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NORTH CAROLINA LAW REVIEW

Volume 56 | Number 1 Article 8

1-1-1978

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Dwight H. Merriam

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Recommended Citation

Dwight H. Merriam, *Making TDR Work*, 56 N.C. L. Rev. 77 (1978).
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MAKING TDR WORK

DWIGHT H. MERRIAM†

I. THE NEED TO PRESERVE—AN INTRODUCTION

Irreplaceable cultural resources of this country's built environment are being sacrificed in favor of more intensive urban development. Open space and farmland continue to be converted to low density development. Gone from Chicago's cityscape are the Old Stock Exchange building and Garrick Theater. New York City has lost the famed Pennsylvania Theater. Over one-third of the 16,000 structures listed in the Historic American Buildings Survey, initiated by the federal government in 1933, have been destroyed.[1] Since World War II an average of 1.4 million acres of farmland, an area larger than Delaware, has been converted by development each year.[2] In some areas, recent rates of conversion are extraordinary. For example, twenty-one square miles per year are developed in the San Francisco Bay

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† Third Year Law Student, Yale University, B.A. 1968, University of Massachusetts at Amherst; M.R.P. 1973, University of North Carolina. This article received Yale Law School's Ivan Meitus Prize as the outstanding city planning work of the 1976-1977 academic year.

1. J. COSTONIS, SPACE ADRIFT 4 (1974). For a description of problems in historical preservation and accounts of specific successes and failures, see J. BARNETT, URBAN DESIGN AS PUBLIC POLICY 70-83 (1974); Gilbert, *Saving Landmarks*, 22 HIST. PRESERVATION 13 (1970); M. McElroy, A Preservation Plan for Honolulu's Financial District Landmarks (Sept. 1974) (unpublished paper, University of Hawaii Dep't of Urban and Regional Planning) (copy on file with author).

2. *Suddenly, An Alarm over Vanishing Farms*, U.S. NEWS & WORLD REP., Sept. 15, 1975, at 67. For additional comment on the conservation of farmland, see BUREAU OF COMPREHENSIVE PLANNING, DIVISION OF STATE PLANNING, FLORIDA DEP'T OF ADMINISTRATION, THE GREEN PLAN (2d ed. 1975); M. CLAWSON, SUBURBAN LAND CONVERSION IN THE UNITED STATES (1971); COMMITTEE ON THE PRESERVATION OF AGRICULTURAL LAND, MARYLAND DEP'T OF AGRICULTURE, FINAL REPORT (1974); GOVERNOR'S TASK FORCE FOR THE PRESERVATION OF AGRICULTURAL LAND, FINAL REPORT (1974) (Connecticut); COOPERATIVE EXTENSION SERVICE, COOK COLLEGE, RUTGERS, HIGHLIGHTS OF REPORT OF THE BLUEPRINT COMMISSION ON THE FUTURE OF NEW JERSEY AGRICULTURE (1973), *summarized in* Sullivan, *Panel Offers a Plan to Save Farmland*, N.Y. Times, July 15, 1973, at 57, col. 1; THE USE OF LAND (W. Reilly ed. 1973); *Saving the Farms*, TIME, Apr. 21, 1975, at 48. Total conversion of cropland to other uses is 2 1/2 million acres per year, but this is offset in part by 1 1/4 million acres of other land brought into use each year, typically after improvement. R. SNYDER, AGRICULTURAL LAND USE POLICY 5 (University of Minnesota Agricultural Extension Service Report No. P76-11, 1976) (citing ECONOMIC RESEARCH SERVICE, U.S. DEP'T OF AGRICULTURE, MISC. PUB. NO. 1230, OUR LAND AND WATER RESOURCES, CURRENT AND PROSPECTIVE SUPPLIES AND USES (1974)). The relative importance of "extensive" land uses as compared to "intensive" land uses such as urban development is evidenced by the fact that grazing, forestry and cropland are 34, 32 and 23% respectively of the land area in the 48 contiguous states. Madden, *Land As a Natural Resource*, in THE GOOD EARTH OF AMERICA 6 (C. Harriss ed. 1974).

area,[3] and of the 90,000 acres of agricultural land in Suffolk County, Long Island, in 1950 only 50,000 acres remain undeveloped.[4]

The concern over these changes in land use reflects a recognition that this process of conversion is largely irreversible. In addition, the desire for preservation implies that Americans are beginning to understand that the economic basis for the intensification in land use does not fully comprehend the public good. The success of the preservation programs, however, has been substantially limited to those efforts in which property owners have actively and aggressively sought self-restraint and protection.[5] As this introduction indicates, existing strategies for preservation have proved inadequate in other circumstances. The transfer of development rights (TDR) is a new development guidance technique that may be able to help preservationists in their efforts to abate the loss of urban amenities and the conversion of open space.

A. *The Inadequacy of Accepted Strategies for Preservation*

At least four accepted development guidance instruments have been used in preservation plans: conventional zoning, density zoning, tax relief and direct purchase.

1. Conventional Zoning

Historic districts[6] are now a common and accepted means of increasing control over those changes in appearance that tend to reduce the value of

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3. LAND USE, OPEN SPACE AND THE GOVERNMENT PROCESS 3 (E. Smith & D. Riggs eds. 1974). Between 1945 and 1976 California farmland was reduced from 16 to 12 million acres, prompting preservation legislation. *Fighting for the Farmlands*, L.A. Times, Aug. 26, 1976, § 2, at 6, col. 1; Goff, *Assembly OK's Bill to Preserve Farm Land*, L.A. Times, Jan. 30, 1976, § 2, at 1, col. 5. The Senate Finance Committee stopped the bill. *Coast Bill to Save Farms Defeated*, N.Y. Times, Aug. 29, 1976, at 47, col. 2; Gillam, *Senate Kills Bill to Protect Farmland*, L.A. Times, Aug. 24, 1976, § 1, at 3, col. 5.

4. Gupte, *State Pushing to Save Open Spaces; Zoning, Tax Cuts and Development Rights Used*, N.Y. Times, May 25, 1975, at 41, col. 1. New Jersey, which is the third leading producer of fruits and vegetables, lost 650,000 acres of farmland during the period 1950-1975. In the last 20 years Connecticut's farmland has been reduced from 1.6 million acres to less than .5 million acres. Gupte, *Land Hunger Thins Region's Farms*, N.Y. Times, Feb. 8, 1976, § 8, col. 1. Reportedly, 1000 farms a week nationally are going out of business. *Dirtying the Soil*, N.Y. Times, May 29, 1974, at 41, col. 2. And four million acres a year are converted to housing subdivisions. King, *Farm Land Prices Soar; Some Up 30% in 2 Years*, N.Y. Times, June 9, 1974, at 1, col. 2.

5. The Vieux Carre district of New Orleans is one area where restrictions have been actively sought. The Louisiana constitution even provides for the district's protection. LA. CONST. art. 6, § 17; *see* J. COSTONIS, *supra* note 1, at 18. For further evidence of New Orleans' efforts to protect and improve its urban resources, see Gregson, *New Orleans Creates CBD Taxing District*, 6 PRAC. PLANNER, Dec. 1976, at 43. For a discussion of the successful open space plan in Boulder, Colorado, see note 216 *infra*.

6. Historic districts are not unlike the conventional residential, commercial and industrial zones typically found in community land use zoning. In historic districts or zones, property

nearby properties of historical significance.[7] The Vieux Carre district in New Orleans exemplifies successful utilization of historical district zoning.[8]

Imposition of exclusive agricultural zones has precipitated extensive litigation and, although no bright line can be drawn, zones of low density may be judicially acceptable—especially when it can be shown that development poses a substantial risk to the environment.[9] Timed development and moratoria, techniques that planners discussed in hushed voices only a few years ago, have found acceptance in some courts.[10] All these zoning approaches are characteristically negative and reactive. At best, as in the case of historical districts, they provide a more stable environment for planning and implementing independent improvements. At worst, they are instrumentalities of purposeful exclusion.[11]

2. Density Zoning

Flexible zoning techniques including clustering, planned unit development (PUD), special districting, impact zoning and mixed use districting are accepted alternatives intended to alleviate the rigidity of Euclidean lot zoning.[12] More recently there have been proposals to develop inclusionary zoning schemes reflecting the increasing concern with "fair share" alloca-

owners may be required to request permission from a local historic district commission before they make external changes to their buildings. These are often "floating zones"; that is, the district regulation is applied to a given area only after statutory criteria are met. For an example of enabling legislation, see CONN. GEN. STAT. §§ 7-147 to -147*l* (1972 & Cum. Supp. 1977). For a general discussion of historic districts and suggested zoning provisions, see F. BAIR, PLANNING CITIES 358, 436-51 (1970).

7. *See* J. COSTONIS, *supra* note 1, at 18-19.

8. *See* note 5 *supra*.

9. *See* Steel Hill Dev., Inc. v. Town of Sanbornton, 469 F.2d 956 (1st Cir. 1972) (upheld six acre minimum lot size in forest conservation district); Gisler v. County of Madera, 38 Cal. App. 3d 303, 112 Cal. Rptr. 919 (1974) (upheld agricultural district with 18 acre minimum lot size); Turnpike Realty Co. v. Town of Dedham, 362 Mass. 221, 284 N.E.2d 891 (1972), *cert. denied*, 409 U.S. 1108 (1973) (upheld floodplain zone provisions that prohibited most construction). For a detailed discussion of an attempt at area-wide, low-density zoning, see Savage & Sierchia, *The Adirondack Park Agency Act: A Regional Land Use Plan Confronts "The Taking Issue,"* 40 ALB. L. REV. 447 (1976).

10. *See, e.g.*, Construction Indus. Ass'n v. City of Petaluma, 522 F.2d 897 (9th Cir. 1975) (held controlled growth ordinance constitutional), *noted in* 54 N.C.L. REV. 266 (1976); Golden v. Planning Bd., 30 N.Y.2d 359, 285 N.E.2d 291, 334 N.Y.S.2d 138 (1972) (upheld development timing). For an overview of the problems presented by growth controls, see Hughes, *Dilemmas of Suburbanization and Growth Controls*, 422 ANNALS, Nov. 1975, at 61.

11. A comprehensive collection of materials on problems of exclusionary land use is to be found in 1 MANAGEMENT AND CONTROL OF GROWTH 439-64 (R. Scott ed. 1975).

12. *See* Roberts & Bush, *Managed Growth Overview and Analysis*, 19 ENVT'L COM., Mar. 1975, at 1. The term "Euclidean" refers to the lot-by-lot, comprehensive land use zoning validated by the Supreme Court in the landmark case of Village of Euclid v. Ambler Realty Co., 272 U.S. 365 (1926). An example of the use of the term is to be found in C. BERGER, LAND OWNERSHIP AND USE § 14.2 (2d ed. 1975). The term has taken on a somewhat pejorative connotation and is typically used in a context where lot zoning is seen as restrictive, rigid and negatory.

tions of housing for people of varied socioeconomic classes, life styles and life cycle stages.[13] These flexible techniques, working within the proven structure of existing zoning ordinances, have provided planners and developers with the leeway necessary for more effective site design, but have generally failed to change the monistic socioeconomic and racial structure of developing communities.[14]

3. Tax Relief

Various tax strategies attempt to alleviate the economic pressure to convert historical buildings and open spaces to more intensive uses. The Tax Reform Act of 1976 includes provisions for rapid amortization of the costs of rehabilitating historic buildings[15] and charitable contribution deductions for the conveyance of partial interests in land.[16] Differential taxation of open space, which includes preferential assessment, deferred taxation and restrictive agreements, is provided under the statutes of forty-two states.[17] A recent report by the Council on Environmental Quality, however, concludes that differential taxing can do no more than delay conversion; moreover, it is an inefficient holding action because of its high expense.[18]

4. Direct Purchase

Without question, public acquisition of a fee simple interest is an effective preservation technique.[19] Though authorized in a number of states, its use is limited because of several obstacles to the widespread public purchase of land. Chief among them is a lack of financial resources.[20]

13. Davidoff, *Opening the Suburbs: Toward Inclusionary Land Use Controls*, 22 SYRACUSE L. REV. 509, 523, 528-31 (1971).

14. In one study of a planned unit development, researchers found that "[t]he myth of a variety of income groups quickly disappeared. The differential in family incomes required for this group of townhouses was almost nil . . . ." R. BURCHELL & J. HUGHES, PLANNED UNIT DEVELOPMENT 117 (1972).

15. I.R.C. § 191. *See also A Tax Break for Cities*, N.Y. Times, Oct. 27, 1976, at 40, col. 2.

16. I.R.C. § 170(f)(3). The effect of these provisions is not yet clear, but some unanticipated consequences, including an effort to have the 18-year-old Seagram's Building in New York designated an historical landmark, have occurred. *See Newer Landmarks*, N.Y. Times, Nov. 13, 1976, at 22, col. 1.

17. COUNCIL ON ENVIRONMENTAL QUALITY, UNTAXING OPEN SPACE 119 (1976) [hereinafter cited as UNTAXING OPEN SPACE].

18. *Id.* at 118.

19. For thoughtful discussions on the efficacy of public land ownership as a means of controlling development, see Hall, *A Review of Policy Alternatives*, in PUBLIC LAND OWNERSHIP 46-57 (N. Roberts ed. 1976); Hamilton, *Critical Perspectives on Public Land Ownership*, in PUBLIC LAND OWNERSHIP, *supra* at 57-62.

20. Rose, *A Proposal for the Separation and Marketability of Development Rights as a Technique to Preserve Open Space*, 2 REAL EST. L.J. 635, 639 (1974), *excerpts reprinted in* TRANSFER OF DEVELOPMENT RIGHTS 186 (J. Rose ed. 1975) [hereinafter cited as TDR].

Thus, the accepted strategies of preservation are inadequate not only because they may include undesirable effects, such as exclusion of low income housing or economic inefficiency, but also because they fail to prevent conversion of valued amenities including historic buildings, farmland and open space. The improvement of existing development guidance instruments or the application of new techniques is necessary to effect change in the economic calculus that presently provides incentives for intensifying land use in the built environment and at the developing fringe.

B. Transferable Development Rights—An Overview

Within the last few years TDR has been developed as a technique with the potential to augment existing controls over the conversion of open space and historic structures to more intensive and less desired uses. TDR's promise is a matter of controversy. It lies somewhere between the polar views of Ada Louise Huxtable, who called one program "a brilliant, practical, progressive extension of existing zoning tools,"[21] and one student commentator, who argued that another TDR program was not only unconstitutional, but unreliable as a technique for preserving urban amenities.[22]

While planners will surely confound TDR by unnecessary elaboration, the technique is disarmingly simple. TDR recognizes that a specific parcel of land represents two additive value elements: the existing use value and the development potential or community value. For example, a 100 acre farm with a market value of $100,000 consists of $50,000 of existing use value and $50,000 of development value attributable to its potential conversion to a more intensive use such as a residential subdivision. Similarly, a landmark building or private urban park may carry a market value exceeding its present use value if it fails to exhaust the existing or anticipated development potential. While accepted density zoning techniques such as clustering and PUD allow a developer to concentrate the total parcel density in one or more nodes of a single site,[23] TDR goes an important step further. It permits all or part of the density potential of one tract of land to be

21. Huxtable, *A Plan for Chicago*, N.Y. Times, Apr. 15, 1973, § D, at 28, col. 2, 5. An editorial discussing the Tudor Parks use of TDR, *see* text accompanying notes 103-16 *infra*, said

> The alternative solutions suggested by the planners are all aimed at the preservation of the parks, in whole or in part, through a set of proposals to give Harry Helmsley, owner of Tudor City, his cake and allow the city to eat it, too.
>
> . . . .
>
> . . . [It is] a responsible, sensitive, progressive and creative answer within the framework of law, economic reality and the growing awareness of the environment.

The Tudor City Parks, N.Y. Times, Oct. 4, 1972, at 46, col. 2. As it turned out, TDR in this case was more like Marie Antoinette's "Let them eat cake!"

22. Note, *Development Rights Transfer in New York City*, 82 YALE L.J. 338, 370 (1972).

23. For a general introduction to clustering and PUD, see PRINCIPLES AND PRACTICES OF URBAN PLANNING 431, 480-83 (W. Goodman & E. Freund eds. 1968).

transferred to a noncontiguous parcel and even to land owned by someone else. Variants of TDR include schemes in which development rights are held in certificate form by speculators or publicly purchased and deposited in development rights banks for subsequent sale.[24] Also, governmental units or private entities, such as conservation groups, might purchase development rights with the intention of eliminating forever the further development of certain parcels. Thus, with TDR the development rights continue in existence in use on another parcel. When there is a purchase of development rights (PDR) with no intention of using the development potential on another parcel, however, the development rights are extinguished.[25]

The parcel from which the rights are conveyed is typically either in an area called a preservation zone[26] or a piece of land that stands alone and supports a designated historical structure. The parcel that receives the development rights is in a prelimited transfer zone. The owner of a receiving parcel, who purchases development rights from the owner of land in the preservation zone, will be permitted to develop his land beyond the bulk or density normally allowed under the applicable zoning regulations.[27]

Presumably, TDR assists in the resolution of what planners call the windfall-wipeout problem.[28] Public planning and development have often provided windfall profits for landowners with property either proximate to public improvements or located in areas that are assigned new zoning classifications permitting more intensive development.[29] Wipeouts occur when public decisionmaking reduces the development potential or utility of land.[30] TDR has the potential for closing the windfall-wipeout loop by (1)

24. J. COSTONIS, *supra* note 1, at 40; SEDWAY/COOKE, CENTRAL SONOMA COUNTY—DENSITY TRANSFER PROJECT 67-68 (1976).

25. TDR and PDR are only occasionally separated for purposes of discussion in this paper because they are more similar than different in most respects. And as shall be seen in the proposal for a "workable plan," *see* text accompanying notes 315-41 *infra*, an admixture of TDR and PDR may be desirable.

26. The term "preservation zone" implies that the TDR program contemplates the preservation of only the most important areas of farmland and open space or only those historic structures of substantial importance. See text accompanying notes 153-58 *infra* for a discussion regarding the difficulties of using TDR as a comprehensive land planning technique.

27. The selection of suitable transfer zones is a critical planning problem because the transfer of development potential necessarily results in an increase in density at the receiving site. *See* Note, *supra* note 22.

28. *See* Cutler, *The Dilemmas of Modern Zoning*, 27 LAND USE L. & ZONING DIG., Apr. 1975, at 6, 9; Hagman, *A New Deal: Trading Windfalls for Wipeouts*, 40 PLAN., Sept. 1974, at 9; Hagman, *Windfalls and Wipeouts*, in THE GOOD EARTH OF AMERICA, *supra* note 2, at 109, *excerpts reprinted in* TDR, *supra* note 20, at 265.

29. The paradigmatic case of such windfall profit is the siting of a highway interchange on rural land of marginal agricultural productivity.

30. Military base closings, for example, depress local property values. More commonly, downzoning, that is, reclassification of zone districts to less intensive uses, causes wipeouts. Designation of restrictive flood plain zones, for example, reduces development potential and

providing a means of compensating landowners whose property is restricted (they may sell their development rights) and (2) making landowners in more intensively developed transfer zones pay for the right to develop beyond existing densities (they must purchase development rights from preservation zone landowners).

Both the volume of literature on TDR and actual applications of the technique have increased markedly over the last five years. The strong impetus for TDR use developed first in New York City in the late 1960's[31] as part of a plan to avoid the loss of such landmarks as the Grand Central Terminal.[32] The "New York Plan" has proved problematical for numerous reasons. The foremost of these was the failure of the City Planning Commission to recognize certain critical economic dynamics and its ad hoc approach to TDR.[33]

An alternative to the New York Plan for historical preservation is the "Chicago Plan," promoted by Professor Costonis but never put into effect.[34] The Chicago Plan overcame many difficulties of the New York City provisions, but confounded what should have been a simple scheme by adding a development rights bank and making participation by preservation zone landowners mandatory.[35] To date the New York Plan has proved ineffective[36] and the Chicago Plan has been a political, if not theoretical, failure.[37]

In a few instances TDR has been proposed as a complete substitute for Euclidean lot zoning,[38] but no such programs have been enacted. The lack of interest in TDR as a complete substitute for zoning acknowledges the complexity of any attempt to design development rights that can be applied to more than one type of land use. Moreover, the use of TDR as a zoning

"wipes out" that part of an affected parcel's market value reflecting anticipated physical improvement.

31. The first mention of a technique that resembles TDR is to be found in Lloyd, *Transferable Density in Connection With Density Zoning* in NEW APPROACHES TO RESIDENTIAL LAND DEVELOPMENT 136 (Urban Land Institute Technical Bull. No. 40, 1961): "A device capable of doing all of these things would be an instrument by which density can be transferred from one tract to another for a monetary consideration." *Id.* Lloyd's suggestion is the apparent progeny of William Whyte's proposal regarding the use of conservation easements. *See* W. WHYTE, SECURING OPEN SPACE FOR URBAN AMERICA: CONSERVATION EASEMENTS (Urban Land Institute Technical Bull. No. 36, 1959).

32. Marcus, *The New York City Experience*, in TRANSFERABLE DEVELOPMENT RIGHTS 3 (Planning Advisory Service Report No. 304, 1975) [hereinafter cited as PAS].

33. *See* text accompanying notes 123-28 *infra*.

