



## **Transfer of Development Rights (TDR) in Washington State: Overview, Benefits, and Challenges**

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### **I. Introduction**

The Washington State Legislature has directed the state's Department of Community, Trade and Economic Development (CTED) to create a regional transfer of development rights (TDR) program in central Puget Sound. The TDR program is focused on four central Puget Sound counties (King, Kitsap, Pierce, and Snohomish) and the 71 cities within their boundaries.

TDR is a market-based mechanism that supports the voluntary transfer of development rights from areas where a community would like to discourage development to places where that community would like to focus new growth. The central Puget Sound TDR program will build upon existing TDR programs, pilot projects, and private initiatives.

CTED convened a Regional Transfer of Development Rights Policy Advisory Committee to assist the agency in developing a regional TDR marketplace, including developing strategies for financing infrastructure and conservation. This issue paper is the first in a series of five papers being developed by the Cascade Land Conservancy to assist the committee in its review.

The purpose of this paper is to provide an overview of the TDR concept, including a brief survey of TDR use throughout the country, an assessment of common pitfalls, identification of the most promising directions for setting up effective TDR programs, and a review of the potential benefits to cities, counties, and the state. This analysis is intended to help the TDR policy committee build on the experiences of other jurisdictions in creating an effective structure for TDR in Washington State.

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<sup>1</sup> Prepared by the Cascade Land Conservancy for consideration by the Washington State Department of Community, Trade and Economic Development and the Regional TDR Advisory Committee.

In identifying the factors that define successful TDR programs, this paper focuses on possible roles the state could play in promoting local participation and building regional structures for TDR. A key conclusion is that the state should consider using both “carrots and sticks” – that is, offering incentives, providing support, and requiring local TDR participation where appropriate.

## II. What Is TDR?

Transfer of development rights (TDR) is a market-based tool for helping implement a jurisdiction's growth policies. TDR uses the "economic engine" of new growth to conserve lands with public benefits, such as working lands (farms and forests), environmentally sensitive areas, or open space. It is also sometimes used to further a community's goals for historic preservation or housing affordability.

Through individual transactions, development rights are transferred from privately owned farmland, forestland, and natural areas (known as *sending sites*) to areas that can accommodate additional growth (known as *receiving sites*). Landowners in sending areas receive compensation for giving up their right to develop, while developers in receiving areas pay for the right to develop at greater densities or heights than would otherwise be allowed. When development rights are removed from a sending site, a conservation easement is placed on it, allowing for permanent protection of the parcel (unlike zoning regulations, which can be changed).

TDR does not limit growth; rather, it allows communities to plan more effectively by directing that growth into areas most appropriate for it. In their comprehensive plans and development regulations, communities can identify which areas are suitable to receive development rights and how much additional development is appropriate.

Here are three key features of TDR:

- ***It is voluntary.*** Generally, if landowners in the sending areas choose not to participate, they are entitled to develop as permitted by current zoning. Likewise, in receiving areas, developers not participating in TDR are allowed to build up to current zoning. But to receive additional uses, density, or height, they must purchase TDR credits. (In the most successful programs, participation in TDR is the *only* way developers can achieve higher-intensity development than current zoning allows.)
- ***It is market-based.*** TDR creates a marketplace that allows property owners to buy and sell development rights to one another. Individual property owners may freely negotiate prices for the purchase and sale of these rights. Development thus pays to conserve open space rather than the city or county having to use limited public funds.
- ***It is flexible.*** TDR can be designed to accommodate the needs of each community. Of the 181 TDR programs in the United States, the vast majority are oriented toward

environmental and farmland conservation.<sup>2</sup> Fifteen programs target historic preservation and 12 focus on infrastructure and urban design.<sup>3</sup> The goals of each program reflect the conservation and development objectives of the jurisdiction.

### III. Why TDR Is Needed

Washington State's population is growing by more than a half million people every decade. This rapid growth poses a host of threats to Washington's forests, farms, wetlands, and wildlife habitat, as well as to Washingtonians' quality of life. Traffic congestion, especially in Western Washington, clogs highways and contributes to worsening air pollution. Clean drinking water supplies are threatened by conversion and pollution. Flooding and landslides are yearly events in many areas of new development. Schools, sewers, and water systems are strained by new growth.

In response to public concerns about population growth and the impacts of development, the Growth Management Act (GMA), chapter 36.70A RCW, was enacted in 1990. The GMA requires local governments, specifically counties and cities in rapidly growing areas, to adopt comprehensive growth management plans and development regulations in accordance with the act's provisions. Ten years after the GMA was enacted, most cities and counties in the state had adopted comprehensive growth management plans under the act. In a 2006 report reviewing the first 15 years of GMA implementation<sup>4</sup>, CTED concludes that considerable progress has been made under the GMA, though challenges remain.

The GMA recognizes and encourages "innovative land use techniques" such as TDR to help achieve the purposes of the act. TDR goes beyond traditional zoning by compensating landowners who give up their right to develop, by protecting property from development in perpetuity, and by engaging the market to generate private funding for land conservation.

By helping to concentrate development in areas best suited for growth, TDR can help mitigate many of the public costs and impacts of sprawl. These include:

***Loss of farm and forest lands.*** While the GMA requires designation and protection of productive agricultural lands, Washington continues to lose farmland (including ranchland) at the rate of about 23,700 acres per year.<sup>5</sup> This conversion equates to about 10% of the area of Mount Rainier National Park lost each year. USDA statistics indicate that more than

<sup>2</sup> Rick Pruetz and Erica Pruetz. *Transfer of Development Rights Turns 40*. American Planning Association, Planning and Environmental Law, Vol. 59, No. 6 (June 2007).

<sup>3</sup> Rick Pruetz. *TDR Doesn't Always Work—Why Try It Here?* Public Presentation, March 28, 2007, Seattle, Washington.

<sup>4</sup> *Creating Livable Communities; Managing Washington's Growth for 15 Years*. Washington State Department of Community, Trade and Economic Development. June 2006.

<sup>5</sup> According to USDA Census of Agriculture data in 1997 and 2002.

5,000 farms were lost in the 9 years from 1997 to 2006.<sup>6</sup> The American Farmland Trust notes that the loss of prime farmland accelerated about 30% in the years 1992-1997 compared with the preceding 5 years. American Farmland Trust also reports that 75% of Washington's remaining active farmland and ranchland has a market value that exceeds its value for agriculture, suggesting that the threat of continuing conversions is high.<sup>7</sup>

A similar story applies to productive forestland in Washington State, with significant losses occurring despite protections established by the GMA. Since the late 1980s, Washington's forests have declined by over 17%.<sup>8</sup> In addition, forestlands on or near the urban-rural fringe now have a development value of 15-20 times their value as forests.<sup>9</sup> This suggests that as the region grows, an even greater percentage of working forests will be at risk for conversion.

In addition, a large percentage of forestlands are now owned in investment structures such as TIMOs (timber investment management organizations) and REITs (real estate investment trusts). Government regulations dictate a limited lifespan for these investment tools and require that shareholder profits are maximized. Many of these ownerships will reach the end of their lifespans in the next 5 to 10 years. Unless forestland protections are strengthened and tools like TDR are in place at that time, it is likely that many of Washington's timberlands will be converted to real estate development.

*Infrastructure costs.* Following a pioneering study for the federal government in 1974,<sup>10</sup> numerous studies have documented the public costs of sprawl. In 2005, the Puget Sound Regional Council reviewed these studies and concluded that, while methodologies vary, sprawl is more costly than compact patterns of development.<sup>11</sup> Savings on the capital costs of infrastructure are particularly significant with compact development. The Brookings Institution projected national infrastructure costs over a 25-year period (2000–2025) and concluded that 11.8%, or \$110 billion, could be saved in road-building costs and 6%, or

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<sup>6</sup> USDA

Website:[http://www.nass.usda.gov/Statistics\\_by\\_State/Washington/Publications/Annual\\_Statistical\\_Bulletin/2007/ab9.pdf](http://www.nass.usda.gov/Statistics_by_State/Washington/Publications/Annual_Statistical_Bulletin/2007/ab9.pdf). Accessed December 5, 2007.

