, Grantor covenants that it will warrant specially the property rights hereby conveyed, that it will execute such further assurances of said property rights as may be requisite and that it has the right to convey the property rights.

IN WITNESS WHEREOF, Grantors have affixed their hands and seals in the day and year above written.

SIGNATURES

ACKNOWLEDGEMENTS

Approved as to form and legality by the governing body of (municipality), pursuant to Section 619.1 of the Pennsylvania Municipalities Planning Code this ___ day of ______________, 19__.  

Chairman

RELEASE OF LENDER (If Lender Involved) (separate document)
Parcel Number, including block and unit number ___________________.
TRANSFER OF DEVELOPMENT RIGHTS (TDR) 
RESTRICTIVE COVENANT AGREEMENT

THIS TRANSFER OF DEVELOPMENT RIGHTS (TDR) RESTRICTIVE COVENANT AGREEMENT, made this ___ day of ________, 19___ by and between (include full name and address), hereinafter “Grantor” and (municipality), hereinafter “Grantee.”

RECITALS

The Pennsylvania Municipalities Planning Code, 53 P.S. §10101, et seq. defines “Transferrable Development Rights” as: “The attaching of development rights to specified lands which are desired by a municipality to be kept undeveloped, but permitting those rights to be transferred from those lands so that the development potential which they represent may occur on other lands within the municipality where more intensive development is deemed by the municipality to be appropriate,” and enables municipalities to transfer development rights for the purpose of preserving (type of land municipality desires to preserve). Grantor is the owner in fee simple of ___ acres of real property, hereinafter described, in the (name of sending area), located in (municipality). The property is now improved with (list improvements).

(Ins[munipal zoning ordinance]) recognizes the right of an owner of property in the (name of sending area) to transfer a certain number of development rights; provided that such a conveyance is in conjunction with a restrictive covenant agreement restricting the land from future development of any non-agricultural uses, except for parkland, conservation areas, and similar uses. The parties intend that this Restrictive Covenant Agreement so restrict the property and that, hereafter, (number of development rights) Development Rights numbered (numbers assigned by municipality) may be conveyed from the property by a deed in the recordable form approved by the (municipal governing body) without the conveyance of an additional Restrictive Covenant Agreement to Grantee.

(Full name of Grantor) represents that it is the owner in fee simple of the property as of the date of execution of this Restrictive Covenant Agreement.

NOW, THEREFORE, to permit the transfer of ___ Development Rights and in consideration of the covenants, terms, conditions, and restrictions hereafter set forth and other good and valuable consideration, receipt of which is hereby acknowledged, Grantor does grant and convey to Grantee, its successors, and assigns, forever and in perpetuity, an interest and restrictive covenant agreement of the nature and character and to the extent hereinafter set forth in respect to all that property situate in (municipality), Montgomery County, Pennsylvania described as:

(Insert full or partial property description [those lands under restrictive covenant agreement], including name of sending area, and, if any street address.)

The terms, conditions, and restrictions of this Restrictive Covenant Agreement are as follows:

1. This Restrictive Covenant Agreement shall be perpetual. It is a restrictive covenant agreement in gross, and as such, is inheritable and assignable and runs with the land as an incorporeal interest in the property enforceable with respect to the property by the Grantee, and its successors and assigns, against the Grantor and his heirs, successors, and assigns.
2. The term "development" includes an individual dwelling unit or any other improvement of the land for any use other than agriculture, parkland, conservation area, or similar use.

3. For each "development" to be occupied or maintained on the property, one Development Right must be retained. One Development Right must also be retained for each "development" that may be occupied in the future. There are a total of ___ acres within the property, and therefore, prior to the execution of this Restrictive Covenant Agreement, a total of ___ Transferrable Development Rights existed under and by virtue of the (municipality) zoning ordinance.

4. The restriction imposed by this Development Rights Restrictive Covenant Agreement shall operate independently of the restrictions imposed by the zoning of the property.

5. There is/are ___ existing "development(s)" on the property. As a result of this Restrictive Covenant Agreement, the parties intend that Grantor may convey ___ Development Rights numbered ___. From this date forward, no more than ___ additional "Developments" may take place on the property, so that the total of ___ existing "development(s)" and up to a maximum of ___ additional "developments" shall never exceed the total of ___ Development Rights which remain after the proposed conveyance of ___ Development Rights. This may not be interpreted to permit additional "development" inconsistent with the zoning of the property or to prevent the reconstruction of existing "development" which complied with the terms of this Restrictive Covenant Agreement in the event such "development" is destroyed or damaged.

6. Grantee, its successors, and assigns may, with reasonable notice, enter the property from time to time, for the sole purpose of inspection and enforcement of the terms, conditions, and restrictions of this Restrictive Covenant Agreement. This right of inspection does not include the interior of "developments."

7. Nothing herein may be construed to convey to the public a right of access or use of the property, and the Grantor, his heirs, successors, and assigns retain exclusive right to such access and use, subject only to the provisions of this Restrictive Covenant Agreement.

8. The parties agree that monetary damages would not be adequate remedy for breach of any of the terms, conditions, and restrictions herein contained, and therefore, in the event that the Grantor, his heirs, successors, and assigns violate or breach any such terms, conditions, or restrictions herein contained, the Grantee, its successors, any assigns may institute a suit to enjoin by ex parte, preliminary and/or permanent injunction such violation and to require the restoration of the property to its prior conditions. The Grantee, its successors, and assigns, by any prior failure to act, does not waive or forfeit the right to take action as may be necessary to insure compliance with the terms, conditions, and purposes of this Restrictive Covenant Agreement.

9. The parties agree that this Restrictive Covenant Agreement is intended to benefit both (a) all future owners of all or any portion of Grantor's land hereinabove described, and (b) all future owners of all or any portion of the property to which the transferable development rights are being concurrently transferred under and by virtue of that certain "Deed of Transfer of Development Rights (TDR)" by and between Grantor and the owner of the receiving property (name of owner of receiving...
property as set forth in the deed). Such parties, their successors and assigns, shall have a separate right, independent from Grantee herein, to enforce the terms and conditions of this Restrictive Covenant Agreement.

IN WITNESS WHEREOF, the Grantor and Grantee have hereunto set their hands and seals in the day and year above written.

SIGNATURES

ACKNOWLEDGEMENTS

Approved as to form and legality this___ day of ____________, 19__.

RELEASE OF LENDER. (If Lender Involved) (separate document)
Parcel Number, including block and unit number ______________.