34. *See* text accompanying notes 133-52 *infra*.

35. J. COSTONIS, *supra* note 1, at 28-64; *see* text accompanying notes 133-41 *infra*.

36. *See* text accompanying notes 76-132 *infra*.

37. *See* note 145 *infra*.

38. *See* text accompanying notes 153-58 *infra*.

substitute would require provisions for increasing the density of development in the community as a whole after development rights are distributed, since few localities expect no growth over time.

TDR and PDR are apparently most acceptable and most easily utilized to preserve farmland and open space and to protect sensitive environmental areas.[39] Numerous communities, counties and states throughout the country have TDR or variant programs aimed at open space preservation in effect[40] and in a few instances sales of development rights have been completed.[41] Numerous other state and local jurisdictions are considering TDR proposals to preserve farmland and open space.[42] It is not clear why this use of TDR is readily accepted, though significant factors may include the present popularity of open space preservation, the relative simplicity of the provisions and the strong economic incentives provided under some plans.

This article reviews the TDR experience by analyzing legal antecedents and analogues in this country and Great Britain, assessing existing TDR programs and proposals, evaluating the essential role of economics and discussing the problems presented by the relationship of TDR to the continuing tension between valid police power regulation and the taking issue. The purpose of this review is to identify the causes of success and failure in TDR programs and to suggest modifications to present approaches that will increase the likelihood that TDR will work. Making TDR work is no Lilliputian task. But TDR can work if planners and lawyers are willing to accept it as a preservation technique designed to supplement, not supplant, existing development guidance instruments. It can work if careful planning precedes adoption of TDR, if proponents of TDR take into account the realities of local politics and if TDR schemes can be designed to be not only responsive to economic determinants but also flexible enough to permit preservation under conditions of market failure. While it is clear that ample legal precedent exists for the use of TDR and that this planning technique can be made to work under some conditions, there are not any ready answers for the difficulties presented by local politics and the complexities of land economics. All this article can do is mark the starting line.

39. *See* text accompanying notes 159-233 *infra*.
40. *Id.*
41. *See* text accompanying notes 217-33 *infra*.
42. *See, e.g.*, note 216 *infra*.

II. LEGAL ANTECEDENTS OF TDR

A. *In the United States*

1. Precedents Outside of Real Property Law

One concern registered in the TDR literature is the legality of the technique and how it relates to possible precedents.[43] While TDR is sufficiently novel to spur development of specific state enabling legislation, there are historical and contemporary legal powers and controls that suggest that TDR is an evolutionary, not revolutionary, concept in land use regulation. Professor Carmichael identifies precedents in early transportation systems development, the Milldam Acts, major drainage and irrigation projects, and gas and oil production regulations.[44] The colonies and successor states authorized private corporations to plan, construct and maintain private toll roads, canals and railroads.[45] The attendant authorization of private eminent domain power established the concept that development rights could pass from one private owner to another when justified by public need.[46]

The Milldam Acts enabled downstream owners to construct dams and harness water power for gristmill operations so long as upstream owners were compensated for loss of their rights to develop flooded lands.[47] In upholding these statutes, the courts characterized them not as invoking eminent domain, but as police power regulations that sought to adjust correlative riparian rights in the furtherance of the public welfare.[48] Thus, it became unnecessary to demonstrate public use in every transfer of development rights.

The development of drainage and irrigation systems during the nineteenth century was effected by private enterprise under statutes that enabled a given percentage of qualifying owners in proposed districts to undertake projects and assess all owners in proportion to benefits received.[49] Significantly, these districts sought to develop common resources while leaving the ownership and use of individual parcels of land in the original owners.

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43. Carmichael, *Legal Precedents for Adoption of a TDR System: Colorado*, in PAS, *supra* note 32, at 30; Carmichael, *Transferable Development Rights as a Basis for Land Use Control*, 2 FLA. ST. U.L. REV. 35 (1974) [hereinafter cited as Carmichael, *TDR*], *excerpts reprinted in* TDR, *supra* note 20, at 27.

44. Carmichael, *TDR*, *supra* note 43, at 53-98.

45. *See, e.g.*, Callender v. Marsh, 18 Mass. 418, 428, 1 Pick 425, 435 (1823).

46. Carmichael, *TDR*, *supra* note 43, at 53-99.

47. For a discussion of these acts, see, *e.g.*, Head v. Amoskeag Mfg. Co., 113 U.S. 9 (1885).

48. Carmichael, *TDR*, *supra* note 43, at 64.

49. For a discussion of these statutes, see, *e.g.*, Lake Shore & M.S. Ry. v. Clough, 242 U.S. 375 (1917).

A sharper and more contemporary precedent is found in gas and oil regulations that provide for pooling and unitization. Permissive and compulsory pooling controls the siting of wells and rate of extraction to optimize recovery.[50] Production profits are prorated,[51] thereby protecting correlative rights but expressly demonstrating a preference for common over private use. Unitization involves the operation of an entire oil or gas reservoir without regard to patterns of surface ownership.[52] It is often the only feasible means of development when a single owner would not have the economic resources to undertake complex and expensive operations such as reinjection. The doctrinal analogy to TDR is that the development of a common pool of gas and oil resources results in a loss of development potential for some owners in order that the community of owners might minimize waste. Similarly, TDR redistributes development potential to prevent wasting the publicly valued resources of landmarks, open spaces and farmlands.

An even closer counterpart of TDR is the conveyance of agricultural acreage allotments from one private owner to another.[53] Under the Agricultural Adjustment Act of 1938,[54] annual allotments are assigned to farmers by acreage in order to limit the production of many commodities, including cotton, rice, peanuts and tobacco. Recently, authority has been granted permitting the transfer of annual allotments between private parties by sale or lease subject to the approval of the county committees of the Agricultural Stabilization and Conservation Service.[55] As in TDR, the transfer of the allotment shifts development potential from one parcel to another. The landowner who conveys his allotment cannot bring his land into production for that crop and receives in return a money payment for the right to grow the crop from another private party.

2. Real Property Precedents

Clustering, planned unit development (PUD), special districting, sale of air rights and transferable development credits (TDC) are close analogues of TDR.[56] Cluster subdivisions, which are typically processed as special

50. For a more complete explanation of unitization and pooling, see Carmichael, *TDR*, *supra* note 43, at 85-89.

51. *Id.* at 86-87.

52. "Thus it will be seen that unitization is a conservation measure which benefits both lessor and lessee and tends to prevent waste of a natural resource." Phillips Petroleum Co. v. Peterson, 218 F.2d 926, 933 (10th Cir. 1954), *cert. denied*, 349 U.S. 947 (1955).

53. SEDWAY/COOKE, *supra* note 24, at 24.

54. 7 U.S.C. §§ 1281-1393 (1970 & Supp. V 1975).

55. *Id.* § 1344(b) (Supp. V 1975); *see* SEDWAY/COOKE, *supra* note 24, at 24.

56. For a general description of these techniques, see J. BARNETT, URBAN DESIGN AS PUBLIC POLICY 30-44 (1974) (special districting); FRONTIERS OF PLANNED UNIT DEVELOPMENT 62-74 (R. Burchell ed. 1973) (planned unit development); PRINCIPLES AND PRACTICES OF URBAN

exceptions under local zoning regulations,[57] concentrate a parcel's residential density in nodes or clusters. They thereby improve site design and increase usable open space while decreasing the cost of utility services and roadway access.

PUD is another density transfer technique. It differs from clustering in that its provisions typically include an opportunity for a variety of housing types and a mixture of land uses including commercial and sometimes industrial activities.[58] Special development districts (SDDs) are similar to PUDs though they offer greater incentives, provide increased public control and are more often found in high density urban areas.[59]

For over sixty years courts have recognized a landowner's right to sell or lease air rights over his parcel to another party who desires to develop, or prevent development of, the air space.[60] Like TDR, the conveyance of air rights recognizes that a parcel's value consists of its present use value and its development potential.

A variant of TDR called transfer of development credits (TDC) has been added to the zoning ordinances of two New Jersey townships.[61] TDC is akin to conventional clustering except that the "parcel" covered by the plan need not be a contiguous unit of land.[62] For example, a developer could buy a farm at the edge of town and a parcel in the center and then apply for permission under TDC to place the entire density on the central area parcel. The farm, stripped of its potential for development, could then be leased back or reconveyed in fee simple to a farmer and kept in agricultural production.

PLANNING 478, 480 (W. Goodman ed. 1968) (clustering); *Hillsborough Adopts Transfer of Development Credits Ordinance*, 2 LOCAL PLANNER, Oct. 1975, at 1 (transferable development credits); Morris, *"Zoning Imagination"—Dimensional Zoning*, 46 ST. JOHN'S L. REV. 679 (1972); Pedowitz, *Transfer of Air Rights and Development Rights*, 9 REAL PROP., PROB. & TR. J. 183 (1974) (sale of air rights).

57. *See* PRINCIPLES AND PRACTICES OF URBAN PLANNING, *supra* note 56, at 480.

58. *See* FRONTIERS OF PLANNED UNIT DEVELOPMENT, *supra* note 56, at 62. Laymen and many planners are imprecise in their terminology. Often the term PUD is mistakenly used to identify a strictly residential development that consists of a variety of housing types. Such developments are more correctly called planned residential developments (PRDs) to distinguish them from true PUDs.

59. *See* J. BARNETT, *supra* note 56; J. COSTONIS, *supra* note 1, at 28-30.

60. Some of the earliest air rights cases include R.M. Cobban Realty Co. v. Donlan, 51 Mont. 58, 66, 149 P. 484, 487 (1915) (upholding conveyance of growing timber and noting that "the right of an owner to carve out of his property as many estates or interests (perpendicular or horizontal, perpetual or limited) as it may be able to sustain cannot be open to doubt . . . ."), Pearson v. Matheson, 102 S.C. 377, 86 S.E. 1063 (1915) (upholding conveyance of air rights to the second floor area above a lot), and Taft v. Washington Mut. Savings Bank, 127 Wash. 503, 221 P. 604 (1923) (upholding conveyance by city of Seattle of air rights over an alley to a bank). The right to condemn air rights has been established by the "airport" cases. *E.g.*, United States v. Causby, 328 U.S. 256 (1946).

61. *Hillsborough Adopts Transfer of Development Credits Ordinance, supra* note 56, at 1.

62. *Id.*

Clustering, PUD, SDD, air rights and TDC are thus real property analogues of TDR in that they are density transfer techniques designed to improve the utilization of space and to increase flexibility in the site planning process. They differ from TDR in two respects. None of these other planning techniques permits the shifting of development rights from one parcel to another between private owners and none requires the execution of an agreement to restrict future developments.[63]

B. The British Experience

It is often said that a predecessor of TDR is to be found in the British development rights experience, particularly in the Town and Country Planning Act of 1947[64] which nationalized development rights. A national system for town planning was created in the first planning statute in 1909[65] and reflected an early recognition of the need for public intervention in the private land market to effect a more orderly pattern of physical development.

The 1932 Act was the first to consider the possibility of recapturing windfall increases in land value resulting from government action. It did so by enabling authorities either to recover up to seventy-five percent of such increases or to offset claims for compensation by the amount of the "betterment"—the nonperjorative term used by the British to denote windfall profit.[66] The provisions were little used because of their complexity. Moreover, they led local authorities to allow financial considerations to dominate the local land planning process.[67]

The Town and Country Planning Act of 1947[68] was intended to overcome the problems of the concept of betterment. It repealed all former

63. For an example of a system permitting the transfer of development rights combined with restrictive covenants limiting the use of the land, see text accompanying notes 165-67 *infra*.

64. Town and Country Planning Act, 1947, 10 & 11 Geo. 6, c. 51. Much has been written about the British experience in attempting to guide growth through the control of development rights. *See* W. ASHWORTH, THE GENESIS OF MODERN BRITISH TOWN PLANNING (1954); J. CLARKE, PLANNING LAW (1955); M. CLAWSON & P. HALL, PLANNING AND URBAN GROWTH (1973); D. HEAP, HEAP ON THE TOWN AND COUNTRY PLANNING ACT, 1954 (1955); D. HEAP, THE LAND AND THE DEVELOPMENT (1975); D. HEAP, AN OUTLINE OF PLANNING LAW (5th ed. 1973); B. POOLEY, THE EVOLUTION OF BRITISH PLANNING LEGISLATION (1960); Monson, *The Development and Practice of Compensation and Betterment in Present English Planning Law*, 25 LAND ECON. 173 (1949); Wendt, *Administrative Problems Under the British Town and Country Planning Act of 1947*, 23 LAND ECON. 427 (1947) [hereinafter cited as Wendt, *Administrative Problems*]; Wendt, *A Reply from England on the Effects of the British Town and Country Planning Act, 1947*, 26 LAND ECON. 397 (1950); J. Helb, The British Development Rights Experience (1976) (unpublished manuscript) (copy on file with author).

65. The Housing, Town Planning, Etc. Act, 1909, 9 Edw. 7, c. 44.

66. Town and Country Planning Act, 1932, 22 & 23 Geo. 5, c. 48.

67. D. HEAP, AN OUTLINE OF PLANNING LAW, *supra* note 64, at 9.

68. 10 & 11 Geo. 6, c. 51 (1947).

zoning laws, established a permit system for development, expanded eminent domain powers based upon existing use value as the measure of compensation and, most important, vested all development rights in the government.[69] A landowner could file a claim for compensation for his expropriated development rights and be paid from a £300 million fund.[70] Thus, an owner who was subsequently denied permission to develop could not claim further compensation. If planning permission was granted, the landowner was required to pay a development charge equal to the increase in the value of his land attributable to that permission.[71]

The 1947 Act was a partial failure, as evidenced by the near cessation of development following its enactment[72] and the subsequent repeal of the provisions nationalizing development rights and imposing development charges.[73] Among the causes of failure were the economic distortions imposed by the Act (such as the passing through of increased industrial development costs in higher end product prices) and the elimination of the incentive to develop.[74] Complex, confusing and costly administrative procedures also contributed to the demise of the 1947 Act. Moreover, the variety of bases for determining compensation and development charges, as well as the discretion given local authorities, politicized the process and opened the door to unintended maldistribution of benefits and burdens.[75]

The surviving features—planning control vested in approximately ninety large units of government and a development permission system—were the successful aspects of the Act. The lesson for American TDR should be obvious: the British experience showed full-scale, mandatory systems to be too costly and unmanageable. The costs and complexity of administration are likely to be excessive, and the high levels of economic information and understanding concerning the real estate market that are necessary to make a full-scale, mandatory system work are either unattainable or too expensive. In short, the total costs of such a system, including high transaction and information costs, exceed the benefits it will produce.

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69. *Id.* § 12.

70. *Id.* §§ 20, 50 sched. 4; *see* Wendt, *Administrative Problems, supra* note 64, at 428.

71. 10 & 11 Geo. 6, c. 51, §§ 69, 70 (1947).

72. M. CLAWSON & P. HALL, *supra* note 64, at 162.

73. Town and Country Planning Act, 1953, 1 & 2 Eliz. 2, c. 16.

74. Wendt, *Administrative Problems, supra* note 64. Also, the public found it hard to understand and perceived the provisions as an indirect tax. *See* A. BROWN & H. SHERRARD, AN INTRODUCTION TO TOWN AND COUNTRY PLANNING 370 (1969). One commentator blamed the cessation of development under the 1947 Act on "delay, confusion and inequities." B. LEWIS, BRITISH PLANNING AND NATIONALIZATION 158 (1952).

75. *See* Wendt, *Administrative Problems, supra* note 64, at 431-32.

III. TDR APPLICATIONS

A. *The Over-Sold Attempt To Use TDR To Preserve Landmarks*

1. TDR in the "Big Apple"

The New York City experience with TDR is well documented in the literature[76] because the City Planning Commission was the first to use TDR and because the only case law on the subject has developed from New York City applications.[77] The 1961 Zoning Resolution,[78] by changing the definition of a zoning lot, permitted density transfers between contiguous parcels if they were within the same block and under the same ownership.[79] An amendment in 1968 enabled a landmark owner to transfer unused density to contiguous parcels, but restricted the increase in bulk on the receiving lots to twenty percent over that permitted under existing zoning. The definition of "contiguous" under the 1968 amendment was changed to include lots that were across a street or intersection and lots that were under different ownership.[80] Subsequent amendments were apparently enacted in reaction to problems arising from efforts to save specific landmarks. A 1969 amendment redefined "adjacent" and removed the twenty percent restriction in

76. Many of the published materials on TDR have focused on the New York City experience because that city was the first to use TDR and because the only litigation concerning TDR has arisen from the New York City provisions. There are two collections of materials, TDR, *supra* note 20 and PAS, *supra* note 32, that not only cover the use of TDR in preserving landmarks but also address other applications and provide discussions of common concerns such as legal issues, exclusionary effects and economics. The discussion that follows draws on Baker, *Development Rights Transfer and Landmarks Preservation—Providing a Sense of Orientation*, 9 URB. L. ANN. 131 (1975); Elliot & Marcus, *From Euclid to Ramapo: New Directions in Land Development Controls*, 1 HOFSTRA L. REV. 56 (1973), *excerpts reprinted in* TDR, *supra* note 20, at 157; Marcus, *Air Rights Transfers in New York City*, 36 LAW & CONTEMP. PROB. 372 (1971); Marcus, *The New York City Experience*, in PAS, *supra* note 32, at 3; Theiss, *The Use of Transferable Development Rights As Compensation for Landmark Designation*, 43 APPRAISAL J. 594 (1975); Note, *supra* note 22; Note, *The Unconstitutionality of Transferable Development Rights*, 84 YALE L.J. 1101 (1975). The New York and Chicago experiences are covered in PAS, *supra* note 32, at 3-10, and in TDR, *supra* note 20, at 93-164, 300-29. The New York experience is also discussed in R. Shusterman, S. Bartlett & J. Nagle, Development Rights Transfer Applicability to Philadelphia 5, 12 (Philadelphia City Planning Commission Apr. 23, 1976) (unpublished, copy on file in office of *North Carolina Law Review*). The authors of this piece conclude that Philadelphia could probably utilize TDR under its existing zoning, *id.* at 6, and that it might try a TDR project if there was private initiative, *id.* at 2, but that a TDR ordinance would be helpful, *id.* at 4. They recommend that there be no expenditure on detailed studies. *Id.* at 15. The authors point out that a voluntary program would not work because there are 18 million square feet of development potential available under present zoning and that there is likely to be community opposition to denser development in the transfer zone. *Id.* at 10-12.

77. *See* text accompanying notes 94-132 *infra*.

78. NEW YORK, N.Y., ZONING RESOLUTION (1971), *discussed in* Note, *supra* note 22, at 344-49.

79. *Id.* art. I, ch. 2, § 12-10, *discussed in* Note, *supra* note 22, at 348.

80. *Id.* art. VII, ch. 4, § 74-79, *discussed in* Note, *supra* note 22, at 349, 351-52.

the highest density commercial districts as a result of pending litigation.[81] In 1970, an amendment was enacted that brought public landmarks under the TDR provisions,[82] thereby enabling transfers from the Appellate Division Courthouse and the United States Customs House. To date, TDR has been used in only two instances in New York City to preserve historic structures, and approval has been granted on two other projects.[83]

The New York City Plan has been attacked in the literature and in the courts. The criticisms in the literature take two forms. First, the efficacy of the plan, its method of operation and its institutional arrangements have been found to be faulty.[84] For these problems, not fatal in themselves, Costonis has offered the alternative of the Chicago Plan,[85] which allows the owner of a landmark to transfer the development rights over greater distances than those permitted in the New York City Plan. The Chicago Plan also includes a publicly held development rights bank authorized to purchase those rights when they cannot be absorbed by the private market.

More strident criticism of the New York City Plan is made by authors who argue that the basis of the plan is unconstitutional[86] or that the plan is unnecessary, unreliable, unservicable and pernicious.[87] The plan is said to be unconstitutional because of the alleged inadequacy of development rights as fair compensation for the restrictions on development that attend a mandatory TDR program.[88] The inadequacy is thought to result, in part, from the designation of transfer zones that are so small or overzoned that no economic incentive exists for free market transfers of development rights. In short, the criticism is that under the New York City Plan the development rights have little value because few developers want or need them.

This argument, of course, only applies to a mandatory scheme without a development rights bank. A bank would guarantee that sales of development rights could be made. While one critic of the argument alleging unconstitutionality has called the analysis "somewhat shallow, premature

81. *Id.*, *discussed in* Note, *supra* note 22, at 356-57. The pending litigation concerned a proposal to construct a building over the Grand Central Terminal waiting room. *See* text accompanying notes 95-102, 117-20 *infra*.

82. NEW YORK, N.Y., ZONING RESOLUTION art. VII, ch. 4, § 74-792 (1971), *discussed in* Note, *supra* note 22, at 359.

83. *See* Woodbury, *Whatever Happened to TDR? A Survey of the Status of Proposals for Transfers of Development Rights*, ENVT'L COM., Feb. 1976, at 13.

84. J. COSTONIS, *supra* note 1, at 54-60.

85. For further discussion of the Chicago Plan, see text accompanying notes 133-45 *infra*.

86. *See, e.g.*, Note, *The Unconstitutionality of Transferable Development Rights, supra* note 76, at 1101.

87. *See, e.g.*, Note, *supra* note 22.