<sup>7</sup> AFT Website: <http://www.farmland.org:80/programs/states/wa/WAthreat.asp>. Accessed December 9, 2007.

<sup>8</sup> College of Forest Resources, University of Washington. *The Future of Washington's Forests: Washington Department of Natural Resources Report*. 2007.

<sup>9</sup> Ibid.

<sup>10</sup> Real Estate Research Corporation. *The Costs of Sprawl: Environmental and Economic Costs of Alternative Residential Development Patterns at the Urban Fringe*. 3 vols. Washington, D.C.: U.S. Government Printing Office, 1974.

<sup>11</sup> Puget Sound Regional Council. *VISION 2020 + 20 Update: Information Paper on the Cost of Sprawl*. Puget Sound Regional Council, December 19, 2005.

\$12.6 billion, in water and sewer costs by adhering to more compact development patterns.<sup>12</sup>

A Columbia Public Policy Institute study in 2000<sup>13</sup> looked at capital costs associated with new residential development in Washington State. This study concluded that, on average, each new single family house results in over \$80,000 in public costs for roads, schools, utilities and other public facilities. (However, this study did not differentiate public costs for alternative patterns of development.)

***Cost of community services.*** Sprawl adds to the cost of ongoing community services as well. According to a study published by the American Farmland Trust in 2002, conserving land saves taxpayers money. This study measured the net fiscal contribution of different land uses, by comparing the cost of providing public services to the tax revenues from various land uses. Based on studies in 125 communities across the country, American Farmland Trust concluded that working farms and forests cost taxpayers only \$.37 for every tax dollar collected, compared to \$1.19 for lands in residential use.<sup>14</sup> This is consistent with the Brookings Institution's conclusion that a compact pattern of development could save 3.7%, or \$4 billion, annually for operations and service delivery.<sup>15</sup>

***Environmental quality.*** The environmental impacts of sprawl are well documented. Compact growth patterns use up to 21% less acreage than sprawling development.<sup>16</sup> Sprawling development leads to higher rates of impervious surface, increased flooding and increased stormwater management costs. Runoff per unit for development at 8 units per acre is ¼ that of 1 unit per acre.<sup>17</sup> Puget Sound communities spend more than \$100 per person annually on stormwater management,<sup>18</sup> and yet stormwater is still the leading cause of pollution in the Puget Sound.<sup>19</sup> Sprawl also contributes to loss of wildlife habitat and other environmental impacts.

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<sup>12</sup> Mark Muro and Robert Puentes. *Investing in a Better Future. A Review of the Fiscal and Competitive Advantages of Smarter Growth Development Patterns.* Washington, D.C.: The Brookings Institution Center on Urban and Metropolitan Policy, 2004.

<sup>13</sup> Fodor & Associates for Columbia Public Interest Policy Institute. *Cost of Growth in Washington State.* Bellevue, WA, October 2000.

<sup>14</sup> Freedgood, Julia. *Cost of Community Services Studies: Making the Case for Conservation.* American Farmland Trust, 2002.

<sup>15</sup> Muro and Puentes, op. cit.

<sup>16</sup> Robert W. Burchell, Anthony Downs, Samuel Seskin, et al. *Costs of Sprawl 2000.* Washington, D.C.: Transit Cooperative Research Program, Transportation Research Board, National Research Council: TCRP Report 74, 2002.

<sup>17</sup> Lynn Richards. *Protecting Water Resources with Higher-Density Development.* Environmental Protection Agency, 2006.

<sup>18</sup> Derek Booth. *Damages and Costs of Stormwater Runoff in the Puget Sound Region.* 2006.

<sup>19</sup> *Seattle P-I Website:* [http://seattlepi.nwsourc.com/local/341881\\_pugetsound01.html](http://seattlepi.nwsourc.com/local/341881_pugetsound01.html). Accessed December 5, 2007.

The Puget Sound Regional Council recently assessed environmental impacts in a draft environmental impact statement for Vision 2040, an update of growth policies for the region. It concludes: “Alternatives with a more focused growth pattern . . . have potentially lower overall environmental impacts. . . . Because less land would likely be required to meet growth needs, growth in rural or natural resource areas could be reduced or avoided. Compact growth also reduces the regional levels of automobile use and congestion, and improves transit use, carpooling, walking and bicycling, which in turn lowers air pollution, water pollution, and energy use.” This is consistent with a recent King County study<sup>20</sup> that measured various impacts associated with alternative land use patterns and concluded that compact, mixed use developments offering transportation choices could enhance transit efficiency, reduce automobile dependency, and improve air quality and health.

***Jobs and the economy.*** Washington State was built upon farming and forestry. They are a significant piece of our heritage, still provide essential jobs, and are a significant part of the state’s economic base. Loss of forest and farmland associated with sprawl could significantly affect these sectors of the economy. Some key indicators include:

- The value of Washington’s food and agricultural production (including food processing) was assessed at \$5.6 billion in 2001.<sup>21</sup>
- Farms and farm-related activities provide more than 523,000 jobs in Washington State.<sup>22</sup> Pure farm employment represents over 82,000 jobs.<sup>23</sup>
- Total employment in the state’s forest products industries was approximately 43,700 in 2003.<sup>24</sup>
- The 1995 gross business income for the Washington forestry and forest-products sector was about \$16 billion.<sup>25</sup>
- Forest products account for over 10% of the employment in 18 of the state’s 39 counties.

***Climate change.*** The link between sprawl and global warming has only recently come to the forefront of public consideration. A new book published by the Urban Land Institute<sup>26</sup> analyzed scores of academic studies and concluded that compact development – mixing housing and businesses in denser patterns, with walkable neighborhoods – could do as

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<sup>20</sup> Lawrence Frank and Co. *LUTAQH, A Study of Land Use, Transportation, Air Quality and Health in King County, Washington*. December 2005.

<sup>21</sup> Municipal Research and Services Center of Washington, Agricultural Lands Introduction Web page.

<sup>22</sup> USDA Website:

[http://www.ers.usda.gov/Data/FarmandRelatedEmployment/ViewData.asp?GeoAreaPick=STAWA\\_Washington](http://www.ers.usda.gov/Data/FarmandRelatedEmployment/ViewData.asp?GeoAreaPick=STAWA_Washington). Accessed December 5, 2007.

<sup>23</sup> Ibid.

<sup>24</sup> Washington State University Website: <http://cru.cahe.wsu.edu/CEPublications/misc0511/misc0511.pdf>. Accessed December 10, 2007.

<sup>25</sup> College of Forest Resources, University of Washington, op. cit.

<sup>26</sup> Smart Growth America Website, “Growing Cooler: The Evidence on Urban Development and Climate Change,” <http://www.smartgrowthamerica.org/gcindex.html>. Accessed January 1, 2008.

much to lower emissions as many of the climate policies now promoted by state and national politicians. It concludes, “Depending on several factors, from mix of land uses to pedestrian-friendly design, compact development reduces driving from 20 to 40 percent, and more in some instances.” In California, Attorney General Gerry Brown recently sued San Bernardino County for its failure to assess the impact of sprawl on increasing greenhouse gases. With both Seattle and King County tracking climate impacts of new development, the relationship among sprawl, carbon emissions, and climate change is ripe for study in Washington State.

*Additional research needed.* The various data provided above paint a sobering picture of the costs and environmental impacts of continuing sprawl. However, there has not been a comprehensive study of the cost of sprawl at the state level in Washington State. In particular, stormwater management concerns associated with development have not been adequately quantified; recent flooding in Lewis County illustrates the urgency of further study in this area. Similarly, climate change has emerged as a paramount issue within Washington State and the nation, yet little has been done to quantify the impact of sprawl on carbon emissions or the potential benefits of concentrating development to reduce the rate of climate change. Additional research is needed in these areas to understand the ramifications of various growth patterns and help shape and refine growth management strategies in the future.

#### IV. A Brief History of TDR

The challenge of effectively managing growth is by no means unique to Washington State. Local jurisdictions across the country have grappled with it, and many have turned to innovative tools such as TDR to supplement conventional zoning regulations. Since the adoption of the first TDR program 40 years ago, use of TDR has become widespread.

In 1968, New York City enacted the first transfer of development rights program to protect landmark buildings. TDR was used to protect Grand Central Station by transferring development rights from this site to adjacent properties. Since that time, more than 180 programs have been adopted by local and regional jurisdictions in 33 states.<sup>27</sup> Most are located on the East and West coasts, but there are also a number of inland programs, including several in Colorado. Success of the programs varies widely, with a few protecting thousands of acres and many never having made a transaction. See Appendix A for an overview of the most active TDR programs in the nation.

Nationally, the most successful TDR programs have focused on farmland preservation and environmental protection. Here are three leading examples:

<sup>27</sup> Rick Pruetz, and Erica Pruetz, op. cit.

- Montgomery County, Maryland, is frequently cited as one of the most successful programs in the country, having protected more than 50,000 acres of farmland through TDR. It created demand for selling TDRs by downzoning most agricultural lands in the county from 1 dwelling unit per 5 acres to 1 per 25. Most demand for TDRs has been in suburban and fringe areas, not urban cores.
- The New Jersey Pinelands program is an example of regional cooperation. In 1979, the state of New Jersey approved the Pinelands Preservation Act. Out of this came the Pinelands Comprehensive Management Plan that mandated the 60 jurisdictions within the Pinelands Management Area implement a TDR program run by the New Jersey Pinelands Commission. It includes a TDR bank managed by a separate state agency. The New Jersey Pinelands Development Credit Bank is governed by a nine-member Board of Directors, which oversees the transfer of development rights within the New Jersey Pinelands. The agency primarily acts as a clearinghouse for buyers and sellers, maintaining the list of certificates and acts as the processor of applications for and redemptions of TDR certificates. The bank currently does not have funding for PDC purchases, but is authorized to function as buyer and seller of last resort.<sup>28</sup>
- Boulder County, Colorado adopted a program that contains interlocal agreements with 9 cities; a proposed 2007 update to the program will require TDR credits to be purchased to construct very large homes.

Appendix B provides a summary of TDR programs enacted in Washington State. It shows that 14 jurisdictions have adopted TDR ordinances; however, one of these programs (Island County) was revoked due to limited demand for increased development above current zoning. Most of the Washington State programs are aimed at agricultural land preservation and/or environmental protection, but some reflect other goals, such as affordable housing (Seattle), historic preservation (Seattle and Vancouver), and watershed protection (Whatcom County). Programs that have protected the greatest acreages are located in King County: King County itself (about 2,000 acres, plus 89,500 acres from which the county purchased development rights that are now banked for future sale), Black Diamond (1,600 acres), Redmond (415 acres), and Seattle (883 acres).<sup>29</sup> Almost half of the existing programs in the state have yet to generate any TDR transactions.

Five of the six county-based programs rely on interlocal agreements, allowing density to be transferred from rural areas of the county into incorporated cities. King County has accomplished transfers through interlocal agreements with Seattle, Black Diamond, and Issaquah; but only Issaquah has a current TDR agreement with King County. Additional

<sup>28</sup> State of New Jersey Department of Banking & Insurance Website. Accessed on December 18, 2007. <http://www.state.nj.us/dobi/pinelands/pinelandsabout.htm>

<sup>29</sup> Acreages for TDR programs in King County were provided by local planners in each jurisdiction.

interlocal agreements will be needed in the future in order to support the sale and transfer of development rights currently held in the King County TDR bank.

Selected national and local case studies are summarized in Appendix C.

## V. Program Fundamentals

While no two TDR programs are exactly alike, there are certain key features common to most programs. Following is an overview of TDR basics. (See Appendix D for a glossary of related terms.)

***Goal-setting.*** TDR is a flexible planning tool that can and should be customized to support the planning goals of each individual community. While most TDR programs aim to protect natural areas, open space, and farmland, some are focused on low-income housing (e.g., Seattle) and historic preservation (e.g., San Francisco). Clear community goals with broad public support are essential to a successful TDR program.

***Sending sites.*** A critical early step in designing a TDR program is the identification and mapping of sending areas from which development rights can be sold. In determining the size and location of sending areas, a number of factors must be considered: the number of development rights that could be transferred, the availability of receiving areas to accept the rights, the extent to which existing zoning supports land conservation, and the relative priority of saving “close-in” sites subject to strong development pressure vs. lands further from urban centers with less development pressure.

***Receiving areas.*** Designating viable receiving areas is one of the most critical and challenging aspects of program development. Many programs strive to designate receiving areas that can accommodate an amount equal to or greater than the likely supply of TDRs from sending areas. Key factors in the designation include market demand for development, availability of infrastructure and services to support development, and community support for or opposition to increased development. While many programs establish both sending and receiving areas within a single jurisdiction, some larger programs have established cross-jurisdictional exchanges through intergovernmental agreements. Receiving areas may be designated through an initial planning process, added through incremental designations over time, or both.

***Development bonuses.*** Within receiving areas, developers are granted the option of added density or other development bonuses in exchange for purchasing TDRs. While most TDR programs offer increased residential density (either single family or multi-family) as a bonus, other incentives can be offered, such as increased floor area (Redmond, WA), added height (Issaquah, WA), increased lot coverage (Miami-Dade County, FL), or increases in

limits on impervious surfaces (Issaquah, WA). Conceivably, purchase of TDR credits could be offered as an alternative to providing required environmental mitigation, for instance when surface water impacts could be mitigated by the preservation of nearby farmland.

*Allocation and exchange rates.* The value of TDRs is directly affected by two key elements: the allocation rate (or number of TDRs each sending site can potentially sell) and the exchange rate (the number of added units or other credits available to a developer who purchases a TDR). These rates need to be carefully calibrated to make sure there are incentives for both buyers and sellers to participate. In some jurisdictions, allocation of TDRs to sending areas is based on how many units would be allowed under current zoning; other programs allow extra TDRs (e.g., 2–5 times what zoning would allow) to provide an incentive for landowners to sell their rights.

*Transaction mechanisms.* Many programs offer some form of facilitation for TDR transactions, such as providing an information clearinghouse to help link potential buyers and sellers. A good example of this is seen in Collier County, Florida. Other jurisdictions have created TDR banks to help facilitate private transactions and to act as the buyer or seller of last resort. An example of a bank is the King County TDR bank. In some cases – such as Malibu and San Luis Obispo, California – seed money has been provided to initiate a TDR bank and make initial purchases of TDR credits; in such cases, the credits are subsequently sold to developers, enabling the bank to create a revolving fund available for future TDR purchases.

*Conservation easements.* Once development rights have been sold from a sending site, those rights are relinquished and a conservation easement is placed on the property. These easements are generally held and enforced either by the city or county sponsoring the program or by a local land trust. Responsibilities for monitoring and enforcement of conservation easements over time need to be clearly assigned and funded.

*Program administration.* Certain staffing and administrative procedures are needed for smooth operation of a TDR program. These include outreach to landowners and developers, facilitation of transactions, recording of conservation easements, tracking of TDRs, and coordination of TDR transactions with a jurisdiction's zoning and permitting processes. TDR programs should also be evaluated and updated over time.

## VI. Limiting Factors

While many TDR programs have been enacted, not all have not been successful. In fact, only a handful of programs have protected 5,000 or more acres of land, and some have not generated a single transaction. In looking for ways to promote regional-scale TDR programs in Washington State, it is important to understand what factors have limited

TDR program effectiveness elsewhere and to identify those factors that have contributed to making certain programs highly successful. Following are some of the most significant obstacles that appear to have limited TDR implementation.