88. Note, *The Unconstitutionality of Transferable Development Rights, supra* note 76, at 1110-11.

and generally . . . a minority view,"[89] the problems raised by the constitutionality argument have been the subject of judicial concern in the New York City TDR cases.[90]

The other criticism of the New York City Plan focuses on the negative effects of increasing the density in the transfer zones.[91] As noted above, the density in the transfer zone in some areas of New York City may be increased without restriction.[92] As the proponent of this argument concludes: "[I]n the final analysis debate on the merits of development rights is really an argument about optimal size of buildings in the central city."[93]

Though writings raising these issues of unconstitutionality and harmful density increases discuss some major New York City TDR cases,[94] New York appellate courts have subsequently reached decisions in the two most important TDR cases—*Penn Central Transportation Co. v. City of New York* (Grand Central)[95] and *Fred F. French Investing Co. v. City of New York* (Tudor Parks).[96] These decisions indicate that the originators of both arguments underestimated the willingness of courts to accept TDR.

The Grand Central case arose from the 1967 Landmarks Preservation Commission designation of Grand Central Terminal as a landmark over the objections of the Terminal's owner. The Penn Central Railroad and a British developer proposed to build a fifty-five story tower on the roof of the Forty-second Street landmark, but the Landmark's Preservation Commission rejected the plan. In 1969, Penn Central and the developer offered another proposal, this one for a fifty-nine story tower requiring demolition of the Terminal's facade. When this proposal was also rejected and the city

89. SEDWAY/COOKE, *supra* note 24, at 14.

90. *See* text accompanying notes 95-132 *infra*.

91. *See* Note, *supra* note 22, at 370-71.

92. *See* text accompanying notes 79-81 *supra*.

93. Note, *supra* note 22, at 371.

94. Other than the Tudor Parks case and the Grand Central case discussed in this paper, *see* text accompanying notes 95-132 *infra*, the New York City TDR case law includes Lutheran Church v. City of New York, 35 N.Y.2d 121, 316 N.E.2d 305, 35 N.Y.S.2d 121 (1974) (invalidating landmark designation of J.P. Morgan's former mansion owned by Lutheran Church, apparently because designation substantially interfered with Church's charitable mission), Newport Assocs., Inc. v. Solow, 30 N.Y.2d 263, 283 N.E.2d 600, 332 N.Y.S.2d 617 (1972), *cert. denied*, 410 U.S. 931, *rehearing denied*, 411 U.S. 977 (1973) (allowing transfer of air rights between contiguous parcels), and Fur-Lex Realty, Inc. v. Lindsay, 81 Misc. 2d 904, 367 N.Y.S.2d 388 (Sup. Ct. 1975) (upholding lessee's right to transfer air rights from a public building, which it had leased, to adjoining property). For a discussion of these cases, see Anderson, *Land Use Control, 1975 Survey of N.Y. Law*, 27 SYRACUSE L. REV. 167, 177 (1976); Roberts, *Property, 1975 Survey of N.Y. Law*, 27 SYRACUSE L. REV. 387, 395 n.47 (1976); Rohan, *Property, 1972 Survey of N.Y. Law*, 24 SYRACUSE L. REV. 411, 418 (1973).

95. 50 App. Div. 2d 265, 377 N.Y.S.2d 20 (1975), *aff'd*, 42 N.Y.2d 324, 366 N.E. 2d 1271, 397 N.Y.S.2d 914 (1977).

96. 39 N.Y.2d 587, 350 N.E.2d 381, 385 N.Y.S.2d 5 (1976), *noted in New York: Legislative Grant of Transferable Development Rights Held to be No Substitute for Just Compensation*, 6 REAL EST. L. REP., June 1976, at 4; *Zoning . . . Owner's Property Rights*, 62 A.B.A.J. 1628 (1976). *See also* Schnidman, *New York Courts Review Transferable Development Rights*, URB. LAND, July 1976, at 22.

continued to insist on the transfer of the development rights, Penn Central and the British developer filed suit. The trial court, which found that the designation constituted a "taking" and granted injunctive relief,[97] was reversed by a majority of three in the Appellate Division of the New York Supreme Court. This court found that the TDR provisions were constitutional and held that the test to be applied was whether the regulation deprived the owners of all reasonable beneficial use of their property. Also, the court held that plaintiff was required to prove not only that it was not actually receiving a reasonable return, but that it was not capable of obtaining a reasonable return.[98] More specifically, plaintiffs failed to show "that unused development rights over the Terminal could not have been profitably transferred to one or more nearby sites."[99] Further, plaintiff had not shown that the vacant or underutilized space in the Terminal could not be put to revenue producing use.[100] A lengthy dissent by two justices argued that not only had the landmark designation so deprived Penn Central of the use of its property that there was confiscation, but that plaintiff had established denials of due process and equal protection of the laws.[101] Plaintiff appealed to the New York Court of Appeals.[102]

Less than five months after the Appellate Division's Grand Central decision, the New York Court of Appeals invalidated a mandatory TDR scheme designed to prevent development of private parkland in the Tudor City apartment complex.[103] When the owners of Tudor City announced plans to develop on their private park the city, in response to adverse public reaction to the proposal, established a special park district and downzoned the parcel by amendment. The owners were permitted to transfer their development rights to a transfer zone on the East Side, but instead they sued, claiming that the amendment was unconstitutional and seeking compensation on an inverse condemnation theory.[104] The trial court declared the 1972 amendment unconstitutional and restored the original zoning.[105] The Court of Appeals unanimously affirmed, holding that the city had,

97. 50 App. Div. 2d at 271, 377 N.Y.S.2d at 26-27.

98. *Id.* at 271, 377 N.Y.S.2d at 27-28. The court distinquished Lutheran Church v. City of New York, 35 N.Y.2d 121, 316 N.E.2d 305, 35 N.Y.S.2d 121 (1974), *discussed in* note 94 *supra*, by implying that a more rigorous assessment of economic impact is made when there is a charitable purpose affected. 50 App. Div. 2d at 272, 377 N.Y.S.2d at 27-28.

99. 50 App. Div. 2d at 273, 377 N.Y.S.2d at 28-29.

100. *Id.*

101. *Id.* at 275-88, 377 N.Y.S.2d at 30-42 (dissenting opinion).

102. For a discussion of the court of appeals opinion, see text accompanying notes 117-20 *infra*.

103. Fred F. French Investing Co. v. City of New York, 39 N.Y.2d 587, 350 N.E.2d 381, 385 N.Y.S.2d 5 (1976).

104. *Id.* at 592, 350 N.E.2d at 383-84, 385 N.Y.S.2d at 8.

105. Fred F. French Investing Co. v. City of New York, 77 Misc. 2d 199, 201, 352 N.Y.S.2d 762, 765 (Sup. Ct. 1973), *aff'd mem.*, 47 App. Div. 2d 715, 366 N.Y.S. 2d 346 (1975).

> despite the severance of above-surface development rights, by rezoning private parks exclusively as parks open to the public, deprived the owners of the reasonable income productive or other private use of their property. The attempted severance of the development rights with uncertain and contingent market value did not adequately preserve those rights.[106]

The Tudor Parks decision was truly an instance of "losing a battle but winning a war,"[107] since the court, speaking through Chief Judge Breitel, provided planners and lawyers with an important clarification of TDR and the taking issue and outlined a workable structure for TDR programs. The court corrected the belief that the invalid exercise of the police power could be equated with a taking when it held that judicial review of zoning regulations should be concerned only with the validity or invalidity of the exercise of the police power.[108] The undoing of the Tudor Parks scheme was that it was mandatory and failed to allocate the economic burden fairly. The marketability of the severed development rights was "so uncertain and contingent as to deprive the property owners of [the rights'] practical usefulness, except under rare and perhaps coincidental circumstances."[109] By contrast, the Grand Central scheme would arguably be acceptable under the Tudor Parks ruling, because substantial economic benefits remain under TDR and the owners need not look solely to development rights for residual value because underutilized space in the Terminal could be put to economically productive use.

Beyond the specific holding and the clarification of the scope of judicial review of zoning, the court in the Tudor Parks case made several other points providing strong support for TDR. The court noted that ownership of land and development rights are severable;[110] development rights have economic value and may be transferred to other parcels in private ownership;[111] voluntary TDR programs or ones that include development rights banks providing a ready market for development rights are not subject to the Tudor Parks ban;[112] governments can and should recognize that land values reflect interdependencies and that methods short of outright appropriation may be used "to meet urgent environmental needs";[113] and, most important, "new ideas and new standards of constitutional tolerance must

106. 39 N.Y.2d at 591, 350 N.E.2d at 383, 385 N.Y.S.2d at 7.

107. Costonis, *Fred F. French Investing Co. v. City of New York: Losing a Battle but Winning a War*, 28 LAND USE L. & ZONING DIG., Mar. 1976, at 6.

108. The taking issue is discussed at text accompanying notes 281-314 *infra*.

109. 39 N.Y.2d at 600, 350 N.E.2d at 389, 385 N.Y.S.2d at 13.

110. *Id.* at 597, 350 N.E.2d at 387, 385 N.Y.S.2d at 11.

111. *See id.*

112. *See id.* at 598-99, 350 N.E.2d at 388, 385 N.Y.S.2d at 11-12.

113. *Id.* at 599, 350 N.E.2d at 388, 385 N.Y.S.2d at 12.

and will evolve."[114] In short, Tudor Parks is but a side step to avoid a small, obvious pratfall at the beginning of a long journey to develop workable TDR programs.[115] The court limited its decision in Tudor Parks to the particular set of facts by noting that "[i]t is enough to say that the loose-ended transferable development rights in this case fall short of achieving a fair allocation of economic burden."[116]

The New York Court of Appeals unanimously upheld the New York Supreme Court's decision in the Grand Central case in a strongly worded opinion that the chairman of the New York City Landmarks Preservation Commission called "the most important decision that the preservation movement has ever had."[117] The court argued that, even with the imposed restrictions, the railroad company could still make a reasonable return.[118] In a remarkable discussion, the court reasoned that although the railroad was entitled to a fair return, much of the economic value of the terminal property was created by public actions—by providing the railroads with monopoly power, limited rights of eminent domain and, most recently, direct subsidy.[119] Moreover, the court noted that it did not matter "which comes first, the terminal or the travelers," because the terminal and the city simultaneously grew, with each contributing to the economic value of the other.[120] In short, the court held that the TDR scheme was not only constitutional, but that even if a mandatory program causes a diminution in value, a property owner is not entitled to relief so long as the reduction is no greater than the public's contribution to the property's value.

Thus, the prediction that the appellate courts would find the Grand Central and Tudor Parks schemes unconstitutional because they constituted takings without just compensation[121] has proved incorrect. The rule to be

114. *Id.* at 600, 350 N.E.2d at 389, 385 N.Y.S.2d at 13.

115. As the court stated, "[U]nfortunately, the land planners are now only at the beginning of the path to solution." *Id.*

116. *Id.*

117. *Office Tower Above Grand Central Barred*, N.Y. Times, June 24, 1977, § A, at 11, col. 1.

118. 42 N.Y.2d at —, 366 N.E.2d at 1276, 397 N.Y.S.2d at 920. The court said that the right to use the development potential on another parcel was sufficient to meet the requirement of a fair return. *Id.* at —, —, 366 N.E.2d at 1273, 1278, 397 N.Y.S.2d at 916, 922.

119. *Id.* at —, 366 N.E.2d at 1275-76, 397 N.Y.S.2d at 918-19.

120. *Id.* at —, 366 N.E.2d at 1276, 397 N.Y.S.2d at 920.

121. Note, *The Unconstitutionality of Transferable Development Rights, supra* note 76, at 1122. However, the court in the Tudor Parks case cited this Note for the proposition that an uncertain market for development rights renders their value uncertain. 39 N.Y.2d at 598, 350

derived from the holdings and dicta in these cases is that TDR is an acceptable supplement to zoning, that it will not invoke consideration of the taking issue on judicial review unless there is actual "governmental displacement of private ownership,"[122] and that it will be upheld unless the landowner establishes that he is "*incapable* of obtaining a reasonable return."[123]

Although these recent decisions portend a happy future for TDR in New York City, much of the TDR experience there is not relevant to other TDR applications and should be discounted. The reactive process used to develop the amendments affecting Grand Central and Tudor Parks is best described as "knee-jerk" planning. This haphazard, crisis management approach toward preserving urban amenities is bound to cause trouble. This is especially true when the success of a TDR program depends upon its providing a sensitive balance between the need for adequate incentives for private transfers in the form of large, high density transfer zones and the duty to protect landowners adjacent to those zones from unreasonable increases in density.[124] The ad hoc planning that occurred in New York is exemplified by the 1969 amendment enacted in response to the proposed tower over Grand Central Terminal.[125] One writer called this amendment "a classic case of spot zoning: an amendment enacted solely for the benefit of one landowner which was not in accordance with a comprehensive plan."[126] And in the Tudor Parks case, the lower court stated that "the owners' property has been singled out"[127] and that "[t]he attempt to transfer . . . [t]he . . . owners' zoning rights to the future site is either an oversight of the . . . rights of those persons at the transfer site, or an expediential disposition of the Tudor City controversy."[128]

N.E.2d at 388, 385 N.Y.S.2d at 12. The author of the Note made the much stronger claim that TDR systems are, in almost all situations, unconstitutional. Note, *supra* at 1122. By contrast, the Tudor Parks court held that TDR systems are constitutional, but that in the particular application planners had failed by not ensuring that a market existed. 39 N.Y.2d at 596-99, 350 N.E.2d at 388, 385 N.Y.S.2d at 12.

122. Fred F. French Investing Co. v. City of New York, 39 N.Y.2d at 595, 350 N.E.2d at 386, 385 N.Y.S.2d at 10.

123. Penn Cent. Transp. Co. v. City of New York, 50 App. Div. at 272, 377 N.Y.S.2d at 28.

124. *See, e.g.*, Costonis, *Development-Rights Transfer: A Proposal for Financing Landmarks Preservation*, 1 REAL EST. L.J. 163, 173 (1972).

125. *See* note 81 and accompanying text *supra*.

126. Note, *supra* note 22, at 357.

127. 77 Misc. 2d at 202, 352 N.Y.S.2d at 766.

128. *Id.* at 204, 352 N.Y.S.2d at 767. Since the impact on transfer zone residents may be as great as, or greater than, the concomitant diminution in value at the preservation site, it has been suggested that transfer zone residents be notified before their area is designated to receive additional density. SEDWAY/COOKE, *supra* note 24, at 98.

State courts have traditionally invalidated such ad hoc planning on many grounds including the spot zoning theory,[129] the uniformity doctrine[130] and the failure to follow a comprehensive plan.[131] In the past, the subdivision and zoning process was similarly abused by planning and zoning commissions, which routinely changed their ordinances when confronted with proposals that met with existing requirements but not their approval. The "savings" provisions—"grandfather" clauses protecting proposals from subsequent changes in regulations—were enacted to eliminate this misuse of the planning process.[132] Thus, the lesson to be learned from the New York City experience and the history of legislative and judicial intolerance of reactive planning is that the misuse of otherwise acceptable development guidance instruments will not be condoned and that carefully articulated, anticipatory planning is critical to the success of TDR.

2. Of Professors and Politicians[133]

Costonis formulated his own Chicago Plan in an effort to overcome what he perceived to be shortcomings in the New York TDR regulations,

129. " '[S]pot' zoning . . . signifies a carving out of one or more properties located in a given use district and reclassifying them in a different use district." Chayt v. Maryland Jockey Club, 179 Md. 390, 393, 18 A.2d 856, 858 (1941). *See also* Kuehne v. Town Council, 136 Conn. 452, 460, 72 A.2d 474, 478 (1950); MacDonald v. Board of Comm'rs, 238 Md. 549, 555, 210 A.2d 325, 328 (1965).

130. "[A]ll [zoning] regulations shall be uniform for each class or kind of building throughout each district." ADVISORY COMMITTEE ON ZONING, DEP'T OF COMMERCE, A STANDARD STATE ZONING ENABLING ACT UNDER WHICH MUNICIPALITIES MAY ADOPT ZONING REGULATIONS 2 (rev. ed. 1926), *quoted in* J. COSTONIS, *supra* note 1, at 158 [hereinafter cited as A STANDARD STATE ZONING ENABLING ACT].

131. *See* Udell v. Haas, 21 N.Y.2d 463, 235 N.E.2d 897, 288 N.Y.S.2d 888 (1968) (rezoning of a district from business to residential held invalid because not in accordance with town's comprehensive plan).

132. *See, e.g.*, CONN. GEN. STAT. § 8-26a (1975). *See also* Annot., 45 A.L.R.3d 1150 (1972).

133. The discussion in this section is drawn from numerous sources, mostly work by Costonis, who has parlayed his embellished TDR variant, the Chicago Plan, into a substantial list of publications. In addition to the primary source, *Space Adrift*, see Costonis, *The Chicago Plan: A Case Study of the Gulf Between Law and Social Change*, in LAW AND THE CITY 18 (1975); Costonis, *The Chicago Plan: Incentive Zoning and the Preservation of Urban Landmarks*, 85 HARV. L. REV. 574 (1972); Costonis, *Development Rights Transfers: Description and Perspectives for a Critique*, URB. LAND, Jan. 1975, at 5; Costonis, *Development Rights Transfer: An Exploratory Essay*, 83 YALE L.J. 75 (1973); Costonis, *Development Rights Transfers and the Preservation of Urban Landmarks*, 12 NEWSLETTER OF BUREAU OF URB. & REGIONAL PLAN. RESEARCH, U. ILL., URBANA, Winter 1971-72; Costonis, *Environmental Protection Through Development Rights Transfer*, 14 *id.*, Winter 1973-74; Costonis, *Formula Found to Preserve the Past*, 38 PLAN. 307 (1972); Costonis, *Space Adrift: A Synopsis*, URB. LAND, Jan. 1975, at 16; Costonis, *Whichever Way You Slice It, DRT is Here to Stay*, 40 PLAN., July 1974, at 10, *reprinted in* TDR, *supra* note 20, at 57; Newsom, *Critique of the Chicago Plan*, in PAS, *supra* note 32, at 9; Gammage, Book Review, 6 ENVT'L L. 257 (1975); Gapp, Book Review, HIST. PRESERVATION, Oct.-Dec. 1974, at 41. For brief summaries of the Chicago Plan, see Costonis, *The Costs of Preservation: The Chicago Plan and the Economics of Keeping Landmarks in the Marketplace*, 140 ARCHITECTURAL F., Jan.-Feb. 1974, at 61; Costonis, *Do Buildings Have Standing?*, 4 A.B.A. STUDENT LAW., Dec. 1975, at 14; Costonis, *Preservation of*

including the principal weakness of inadequate incentives and the problem of superadjacent density.[134] The Chicago Plan avoids both drawbacks by establishing one or more transfer districts in downtown areas where landmarks are concentrated and by allowing transfers to any land within the entire transfer district rather than to "adjacent" lots only.[135] Density increases on receiving lots are limited to fifteen percent.[136] Moreover, Costonis offers an independent districting alternative wherein transfer zones would be selected from low density areas that are expected to undergo development in the near future.[137] As the Tudor Parks amendment demonstrates, the need for noncontiguous transfer zones is now recognized in New York City.[138] This much of the Chicago Plan, therefore, is no longer novel.

Under this plan, if owners of designated landmarks cannot or will not convey their development rights, the city can condemn the development rights and exact a preservation restriction.[139] Costs of condemnation would be borne by a development rights bank that could also hold or market the rights.[140] According to the plan, the bank should be capable of sustaining itself financially on the revenues received from the resale of development rights.[141]

The strongest feature of the Chicago Plan is the detailed economic analysis offered to support the proposal.[142] There has, however, been some criticism of the calculations and some indication that the results are highly changeable over time.[143] The weakest feature of the Chicago Plan is that Costonis and numerous others could not get it enacted in Chicago.[144] This failure is a classic lesson in the relationship of planning and politics—the development of a legitimating framework is essential to the political accept-

Urban Landmarks, 136 ARCHITECTURAL F., Mar. 1972, at 38; Shlaes, *The Chicago Plan*, in PAS, *supra* note 32, at 7.

134. J. COSTONIS, *supra* note 1, at 55, 61.

135. *Id.* at 50-51, 60.

136. Costonis, *The Chicago Plan: A Case Study of the Gulf Between Law and Social Change*, *supra* note 133, at 20.

137. J. COSTONIS, *supra* note 1, at 50.

138. *See* text accompanying notes 103-06 *supra*.

139. J. COSTONIS, *supra* note 1, at 40.

140. *Id.* at 52.

141. *Id.* at 105-06.

142. *See id.* at 65-125.

143. Friedlander, *Do Buildings Have Standing?*, 5 A.B.A. STUDENT LAW., Sept. 1976, at 6. Costonis admits that his data is "woefully obsolete" only three years after his work. Letter to the editor from J. Costonis & R. DeVoy, 43 APPRAISAL J. 425 (1975) (reply to J. Shales' letter to the editor). A summary of the original economic analysis can be found in Costonis, *The Costs of Preservation: The Chicago Plan*, 42 APPRAISAL J. 402 (1974).

144. Costonis, *The Chicago Plan: A Case Study of the Gulf Between Law and Social Change*, *supra* note 133, at 22-25.

ance and implementation of plans and planning law.[145]

The claim that TDR schemes threaten existing power relationships and that planners and lawyers must be prepared to assume political roles has become self-apparent. TDR failures in this country have often been the result of political forces that discouraged efforts to surmount the status quo. A report on the legislative development of a TDR proposal for the state of New Jersey illustrates the difficulty of overcoming not only the skepticism of legislators but that of their research staffs.[146] A Hillsborough, New Jersey, developer abandoned a TDR-type proposal, which the township planning consultant had favorably recommended, when he was delayed four months by a governing body that could not stop tinkering with the original ordinance.[147] The TDR efforts of Livermore, California, were stymied by a new town attorney who simply insisted there were no such things as development rights.[148] And the internal politics of the Suffolk County Legislature were the apparent cause of that body's initial failure to allocate funds to support a previously approved TDR program that promised to be highly successful.[149]

While these examples are from TDR applications other than landmark and urban amenity preservation, the New York City and Chicago experiences, because they represent complex and intense political and economic environments, are paradigmatic of difficulties at the extreme. It may be that efforts to effect major changes in these dynamic social, political and economic systems will be "counter-intuitive," that is, will result in a net decrease in the public welfare.[150] In New York City, TDR's failure to

145. Costonis has provided a candid discussion of why the Chicago Plan was not adopted. Costonis, *The Chicago Plan: A Case Study of the Gulf Between Law and Social Change, supra* note 133. He concludes that several factors support or hinder the adoption of plans such as his. Among those are the support of affected government actors, the support or at least acquiescence of the populace generally, the novelty of the concept, the complexity of the proposal, the extent to which the concept threatens the status quo and the degree to which other societal developments are enhanced or frustrated by the concept. *Id.* at 28-29. *See also Chicago Plan Ruled Out in Chicago*, 40 PLAN., July 1974, at 8; Friedlander, *supra* note 143. On the more general problem of the relationship of planning and politics, see A. CATANESE, PLANNERS AND LOCAL POLITICS (1974); F. RABINOWITZ, CITY POLITICS AND PLANNING (1970).

146. J. Helm & J. Reifer, The Legislative Development and Consideration of the New Jersey T.D.R. Proposal (1975) (unpublished, New Jersey Legislative Service Agency) (copy on file in office of *North Carolina Law Review*).

147. Letter to the author from Thomas Peterson, Planning Administrator, Hillsborough, N.J. (Feb. 23, 1977) (copy on file in office of *North Carolina Law Review*).

148. Letter to the author from George R. Musso, Director of Planning, Livermore, Cal. (Nov. 2, 1976) (copy on file in office of *North Carolina Law Review*).

149. Gupte, *The Fight That Everyone Lost*, N.Y. Times, May 16, 1976, § 21, at 6, col. 7.

150. Jay Forrester in his book *Urban Dynamics* uses the term "counter-intuitive" to describe the following problem:

> With a high degree of confidence we can say that the intuitive solutions to the problems of complex social systems will be wrong most of the time. Here lies much of

comprehend economic determinants resulted in the Tudor Parks defeat.[151] In Chicago, the inability to intervene in the existing political system to effect constructive change perhaps reflected the correct perceptions of key actors who saw a net loss in disrupting existing relationships.[152] In sum, the ability of TDR to preserve urban amenities in large cities has been both oversold and incompletely tested. Planners and lawyers should not be dissuaded by the New York City and Chicago experiences, but instead should infer from them that more modest applications of TDR in environments of lesser economic and political complexity may be more successful.

B. TDR as a Complete Substitute for Zoning

Before turning to a discussion of what may be the best use of TDR—the preservation of open space—an overview of TDR as a complete substitute for zoning is warranted.[153] To effect such a program a community would adopt a land use plan and stipulate the number of development rights that would be required for approval of development requests.[154] Residential development rights would be defined in terms of dwelling units while commercial and industrial development rights would be defined in terms of square footage. Development rights of all types would be distributed to land owners in proportion to the number of acres they owned. Through private transfers, developers could buy and sell rights until they had the combination necessary to gain approval of their development plans. Any change in density of land use or adjustment in the amounts of land dedicated to different uses within the community would require revision of the total plan and a new distribution of development rights.[155]

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the explanation for the problems of faltering companies, disappointments in developing nations, foreign-exchange crises, and troubles of urban areas.

J. FORRESTER, URBAN DYNAMICS 110 (1969). To his list might be added the difficulties in making TDR work in New York City and Chicago.

151. But it may be unfair to lay the blame on reactive planning. If Forrester is correct, *see id.*, the economics of TDR in New York City may be unknowable or, at least, the information costs may greatly exceed potential derived benefits.

152. *See* note 145 *supra*.

153. The principal proponent of using TDR to effect "a total reform in the system of regulating land use" is Audrey Moore, a member of the Fairfax County, Virginia, Board of Supervisors. Moore, *TDR's as the Solution to Failings of Existing Land-Use Controls: Fairfax County, Virginia*, in PAS, *supra* note 32, at 27. *See also* W. GOODMAN, DESCRIPTIVE INFORMATION ON TRANSFER OF DEVELOPMENT RIGHTS (1970), *excerpts reprinted in* TDR, *supra* note 20, at 210; Schnidman, *Transferable Development Rights: An Idea In Search of Implementation*, 11 LAND & WATER L. REV. 339, 350-51 (1976); A. Moore, Transferable Development Rights: An Idea Whose Time Has Come (1974) (mimeograph, Fairfax County, Va.), *excerpts reprinted in* TDR, *supra* note 20, at 221.

154. Moore, *TDR's as the Solution to Failings of Existing Land-Use Controls: Fairfax County, Virginia, supra* note 153, at 27.

155. *Id.*

An alternative proposal would have all development rights in the same unit of measure.[156] Its proponents do not specify the unit that would be used, but their example is based on acreage. They recognize some problems with this use of TDR,[157] but fail to identify two critical difficulties. The assignment of one measure of development rights to residential uses and another to commercial and industrial uses causes the market to become highly fragmented and impedes transfers. While a need exists to maintain some constraint on the ultimate mix of land uses, it may be desirable to forego some residential development in favor of commercial and industrial construction or vice versa.[158] To prohibit such adjustments is to lose an advantage of flexibility. Even if the units of measure are the same for all uses, however, the best measure for residential uses may not be the best for others. While acreage measures and dwelling units per acre might be acceptable for residential uses, they are poor measures of commercial and industrial impacts. Conversely, square footage may work for business uses, but make little sense for housing development.

Second, in using TDR as a complete substitute for zoning, every substantial change to any part of the land use plan will require a readjustment in the allocation of development rights issued to every landowner in the town. This need for reallocation results from the fact that every landowner is given an initial pro rata share of the total development rights of all types available for the community. If residential density is to be increased by ten percent, for example, additional development rights would have to be issued. Similarly, a decision to decrease commercial density would necessitate the surrender of development rights. In the typical growth situation, reallocations will most likely be by issuance of fractional development rights. But the high costs involved in these constant reallocations are likely to make "complete substitute" TDR unworkable in most localities. In short, TDR is best used as a supplement to, not a substitute for, other development guidance instruments.

C. *Preserving Environmentally Sensitive Areas, Farmland and Open Space*

The use of TDR to preserve environmentally sensitive areas, farmland and open space has the most promise for developing workable TDR pro-

156. Foster, Schnidman & Bailey, *Transferable Development Rights: Are They a Step in the Direction of Better Land Use Management?*, 34 URB. LAND, Jan. 1975, at 28.

157. *Id.* at 34.

158. The interest in such flexibility is apparent in the increasing popularity of mixed use developments. MIXED USE DEVELOPMENTS: NEW WAYS OF LAND USE (Urban Land Institute Technical Bull. No. 71, 1976).

grams. Present proposals and existing applications represent supplemental uses of TDR, are limited in their objectives and appear to have been best received when participation is voluntary. The economics of TDR—the valuation and allocation of development rights and the creation and maintenance of effective markets—continues to raise yet unanswered questions.

1. Safeguarding Critical Environmental Areas

One proposed and one present use of TDR are directly related to the preservation of environmentally sensitive areas, particularly wetlands. The proposed Puerto Rico Plan was developed by Costonis with the assistance of Robert S. DeVoy of the Real Estate Research Corporation under the sponsorship of The Conservation Trust of Puerto Rico.[159] Designed to protect unique ecological resources, the Plan has four steps. First, planners would inventory sensitive areas.[160] Second, the planning board would designate these areas as Protected Environmental Zones (PEZs) and apply restrictive regulations.[161] Third, property owners who were refused development permission could have administrative review by an appeals board which, if it felt the regulations prevented a reasonable return on the land, might grant relief in the form of a variance, compensation up to "reasonable beneficial use," or some other negotiated settlement.[162] Fourth, acquisition and other costs would be funded primarily by resale of the development rights to owners of property in designated transfer districts located in developing areas capable of carrying greater densities.[163] The Plan has not yet been afforded serious consideration because of the recent reorganization of land planning activities in Puerto Rico.[164]

Collier County, Florida, in July 1974, enacted a TDR provision intended to protect the semitropical swamp that covers most of its largely undeveloped land.[165] Eighty-four percent of the land was designated as a Special Treatment (ST) zone in which landowners were required to receive special

159. J. COSTONIS & R. DEVOY, THE PUERTO RICO PLAN (1974), *excerpts reprinted in* TDR, *supra* note 20, at 200; DeVoy, *The Puerto Rico Proposal: Preserving the Environment*, in PAS, *supra* note 32, at 13.

160. J. COSTONIS & R. DEVOY, *supra* note 159, at 9.

161. *Id.*

162. *Id.*

163. *Id.*

164. Woodbury, *supra* note 83, at 16.

165. Collier County, Fla., Zoning Ordinance 76-43 (Sept. 31, 1976). For background, see *Collier County, Fla., Studies Recommendation for TDR to Limit Development in Selected Areas*, 2 LAND USE PLAN. REP., Aug. 12, 1974, at 7; Spagna, *Can 'ST' Save Collier's Unspoiled Lands?*, FLA. ENVT'L. & URB. ISSUES, May/June 1975, at 4; *State and Local Briefs*, 2 LAND USE PLAN. REP., Oct. 14, 1974, at 4, 6. *See also* Schnidman, *supra* note 153, at 359-61.

permits before developing. Instead of developing, the landowner in an ST zone could transfer density to a contiguous zone not designated ST and file a restrictive covenant in the land records limiting use of the ST land.[166] Because of economic conditions, no transfers have occurred. Two legal actions challenging ST designation are pending, however.[167]

2. Preserving Farmland and Open Space

As noted at the beginning of this article, there has been an increasing conversion of farmland and open space in recent years. Dramatic examples are numerous. Polk County, Florida, is the state's leading citrus county and the sixth largest citrus producer in the world with production almost equal to California's total output.[168] The last biennial survey revealed that citrus acreage had dropped 10,000 acres and that if present growth patterns continued, fully forty percent of the citrus acreage would be taken out of production.[169] In Maryland, farm acreage had dropped from 4.2 million acres (sixty-seven percent) in 1945 to 2.8 million acres (forty-four percent) in 1969 with only 1.0 to 1.3 million acres (sixteen to twenty percent) expected to remain in 2000.[170]

a. The Inefficacy of Police Power Regulation and Differential Taxation

Planners have attempted to understand the complex process of land conversion, but their efforts have not produced clear answers as to the most effective strategies of intervention.[171] While many techniques have been

166. Collier County, Fla., Zoning Ordinance 76-43 (Sept. 31, 1976).
167. Woodbury, *supra* note 83, at 14.
168. BUREAU OF COMPREHENSIVE PLANNING, *supra* note 2, at 16.
169. *Id.* at 16.
170. COMMITTEE ON THE PRESERVATION OF AGRICULTURAL LAND, *supra* note 2, at 15.
171. *See, e.g.*, M. CLAWSON, *supra* note 2; R. SNYDER, AGRICULTURAL LAND USE POLICY: SOME PERSPECTIVES AND OBSERVATIONS (Agricultural Extension Service, University of Minn., 1976); Kaiser & Weiss, *Public Policy and the Residential Development Process*, 36 J. AMER. INST. OF PLANNERS 30 (1970).

In 1960 it was felt that: "In agriculture, it now appears that the agricultural surplus is almost a permanent feature of the American economic scene." M. CLAWSON, R. HEID & C. STODDARD, LAND FOR THE FUTURE 274 (1960). But by 1976 average farmland prices were $1009/acre in Iowa, up 138% since 1970 with some sales at $3000/acre. Pilner, *Farmland Price Spiral Places a Squeeze on Returns from Farm and Ranch Investments—But Appreciation Continues*, 45 APPRAISAL J. 80 (1977). The reason, according to Pilner, is that exports and productivity have increased. *Id.* at 81. In considering the need for agricultural land, one must differentiate by crop and by location. Nationally, only 365 million acres out of 631 million acres of land suitable for continuous cultivation were in use in 1967, indicating a substantial reserve capacity. R. SNYDER, *supra* at 13. The problem at the local level and for some crops, for example, Florida's citrus, is the reduction in efficiency that results from conversion of agricultural resources that are expensive to bring into production on new sites. In 1955-1956 the net agricultural output of land scheduled for conversion to urban uses in England and Wales was more than 50% greater than the average for all farms. J. WIBBERLY, AGRICULTURAL AND URBAN GROWTH: A STUDY OF THE COMPETITION FOR RURAL LAND 63 (1959). Wibberly proposes that a benefit-cost analysis be used in deciding whether to allow conversion of farmland. *Id.*

recognized,[172] only two—police power regulation (for example, zoning, subdivision codes and environmental standards) and differential tax assessment—are commonly used. Large lot zoning has sometimes slowed conversion[173] but is often contested,[174] especially when it reaches extremes.[175] Judicial approval has been given to regulations that severely restrict or completely prohibit development in critical environmental areas such as floodplains and wetlands.[176] The rationales used to support restrictions in critical environmental areas include the protection of public safety, the prevention of nuisance and the promotion of aesthetics.[177] The application of these rationales as bases for judicial imprimatur of restrictive regulations on less sensitive farmland and open space is less tenable.

Differential tax treatment[178] for farm or other types of land exists in forty-two states[179] and four of the remaining eight states[180] have classified property systems that include some tax preference.[181] Fourteen states have pure preferential assessment in which the land is taxed on its present use value.[182] Deferred taxation programs in twenty-five states also produce an abatement, but include a "rollback" or recovery of all or part of the taxes saved if the land is converted, usually within a stated period of between two and fifteen years.[183] Restrictive agreement programs are in effect in five

A recent article summarizing a preliminary report of the 1974 Census of Agriculture noted that even in Connecticut, where the principal agricultural products by gross sales are milk, eggs and tobacco, value of farmland almost doubled in five years to $1746/acre in 1974 from $964/acre in 1969. In the same period farm acreage dropped from 423,000 to 377,000 acres. Faber, *Farm Area Down, Land Prices Up*, N.Y. Times, Feb. 20, 1977, Conn. sec., at 10, col. 5.

172. Over 25 techniques are listed in Engel, *Political and Economic Approaches to Retaining Prime Land*, 48 STATE GOV'T 210, 213 (1975).

173. *See* W. BRYANT, FARMLAND PRESERVATION ALTERNATIVES IN SEMI-SUBURBAN AREAS (Cornell University Dep't of Agricultural Economics, 1975); *California Is Going to Protect Its Coastline*, N.Y. Times, Aug. 29, 1976, at 4, col. 6; Kusler, *Open Space Zoning: Valid Regulation or Invalid Taking*, 57 MINN. L. REV. 1 (1972).

Sometimes merely slowing conversion with low density zoning can be the impetus for long-run preservation. It is claimed that 20 acre zoning thus saved the Napa Valley orchards. LAND USE, OPEN SPACE AND THE GOVERNMENT PROCESS: THE SAN FRANCISCO BAY EXPERIENCE 45 (E. Smith & D. Riggs eds. 1974).

174. *See* Steel Hill Dev., Inc. v. Town of Sanbornton, 469 F.2d 956 (1st Cir. 1972); National Land & Inv. Co. v. Kohn, 419 Pa. 504, 215 A.2d 597 (1965); Board of County Supervisors v. Carper, 200 Va. 653, 107 S.E.2d 390 (1959).

175. An extreme example of large lot zoning is to be found in the Adirondack Park Agency's requirement of up to 42.7 acres per building. Savage & Sierchio, *supra* note 9, at 456-57.

176. Just v. Marinette County, 56 Wis. 2d 7, 201 N.W.2d 761 (1972), is now the classic example of judicial approval of such restrictive regulations.

177. *See id.* at 15-16, 201 N.W.2d at 767.

178. The discussion that follows is based on UNTAXING OPEN SPACE, *supra* note 17.

179. *Id.* at 13.

180. Alabama, Louisiana, Tennessee and West Virginia. *Id.*

181. *Id.* at 12, 19.

182. *Id.* at 19, 31-39.

183. *Id.* at 19, 39-42.

states[184] and are distinguished from types of differential assessment programs by the fact that under a restrictive agreement program, the landowner is reasonably certain that he will be unable to develop his land during a set period.[185] Under these laws, an eligible landowner may enter into a contract with the state or local jurisdiction by which he agrees to maintain his land in eligible uses for some period.[186] In return, the landowner receives a preferential assessment and lower taxes, but he may be required to pay a cancellation fee if he breaches the contract by converting the land to an ineligible use.[187] Under the Williamson Act,[188] a California law that is typical of restrictive agreement programs, there is a ten year "runout period" that begins in the first year after the landowner notifies local authorities that he does not desire automatic renewal.[189] During this "runout period" assessments increase to market value.[190] If a landowner is granted a special exception to develop an ineligible use on the property before the end of the runout period, he must pay a penalty of 12.5 percent of the property's fair market value.[191]

Participation in these programs is moderate. In California in 1975, thirty percent of privately owned nonurban land was subject to the Williamson Act restriction.[192] Under Washington's new differential assessment law, 9.5 percent of the agricultural land was classified in 1975,[193] and twenty-three percent of Connecticut's total land area was differentially assessed in 1963.[194] The Council on Environmental Quality, in a recent report, catalogued and analyzed the effect of differential tax programs. The findings are discouraging:

> [E]xcept in certain circumstances, we conclude that differential assessment is not very effective in maintaining current use in urban areas, even in the short run. In the long run, death and retirement will bring almost all properties on the open market, and, as a rule, the demand for land for urban uses will increase. In this longer run perspective, differential assessment is of little significance in maintaining farm or other open uses.[195]

184. *Id.* at 19, 42-43.
185. *Id.* at 43.
186. *See, e.g., id.* at 42-43.
187. *Id.* at 43.
188. CAL. GOV'T CODE §§ 51200-51295 (West 1966 & Cum. Supp. 1977).
189. UNTAXING OPEN SPACE, *supra* note 17, at 42-43, 279.
190. *Id.* at 43, 279-84.
191. *Id.* at 43, 284.
192. *Id.* at 271.
193. *Id.* at 236.
194. CONNECTICUT DEP'T OF ENVIRONMENTAL PROTECTION, AN EVALUTION OF PUBLIC ACT 490, at 6 (1976).
195. UNTAXING OPEN SPACE, *supra* note 17, at 116.

> Furthermore, we find that even if the marginal effectiveness of differential assessment were considered to be sufficient as a short-term holding action, its expense in tax expenditures is so high as to render it an inefficient means for achieving such retardation of land conversion as it does.[196]

Thus, differential tax schemes fail to provide a lasting solution and are economically inefficient.[197]

b. State TDR Programs

The greatest state-level activity in TDR is found in New Jersey.[198] In July 1976, the state Assembly approved a five million dollar "Agricultural

196. *Id.* at 118.

197. The conclusions in UNTAXING OPEN SPACE, *supra* note 17, have been reached elsewhere. Even in the decidedly "promotional" report on Connecticut's preferential assessment program, the Department of Environmental Protection recognized that the technique is only "a limited range tool in buying years of time to study the problems of growth and to develop ways of accommodating orderly development . . . ." CONNECTICUT DEP'T OF ENVT'L PROTECTION, *supra* note 194, at 40; *see* Gustafson & Wallace, *Differential Assessment as Land Use Policy: The California Case*, 41 J. AMER. INST. OF PLANNERS 379 (1975) (finding that the Williamson Act is ineffective as a growth guidance technique). *See also* Letter to the editor from R. Josephy of Bethel, Connecticut, N.Y. Times, Feb. 6, 1976, at 28, col. 5 (expressing opinion that Connecticut's 14 year old tax abatement program has only slowed, not stopped the loss of farms).

One problem, not adequately addressed in the literature, is the "hidden" tax shifts that occur as a result of preferential assessment. UNTAXING OPEN SPACE, *supra* note 17, at 160-61, reports, for example, that tax shifts in 151 New Jersey municipalities resulted in an increase of 30% or more in the tax rates in 38 municipalities with all but 48 experiencing at least a 10% increase.