*Inadequate receiving areas.* Without adequate receiving areas, there is no market for TDRs and a TDR program cannot succeed. A robust TDR program needs to have sufficient market participants, on both the sending and receiving sides, to generate transactions and to stabilize the market for and price of TDRs. While lands to be protected – sending areas – can be easy to identify, many jurisdictions have found it difficult to designate viable areas to receive the development rights. Communities are often reluctant to accept additional density without assurances of adequate infrastructure and protections for neighborhood character. The presence or lack of a regional consensus on appropriate locations for growth can significantly affect a jurisdiction’s ability to designate adequate receiving areas – especially where the resources to be protected lie in one jurisdiction, while the appropriate areas for development are inside a neighboring municipality.

A few second-generation TDR programs require the purchase of TDR credits as a condition of any upzones. This may apply within a particular designated area or across the jurisdiction. Examples of this include the new Pierce County, Washington, program, which requires the purchase of TDR credits for comprehensive-plan amendments that increase density in the unincorporated county. The Malibu coastal zone also requires the purchase of TDR credits if a landowner creates a new lot. This type of mechanism can help address the need for receiving site designations and take advantage of demand for upzones. Collier County, Florida, has designated rural fringe areas as receiving sites, in order to increase density for growth and to minimize conflicts in existing neighborhoods over additional density. Boulder County, Colorado, is proposing to require TDR credits to build very large houses.

*Lack of infrastructure and amenities to support increased density.* If the areas designated to receive TDRs lack the infrastructure needed to support added growth – e.g., roads, utilities, and stormwater facilities – they will not realistically be able to support TDR development. If significant infrastructure upgrades are needed, the cost may be prohibitive to a developer, even with the added development density enabled through TDR. The lack of adequate infrastructure in urbanizing areas is a critical issue for growth management in general, and can be a specific roadblock to successful TDR implementation.

The GMA provides tools for funding needed infrastructure. However, local governments’ ability to generate revenue and state funding sources have declined or not kept pace with the need for infrastructure funding. The Joint Legislative Study Committee on Public Infrastructure Programs and Funding Structures recognized the need for additional revenue

for local infrastructure and the difficulty in raising those revenues (Final Report, January 1, 2008).

*Insufficient demand for development/density.* TDR is a market-based mechanism and, as such, can succeed only if there is demand for development. If developers are not interested in building to the higher densities established for receiving areas, there will be no marketplace for TDRs.

While local jurisdictions do not control the market, their zoning decisions have a substantial impact on developer interest in TDRs. In areas where zoning already allows development beyond what the market can support, there is no value to a developer in participating in TDR. Similarly, if rezones to higher densities can be achieved without participation in TDR, interest in TDR will be undercut. The second-generation programs mentioned above (under “Inadequate receiving areas”) attempt to take advantage of where development is occurring. Newer programs are also tapping into developer demand for flexibility in development standards other than density, such as floor area ratios, impervious surface, and setbacks.

*Weak financial equation for buyers and/or sellers.* Neither buyers nor sellers will participate in TDR transactions unless they have a financial incentive to do so. The demand for selling and purchasing rights – and therefore TDR price – is determined in large part by the allocation or exchange rate for development credits. If the price is too low, few landowners in sending areas will be motivated to sell development rights. If the price is too high, developers in receiving areas will have little interest in purchasing credits, since they would not create additional profit for their projects.

Many people assume that TDR means a 1-to-1 exchange of development credits from a sending area to a receiving area. However, this ratio rarely results in equivalent values for both areas, because the right to build one house in a low-density area is generally worth more than the right to build one additional unit in a higher-density area. A recent economic study in Pierce County sought to quantify this relationship by analyzing comparative sales data for properties zoned for different levels of density. Appendix E illustrates the declining value of a development right in unincorporated Pierce County as density increases. Based on this analysis, the study proposes that the exchange rate for TDRs be based upon a multiplier, so that purchasing one TDR would gain a developer the right to build more than one additional unit in a receiving area.

Increasingly, jurisdictions are investing in market studies to help refine their programs so that they reflect a solid understanding of the market. However, such studies can be expensive and standard methodologies have not yet been established. For smaller jurisdictions in particular, such studies may be out of reach. Recognizing this dilemma, the

state of New Jersey now provides up to \$40,000 of seed money to communities that wish to pursue market studies.

*Lack of program leadership and transaction support.* A review of TDR history shows clearly that adopting legislation to enact a TDR program is not enough, by itself, to ensure program success. Active support and leadership are needed to foster a robust marketplace for TDR transactions. Especially at the outset of a program, support is needed to overcome the natural uncertainty that property owners may feel in considering a new and unfamiliar form of real-estate transaction, and the unease that developers may feel about a new step or option in the development permitting process. Public education, program advocacy, and transaction support appear to be key ingredients in successful programs, especially when the program is young.

## VII. Success Factors and Promising Directions for TDR

In reviewing the national experience with TDR to date, four factors stand out as key elements in highly successful programs. Washington State has an opportunity to build on other jurisdictions' experience by focusing on these elements to make TDR an effective growth management tool.

### *A. Ensure Zoning Compatibility*

The underlying zoning and development regulations in sending and receiving areas may be the single most potent factor in the success of a TDR program. Zoning regulations can either create or undermine property owner and developer interest in the program. Property owners in sending areas are much more likely to participate if they have more to gain economically through TDR sale than by developing their property under existing zoning regulations. Developers will participate if TDR incentives – which may include not only increased density but also flexibility in standards such as impervious surface limits, parking requirements, and minimum setbacks – offer significant financial value beyond what can be achieved under baseline zoning regulations.

Some jurisdictions have initiated TDR programs with a large-scale downzoning of resource-based lands to be preserved, using TDR as a means of compensating landowners for the development restrictions and creating a strong incentive for participating. (For example, Montgomery County [MD] downzoned its agricultural lands from 1 unit per 5 acres to 1 per 25, allowing TDR sales based on the original zoning density.) While widespread downzoning may not be feasible in many areas, zoning must be consistent with the long-term conservation goals of a local plan. Landowners wishing to continue farming

or forestry activities may resist the idea of a permanent development restriction (conservation easement) on their property. For example, where zoning in an agricultural area allows 1 unit per 5 acres, property owners may well expect incompatible development on neighboring properties, which would undermine the long-term viability of farming in the area and thus make a conservation easement unattractive. Furthermore, the smaller the lot sizes allowed, the greater the number of development rights that must be assigned – perhaps exceeding the capacity of receiving areas to accept these credits.

On the receiving side, zoning and TDR participation are also closely linked. As noted in the section above, zoning that matches or exceeds market demand for development negates the profit a developer might achieve through TDR. Reducing the base zoning in TDR receiving areas is an option to reinforce the profit incentive; this approach was successfully used by the City of Redmond in its downtown and Overlake areas. However, downzoning may not always be feasible and may even conflict with city planning objectives that favor concentrated growth. An alternative approach is to incorporate TDR provisions into any rezoning approved by a jurisdiction, whether through a comprehensive plan update or through individual requests for zoning reclassification (see Pierce County and Malibu examples above). Under this approach, a portion of the increased value created by the increase in development potential can be allocated to support regional conservation goals. If, on the other hand, developers are successful in achieving such upzones without participation in TDR, there will be little demand to fuel the TDR marketplace.

Application of land use policies and development regulations in Washington State is a responsibility of local cities and counties. However, the state has provided a framework of goals and requirements for local plans and regulations through the Growth Management Act and updates to the act. If TDR is to become a more prominent tool for growth management in Washington State, state and regional planning guidance should support effective TDR programs.

### ***B. Support Market Studies to Fine-Tune TDR Programs***

As noted above, TDR programs founded on a clear understanding of the local real-estate market are far more likely to generate TDR transactions. Without such an assessment, TDR values may not generate interest from potential buyers and sellers. Assessing the value of TDRs from both a seller's and buyer's perspective is critical to the design of workable allocation and exchange rates, to effectively calibrate the economic equation for TDR transactions and thereby generate an active market.

Many examples of TDR market studies have now been completed by local jurisdictions across the country, and can serve as a starting point for future work in this area. However, no consensus or “model” methodology has been developed. Some studies rely on a direct

sales comparison approach, examining the effect of conservation easements on resource lands and the effect of various zoning levels on the value of various properties. Others use a capitalization or pro forma approach to determine how much a development credit is potentially worth to a developer.