The only attempt to measure the economic efficiency of preservational alternatives is reported in LAND USE, OPEN SPACE AND THE GOVERNMENT PROCESS: THE SAN FRANCISCO BAY EXPERIENCE, *supra* note 3, at 32-33. The only techniques showing a benefit-cost ratio in excess of unity are near term acquisition plus zoning (1.08:1) and acquisition plus zoning with compensation (1.5:1). This latter alternative is the basic structure for TDR and PDR. *Id.*

198. A group connected with Rutgers University has written extensively on TDR in general and on the New Jersey efforts in particular. *See* B. CHAVOOSHIAN, T. NORMAN & G. NIESWAND, TRANSFER OF DEVELOPMENT RIGHTS: A NEW CONCEPT IN LAND USE MANAGEMENT (Rutgers University Cooperative Extension Service Leaflet No. 492-A, 1974) (reprinting earlier version, Chavooshian & Norman, *Transfer of Development Rights: A New Concept in Land Use Management*, 32 URB. LAND, Dec. 1973, at 11); Chavooshian, Nieswand & Norman, *Growth Management Program: A New Planning Approach*, 34 URB. LAND, Jan. 1975, at 22.

An interesting TDR game modelled on other simulation activities such as SIMSOC and CLUG is G. NIESWAND, J. AINOLA & B. CHAVOOSHIAN, THE TRANSFER OF DEVELOPMENT RIGHTS GAME (Cook College Rutgers, Leaflet No. 507, 1974). This group has also produced the definitive bibliography on TDR. J. HELB, B. CHAVOOSHIAN & G. NIESWAND, DEVELOPMENT RIGHTS BIBLIOGRAPHY (Cook College Rutgers, Leaflet No. 533, 1976). This bibliography served as the basis of another, more current bibliography. D. MERRIAM & A. MERRIAM, A BIBLIOGRAPHY ON THE TRANSFER OF DEVELOPMENT RIGHTS (Council of Planning Librarians Exchange Bibliography No. 1338, 1977). A shorter, but useful bibliography has been published by another author. Schnidman, *Transfer of Development Rights: Questions and Bibliography*, 34 URB. LAND, Jan. 1975, at 10; Schnidman, *Transfer of Development Rights—An Update*, 34 URB. LAND, May 1975, at 14. Another somewhat out-of-date bibliography is available. H. BURNS, DEVELOPMENT RIGHTS TRANSFER: INTRODUCTION AND BIBLIOGRAPHY (Council of Planning Librarians Exchange Bibliography No. 755, 1975). Of some utility is P. LOWENBERG, WINDFALLS

Preserve Demonstration Project" which allowed the state to purchase development rights from Burlington County farm owners who submit offers of sale.[199] While the available literature contains no clear statement regarding the expected cost per acre for the development rights, one unpublished New Jersey Department of Agriculture information sheet notes that a maximum of 10,000 acres could be preserved by the project.[200] If the Department is saying that it expects to buy development rights from 10,000 acres with the $5 million allocation (that is $500 per acre), it has probably underestimated actual costs.

A Connecticut PDR statute was proposed during the 1976 session but not enacted.[201] The proposal considered but not enacted by the 1977 session was also a PDR program and would have cost an estimated $500 million.[202]

FOR WIPEOUTS: AN ANNOTATED BIBLIOGRAPHY ON BETTERMENT RECAPTURE AND WORSENMENT AVOIDANCE TECHNIQUES IN THE UNITED STATES, AUSTRALIA, CANADA, ENGLAND AND NEW ZEALAND 129-42 (Council of Planning Librarians Exchange Bibliography Nos. 618, 619, 620, 1974).

199. N.J. STAT. ANN. § 4:1B-1 (West Cum. Supp. 1977); Letter to author from John Helb, N.J. Legislative Research Associate (Sept. 13, 1976) (copy on file in office of *North Carolina Law Review); see Public Hearing Before Assembly Agriculture and Environment Committee on Assembly No. 1334*, 197th N.J. Legis., 1st Annual Sess. (Feb. 23, 1976, March 1, 1976); *New Jersey Plans Farmland Preservation Program*, 4 LAND USE PLAN. REP., June 21, 1976, at 6; *New Jersey Sets Up Project for Farmland Preservation*, 42 PLAN., Aug. 1976, at 7; Willis, *The New Jersey Proposal: Preserving Essential Open Space*, in PAS, *supra* note 32, at 11.

In 1976 a TDR bill, as distinguished from the PDR experiment discussed above, was passed by the Assembly, but defeated by the Senate. That bill is being reconsidered in 1977. Helb & Reifer, *New Jersey General Assembly Has Passed Enabling Legislation For Use of TDR*, 10 AM. INST. OF PLANNERS NEWSLETTER, Oct. 1975, at 11; *New Jersey General Assembly Passes TDR Bill*, 3 LAND USE PLAN. REP., May 12, 1975, at 7; *TDR Bill in New Jersey Will Be Back Again*, 6 PRAC. PLANNER, Feb. 1976, at 45. For background on that proposal, see 1 & 2 *Public Hearing Before the Assembly Municipal Government Committee on Assembly No. 3192*, 196th N.J. Legis., 2d Annual Sess. (Mar. 12, 1975, Mar. 19, 1975). Maryland has also considered PDR legislation. *Brief Study of TDR Published by University of Maryland Service*, 2 LAND USE PLAN. REP., Nov. 4, 1974, at 4; *Maryland Legislature to Consider Agricultural Lands Bill*, 3 LAND USE PLAN. REP., Dec. 22, 1975, at 4; Rose, *Proposed Development Rights Legislation Can Change the Name of the Land Investment Game*, 1 REAL EST. L.J. 276 (1973).

200. NEW JERSEY DEP'T OF AGRICULTURE, FARMLAND PRESERVATION DEMONSTRATION PROJECT QUESTIONS AND ANSWERS, answer no. 1 (March 1976). For additional information on how the PDR experiment is to be conducted, see NEW JERSEY DEP'T OF AGRICULTURE, FARMLAND PRESERVATION (n.d.); NEW JERSEY DEP'T OF AGRICULTURE, GUIDELINES FOR LANDOWNERS (May, 1976); NEW JERSEY DEP'T OF AGRICULTURE, GUIDELINES FOR RULES AND REGULATIONS (n.d.); NEW JERSEY DEP'T OF AGRICULTURE, INFORMATION ON THE AGRICULTURE PRESERVE (March 22, 1976). *See also* Press release, Office of the New Jersey Governor (July 22, 1976) (announcing signing of "Agriculture Preserve Demonstration Project") (copy on file in office of *North Carolina Law Review*).

201. Raised Committee Bills 406, 531, Conn. Legis., 1976 Sess. (1976). Most of the opposition came from the Connecticut Association of Realtors which argued that the financing provisions ($500 million to be raised by a 1% tax on all real estate transfers) were inflationary and a deterrent to development. Letter to members of Finance and Environment Committees from Connecticut Association of Realtors (Mar. 4, 1976) (copy on file in office of *North Carolina Law Review*). *See also TDR Considered in Connecticut*, 27 LAND USE L. & ZONING DIG., Oct. 1975, at 6.

202. *Facing Farm Preservation Issues*, New Haven Register, Aug. 24, 1977, at 18, col. 1; *Time for a Farmlands Decision*, New Haven Register, Mar. 18, 1977, at 10, col. 1.

A survey of Connecticut farm owners has indicated that thirty-four percent are willing to sell development rights within five years, eight percent after five years, ten percent maybe, twenty-one percent never, three percent had sold their land or it belonged to the state, and twenty-four percent did not reply.[203]

The New York State Assembly Subcommittee on Town and Village Government held hearings in the fall of 1976 on proposed TDR enabling legislation.[204] The proposed act[205] is the briefest and most general enabling provision considered in any state. It simply declares that local use of TDR would promote the public welfare as part of a land management program.[206] Development rights may be calculated in any effective manner.[207] General criteria for designating preservation and transfer districts are listed and the density in the transfer district is limited to "overall maximum permissible density for the district,"[208] implying the need for moderate downzoning to provide the incentive for private transfers. Local planning boards would administer the program, review TDR applications, conduct a public hearing on each application and, when approving a request, make a specific finding that the transfer furthers the purpose of the act.[209]

Comments at the hearings were generally supportive, but some critics complained that the bill was not specific enough[210] and that local communities should be given a more detailed guide for valuing development rights and designating preservation and transfer districts.[211] With TDR in its infancy, however, the New York approach to enabling legislation seems ideal, since it minimizes constraint and enhances innovation. If the development of law is evolutionary, then the correct beginning is from a permis-

203. P. WAGGONER, D. TUTTLE & D. HILL, LAND FOR GROWING FOOD IN CONNECTICUT 8 (Conn. Agricultural Experiment Station Bull. No. 769, 1977). The authors estimate that development rights will cost $1800 per acre. *Id.* There is considerable interest in the proposal and media support for it. *See Basis for Farmlands Decision*, New Haven Register, Feb. 17, 1977, at 10, col. 1; *Begin Farmland Buys Now*, New Haven Journal-Courier, Feb. 15, 1977, at 4, col. 1; *Legislature's Lone Farmer Cultivates Land-Saving Bill*, New Haven Reigster, Feb. 14, 1977, at 13, col. 2.

204. *Proposed Transfer of Development Rights Act: Hearings of Assembly Subcommittee on Town and Village Government on Transfer of Development Rights—Assembly Bill 9374*, 1976 Sess. (Sept. 29, 1976, Hauppage, N.Y., Oct. 6, 1976, Kingston, N.Y.).

205. New York Assem. Bill 9374, 1975-76 Sess. (Jan. 22, 1976) (copy on file in office of *North Carolina Law Review*).

206. *Id.*

207. *Id.* § 2.

208. *Id.* § 2(i).

209. *Id.* § 2(b).

210. *Proposed Transfer of Development Rights Act: Hearings of Assembly Subcommittee on Town and Village Government on Transfer of Development Rights—Assembly Bill 9314, supra* note 204 (comments submitted by Dr. Newton, Cooperative Extension Agent, Cornell University).

211. *Id.* (Testimony by Upstate Chapter of the American Institute of Planners).

sive statutory foundation. Detailed and restrictive enabling provisions would lock communities into existing TDR forms and hamstring efforts to create new variants and procedures.

Whether state enabling legislation is necessary for TDR is still an open question. The existence of successful TDR and PDR programs at the local level in states that have no TDR enabling legislation indicates that localities in some states may not need specific authority.[212] To get a more accurate view of the perceived need for enabling legislation, as well as to gather other information regarding TDR activity and farmland preservation, questionnaires were sent to the legislative commissions or their equivalent in all states, Puerto Rico and American Samoa.

The thirty-three responses to these questionnaires showed no clear pattern. In twelve jurisdictions it was felt that TDR was not authorized under the existing enabling statutes and that new legislation would be necessary. Coincidentally, or perhaps consequently, there are no reports in the literature or in these twelve responses of any TDR provisions in effect in these states. The need for TDR enabling legislation was specifically denied by officials in five states. Legislative commissioners in sixteen states would not commit themselves to a clear position on the need for enabling legislation, but responded only that no TDR procedures were presently in effect. Replies from two states indicated that regulations prohibited answering research inquiries from sources other than state legislators. Responses were not received from seventeen jurisdictions, even though second requests were sent.[213]

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212. The local zoning power comes only from state enabling legislation since zoning is an exercise of the police power. All states allow municipalities to zone. For a survey of the enabling laws, see Cunningham, *Land Use Control—the State and Local Programs*, 50 IOWA L. REV. 367 (1965).

While most enabling acts are based on the 50 year old A STANDARD STATE ZONING ENABLING ACT, *supra* note 130, the acts vary due to numerous amendments. There are two aspects of the need for specific enabling legislation. The first is whether TDR is a proper police power—that is, does it promote the "health, safety, morals, or the general welfare of the community." *Id.* § 1; *see* J. COSTONIS, *supra* note 1, at 165-66. If there is a question as to whether TDR programs are valid exercises of the police power enabled under existing statutes, then specific authority may be necessary. The second problem is that development rights are new—there is little case law and most of it is useful only by analogy. If stable markets for development rights are to be created, then statutory law may be required to define the legal rights of those dealing in development rights. As a researcher from the Legislative Reference Bureau for the State of Hawaii has noted: "In view of the economic status of a TDR system participant, some clarification of related state law would probably be necessary before successful county programs could be instituted." Letter to author from M. McElroy (May 24, 1977) (copy on file in office of *North Carolina Law Review*).

213. *Enabling legislation necessary*: Georgia (opinion of Attorney General that conservation easements are valid); Hawaii; Idaho; Indiana ("there is great reluctance to allow government to have any more control than it already does"); Iowa; Kentucky (Kentucky Nature Reserves Act, KY. REV. STAT. § 146.465 (Supp. 1976), allows purchase of less than fee

It is noteworthy that officials in so many states failed to give a direct answer to the clearly stated question, "If the statutes do not specifically provide for TDR, could present provisions be reasonably interpreted to allow such transfers?" There may be a general reluctance to give legal opinions or legislative commissioners may be unable to assess the propriety of TDR under present enabling legislation. Some commentators recognize the need for a statutory foundation,[214] and it is noteworthy that Costonis worked to get state enabling legislation enacted in his campaign to have the Chicago Plan adopted.[215] Though enabling legislation may not be necessary for some TDR schemes in some states, a statutory basis would permit recognition of TDR as a valid exercise of the police power, provide an opportunity to specify an institutional framework for regulating transfers and allow states to impose requirements for the effective land planning that is essential to designating preservation and transfer zones. Finally, of course, when states desire to fund PDR programs, legislation will be required.

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interests); New Mexico ("We have more open space out here than anything else."); Ohio; Oklahoma; Oregon (enabling bill recently defeated); Rhode Island; Utah.

Enabling legislation not needed: Alabama (PDR is probably allowed, but TDR is open to question); Arizona; Colorado (statutes "arguably allow this use"); Tennessee (Agricultural, Forest and Open Space Land Act of 1976, TENN. CODE ANN. §§ 67-650 to -658 (1976)); Washington.

No procedure presently exists: Arkansas; Connecticut; Delaware ("Frankly, the Transfer of Development Rights is new to us."); Kansas; Louisiana; Maine; Michigan; Mississippi; Montana ("TDR's are regarded by many in Montana as a subversive plot . . . ."); Nevada; North Carolina; North Dakota; Pennsylvania (32 PA. CONS. STAT. ANN. § 5005 (Purdon Cum. Supp. 1977) allows purchase of less than fee interests and later resale subject to restrictive covenants or easements); Vermont; Virginia; West Virginia.

American Samoa's response was: "I am sorry, we do not have any TDR legislation or anything similar to it as 96% of our land is communally held and there are other restrictions upon its alienation and use."

Cannot service request: California; South Dakota.

Copies of all letters are on file in the office of *North Carolina Law Review*. Some commentators believe enabling legislation is essential for a successful program. Hicks, *Transfer of Development Rights*, 4 STATE PLAN. ISSUES: 1974, at 9 (1974).

Some replies to the questionnaires showed apparent indifference to TDR, ignorance of the concept or misunderstanding of relevant state statutes. Many legislative commissioners, however, indicated interest in TDR by identifying uses of TDR at the local level and by requesting that the author supply additional information. *Indifference*: New Mexico; *lack of knowledge*: Delaware; *misunderstanding*: Letter to author from D. Ed, Administrator in the Office of Illinois Secretary of State (Jan. 17, 1977), which states, in part: "I know of no specific Illinois law regarding transfer of development rights." However, ILL. REV. STAT. ch. 24, §§ 11-48.2-1A to 11.48.2-2 (Cum. Supp. 1977), allows for TDR in landmark preservation and was enacted in order to further the Chicago Plan; *see* Friedlander, *supra* note 143, at 6.

214. *See, e.g.*, Bellandi & Hennigan, *The Why and How of Transferable Development Rights*, 7 REAL EST. REV., Summer, 1974, at 60, 63-64.

215. *See* J. COSTONIS, *supra* note 1, at 182-93.

c. *Local TDR Programs*

Some indication that TDR can work is to be found in the several local programs and proposals that seek to preserve farmland and open space and are designed to supplement existing land use controls.[216] Two programs,

216. There are many interesting TDR and PDR programs that are operational or proposed. In Matansuka-Susitna Borough, Alaska, public authorities have been conveying ownership of public land to potential farmers subject to a restriction that limits use of the land to agricultural purposes. This program suggests a useful method of selling no longer needed public watersheds and park lands while protecting the land and gaining funds and property tax revenues that can be used to purchase the development rights in other property requiring protection. *See* Matansuka—Susitna Borough, Alas., Ordinances 74-52 (Dec. 17, 1974); *id.* 75-15 (Mar. 27, 1975); Woodbury, *supra* note 83, at 13. The Matansuka-Susitna Valley is the proposed site for a new state capital. *Plans to Shift Alaskan Capital Cause Concern*, N.Y. Times, Nov. 7, 1976, § 1, at 27, col. 1.

Livermore, California, has a workable TDR program without state enabling legislation and based only on an unadopted policy that suggests that a variety of means may be used to accomplish the transfer of development rights. Letter to author from G. Musso, Director of Planning, Livermore, Cal. (Nov. 2, 1976) (copy on file in office of *North Carolina Law Review*). *See also* Richards, *Development Rights Transfer in Livermore: A Planning Strategy To Conserve Open Space*, 5 GOLDEN GATE L. REV. 191 (1975). The Livermore experience shows that some planning and zoning commissions can use TDR on a "do-it-yourself" basis.

Westwood Village, Los Angeles, California, has a small-area TDR program that illustrates the use of TDR in promoting improved site design in developed environments. Los Angeles, Cal., An Ordinance Establishing a Specific Plan for Westwood Village, Ordinance 145.043 (Aug. 24, 1973); Woodbury, *supra* at 13-14.

Hillsborough and Chesterfield, New Jersey, have transfer of development credits (TDC) programs that differ from TDR in that under TDC the parcels in both the preservation and transfer zones must be in the same ownership. TDC is an improvement over clustering since it eliminates the need for contiguous parcels. In addition, TDC is thought to be enabled by existing legislation. Hillsborough Township, New Jersey, Development Regulations Ordinance, Ordinance No. 76-18, § 329 (Dec. 14, 1976); W. QUEALE, TRANSFER OF DEVELOPMENT CREDITS TDC, A NEW FORM OF CLUSTER ZONING 3 (New Jersey Federation of Planning Officials, Information Report XI, No. 1, 1976); *Hillsborough Adopts Transfer of Developments Credit Ordinance, supra* note 56; Woodbury, *supra* at 14-15; Letter to the author from T. Peterson, Hillsborough, New Jersey, Planning Administrator (Feb. 23, 1977) (copy on file in office of *North Carolina Law Review*).

Boulder, Colorado, has a successful program under which the community has purchased less-than-fee interests in land to control conversion of farmland and open space. The program enjoys broad support from local citizens and is noteworthy for its financing arrangements and flexibility. *See* BOULDER'S OPEN SPACE PLAN (1974); LESSONS FROM A GREENBELT PROGRAM, BOULDER, COLORADO 9 (n.d.). Boulder, Colo., Ordinance 3288, § 11 (Nov. 7, 1967), is the basic authority for allocation of the sales tax revenues that help finance the program. Boulder, Colo., Ordinance 3864 (Jan. 2, 1973), is a subsequent bond issue for open space acquisition. Boulder, Colo., Ordinance 3940 (Sept. 16, 1973) creates the Open Space Board of Trustees and sets forth their duties. The existing program parallels the plan outlined in a memorandum from the city manager to the city council. Plan for Implementing the Greenbelt Program (Mar. 12, 1968) (copy on file in office of *North Carolina Law Review*). In one acquisition, Boulder paid $1540 per acre for the development rights on 172.3 acres. *Tailored Open Space Acquisition Includes Development Rights Purchase*, 26 LAND USE L. & ZONING DIG., Nov. 1974, at 4-5. The program "is an example of the steps which can be taken in incremental fashion toward some of the more rarified theoretical approaches to land use controls such as development rights, density transfer schemes and land banking." *Id.*

Suffolk County, New York, has a PDR program that is remarkable not so much for its success as for the long period of political dispute and cavil that preceded its adoption and funding. For similar difficulties with the Chicago Plan, *see* note 145 and accompanying text *supra*. The many reports in newspapers and other periodicals provide a full account of the

one in St. George, Vermont, and the other in Buckingham Township, Pennsylvania, are exemplary of TDR's potential as a land use guidance technique. The St. George plan is radical yet it works because it is the best solution to the seemingly intractable problem of extreme development pressure. The Buckingham Township program is a model of conservative incrementalism in that it integrates the TDR provisions with conventional Euclidean zoning. It works because thoughtful planning has provided for adequate incentives.