Market studies to support TDR program design must be tailored to local market conditions. However, the state can play a useful role in helping to define appropriate contents, design prototype methodologies, and provide support. This would make local market studies more cost-effective to undertake, especially for smaller municipalities. Local jurisdictions should also be encouraged and supported in setting up review mechanisms and protocols for updating TDR values over time.

### *C. Facilitate TDR Transactions*

Jurisdictions that have been most successful with TDR programs have recognized the need to help buyers and sellers connect, and in many cases have created a bank or brokerage institution to facilitate transactions. Public support for TDR transactions can take a variety of forms, depending on the types of transaction mechanisms established. Even when programs rely strictly on individual private transactions (rather than a bank) to accomplish TDR sales, the sponsoring agency can encourage participation by conducting outreach to eligible landowners and developers, and by providing a clearinghouse for interested parties and technical support for transactions. TDR banks go further by eliminating the need for individual buyers and sellers to connect, and by helping even-out economic cycles that may favor TDR purchases at one time and TDR sales at another. Another variation is a TDR credit program, which enables developers to pay a set fee to a TDR bank in lieu of purchasing individual TDR credits. These and other methods will be explored in Issue Paper #2, “Alternative TDR Transaction Mechanisms.”

Typically a TDR bank, brokerage, or other support program is set up at the municipal or county level, consistent with the extent of the TDR program. To accommodate programs at a regional scale, however, a TDR bank such as New Jersey’s may be needed. The Pinelands Development Credit Bank, an independent state agency, administers the processing of TDR certificates for more than 60 separate jurisdictions. It helps facilitate private transactions, provides information on the program to landowners and developers, maintains lists of interested buyers and sellers, and tracks transactions. However, it should be noted that the New Jersey Pinelands Development Credit Bank is not currently buying or selling credits because it does not have available funds to do so. For regional-scale programs to go forward in Washington State, some form of regional clearinghouses with support and structure provided by the state may be appropriate.

### *D. Consider Both Carrots and Sticks to Achieve Local Participation*

Large-scale TDR success cannot be achieved without active participation from Washington State cities and towns, which represent most of the areas in the state where higher-intensity development is deemed appropriate. Under present law, counties and cities can collaborate by entering into interlocal agreements to enable TDR transfers to cross jurisdictional boundaries, typically from outside urban growth areas to inside them.

There are inherent limitations to this approach. Some cities have expressed concern that requiring TDR for higher-density development will place them at a competitive disadvantage in attracting economic growth, relative to nearby cities that do not sign on to the program. Conversely, many cities are concerned about the impacts of additional growth, especially where municipal infrastructure and services are not adequate to serve it. Yet without city participation, it is difficult to find viable TDR receiving areas, and growth-management goals calling for more concentrated patterns of development may be harder to achieve.

One possible solution is for the state to play a role in helping implement GMA policies through TDR. The New Jersey Pinelands program represents a notable example of active state involvement. The state designated the New Jersey Pinelands and set up a Pinelands Commission to manage the pinelands in response to a federal designation. Counties and cities within the Pinelands are required to comply with the Comprehensive Management Plan, including participation in the TDR program. There, the state designated agricultural and resource lands within a 1-million-acre area and established planning and zoning requirements to preserve them, including TDR. The state set up a bank to facilitate transactions, but the bank is not currently funded. The New Jersey Pinelands Commission monitors the program to ensure compliance with the Pinelands Comprehensive Management Plan, which encompasses 60 independent jurisdictions.

If TDR is to be successful in Washington, state policy needs to recognize that cities may be reluctant to embrace TDR, and that therefore a combination of “carrots” and “sticks” – both incentives and mandates – may be necessary to ensure widespread local participation. For example, one of the most effective measures would be to give participating jurisdictions priority for state funding to meet their infrastructure needs. Funding for needed capital improvements and amenities to support attractive urban growth could be a powerful incentive for participation. (This approach will be explored in Issue Paper #3, “Capital Budget Allocation Options for TDR.”) The state may also want to consider mandating regional TDR programs where resources of statewide significance are concerned or for activities that have regional or statewide impacts such as urban growth area expansions.

#### **E. Coordinate Closely with GMA Goals**

The GMA strives to focus growth and development within designated urban growth areas (UGAs) while limiting development in outlying rural areas. Development economics, however, tend to favor the opposite of these goals, since land is more expensive to develop in urban areas. Meanwhile, if rezones are easy to achieve in unincorporated areas while TDR is required for more intensive development in cities, this could tend to redirect growth to the rural areas, in conflict with the state's growth management goals.

TDR should be carefully designed to support and further the state's growth management goals. TDR needs to counteract, not add to the imbalance in development economics between rural and urban areas. To accomplish this, TDR should put forward a different balance between mandates and incentives in urban vs. rural areas.

In urban receiving areas, TDR could act as a barrier to higher density development if TDR increases complexity and/or raises the cost of development. Therefore it is critical to provide strong incentives which increase the profitability of TDR development in urban receiving areas. The following incentives should be considered:

- Establishing exchange rates that provide meaningful bonuses or development flexibility to enhance the profitability of TDR development;
- Focusing public infrastructure investments in UGA receiving areas – to insure that these areas are well-equipped to accommodate additional growth and that infrastructure costs do not become a barrier to development; and
- Streamlining the development approval process for TDR projects in urban areas. If TDR adds time to the permit process or makes the process less predictable, developers will be reluctant to participate. Conversely, reducing uncertainty and processing times could be a powerful incentive for TDR development in urban areas.

In rural areas, TDR design should reflect the different goals of the GMA for these areas. Designation of some TDR receiving areas in rural areas may be appropriate as a tool to reduce the footprint of new development. However, TDR should not have the effect of drawing development to the rural area in conflict with GMA. Requiring TDR as a condition of any rezones in the rural area could be considered for some areas; however, development incentives as described above should be targeted to urban receiving areas rather than to rural areas

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### APPENDIX A – TOP NATIONAL TDR PROGRAMS

Top National Programs	Year Started	Program Objective	Acres Preserved in Sending Areas	Number of Projects in Receiving Areas	Interlocal Agreements	TDR Bank	Zoning	Comments
<b>Blue Earth County, MN</b>	1977	Farmland, woodlands, habitat, and open space	4,000	100	No	No	1 du/40 acres in sending sites; in 1970 these lands were designated as Ag protection zones and zoned at 1/40.	Requirement for contiguous transfers leads to juxtaposition of noncompatible uses.
<b>Boulder County, CO</b>	1981	Agricultural lands	4,700	15	Yes (Boulder, Niwot, Longmont, Lafayette, Louisville, Broomfield, Erie, Lyons, Superior)	No	TDR program sending sites are primarily 35-acre rural parcels.	Program is being evaluated as of fall 2007 and may require TDR credits to be purchased for large houses (greater than 3,250 square feet).

Top National Programs	Year Started	Program Objective	Acres Preserved in Sending Areas	Number of Projects in Receiving Areas	Interlocal Agreements	TDR Bank	Zoning	Comments
<b>Calvert County, MD</b>	1978	Agricultural lands	11,652 (Jan 2007)	15,602 TDRs transferred (2007)	No	No (county does purchase and retire development rights)	Not downzoned initially, but downzones did occur in 1999 and 2003. Zoning changed from 1du/5ac to 1du/20ac. Strong zoning ordinances require all upzones include TDR.	Also has PDR program that has retired development rights on more than 5,000 acres. Cost of TDRs per dwelling unit is about \$37,500. Allows transfers to other rural/semirural areas.