(1) St. George, Vermont

A TDR program intended to provide greater governmental control over the development process is in use in St. George, Vermont.[217] This 2,304

events. *See*, in chronological order, Gupte, *Preserving the Farms Is Not An Easy Task*, N.Y. Times, July 21, 1974, § 4, at 5, col. 3; Bryant & Conklin, *New Farmland Preservation Programs in New York*, 41 J. AM. INST. OF PLANNERS 390, 394-95 (1975); Gupte, *Suffolk is Offered 18,000 Acres*, N.Y. Times, Mar. 16, 1975, at 95, col. 6; *Klein Is Seeking An Additional $23 Million to Purchase Farmland in Suffolk*, N.Y. Times, Apr. 27, 1975, at 95, col. 1; *Klein Farm Plan in Dispute*, N.Y. Times, May 18, 1975, at 93, col. 2; Letter to the Editor from A. Lowen, N.Y. Times, Sept. 7, 1975, § 4, at 16, col. 5; Gale & Yampolsky, *Agri-Zoning: How They're Gonna Keep 'Em Down on the Farm*, 41 PLAN., Oct. 1975, at 17; Peterson & McCarthy, *These Farmers Said: "No Sale!"*, 41 PLAN., Oct. 1975, at 20; *The Farms of Suffolk*, N.Y. Times, Oct. 28, 1975, at 32, col. 1; Gupte, *Hunger for Land Is Turning a Region of Choice Farms Into One of Houses*, N.Y. Times, Feb. 8, 1976, § 8, at 1R, col. 1; Cummings, *Save the Farmland*, N.Y. Times, Apr. 4, 1976, § 21, at 41, col. 4; *Vote For Farmlands*, N.Y. Times, May 8, 1976, at 22, col. 1; *Suffolk Legislature Kills Plan To Preserve East End Farms*, N.Y. Times, May 12, 1976, at 45, col. 11; *Suffolk Farmland*, N.Y. Times, May 12, 1976, at 40, col. 1; *Suffolk's Farm Plan Shelved*, N.Y. Times, May 16, 1976, § 4, at 7, col. 3; Gupte, *The Fight That Everyone Lost*, N.Y. Times, May 16, 1976, § 21, at 6, col. 7; *Farmland Preservation Program Killed in Suffolk County, N.Y.*, 4 LAND USE PLAN. REP., May 24, 1976, at 7; Letter to the Long Island editor from L. Ruddell, Southampton, N.Y. Times, June 13, 1976, § 21, at 28, col. 3; *Farmland Preservation Bill Authorizes Purchase of Suffolk County Development Rights*, 4 LAND USE PLAN. REP., Sept. 13, 1976, at 5; *Suffolk Begins Saving Its Farms*, N.Y. Times, Sept. 30, 1977, at 1, col. 5. *See also* Suffolk County, N.Y., Local Law 19-1974 (June 14, 1974) (relating to the acquisition of development rights in agricultural lands); REPORT OF THE SUFFOLK COUNTY AGRICULTURAL ADVISORY COMMITTEE 1 (Mar. 1974); SELECT COMM. ON THE ACQUISITION OF FARMLANDS, REPORT TO THE SUFFOLK COUNTY LEGISLATURE (Nov. 7, 1974); Statistics on Farmland Development and School Taxation (unpublished, compiled by John Klien, Suffolk County Executive, Aug. 1974) (copy on file in office of *North Carolina Law Review*).

Southampton, New York, has a TDR program that has proven unworkable thus far because the economic incentives are inadequate. *See* Southampton, New York, Building Zoning Ordinance No. 26 §§ 2-10-20, -40-30 (1972); Woodbury, *supra* at 15. A citizen's organization, Group for America's South Fork, Inc. (GFASF), has proposed several changes to the program including a requirement that developers prove they have made a bona fide effort to sell their development rights before they are granted subdivision approval. GFASF, LEGAL MEMORANDUM (n.d.); GFASF, PROPOSED ADDITION TO SUBDIVISION REGULATIONS (n.d.). Other mimeographed materials of interest by GFASF include: DISCUSSION PAPER: THE MASTER PLAN OF 1970 (n.d.); DISCUSSION PAPER: THE PRESENT TDR ORDINANCE (n.d.); PRESERVATION OF FARMLAND IN THE TOWN OF SOUTHAMPTON THROUGH TRANSFER OF DEVELOPMENT RIGHTS (n.d.). *See also* S. Woodbury, Memorandum to Interested Parties: Housing Market Study of the Town of Southampton, Long Island (Sept. 15, 1976) (unpublished, by planning consultant to the GFASF, raising questions regarding the impact of TDR on housing) (copies of all these materials on file in office of *North Carolina Law Review*).

217. *See Hearing of Subcommittee on Rural Development of the Senate Committee on*

acre town, ten miles southeast of Burlington, experienced more than a fourfold increase in population in the decade ending in 1970.[218] To ensure control over the development of the town, the citizens purchased a fifty acre site for a town center and sponsored a competition for the design of the center and environs. In order to build in the center, a developer must first transfer to the town the number of development rights equivalent to the density of the intended development.[219] The developer's source of development rights would be some unimproved parcel away from the center; he would buy this parcel, strip away its development rights, and use them to "pay" the town for the right to build in the center.[220] The town maintains control over central area development and receives a permanent restriction preserving valued open space, while the developer gains the economic advantage of being allowed to build in the accessible and valuable town center.[221]

So far, one transfer of eighteen development rights from thirty-six undeveloped acres has been executed in St. George. In return for these development rights, the developer received a long-term lease on a three acre parcel on which he will build eighteen housing units, an industrial building and a commercial facility.[222]

The St. George Plan, as radical as it is,[223] is still not a complete substitute for existing regulations. While St. George may be the paradigm for similarly situated rural areas confronted with development pressure,

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Agriculture and Forestry, 94th Cong., 1st Sess., pt. 1, at 274-76 (1975) (statement of A. Beliveau); ROBERT BURLEY ASSOCIATES, PEOPLE ON THE LAND 21-23 (1973) (prepared for Vermont State Planning Office); Wilson, *Precedent Setting Swap in Vermont*, 61 AM. INST. ARCH. J., Mar. 1974, at 51; *Vermont Town Holds TDR as Tool to Control Future Development*, 2 LAND USE PLAN. REP., July 29, 1974, at 5.

According to a St. George official: "The program has been used only once . . . . The town is pleased with the TDR program and has no plans to change it. Its use has been limited to date, but as the area expands so will its use." Letter to author from Stan Bradeen, St. George Town Clerk's Administrative Assistant (Feb. 10, 1977) (copy on file in office of *North Carolina Law Review*).

218. The population increased from 108 to 477. ROBERT BURLEY ASSOCIATES, *supra* note 217, at 21.

219. *Id.* at 22.

220. *See Hearings of Subcommittee on Rural Development of the Senate Committee on Agriculture and Forestry, supra* note 217, at 274-76.

221. *See id.*

222. *'Instead-of Program' Helps St. George Get Town Center*, Burlington Free Press, Sept. 1, 1975, at 1, col. 1.

223. From the historical perspective, the St. George plan may not be so radical. Based on an original settlement design by General James Oglethorpe, the City of Savannah beginning in 1790 achieved unique and highly satisfactory planned development by using its ownership of the common and employing a system of regulated sales and leases. Reps, *Public Land, Urban Development Policy, and the American Planning Tradition*, in MODERNIZING URBAN LAND POLICY 41-48 (M. Clawson ed. 1973).

built-up areas would have some difficulty in making effective use of such a plan. This is true because the patterns of central area development in such areas are established. It might be possible for more developed towns to buy residential land at the edge of commercial areas, upzone it and then apply the St. George Plan. By this method a town could capture the windfall profits that would otherwise go to a private owner.[224]

(2) Buckingham Township, Pennsylvania

In effect since March 1975 as a provision of the zoning ordinance, the TDR option in Buckingham Township, Pennsylvania, is designed to preserve agricultural land.[225] Landowners in the agricultural district receive one development certificate for each acre.[226] Their development rights can then be sold to landowners in the three higher density residential districts.[227] The minimum site area in the receiving districts is only two to five acres and developers are allowed to increase the density on the receiving sites by about one dwelling unit per acre for each development right purchased.[228] The maximum densities in the receiving districts are 140 to 613 percent of that normally allowed with the greatest density increases available in areas with sewerage.[229]

Conveyance of development rights requires the seller to restrictively covenant his land and rezones the land into an agricultural preservation district permitting only one residence in every twenty-five acres.[230] So far, a sales agreement has been made to transfer twelve development rights at $1800 each. This price is at the lower end of a range of estimates made by the county planners.[231] Another sales agreement for twenty rights at $2000 each has reportedly been made.[232]

224. Equally important, in both the case of the St. George plan and the hypothetical use in a more developed setting, is the ability of TDR to increase nodal density and to enhance effective planning, thereby reducing economic, environmental and natural resource consumption, and the personal costs associated with sprawl. *See* REAL ESTATE RESEARCH CORPORATION, THE COSTS OF SPRAWL 6 (1974).

225. The discussion that follows is based upon Buckingham Township, Pa., Zoning Ordinance of 1975 art. V, § 502 & art. VI (Mar. 18, 1976) (amending Buckingham Township, Pa., Zoning Ordinance of 1975 (Mar. 6, 1975)).

226. *Id.* art. VI, § 602.

227. *Id.*

228. *See id.* art. V, § 502 & art. VI, § 603.

229. *Id.*

230. *Id.* art. VI, § 602(d).

231. Woodbury, *supra* note 83, at 15.

232. SEDWAY/COOKE, *supra* note 24, at 24. Unfortunately, a Bucks County, Pennsylvania, court has declared the Buckingham zoning ordinance invalid. The decision was rendered in a case brought by seven developers whose request to build 7,105 housing units was denied and who claimed the ordinance was exclusionary. *Busting Up Buckingham*, The Philadelphia

Analysis of the literature available on the Buckingham provisions[233] does not reveal why TDR works in this case. As noted above, density increases available under this TDR program are substantial, transfer zones cover a wide area and the small minimum area requirement for receiving sites in the transfer zones enables owners of small parcels to make use of development rights. Altogether, these characteristics provide strong economic incentives for voluntary participation and make it possible for owners of relatively small parcels to be purchasers of development rights.

IV. THE ECONOMICS OF TDR

An understanding of TDR economics is critical in planning workable programs. The principal economic concerns are: first, the valuation and allocation of development rights; second, the maintenance of sufficient demand to clear the market at a reasonable price; and third, the incidence of costs.

A. Allocation of Development Rights

Measuring and allocating development rights that may be transferred by landowners in pure density terms—for example, each twenty acre farm zoned for one dwelling unit per acre receives twenty development rights that can be used elsewhere to increase site density by twenty units—does not always reflect the actual development potential of the land and forces zoning limits to serve as a basis for compensation for transferred development rights.[234] One frequently cited alternative is to use the difference in value of

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Evening Bull., Dec. 1, 1976, at 6, col. 1 (editorial). See notes 277-78 and accompanying text *infra* for a discussion of Buckingham's inclusionary provisions.

A somewhat analogous scheme has been proposed by the planning firm of Sedway/Cooke for preserving farmland and open space in Sonoma County, California. The principal difference is that development rights under the Sedway/Cooke proposal would be distributed to owners of land in the preservation zone on the basis of assessed land value, an allocation formula that is thought to be fairer because it better reflects development potential. Each development right, however, would still be equal to one dwelling unit per acre. SEDWAY/COOKE, *supra* at 61, 66. This is an excellent, almost definitive, report of current TDR activity and problems. Sedway/Cooke also produced a SUMMARY REPORT (1976). An earlier report by county planners is of interest because it argues for a novel "concentric ring theory" of differential allocation of development rights. SONOMA COUNTY PLANNING DEP'T, THE POTENTIAL FOR DENSITY TRANSFER IN SONOMA COUNTY: A PILOT STUDY 16 (1974). The planners were obviously influenced by Burgess's concentric ring theory of land use. *See* Burgess, *The Growth of the City: An Introduction to a Research Project*, in THE CITY 47 (1967).

233. *See* authorities cited in notes 231-32 *supra*.

234. In discussing this problem and attempting to explain the failure of a proposed TDR program, one town's planning board chairman said:

> Some other points that have been raised is that our Town is surrounded on 2 sides by water; and the land on or near the water happens to be the most expensive around. There can be no possible equalization for a development right that is taken "out of" the coastal area and transferred to the morraine area in terms of value, unless it involves the granting of 1 1/2 rights which would eventually result in an increased

the parcel with and without its development rights.[235] This measure, however, requires expensive appraising and would be subject to frequent challenge. It has been suggested that allocation on the basis of the value of land alone "appears to provide the best balance between simplicity and fairness," but that properties in the preservation area may have to have their assessments brought up to date before there can be allocations based on land value.[236] While supporters of this view claim the cost is relatively small,[237] the burden may exceed the benefit in communities with outdated assessments and large preservation areas. Such localities will probably measure and allocate development rights on density terms alone.

Ease of administration is an important consideration in choosing a method of allocation, especially since preservation of farmland and open space will be principally the concern of exurban areas that usually lack professional planning and often have difficulty administering rudimentary zoning and subdivision controls. Therefore, small communities with limited resources will tend to use density equivalents, while more sophisticated local jurisdictions can make the best use of land value allocations and more esoteric variants, such as physical capability for development (so-called "carrying capacity") or locational probability of development.[238]

B. Market Maintenance

The lesson learned from Tudor Parks[239] is that there must be a market for development rights or mandatory schemes risk invalidation.[240] Voluntary schemes will not work unless sufficient incentives exist to stimulate

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overall density. If the land was generally of the same character and value, this would not be so much of a problem, but the overall increased density would seem a very strong prohibition, and the facilities that might be needed to support this density (sewage, water).

Letter to the author from Thomas E. Halsey, Chairman Town Planning Board, Southampton, N.Y. (Oct. 4, 1976) (copy on file in office of *North Carolina Law Review*).

235. *See, e.g.*, Schimmel, *New Appraisal Concepts—Valuation of Air Rights and Development Rights*, in 1 LEGAL AND APPRAISAL ASPECTS OF CONDEMNATION 19 (Real Estate Law and Practice Course Handbook No. 80, 1973).

236. SEDWAY/COOKE, *supra* note 24, at 61. Illustrative of the utter lack of agreement regarding allocation formulae is an opinion in direct contradiction of the Sedway/Cooke position: "[A]ssessed valuation which has been suggested as a base for distribution of development rights is the worst possible standard." Graaskamp, *Impressions on the Marketability of TDRs*, in PAS, *supra* note 32, at 20.

237. SEDWAY/COOKE, *supra* note 24, at 61.

238. *Id.* at 55-61 lists eight allocation alternatives: (1) acreage, (2) zoning, (3) general plan, (4) physical capability of development, (5) locational probability of development, (6) value of foregone development potential, (7) value of property, and (8) value of land.

239. Fred F. French Investing Co. v. City of New York, 39 N.Y.2d 587, 350 N.E.2d 381, 385 N.Y.S.2d 5 (1973). This case is discussed at text accompanying notes 103-16 *supra*.

240. *See* text accompanying notes 107-09 *supra*.

private transfers.[241] There are two methods of ensuring adequate demand. First, demand may be enhanced by designating relatively large transfer areas, by downzoning transfer areas, by providing substantial increases in density maximums for receiving sites in the transfer zones and by minimizing transaction costs. The Buckingham Township ordinance takes this approach.[242] The Chicago Plan exemplifies the other method of ensuring demand—it uses a bank to purchase development rights when the private market is incapable of clearing them at a price that will compensate the seller for his loss of development potential.[243]

As two economists candidly admit, a free market in development rights "can be very complex."[244] Several interactive conditions can be identified in such a market. Holders of development rights may act as if they are marginal landowners, next in line for development, and perceive an unrealistically high value for their real property rights.[245] Empirical evidence of this tendency is found in a study of participation in California's Williamson Act program of preferential assessment.[246] In the Sacramento area, the optimum participation rate was calculated to be at least 80%,[247] yet only 13.9 to 49.8%[248] of area landowners were involved in the program. This presumably occurred because many owners over-estimated their chances of windfall gains through the development of their land.[249] The effect of these

241. "The success or failure of development rights programs will depend in large part, however, on whether these simple matters of compensation are worked out in practice." B. Field & J. Conrad, Economics of Compensation in Development Rights Programs (n.d.) (mimeograph) (copy on file in office of *North Carolina Law Review*) [hereinafter cited as Field I]. In economic terms supply is as important as demand in establishing the equilibrium price, but in most TDR situations the property to be preserved is fixed in area and value. Therefore, though some adjustments can be and are made on the supply side, the focus will usually be on demand.

242. *See* text accompanying notes 225-32 *supra*.

243. *See* text accompanying note 140 *supra*. But as one report points out, having the local government act as "broker" opens the door to abuse. SEDWAY/COOKE, *supra* note 24, at A-3. This potential for abuse of discretion is one criticism of the Town and Country Planning Act, 1947, 10 & 11 Geo. 6, c.51. Wendt, *Administrative Problems, supra* note 64, at 432.

244. Field I, *supra* note 241, at 8.

245. B. Field & J. Conrad, Economic Considerations in Establishing Development Rights Programs for Community Land-Use Management 4 (October 1975) (mimeograph) (copy on file in office of *North Carolina Law Review*) [hereinafter cited as Field II]. *See also* Field & Conrad, *Economic Issues in Programs of Transferable Development Rights*, 51 LAND ECON. 331, 333 (1975).

246. Hansen & Schwartz, *Landowner Behavior at the Rural-Urban Fringe in Response to Preferential Property Taxation*, 51 LAND ECON. 341 (1975). The Williamson Act is discussed at text accompanying notes 188-91 *supra*.

247. Hansen & Schwartz, *supra* note 246, at 350.

248. *Id.* at 345-46. In the Foothill area, about 20 to 30 miles from the core, 49.8% of the land was enrolled, while in the Stone Lake/Franklin area, about 10 miles from the core, 13.9% of the land was enrolled. *Id.*

249. The authors conclude that "landowners are overly optimistic about potential gains from future development, and that is the major reason for low CLCA [use value taxation] urban fringe enrollment." *Id.* at 351.

unreasonable expectations is to inflate the asking price for development rights, thereby reducing demand and the quantity of development rights transferred.

The timing and sequence of the sale of development rights also affects the equilibrium price. If the development rights are transferred from Blackacre, adjacent Whiteacre enjoys an increment of value by reason of its location next to preserved open space. Whiteacre's owner will consequently demand a higher price for his development rights.[250]

Moreover, the developer seeks an optimal combination of houses and land. Increasing densities reduce the cost per dwelling unit of site improvements[251] but at high densities living environments become less desirable and total revenues decrease. Public officials will have difficulty identifying this point of private profit maximization.

PDR programs raise even more troublesome issues because they result in windfall profits to those developers who hold unrestricted land that increases in value as land of that sort becomes scarce or that enjoys the positive externalities of preserved open space. Moreover, the uniform pricing and purchase of development rights from entire parcels causes the acquiring government unit to pay far more than is necessary to prevent marginal conversions.[252] That is, Farmer has, as shown in figure 1, a downward sloping value of marginal product (VMP) curve; each additional acre of land has a diminishing marginal productivity. This curve describes the present value of the farm as a farm. Now, suppose Developer asks Farmer to sell part of the 100 acre farm so Developer can build his "El Rancho" subdivision. Developer offers $5000/acre for as much land as Farmer will sell. This price, "PSUB" is the value per acre to Developer of a portion of Farmer's land suitable for development of a subdivision. Since the price curve (the dotted line at PSUB) intersects VMP at eighty acres (point A), Farmer will sell twenty acres to Developer for $100,000.

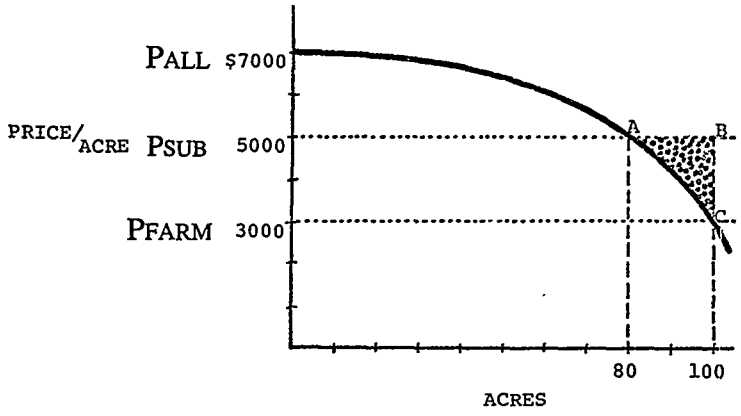
When Town hears of the possible Farmer-Developer deal it is horrorstruck at the possible loss of part of Farmer's agrarian paradise. If Town

250. Field II, *supra* note 245, at 7; Field I, *supra* note 241, at 7. But the anticipation of future profits at Whiteacre may not cause Whiteacre's owners to hold out since the ability to "wait and see" depends on other factors, principally current wealth. *See* Field & Conrad, *supra* note 245, at 333.

251. Field II, *supra* note 245, at 11. *See also* A. SCHMIDT, CONVERTING LAND FROM RURAL TO URBAN USES 20 (1968) (showing, for example, that as lot size is increased from 2,500 to 7,000 square feet, the cost of improvements (streets, utilities, grading) and the total cost of the lot more than double).

252. Field II, *supra* note 245, at 16. The discussion that follows and the graph (figure 1) are adapted in part from Field I, *supra* note 241, at 5.

FIGURE 1: PRICING STRATEGY



purchases the fee interest in Farmer's entire parcel it will have to pay a price that approaches PALL, $7000/acre, or $700,000 for the parcel.[253] Farmer would sell all of his land only if offered more than $5000/acre because the fewer acres he has, the more valuable they are to him. This is true because the first few acres are more productive than the last few acres. That is why the VMP curve is higher to the left where the acreage is less.

If Town follows the procedure of most TDR programs, it will offer to buy or create incentives for the transfer of the development rights from the entire parcel with the development rights valued at $4000/acre, which is the difference between the marginal price that would have to be offered for the fee interest in the entire farm and the marginal farm use value ($3000). Thus, Town will pay, or attempt to get others to pay, a total of approximately $400,000 ($4000/acre x 100 acres).