Top National Programs	Year Started	Program Objective	Acres Preserved in Sending Areas	Number of Projects in Receiving Areas	Interlocal Agreements	TDR Bank	Zoning	Comments
<b>Collier County, FL</b>	N/A	Ecologically sensitive areas	2,327 (1,400 additional acres pending final approval)	12 completed transfers	No	No	Downzoned to 1 du/40ac, but state restrictions were even more restrictive for certain parcels, so this allowed some development to occur. Receiving areas on urban/rural fringe.	Base price set by county of \$25,000 per TDR. Many TDRs severed to take advantage of bonus structure, but relatively few used at this point.
<b>Dade County, FL</b>	1981	Environmentally sensitive lands	N/A	829 credits used	No		Most sending sites are 1du/40ac.	N/A

Top National Programs	Year Started	Program Objective	Acres Preserved in Sending Areas	Number of Projects in Receiving Areas	Interlocal Agreements	TDR Bank	Zoning	Comments
<b>Douglas County, NV</b>	2002	Agricultural lands	3,620	N/A	No	N/A	Sending sites are FR (forest range) or A (agricultural).	TDR seen as more effective than clustering. TDR credit transfers not allowed between watersheds.
<b>Malibu Coastal Zone, CA</b>	1979	Antiquated lots	924 lots retired	505 transfers	No	Yes (bank run by land conservancy)	Parcels were not downzoned, but creation of new lots requires purchase of TDCs in this program.	N/A

Top National Programs	Year Started	Program Objective	Acres Preserved in Sending Areas	Number of Projects in Receiving Areas	Interlocal Agreements	TDR Bank	Zoning	Comments
<b>Montgomery County, MD</b>	1980	Agricultural lands	50,857	10,160 severed/9,669 used	No (being considered)	No	90,000 acres of farmland was downzoned from 1du/5ac to 1 du/25ac. Dedicated staff allows computerized tracking and updating of the program.	A TDR bank was used at program inception, but was dropped after it was no longer needed. Considering mandating TDR for new subdivisions outside of current receiving areas.

Top National Programs	Year Started	Program Objective	Acres Preserved in Sending Areas	Number of Projects in Receiving Areas	Interlocal Agreements	TDR Bank	Zoning	Comments
<b>New Jersey Pinelands, NJ</b>	1981	Pinelands preservation	49,962	5,802 severed/4,068 used	Yes (with 60 jurisdictions)	Yes, but not currently funded (Pinelands Development Credit Bank)	Within Pinelands management areas, PDC credits needed to increase density, when a variance is needed, and when needing a waiver from Pinelands regulations.	State legislation provides grant money (up to \$40,000) to perform economic feasibility analysis of proposed TDR programs. Price for a development right in 2006 was \$25,599.

Top National Programs	Year Started	Program Objective	Acres Preserved in Sending Areas	Number of Projects in Receiving Areas	Interlocal Agreements	TDR Bank	Zoning	Comments
<b>Palm Beach, FL</b>	1980	Agricultural lands, environmentally sensitive areas, and workforce housing	43,000 (but see far-right column)	435 sold in 2005	N/A	Yes (7,698 units in the bank, 2005)	N/A	\$100 million bond purchased 9,000 TDRs that are in the county TDR bank. This accounts for a significant portion of the acres protected. Price per TDR credit was \$81,000 in 2005.
<b>Pitkin County, CO</b>	1994	Preserve Sub-Alpine and Alpine environments	5,358 acres deed restricted through TDR	204 certificates issued/70 used in receiving sites	No (being considered with Aspen and Basalt)	No	TDR required in rural remote zones and visually constrained sites. TDR required to build houses greater than 5,750 square feet.	Current market price for a TDR credit is around \$300,000. Of the 70 credits used, 28 have been for new development and 42 have been for additional FAR.

Top National Programs	Year Started	Program Objective	Acres Preserved in Sending Areas	Number of Projects in Receiving Areas	Interlocal Agreements	TDR Bank	Zoning	Comments
<b>Tahoe Regional Planning Agency, NV</b>	1987	Environmental and water quality	2,200 mitigation projects	215 projects	Yes (South Lake Tahoe)	Yes (run by Tahoe Land Conservancy)	5 types of trading rights: (1) impervious surface coverage, (2) residential development, (3) residential allocation, (4) commercial floor area, and (5) tourist accommodation units.	25-35 transfers approved per year, influenced by stringent building restrictions.

## APPENDIX B – WASHINGTON STATE TDR PROGRAMS

Jurisdiction	Year	Objective	Acres Preserved in Sending Areas	Number of Projects in Receiving Areas	Current Interlocal agreements	TDR Bank	Comments
<b>Bainbridge Island</b>	1996	Agricultural lands	0	0	No	No (under consideration in 2008)	Undergoing review in 2006 and will continue to be adjusted with information from an open space plan and consideration of TDR bank in 2008.
<b>Black Diamond</b>	2003	Open space protection (wetlands, freshwater bodies, wildlife corridors, greenways, viewpoints, etc.)	1,600	N/A	No	Yes	A complex program that expanded uga and placed conservation easements on 1,600 acres of forestlands outside the city boundaries.
<b>Clallam County</b>	1998	Agricultural lands, critical areas, low-density open space	0	N/A	Yes (Sequim and Port Angeles)	No	They have yet to have completed a transaction.
<b>Everett</b>	1991	Historic preservation	20 lots created	N/A	No	No	Program limited to reasonable use exceptions, code includes provisions for a future changes to include resource lands.

Jurisdiction	Year	Objective	Acres Preserved in Sending Areas	Number of Projects in Receiving Areas	Current Interlocal agreements	TDR Bank	Comments
<b>Island County (Revoked)</b>	1984	Agricultural lands	88	N/A	N/A	N/A	Program was revoked due to lack of receiving sites/insufficient demand
<b>Issaquah</b>	2005	Critical areas	10	1 (1 additional TDR is held by Issaquah)	Yes (King County)	Yes	Interlocal agreement with King County allows for up to 75 TDRs to be transferred from Issaquah Creek watershed.
<b>King County</b>	1993	Rural resources and public benefit lands	91,500 (89,500 protected through the purchase of development rights that are banked for possible future use)	301 transactions	Yes (Issaquah)	Yes	Had an interlocal agreement with Seattle that has expired. The county is working to create additional interlocal agreements.
<b>Pierce County</b>	2008	Agricultural lands and open space	N/A (program starts 04/08)	N/A (program starts 04/08)	No	Yes	All upzones in unincorporated Pierce County will require TDRs.
<b>Redmond</b>	1995	Agricultural lands and critical areas (Northern Sammamish Valley)	415.55	13 projects using 559.35 TDRs	No	No	TDR credit allows additional square footage or reduction in parking or open space requirements. Average TDR price is \$24,000 as of

Jurisdiction	Year	Objective	Acres Preserved in Sending Areas	Number of Projects in Receiving Areas	Current Interlocal agreements	TDR Bank	Comments
							2007.
<b>Seattle</b>	1985	Affordable housing, historic preservation, and open space protection	883 acres of rural land protected (3 projects) and 833 units of low-income housing	4 projects completed using rural credits and 40 transactions for affordable housing, landmarks, and performing arts.	Yes	Yes	TDR receiving in the Denny triangle is no longer offered under current zoning.
<b>Snohomish County</b>	2004	Farmland, resource lands, and open space	72	14 TDRs were purchased by the county on a 72-acre parcel for later sale when the market is more established.	Yes (Arlington)	No (some funds may be available to purchase and transfer/hold rights)	Pilot project with the city of Arlington. Initial rights were bought by the county for \$42,857. Receiving area is unincorporated Snohomish County—potential for future annexation into Arlington.
<b>Thurston County</b>	1996	Agricultural lands	0	0	Yes (Lacey, Olympia, Tumwater)	No, but TDRs can be held by intermediates	County has been reviewing program to see what adjustments need to be made to

Jurisdiction	Year	Objective	Acres Preserved in Sending Areas	Number of Projects in Receiving Areas	Current Interlocal agreements	TDR Bank	Comments
							create a market for TDRs.
<b>Vancouver</b>	N/A	Historic preservation	N/A	N/A	N/A	N/A	Unable to confirm successful transfers.
<b>Whatcom County</b>	1999	Lake Whatcom and Birch Bay watersheds	N/A	52 TDRs transferred	Yes (Bellingham)	Authorized, but may not be funded	No current updates on program due to staffing changes in Whatcom county. Updates should be forthcoming in 2008.
<b>Mt. Vernon</b>	1999	Agricultural, wetlands, riparian, parks	35	3 sites under the same project and owner, with 70 TDRs transferred	N/A	No, but City manages documentation of payments	Program was developed to protect 93 acres of active agriculture land annexed in 1999; program was inactive until revision in 2005.

## APPENDIX C – SELECTED CASE STUDIES

For more case study data, see Rick Pruetz, *Beyond Givings and Takings*, and book updates at <http://www.beyondtakingsandgivings.com/updates.htm>.

### **Berthoud, Colorado**

**Population:** 4,839

**Type of Program:** Density transfer fee

**Summary:** Berthoud has a density transfer fee (DTF) system instead of a TDR program. The program focuses on protecting watersheds and agricultural lands. With development in the pipeline the city did not want to undertake the identifying of sending and receiving sites as in a traditional TDR program. Instead, they opted to create a density transfer fee, which allows development above base density if a fee is paid. Berthoud imposes this fee as a requirement of upzoning a parcel. The fee is \$3,000 per additional single-family unit and \$1,500 per multi-family residential unit. The developer pays the density transfer fee at the time of permit issuance. Open space is acquired with revenue from the fee. As of 2002, the program had preserved 180 acres. This program is successful in part because of its simplicity: It is less expensive to set up and administer than a TDR program.

### **Cambria, California**

**Population:** 6,232

**Type of Program:** Interjurisdictional/local

**Summary:** Cambria, a coastal community located in San Luis Obispo County, instituted a TDR program in 1985 with the purpose of preserving its small-town character, open space, and native Monterey Pine habitat. A local land trust, the San Luis Obispo Land Conservancy, has played an active role in the program – buying, holding, and selling development credits using a revolving fund initiated with a grant from the California Coastal Commission. As of 2005, the land trust had successfully retired 250 lots from antiquated subdivisions in the area and purchased more than 85,000 square feet of development credits. The resale of these credits has doubled the initial seed money, allowing the trust to be more flexible when opportunities arise to purchase additional credits. The program preserved important pine habitat in the Fern Canyon area and is helping to build a permanent greenbelt surrounding Cambria.

### **Issaquah, Washington**

**Population:** 11,212

**Type of Program:** Interjurisdictional/local

**Summary:** In 2005, Issaquah enacted a TDR program to protect critical areas such as aquifer recharge areas, stream corridors, and wetlands within the city. The program also authorizes transfers from land in the Issaquah Basin, which is outside city limits, based on an interlocal agreement between the city and King County. King County provides funding to help pay for infrastructure and amenities in Issaquah in exchange for the acceptance of increased development. The interlocal agreement allows up to 75 density rights from King County to be transferred into Issaquah. The program has successfully protected 10 acres of open space in its first year.

### **Livermore, California**

**Population:** 73,345

**Type of Program:** Interjurisdictional/local

**Summary:** The Livermore ordinance is designed to protect agriculture and open space in and adjacent to North Livermore. The program uses transferable development credits (TDC) to protect areas outside of the urban growth boundary. Three mechanisms exist for establishing receiving sites: (1) a new planned development, (2) a TDC combining zone in which different zoning and development classifications apply depending on the use of TDCs, and (3) a standard zone incorporating baseline densities and bonuses for using TDC credits. Livermore offers an in-lieu fee that can be paid instead of obtaining TDCs. This fee is then used to acquire development rights in North Livermore.

### **Montgomery County, Maryland**

**Population:** 932,131

**Type of Program:** Interjurisdictional/regional

**Summary:** Montgomery County, located north of Washington, D.C., operates one of the most successful TDR programs in the nation, having protected more than 51,000 acres of farmland within the county. The county has also protected 13,000 acres via a farmland preservation program. This TDR program has been successful because an aggressive transfer ratio provides a strong incentive to participate. The sending area was zoned at 1 unit per 25 acres in 1980, but allows up to five credits to be transferred per 25-acre parcel. This creates a 5 to 1 transfer ratio. Additionally, the program did not set out to protect farmland directly in the path of growth, but instead pursued more distant, attainable parcels with less economic pressure on them. The program is relatively simple and has low transaction costs, making participation straightforward. TDR credits have been selling for around \$42,000 each.

### **New Jersey Pinelands, New Jersey**

**Population:** N/A

**Type of Program:** Interjurisdictional/regional

**Summary:** In response to a congressional designation of the New Jersey Pinelands as the country's first national reserve, the State of New Jersey adopted a management plan to protect the one-million-acre area. This plan uses TDR to encourage landowners within the inner preservation area to sell "Pinelands Development Credits" (PDCs). The plan requires 23 jurisdictions to provide receiving areas for the PDCs from 60 jurisdictions in the Pinelands sending area. Sending site owners are encouraged to sell their PDCs both by environmental regulations, which make development difficult, and by a 4 to 1 transfer ratio, which quadruples the value of their development rights to receiving areas. The state assisted by providing seed money to begin a bank that works in conjunction with the private market. As of 2006, the program had permanently preserved over 49,962 acres of agricultural and environmentally sensitive lands. The average price per PDC was \$25,599 in 2006.

### **Redmond, Washington**

**Population:** 46,391

**Type of Program:** Internal city program

**Summary:** Redmond has a successful internal TDR program. To date they have protected approximately 415 acres in 13 transactions. The sending sites are within the city limits and focus

on agricultural lands, critical habitats, and recreation and historical resources. Receiving sites include the city center along with business and industrial parks. The city restricts the amount of development redirected to any one neighborhood to 35% of the available development rights. One TDR credit allows developers an additional 8,712 square feet of business or industrial floor space per credit. Alternatively, the developer may apply development credits towards a reduction in park and open space requirements. One TDR credit can also be used for height or parking bonuses.

## APPENDIX D – TDR GLOSSARY

### **Allocation rate**

An allocation rate is the number of development rights allocated per sending site; i.e., the number of rights that can potentially be sold from the site. The allocation rate may be greater than, less than, or equal to the amount of development allowed by zoning, depending on the goals of the TDR program and the need for incentives.

### **Appraisal**

An unbiased and systematic process of estimating the value of a property, whether it be market value, insurable value, or other defined value of a specific parcel or property.

### **Conservation easement**

A conservation easement is a legal agreement between a landowner and a land trust or government agency that permanently limits uses of the land in order to protect its conservation values. It allows the landowner to continue to own and use the land and to sell it or pass it on to heirs. A conservation easement is placed on a sending site at the time development rights are sold from the property. The conservation easement typically prohibits any further development of the property but allows resource uses, such as farming and forestry, to continue.

### **Development bonus**

A development bonus is a zoning-code provision that allows more intensive development in exchange for provision of specific public benefits, such as neighborhood amenities, affordable housing, or purchase of TDRs. Development bonuses often allow increased building height or density, but can also include flexibility in use restrictions or other development standards.

### **Development rights**

Land is thought of as real property and ownership extends to all aspects of the land, including minerals below the ground surface, air above, and all other resources located on the land. Owners of real property also own development rights, which allow development of that land in accordance with local land-use regulations. Development rights can be bought, sold, donated, or otherwise transferred. Restrictions on a property's development rights are usually recorded in a conservation easement.

### **Exchange rate**

The exchange rate is the relationship between the number of development rights allocated to a sending site (typically a specified number of single-family dwelling units) and the amount of development bonus available on a receiving site (which may be extra single-family units, multi-family units, commercial square footage, and/or flexibility in development standards). The term encompasses both simple transfers of dwelling units from one site to another and more complex conversions of development credits; it is therefore used in place of the term "transfer ratio" (see below).

### **Interlocal agreement**

An interlocal agreement is a legal contract between two or more local jurisdictions (cities and counties) that specifies the conditions under which development credits may be transferred between jurisdictions (typically from an unincorporated county into an incorporated city). Interlocal agreements must be endorsed by the legislative bodies of both jurisdictions.