If Town had some way to just exceed the difference between the marginal farm use value for the twenty acres and the price offered by the Developer, it could stop development on the twenty acres. Specifically,

253. More precisely, the total price paid for the 100 acres would be the area under the VMP curve. If the VMP curve were a horizontal line at $7,000, the total price would be $700,000. In this case, the total price for the fee interest in the 100 acres is actually less than $700,000 because the curve is downwardly sloping. For reasons of simplicity (integral calculus would normally be used to compute the area under the curve), $700,000 is chosen to complete the example.

Town would outbid Developer if it offered an amount equal to the shaded area ABC plus $1—a total of about $20,000 or one-twentieth as much as Town would have to pay for all the development rights.[254]

In those PDR systems that use bid offers the government can come close to this minimum stop-conversion price if the landowner offers development rights only on the area he is otherwise willing to sell to developers, if the bid offer is not inflated by unreasonable expectations of windfall gains, and if the government can accurately predict that this particular parcel is likely to be developed in the near future. This combination of conditions is unlikely to occur on a regular basis. TDR programs with banks face the same conditional imperatives; those without banks have no hope of guaranteeing minimum incentives since they do not control the order in which parcels have their rights bid away.[255] Proposed later in this article[256] is a new administrative procedure that will permit the purchase of development rights under such a marginal strategy during periods when development threatens key areas and the private market fails to support the transfer of development rights. The point to be emphasized from the present discussion is that existing PDR and TDR programs are economically inefficient. Given the limited resources available, less land can be preserved under present programs than would be under more efficient schemes.

C. *The Incidence of Costs*

The other important issue in TDR economics is the decision as to which groups should bear the burden.[257] Presumably, communities apply TDR because they believe the technique can assist in effecting a more desirable pattern of land uses, thereby increasing social welfare.[258] While some

254. This assumes, as is the practice in existing TDR programs, that the land would be assessed at use value after conveyance of the development rights.

255. Moreover, active, full-time development rights banks increase the transaction costs, at least doubling them if the rights are resold. The government's ideal role might be to serve only as an auctioneer. Field & Conrad, *supra* note 245, at 338.

256. *See* text accompanying notes 315-41 *infra*.

257. *See* Shlaes, *Who Pays for Transfer of Development Rights?*, 40 PLAN., July 1974, at 7, *reprinted in* TDR, *supra* note 20, at 330.

258. The justification for changing the private land use decision and thus for increasing the costs is the same as that suggested for control of the location of a public work: the benefit to general welfare from decreasing or eliminating an external cost (or from locating an external benefit where it is most valuable) exceeds the loss to the general welfare arising from less efficient and more expensive locations.

Dunham, *A Legal and Economic Basis for City Planning*, 58 COLUM. L. REV. 650, 659 (1958).

When a community imposes a TDR scheme on itself, it is, in a sense, acting in accordance with the Coase theorem, which asserts that regardless of the tort rule used, the same output will be produced. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1 (1960). The harmful activity is development and the community has two choices. It may allow development to continue under existing zoning and ultimately pay "damages" of increased taxes associated with urban sprawl and of lost open space. Or the community may "bribe" itself by assuming the cost of

commentators imply that the use of TDR is costless,[259] there are important distributional issues. Assume, for example, a TDR program without a bank. Developers who must pay for development rights experience an increase in production cost and may not be willing to pay as much for land in the transfer zone as they would if the right to develop at the same density were unconditional.[260] That is, landowners in the transfer zone will bear part of the cost of TDR in the form of a reduction in the market value of their property. Since TDR is providing a density bonus as an incentive, however, the actual loss to the transfer zone owner is no greater than his potential "windfall profit"—the increment in value attributable to increased opportunities for development resulting from government investment in physical capital or upzoning. At worst, the transfer zone landowner loses an unearned profit. In some instances, the landowner may actually enjoy an increase in the market value of his property when TDR provides the density necessary to justify development of marginal land.[261]

Developers will avoid participating in TDR programs if they must experience an increase in costs without a greater increase in revenues. In many instances the increased density may provide economies of scale and reduce unit production costs, thereby permitting the developer to undersell non-TDR competitors and providing consumers with a larger surplus. This is precisely the driving force behind the widespread adoption and use of clustering and PUD provisions. In addition, the resultant preferred urban form makes the community a more desirable place in which to live, bidding up the price of all property—particularly land near the preserved areas.[262]

One redistributive effect, a "negative externality" in the parlance of economics,[263] must be minimized if TDR is to succeed. It has been alleged

establishing a TDR program, by increasing central area densities, and, if necessary to provide sufficient incentives for private transfers, by accepting somewhat higher overall density. The Coase theorem applied to this closed system seems somewhat peculiar, but it is nevertheless appropriate because the community is faced with the same alternatives as Coase's rancher—it can take present profits and face the prospect of future damages, or it can bribe its landowners to produce a more efficient pattern of land use and avoid long-run increased costs.

259. Chavooshian & Norman, *Transfer of Development Rights: A New Concept in Land Use Management*, 32 URB. LAND, Dec. 1973, at 11, 13.

260. Field II, *supra* note 245, at 21.

261. On the one hand, transfer zone landowners may lose since their monopolistic position and ability to hold out is eroded by the developer's opportunity under TDR to substitute the purchase of additional development rights for the purchase of additional land. On the other hand, since development rights provide greater economies of scale, owners of marginal, small parcels in the transfer zone will be able to bring their property into production with TDR. *See* Shlaes, *The Economics of Development Rights Transfers*, 42 APPRAISAL J. 526, 536 (1974).

262 Field II, *supra* note 245, at 7; Field I, *supra* note 241, at 7.

263. "Negative externalities" are external costs. "[I]f one builds a singularly ugly house, his neighbors suffer." D. NETZER, ECONOMICS AND URBAN PROBLEMS 8 (1970). For a brief introduction to the concept, see W. HIRSCH, URBAN ECONOMIC ANALYSIS 22-26 (1973).

that higher densities in developed areas threaten the physical and psychological well-being of nearby residents.[264] The New York City experience may be an extreme case, but increased densities, even in exurban transfer zones, may cause land near the developed sites to become less desirable.[265] Careful site design and planning, however, can reduce or eliminate these adverse externalities.[266] The belief that lower densities necessarily result in better living environments is naive and the root cause of suburban sprawl.[267] The argument that TDR is passing the "density buck" to those residing in or near the transfer zone is specious.

PDR programs, which require public financial support, raise additional questions about funding arrangements and the distribution of costs. State funded programs, like those existing in New Jersey[268] and proposed for Connecticut,[269] substantially separate the burden from the benefit.[270] County

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264. *See, e.g.*, Note, *supra* note 22, at 371-72.

265. J. Marlin, The Economics of Transferable Development Rights 41, 49 (1975) (unpublished paper, Council on Municipal Performance) (copy on file in office of *North Carolina Law Review*).

266. The rationale behind density bonuses with clustering, PUD and special development districts is that the improved site design results in a net improvement in public welfare while the increased density gives an incentive to voluntary participation. But when zealous planners err on the side of over-regulation in administering flexible zoning provisions, they rigidify design. *A Little Zoning Is a Good Thing*, N.Y. Times, Mar. 2, 1977, § A, at 20, col. 1.

267. Moreover, planners simply do not yet understand what relationship, if any, exists between development density and psychological well-being. Man is adaptive and his relationship with built environments is interactive. "Designed environments, then, should be both conceptualized and realized as dynamic systems capable of moving toward more appropriate states. . . . The entire process is thus analyzable as an iterative one." Studer, *The Dynamics of Behavior—Contingent Physical Systems*, in ENVIRONMENTAL PSYCHOLOGY 56, 73 (1st ed. H. Proshanski, W. Ittelson & L. Rivlin eds. 1970). "[T]here is not much reason to believe that density (short of great extremes) *causes* pathology. The effects of density are highly dependent on individual, situational (social and architectural), and cultural factors." Fischer, Baldassare & Ofshe, *Crowding Studies and Urban Life: A Critical Review*, 41 J. AM. INST. OF PLANNERS 406, 411 (1975).

268. *See* notes 198-200 and accompanying text *supra*.

269. *See* notes 201-03 and accompanying text *supra*.

270. Federal support of PDR further separates the burden from the benefit except to the extent that the community foregoes spending in other areas as would be the case with multipurpose block grants—those programs that allow communities wide discretion in spending lump sum federal payments. The Housing and Community Development Act of 1974, § 105(a)(1)(c), 42 U.S.C. § 5305(a)(1)(c) (Supp. V 1975), for example, permits the use of federal funds for acquisition of real property "for the preservation or restoration of historic sites, the beautification of urban land, the conservation of open spaces, natural resources, and scenic areas, the provision of recreational opportunities, or the guidance of urban development." *Id.* § 5305(a)(1)(c). The community development block grant program replaced the open land acquisition program in Title VII of the Housing Act of 1961. HUD Community Block Grants Regulations, 24 C.F.R. § 570.1(c)(6) (1976). *See also id.* § 570.200(a)(iii) (1976) (reiterating that acquisition of open space is an eligible activity).

Also, under the Public Works and Economic Development Act of 1965, 42 U.S.C.A. §§ 3121-3246(h) (West 1977), states must include planning for open spaces. Arguably, communities may include the costs of buffer open space in connection with public works and development facility projects in their project costs. EDA Public Works and Development Facilities Program, Rules and Regulations, 13 C.F.R. § 305.65 (1977).

programs bring the cost closer to the beneficiaries. Local efforts can most closely align expense with profit. The intergovernmental distribution of costs and the choice of funding sources are complex questions of public policy.[271]

Some elemental propositions of financing should be obvious. Many benefits of TDR/PDR extend beyond local boundaries. Preserved farmland and open space serve at least intrastate regional needs and in some cases[272] their benefits may be enjoyed nationally and internationally. Some funding by both state and federal governments is therefore justified under the principle that beneficiaries should bear their share of the burden. Moreover, programs that result in the preservation of substantial proportions of undeveloped land in local jurisdictions are going to severely restrict the growth of the local tax base and shift the burden of local property taxes to those whose land is already developed or unrestricted.[273] One partial solution may be to have states reimburse localities for lost *ad valorem* taxes by making payments proportionate to the benefits that are enjoyed by citizens at the regional and state levels.

Other important issues are the progressive or regressive effects of the tax base, the distribution of burden between landowners and those who do not own real property, and the distribution over time between present and future residents. One approach to local funding that is capable of capturing future windfalls while providing present resources is issuing bonds and repaying them from a one time tax on real estate. This PDR assessment could be repayable with interest over the life of the bonds at the landowner's

271. The discussion of these issues is unfortunately beyond the scope of this paper. A problem of major significance is what is the proper geographic area for TDR planning. This article's assumption that individual towns can use TDR is based less on the conviction that individual programs are best than on the belief that regional planning is not politically feasible. At least one commentator agrees that TDR planners will continue to have difficulties with their programs until they take a more regional approach. Telephone conversation with J. Conrad (co-author of Field I, *supra* note 241, and Field II, *supra* note 245) (Sept. 1, 1977).

272. *See, e.g.*, text accompanying notes 159-67 *supra*, describing the need to preserve Florida's citrus groves and Puerto Rico's Phosphorescent Bay.

273. When land is preserved it is then taxed on its new lower market value. Since most towns depend principally on the real property tax for their revenues, tax rates will increase when the base is reduced through preservation of some parcels. Owners of developed or unrestricted land will bear a greater proportion of the burden. Presumably with TDR there will be little net change in the tax base since the parcel that receives the development rights will increase in assessed value. Under PDR programs, however, there is likely to be marked change in the distribution of the tax burden. *See* UNTAXING OPEN SPACE, *supra* note 17, at 118-20 for a detailed discussion of similar redistributive effects that result under differential tax schemes. For example, in a study of 151 rural New Jersey townships, 40% had increases in their tax rates of 20-50% when the differential tax program reduced assessments on participating land. *Id.* at 119. Presently, there is no empirical evidence and no discussion in the literature regarding the redistribution of the tax burden in TDR programs.

option. Repayment could be accelerated upon sale of the property when the seller realized the windfall gain attributable to the local PDR program.[274] Funds to operate TDR programs using a bank could be raised in the same manner.

PDR, and TDR if it results in increased housing costs, could have exclusionary effects.[275] Other things being equal, PDR will reduce the development potential for the entire community and, with supply reduced and demand unchanged, the equilibrium price of land will increase, reducing the development of housing in the lower price ranges. Similarly, if community public welfare is improved by TDR, land prices will increase.[276]

But reduction in housing supply and increase in price need not be the rule since inclusionary zoning techniques are available to offset PDR/TDR exclusionary effects. In one program, for example, each unit of housing developers build under federal or state subsidy programs allows them to build one additional dwelling unit on the same parcel up to a maximum density of twenty percent in excess of that normally allowed.[277] With privately-subsidized housing selling for less than $28,500 in 1975 dollars for a two bedroom unit, the township ordinance allows a 1.2 dwelling unit density increase for each unit built, with maximum density subject to the twenty percent excess constraint. Subsidized units may be mixed with nonsubsidized units and cannot be physically segregated from the rest of the development.[278]

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274. If the property was sold at a loss, repayment could be excused. Krasnowiecki and Paul, in an article written during PDR's Proterozoic era, proposed that open space areas be designated and restricted with compensation to be deferred until an administratively supervised public sale of the property. Thus, compensation would not include accruals to development value subsequent to the imposition of controls. Krasnowiecki & Paul, *The Preservation of Open Space In Metropolitan Areas*, 110 U. PA. L. REV. 179, 198-200 (1961). The proposal is not unlike the program of the Town and Country Planning Act, 1947, 10 & 11 Geo. 6, c. 51, discussed at text accompanying note 68 *supra*.

275. The location of New Jersey's five million dollar PDR experiment is Burlington County, the county in which Mt. Laurel is located. *New Jersey Plans Farmland Preservation Program*, 4 LAND USE PLAN. REP., June 21, 1976, at 6. In a landmark decision, the New Jersey Supreme Court held that Mt. Laurel must have land regulations that enable and encourage the development of the township's "fair share" of the region's demand for low and moderate income housing. Southern Burlington County NAACP v. Township of Mt. Laurel, 67 N.J. 151, 188, 336 A.2d 713, 732 (1975). One of New Jersey's most knowledgeable commentators on TDR/PDR has expressed concern over the exclusionary effects of the Burlington County experiment. Letter to the author from John Helb (Sept. 13, 1976) (copy on file in office of *North Carolina Law Review*).

276. *See* text accompanying note 261 *supra*.

277. Buckingham Township, Pa., Zoning Ordinance of 1975, § 504 (Mar. 18, 1976) ("Low and Moderate Income Housing Bonus"). The ordinance does not specify what subsidy programs it contemplates, but presumably it is meant to imply those programs that subsidize the building of low and moderate income housing.

278. *Id.* In addition, § 504 requires that the developer have a township-approved management plan setting eligibility rules and ensuring both that units are sold and resold only to eligible

Perhaps the best way to avoid intentional and incidental exclusionary effects is to mandate similar inclusionary approaches in state enabling legislation. PDR and TDR programs should at least include rudimentary provisions encouraging an expanded supply of housing for low and moderate income families and a wide range of housing types.[279] Inclusionary efforts at this experimental stage of PDR/TDR development would be enhanced by requiring periodic reports on the characteristics of the housing stock to a state agency, which would assess the need for different or more definitive inclusionary requirements.[280]

V. THE QUEST FOR A LEGAL THEORY

Except for the aberrational New York City experience,[281] TDR has not been tested in the courts. But much has been written with little agreement concerning its appropriate legal characterization.[282] The primary questions are whether TDR will invoke the issue of governmental taking without just compensation and what levels of compensation for development rights are appropriate if the condemnation power is used. Of course, voluntary plans avoid most problems of legal theory except the minor issue of naming the restriction on development that results from conveying away the development potential. That problem is settled by state enabling legislation, local regulations that specify the nature of the restriction or dependency on one of several traditional legal characterizations, such as easements, real covenants, or equitable servitudes.[283]

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people and that value increases are limited so as to avoid excluding low and moderate income individuals on resales. Southampton, New York, similarly allows for a density increase with low and moderate income housing, but their procedures are more elaborate and do not attempt to tie the bonus to "subsidized" housing. Southampton, N.Y., Building Zone Ordinance No. 26 § 2-10-20.04 (May 1972), *reprinted in* TDR, *supra* note 20, at 246. Density bonuses could be tied to the TDR program. For example, a developer who builds low and moderate income housing could be allowed to develop at the upper-tier density with fewer development rights than the developer who builds non-subsidized housing. Another alternative would be to require every community to have some percentage of moderately priced units. *See* Rose, *The Mandatory Percentage of Moderately Priced Dwelling (MPMPD) Ordinance Is the Latest Technique of Inclusionary Zoning*, in TDR, *supra* note 20, at 252.

279. For background on the exclusionary problem with suggested strategies, see A. DOWNS, OPENING UP THE SUBURBS (1973).

280. Unfortunately, the experience with PDR/TDR has been too limited to permit empirical analysis of exclusionary impacts.

281. *See* text accompanying notes 76-132 *supra*.

282. It seems settled that TDR does not violate the doctrines of uniformity, accordance with the comprehensive plan and dollar compensation. *See generally* J. COSTONIS, *supra* note 1, at 145-66; Eckert, *Acquisition of Development Rights: A Modern Land Use Tool*, 23 U. MIAMI L. REV. 347, 353-60 (1969); Richards, *supra* note 216, at 205-17.

283. The Town of Eden, New York, has a local TDR ordinance that specifies the type of restrictive easement required and includes a form instrument to be completed by the landowner who sells his development rights. Eden, N.Y., Local Law No. 1, §§ 5.10.2, .4 app. I (1977).

Mandatory programs with condemnation, such as the Chicago Plan, raise the question of fair compensation for the development rights. While the example described by figure 1[284] sets the value of development rights as the difference between the value as developed land and the value as farmland, Costonis has for several years stated that "fair" compensation is to be found somewhere between eminent domain's just compensation measured by the land's highest and best use and the police power's lack of compensation.[285] The standard he chooses is "Reasonable Beneficial Use," which is a less intensive use than "Highest and Best Use Unrestricted by Public Regulation" or "Allowable Use," but a more intensive use than "Resource Protection Use" or "Zero Intensity Use."[286] If regulation reduced economic return from the use of the property below "Reasonable Beneficial Use," then the government could use what Costonis calls the "Accommodation Power" and take one of three actions. First, it could ease the restrictions on the property's use, thereby returning the property to reasonable beneficial use. Second, fair compensation, defined as a money payment equal to the difference between allowable use and reasonable beneficial use, could be paid to the landowner. And finally, instead of a money payment for fair compensation, the government could give the landowner an equivalent number of development rights.[287]

Berger replied to the Costonis proposal, arguing that reasonable beneficial use is not a new standard and that state courts have been upholding police power regulations that leave property owners with even less than reasonable beneficial use.[288] Using the oft-cited case of *Just v. Marinette County*[289] as an example, Berger demonstrates how difficult it is to calculate reasonable beneficial use, but he calls that exercise "child's play" in comparison to converting just compensation into development rights.[290] Berger concludes that the issue of reasonable compensation cannot be reduced to a simple formulation, since the balancing of public benefit against private detriment "depends upon human perceptions and attitudes and intuitions which we cannot reduce to metric measure."[291] Thus, while

284. *See* text accompanying notes 252-54 *supra*.

285. *See* Costonis, *A New Approach to the Taking Issue*, 42 PLAN., Jan. 1976, at 18.

286. Costonis, *"Fair" Compensation and the Accommodation Power: Antidotes For the Taking Impasse in Land Use Controversies*, 75 COLUM. L. REV. 1021, 1050 (1975).

287. *See id.* at 1052.

288. Berger, *The Accommodation Power in Land Use Controversies: A Reply to Professor Costonis*, 76 COLUM. L. REV. 799, 817 (1976) (citing Nectow v. City of Cambridge, 277 U.S. 183 (1928), as the origin of the "no adequate return" test which Berger believes is equivalent to the "reasonable beneficial use" test proposed by Costonis).

289. 56 Wis. 2d 7, 201 N.W.2d 761 (1972) (upholding restrictions against filling wetlands).

290. Berger, *supra* note 288, at 822.

291. *Id.* at 823.