### **Purchase of development rights**

Purchase of development rights (PDR) refers to the removal of development potential from a parcel. The development rights are purchased and then retired and a conservation easement is placed on the parcel. PDR programs are generally used to protect resource and farmlands.

### **Receiving areas**

Receiving areas are those sites eligible for development bonuses through the purchase of TDRs. The TDR program designates receiving areas, specifies the type and amount of bonus available on these sites, and details the process for approval of projects using the TDR bonus.

### **Sending areas**

Sending areas are designated areas where landowners may sell their development rights in exchange for placing conservation easements on their property. Sending areas are typically agricultural lands, forest areas, or environmentally sensitive sites.

### **Transfer ratio**

This term is used in many TDR programs to describe the numerical relationship between the amount of development potential forgone on sending sites, and the amount of additional development allowed on receiving sites. A 1 to 1 ratio means that the sending sites forgo the same number of houses per acre as are allowed on receiving sites. It implies a simple transfer of dwelling units from one area to another.

### **TDR bank**

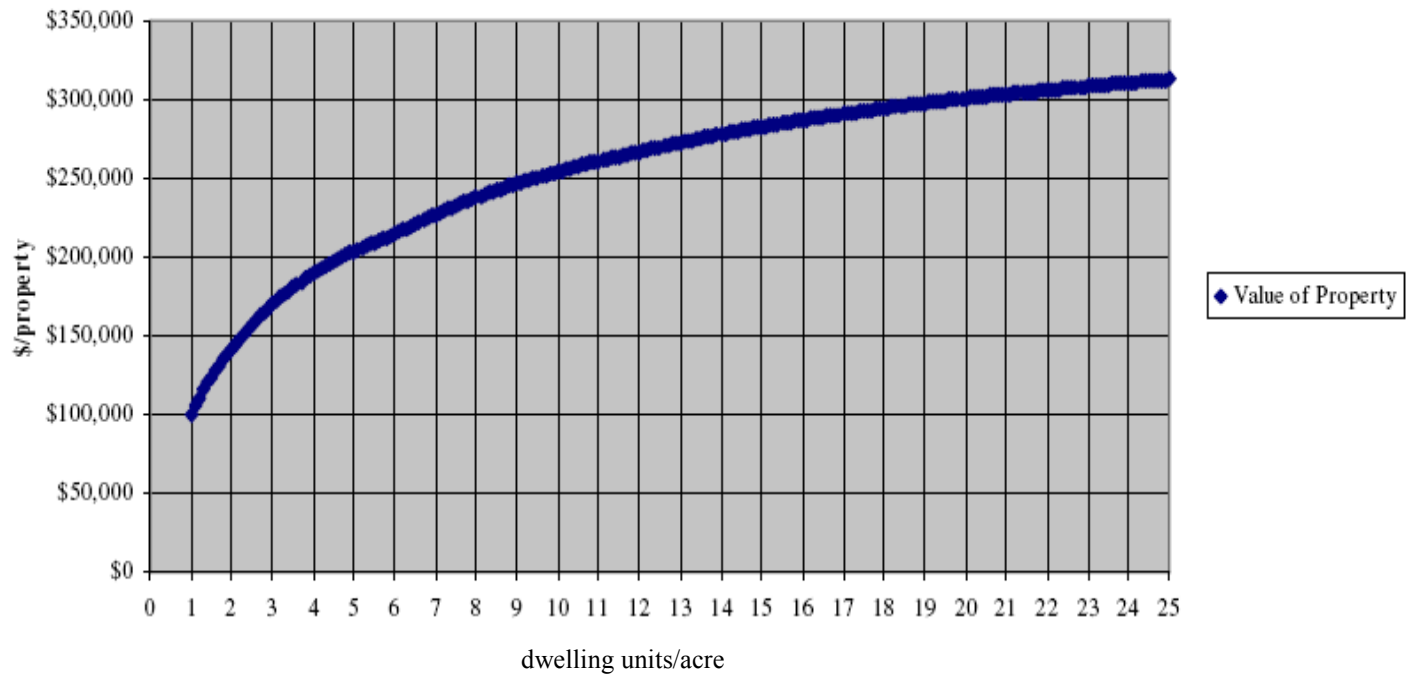
A TDR bank is an entity operated by a local jurisdiction, regional government, or private nonprofit organization for the purpose of buying, selling, and holding development rights, and/or facilitating private TDR transactions. By providing a single point of contact, a TDR bank can streamline the process for buyers and sellers of development rights.

### **Transaction types**

A TDR program can offer one or more transaction types, which are the various mechanisms available for buying and selling development rights. The simplest transaction type is a private transaction between the owner of a sending site and the developer of a receiving site, executed at the time a TDR development project is proposed. Other options include buying and selling development rights to/from a TDR bank or a private investment corporation, or participating in a conservation credit or purchase of development rights program run by the local city or county.

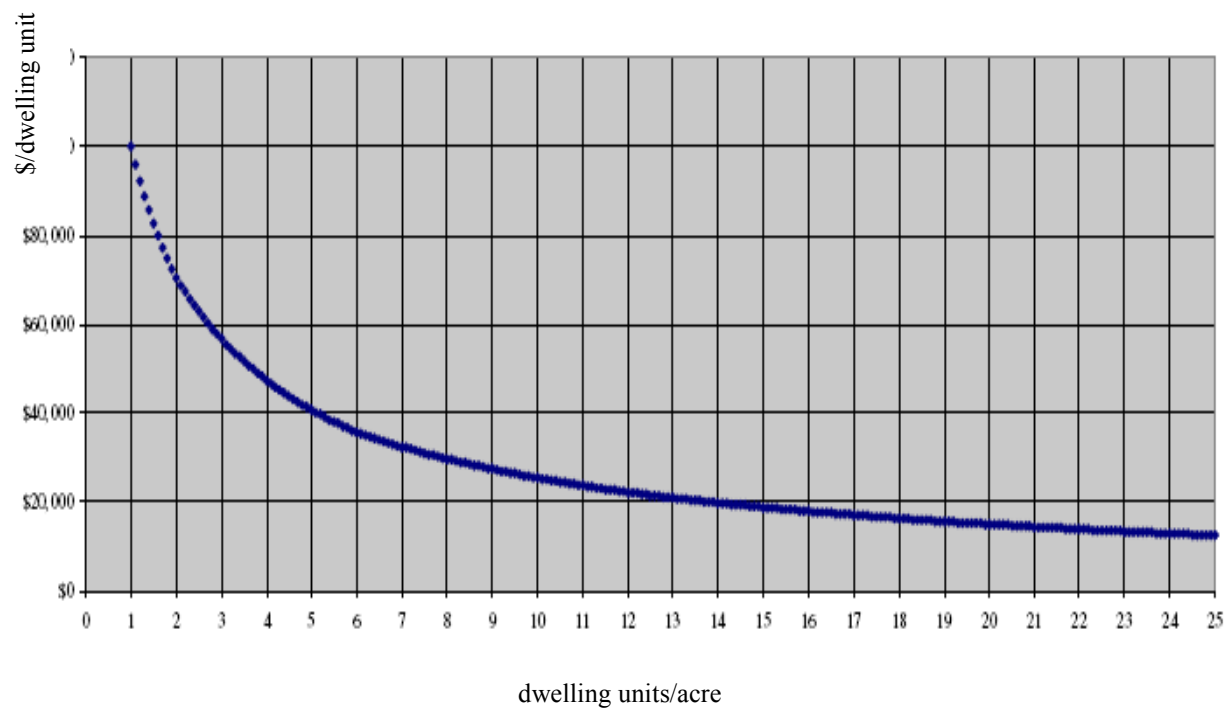
## Appendix E PIERCE COUNTY PROPERTY VALUES AND VALUE OF DEVELOPMENT RIGHTS

Graph 1: Property Values



Additional density means higher property values.

Graph 2: Value of Development Rights



At lower densities, each development right is worth more than at higher densities