Costonis argues for a new compensation calculus and Berger questions its novelty and practicality, TDR is left sitting somewhere along the traditional construct of the police power-taking continuum.[292]

Bosselman, Callies and Banta have convincingly demonstrated through a discussion of the history of land regulation and an analysis of case law that the taking clause has been mythologized by Americans who believe they can do as they please with their land.[293] Holmes made that myth a part of American real property law by his statement in *Pennsylvania Coal Co. v. Mahon*[294] that, "The general rule at least is, that while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking."[295] This unsatisfactory balancing test has driven courts to cliches, has rendered Costonis' efforts futile and has forced Berger to characterize the issue as based on intuitions and human perceptions. In their analysis of governmental strategies for coping with the taking issue, Bosselman, Callies and Banta suggested that courts reassume the strict construction of the taking clause intended by the draftsmen.[296] Consistent with this return to strict construction would be the readoption of the rule in *Mugler v. Kansas*[297] that a taking only occurs when property is taken away or appro-

292. The term "police power-taking continuum" is adopted for use in this section as a shorthand notation for the traditional view that land use regulations may be imposed without compensation if they bear a substantial relation to the general welfare, but if restrictive regulations go too far, they will be held to be a taking. The tests for a valid exercise of the police power require: "(1) that the interests of the public generally, as distinguished from those of a particular class, require such interference; (2) that the means are reasonably necessary for the accomplishment of the purpose; and (3) that the means are not unduly oppressive upon individuals." Potomac Sand & Gravel Co. v. Governor of Maryland, 266 Md. 358, 373, 293 A.2d 241, 249, *cert. denied*, 409 U.S. 1040 (1972) (upholding state law prohibiting gravel extraction from tidal areas). If the restrictions go too far, the courts, under the traditional view, have held them to be equivalent to a taking. State v. Johnson, 265 A.2d 711 (Me. 1970). A valid exercise of police power usually has been distinguished from a taking only by the degree to which it conforms to the tests described above. Therefore, it is proper to characterize the traditional view as a "police power-taking continuum." Unfortunately, "Judicial opinions rejecting constitutional attacks . . . seldom provide reliable guides to the relevant substantive standards" as to what constitutes a valid exercise of the police power. Van Alstyne, *Taking or Damaging by Police Power: The Search for Inverse Condemnation Criteria*, 44 S. CAL. L. REV. 1, 13 (1971).

293. F. BOSSELMAN, D. CALLIES & J. BANTA, THE TAKING ISSUE (1973) [hereinafter cited as THE TAKING ISSUE]. Or as former Oregon Governor Tom McCall posits:

> At work here is the American ethic—rugged individualism, unlimited growth, every man for himself. But related to land abuse, I call it the buffalo hunter mentality—use up the resource until it's all gone, and then look elsewhere for new quarry. We can't do that with the land. It's a finite resource, and we've got to look at it in that context. All the land we're ever going to have is in front of us, and we can't accept our past use and misuse of it as a guide for the future.

CITIZENS' ADVISORY COMMITTEE ON ENVIRONMENTAL QUALITY, HOW WILL AMERICA GROW? 33 (1976).

294. 260 U.S. 393 (1922).

295. *Id.* at 415.

296. THE TAKING ISSUE, *supra* note 293, at 236.

297. 123 U.S. 623 (1887) (upholding police power regulation which rendered a brewery valueless).

priated for government use. The view in *Mugler* is that a police power regulation is different in kind, not different in degree, and that it can rarely constitute a compensable taking.[298] Such a regulation is only valid or invalid depending upon its ability to meet the test of rational relationship to the public welfare.[299] This return to strict construction would ultimately result in a Supreme Court overruling of *Pennsylvania Coal*.

In 1973, Bosselman, Callies and Banta concluded that even an overruling of *Pennsylvania Coal* would not prevent courts from applying variable standards of reasonableness as measured by individual losses. In the long run, they claimed, the most effective strategy would be to spend more time in drafting regulations and preparing factual bases.[300] Contrary to the expectations of these authors, however, there is strong evidence that courts are escaping the gravitational pull of the police power-taking continuum and returning to a conception resembling the *Mugler* test. In *HFH, Ltd. v. Superior Court of Los Angeles*[301] the California Supreme Court upheld a demurrer to a complaint in which plaintiff landowners sought to force the city to purchase their development rights, which were allegedly taken when their parcels were downzoned from commercial to low-density residential uses.[302] In other words, plaintiffs alleged that the city had proceeded too far down the police power-taking continuum and that the zoning scheme constituted a taking.

Plaintiffs had purchased their land for $388,000 when it was zoned commercial and received approval for a commercial subdivision.[303] They did not, however, proceed with development and five years later a moratorium on development was imposed. When plaintiffs asked for reinstatement of their approval to develop, the city rezoned the land to low-density residential, reducing its value to $75,000, less than twenty percent of its commercial use value.[304]

In rejecting this use of inverse condemnation to recover damages, the court acknowledged the accepted principle that "landowners have no vested rights in existing or anticipated zoning ordinances."[305] More important, the

298. THE TAKING ISSUE, *supra* note 293, at 120.

299. *Id.*

300. *Id.* at 327. In this same year, 1973, Professor Large published an article in which he convincingly argued for a new, more communal view of land. Large, *This Land Is Whose Land? Changing Concepts of Land as Property*, 1973 WIS. L. REV. 1039.

301. 15 Cal. 3d 508, 542 P.2d 237, 125 Cal. Rptr. 365 (1975). Berger, *supra* note 288, at 820-21, cites *HFH* as an example of how difficult it is to assess "reasonable beneficial use." He calls *HFH* "enormously significant." *Id.* at 820.

302. 15 Cal. 3d at 512, 517-18, 542 P.2d at 239-40, 243-44, 125 Cal. Rptr. at 367-68, 371-72.

303. *Id.* at 512, 542 P.2d at 239-40, 125 Cal. Rptr. at 367-68.

304. *Id.*

305. *Id.* at 516, 542 P.2d at 242, 125 Cal. Rptr. at 370.

court held that plaintiffs had misinterpreted the phrase providing compensation for damaged property in the California constitution.[306] "Intended to reach situations in which government activity damaged land without taking it, the provision in question does not apply to this case, in which undamaged land has allegedly suffered *only a diminution in value*."[307] Thus, according to *HFH*, mere diminution in value is not compensable, at least in California.

That TDR is a pure police power regulation that will not be forced onto the Procrustean bed of the police power-taking continuum is made clear by the New York Court of Appeals decision in Tudor Parks.[308] The court cuts through the moraine left by *Pennsylvania Coal* to the firmer footing of strict construction:

> As noted above, when the State "takes", that is appropriates, private property for public use, just compensation must be paid. In contrast, when there is only regulation of the uses of private property, no compensation need be paid. Of course, and this is often the beginning of confusion, a purported "regulation" may impose so onerous a burden on the property regulated that it has, in effect, deprived the owner of the reasonable income productive or other private use of his property and thus has destroyed its economic value. In all but exceptional cases, nevertheless, such a regulation does not constitute a "taking", and is therefore not compensable, but amounts to a deprivation or frustration of property rights without due process of law and is therefore invalid.
>
> . . . .
>
> In the present case, while there was a significant diminution in the value of the property, there was no actual appropriation or taking of the parks by title or governmental occupation. The amendment was declared void at Special Term a little over a year after its adoption. There was no physical invasion of the owner's

306. California's constitution is more liberal than federal law in providing compensation for taking or damaging property. *Compare* CAL. CONST. art. 1, § 19 ("Private property may be taken or damaged for public use only when just compensation, ascertained by a jury unless waived, has first been paid to, or into court for, the owner.") *with* U.S. CONST. amend. V ("Nor shall any private property be taken for public use, without just compensation.") Arguably, therefore, while the decision in *HFH* is binding only on California courts, the wisdom of the holding is relevant for courts in many other jurisdictions. Since the federal courts have considered relatively few planning law cases, the state decisions often have great effect throughout the country. Southern Burlington County NAACP v. Township of Mt. Laurel, 67 N.J. 151, 336 A.2d 713 (1975), is an example of a recent case with such an effect. See note 275 *supra* for a discussion of this case. At least one knowledgeable commentator believes *HFH* to be "enormously significant." *See* Berger, *supra* note 288, at 820.

307. 15 Cal. 3d at 517-18, 542 P.2d at 244, 125 Cal. Rptr. at 372 (emphasis added).

308. The Tudor Parks case is discussed at text accompanying notes 103-16 *supra*. Norman Marcus sees the use of TDR at Tudor Parks as a legitimate and justifiable use of the police power. Marcus, *Mandatory Development Rights Transfer and the Taking Clause: The Case of Manhattan's Tudor City Parks*, 24 BUFFALO L. REV. 77, 78, 104-05 (1974). *See also* Gerstell, *Needed: A Landmark Decision*, 8 URB. L. 21 (1976).

> property; nor was there an assumption by the city of the control or management of the parks. Indeed, the parks served the same function as before the amendment, except that they were now also open to the public. Absent factors of governmental displacement of private ownership, occupation or management, there was no "taking" within the meaning of constitutional limitations . . . . There was, therefore, no right to compensation as for a taking in eminent domain.[309]

But, as discussed earlier,[310] the plan was declared unreasonable and therefore invalid because it placed the entire burden of preservation on a single property owner. The reason this burden fell on the owner was that the market for development rights was too uncertain. While the court mentions the possibility of using development rights banks, taxation policy, and eminent domain as possible solutions, it leaves open the door to innovative strategies by adding to the list: "other devices which will insure rudimentary fairness in the allocation of economic burdens."[311] The court does not hold TDR invalid, it merely rejects the plan for failing to ensure a ready market for the development rights. Arguably, if the transfer zone were larger, the density bonus greater, the real estate market stronger and the processing of transfer requests more expedient, the sale of development rights would have been ensured and the amendment valid. The opinion cannot be read to require the use of banks with mandatory schemes—it only asks that planners "insure rudimentary fairness."[312]

In sum, an attempt to develop an "accommodation power" or any other restructured view of the public right to control development will be of questionable value to TDR planners.[313] Even a return to strict construction will not eliminate the difficulties of measuring and allocating compensatory development rights. Of significant importance, however, is the judicial movement toward strict construction of the taking clause.[314] Judge Breitel's clarification of the relationship of TDR regulations to the taking issue in the Tudor Parks decision goes far toward developing more workable criteria for judicial review of innovative development guidance instruments. TDR operates in volatile real property markets in highly valued urban locations and in the developing fringe areas where there is a high ratio between potential use value and existing use value. Under these circumstances, carefully planned

309. 39 N.Y.2d at 593-94, 350 N.E.2d at 384-86, 385 N.Y.S.2d at 8-9.

310. *See* text accompanying note 109 *supra*.

311. 39 N.Y.2d at 600, 350 N.E.2d at 389, 385 N.Y.S.2d at 13.

312. *Id.* The New York Court of Appeals decision in the *Grand Central* case provides additional guidance as to the outlines of an acceptable mandatory TDR program. *See* text accompanying notes 117-20 *supra*.

313. *See* text accompanying notes 285-92 *supra*.

314. *See* text accompanying notes 301-12 *supra*.

programs are likely to cause significant shifts in property value. Judge Breitel tells planners that the courts will accept some diminution in value and not invoke the taking issue, but that TDR programs must reflect fairness in the allocation of costs and must work effectively. TDR programs that do not work may misallocate the burden of costs and are therefore invalid.

VI. MAKING TDR WORK

In the overview of TDR programs, it was seen that the successes and near-successes have occurred in areas at the developing fringe and in programs that are limited in scope and directed only toward preserving farmland and open space. The discussion of TDR economics revealed that existing PDR-only programs are grossly inefficient and that TDR programs will not be used unless they provide adequate economic incentives. But the fine-tuning of economic incentives conflicts with the need for administratively simple programs.

In addition, planners must shoot at moving targets—the development process never assumes a point of static equilibrium. It is dynamic and not fully understood, making it difficult to produce accurate, long-range forecasts of the timing and sequence of development. A workable TDR program can cease functioning over time simply because of changes in the market. Therefore, a workable TDR program should not only incorporate the foresight of adequate planning, but should also be flexible enough for at least limited operation during periods of unanticipated market failure.

A workable program that not only avoids confrontation with the myth of the taking issue but also includes an economically efficient marginal pricing strategy and guarantees preservation of critical areas even when TDR incentives fail, would take the following form. First, the plan would be basically voluntary. Most of the successful TDR programs are voluntary and as such have not been the object of judicial challenge. While the decisions in the Grand Central[315] and Tudor Parks[316] cases do begin to define the outlines of judicially acceptable mandatory programs, it would be best to avoid judicial confrontation at this early stage.[317]

315. 42 N.Y.2d 324, 366 N.E.2d 1271, 397 N.Y.S.2d 914 (1977). See text accompanying notes 97-102, 117-20 *supra* for a discussion of this case.

316. 39 N.Y.2d 587, 350 N.E.2d 381, 385 N.Y.S.2d 5 (1973). See text accompanying notes 103-16 *supra* for a discussion of this case.

317. The choice to avoid judicial confrontation is admittedly subjective. Decisions against TDR would certainly retard development of the concept. On the other hand, decisions validating TDR would be helpful. Even favorable holdings, however, could reduce innovation by perpetuating existing TDR forms when more effort should be made to experiment with new variants.

Second, the preservation objectives would be limited in order to avoid the administrative complexities of an approach providing a complete substitute for zoning[318] and to prevent the problem of development rights that are interchangeable among various land uses.[319] The valuation and allocation of development rights should be kept simple. It is difficult and undesirable to propose a single valuation standard and allocation formula because the choice depends not only on the preservation objectives but also on the resources available to those administering the TDR program.[320] In many instances, however, in which limited TDR programs are proposed for use in small communities at the developing fringe, valuation and allocation will most likely be on the basis of density and acreage.[321]

Third, careful planning will be necessary to ensure that adequate incentives are achievable during most periods and that transfer area residents are not unreasonably burdened by higher densities. Although the concern over the effect of increases in transfer area density has arisen principally with mandatory programs in urban areas,[322] the problem is no less important in rural areas. Again, there can be no simple formula for determining what is an acceptable increase in transfer area density. The TDR planner should seek the broadest public input, debate and support in the design of the incentive structure and the delimitation of transfer zones and their density limits.

Fourth, attempts should also be made to overcome the exclusionary effects inherent in TDR. Inclusionary provisions could be tied to the TDR provisions—for example, requiring fewer development rights for the density bonus when the housing is targeted for low and moderate income groups.[323] The objective should be more than simple avoidance of exclusionary effects. Heretofore, TDR has been conceived as merely a means toward preserving valued amenities. The incentive structure that makes TDR work, however, can be used as a positive force to further other social and planning goals, just as the bonuses available with some density zoning techniques have encouraged the development of residential communities with a mixture of housing types.[324]

318. *See* notes 153-58 and accompanying text *supra*.
319. *See* text accompanying notes 156-58 *supra*.
320. *See* notes 234-38 and accompanying text *supra*.
321. *See* note 238 and accompanying text *supra*.
322. *See* text accompanying notes 91-93 *supra*.
323. *See* notes 279-80 and accompanying text *supra*.
324. While a mixture of housing types within a wide range of cost is an objective of planned unit development ordinances, this mixture has not always been achieved. *See* note 14 *supra*.

Thus far, the outlines of a workable plan are little more than reflections of lessons learned from existing programs. What distinguishes the workable plan proposed here from other TDR programs is the application of a concept accepted in other areas of law, but novel to TDR—the right of first refusal. This right, when included in corporate charters, bylaws or shareholder agreements, provides a corporation or its shareholders with the first option to buy corporate stock before any shareholder may sell or transfer his shares to a third party.[325] The right of first refusal is particularly important for the close corporation that wants to avoid the entry of unwanted shareholders or to prevent a major shift in control.[326] More on point, right of first refusal provisions are to be found in cooperative and condominium housing arrangements.[327] They typically require the seller to give notice to the association before transferring his interest. The association then has some period in which to exercise its option or give approval for the transfer. This restraint on alienation has been sustained "when it is reasonably designed to attain or encourage accepted social or economic ends."[328]

325. For a description of how the right of first refusal is used to protect stockholders from the sale of stock to persons deemed undesirable, see Lawson v. Household Fin. Corp., 17 Del. Ch. 343, 152 A. 723 (1930).

326. *See, e.g.*, Tu-Vu Drive-In Corp. v. Ashkins, 61 Cal. 2d 283, 391 P.2d 828, 38 Cal. Rptr. 348 (1964), which upheld a by-law restricting alienation against a nonconsenting stockholder who acquired his stock prior to the enactment of the by-law. TDR does not violate the principle that zoning cannot be by contract. In *Tu-Vu Drive-In* it was held that the stockholder should have anticipated changes in the by-laws and in *HFH* the California court noted the accepted view that landowners have no vested rights in the zoning status quo. 15 Cal. 3d at 516, 542 P.2d at 242, 125 Cal. Rptr. at 370. Thus, the right of first refusal, although it appears to be an option of sorts, is more correctly characterized as a regulation akin to an amended corporate by-law or a local zone change.

327. Many cooperative and condominium statutes permit restraints on alienation as a necessary safeguard to protect the social and economic structure of the project. *See* P. ROHAN & M. RESKIN, 1 (pt.1) REAL ESTATE TRANSACTIONS, CONDOMINIUM LAW & PRACTICE § 13.03[5][b], at 13-23 (1969). It is not simply a matter of picking congenial neighbors. In a cooperative, there is usually a single mortgage and if a few financially irresponsible members do not pay their monthly charges, the entire project can be put in risk of foreclosure. In condominiums, while there are individual mortgages for each unit, unit owners pay monthly assessments for maintenance of the common areas and are responsible for running the association. It has been this author's personal experience from working with several condominium associations that, as the saying goes, a few bad apples can spoil the barrel and literally threaten the continuing existence of the condominium as a community of homeowners. According to some commentators, the "[r]ight of first refusal, whereby bona fide offers received by a unit owner may be matched by the association within a relatively short period, usually ten to thirty days after notification to the board of managers, . . . does not appear to be unduly burdensome." *Id.* § 13.03[5][b], at 13-24. The right of first refusal as proposed in this section is, therefore, more than simply a means of notification. It is a system intended to ensure that the community will develop in an orderly manner consistent with the expectations of local citizens.

328. Gale v. York Center Community Coop., 21 Ill. 2d 86, 92, 171 N.E.2d 30, 33 (1960).

> The statute which prohibits discrimination in co-operatives because of race, color, religion, national origin or ancestry is not involved in this case. Absent the application of these statutory standards, and under the terms of the agreement between plaintiff and Gilbert [the prospective buyer], there is no reason why the owners of the co-

A workable TDR plan would give the planning board or similar body the right of first refusal on the purchase of development rights from any property in the preservation zone. A landowner who had not already transferred the development rights under the plan and who had entered into a bona fide sales agreement for the conveyance of an interest in the property exceeding that which would remain after stripping the development rights,[329] would be required to give notice to the town of the impending sale. The town could decline the option and give permission for the conveyance, do nothing and, at the end of the statutory period, allow the conveyance to occur, or, finally, purchase the development rights, negotiating for the price.[330]

The point of conveyance is the earliest practicable time in the development process for public authorities to intervene. The decision to have TDR review at this stage is based on the belief that many conveyances are involuntary—forced either by land economics or changes in the lives of resident land owners. In some cases, intervention and purchase of development rights may permit present owners to continue in possession to their benefit and the community's advantage. TDR planners should hope, however, that the *deus ex machina* intervention of the right of first refusal will be unnecessary—that their voluntary programs will work unaided. The right of first refusal is of importance only during periods of private market failure and clearly admits the obvious—that even carefully designed voluntary TDR programs may sometimes fail to protect land that is critical to a town's open space plan.

One important, and perhaps incorrect, assumption that underlies this right of first refusal proposal is that landowners sell their property to developers.[331] The procedures are designed to intervene when the parcel is

operative apartment house could not decide for themselves with whom they wish to share their elevators, their common halls and facilities, their stockholders' meetings, their management problems and responsibilities and their homes.

Weisner v. 791 Park Ave. Corp., 6 N.Y.2d 426, 434, 160 N.E.2d 720, 724, 190 N.Y.S.2d 70, 75 (1959).

329. That is, lesser interests not inconsistent with open space uses could be conveyed, for example, easements of access.

330. This procedure does not preclude the use of the condemnation power by the town, but if eminent domain is used to purchase the development rights, the town will have to meet the public use/public purpose test. *See* Courtesy Sandwich Shops, Inc. v. Port of N.Y. Auth., 12 N.Y.2d 379, 190 N.E.2d 402, 240 N.Y.S.2d 1, *appeal dismissed*, 375 U.S. 78 (1963).

331. There is some indication that often principal land holders at the developing fringe are speculators. *See* M. CLAWSON, *supra* note 2, at 62; Gupte, *Suffolk Legislature Kills Plan to Preserve East End Farms*, N.Y. Times, May 12, 1976, at 45, col. 1. Inherent also in the right of first refusal approach is the assumption that the net cost of TDR with occasional PDR under conditions of market failure is less than the net cost of PDR on all open land or some types of open land. It has been argued that a pure PDR approach is most efficient economically if development rights are taken only from land not yet ripe for development. Note, *Techniques for*

being conveyed. There will be cases, however, in which the present owner develops his land solely or partially by himself; therefore, it may be necessary to tie the right of first refusal into subdivision approval and building permit issuance. The sole purpose of the tie-in would be to refer the property owner to the TDR review procedure. All notification of pending development could be accomplished through the process of subdivision approval and building permit issuance. Earlier notification is preferred, however, because notification before sale permits the town to intercede in time and help a land owner who would stay on the land if the development rights were sold.

One obvious problem with notification at the time of conveyance is that the sale and purchase of an interest in real property does not necessarily result in conversion of the land to more intensive uses. If the new owner does not intend to develop the property, purchase of the development rights would be wasteful. To assist in clarifying the situation, the TDR review procedure could include a requirement that the prospective buyer indicate how the property is to be used.[332] Four situations are possible. First, the prospective buyer indicates that no change will be made in the use of the property and, after purchasing the property, no change is made. Second, at the time of the conveyance, no change is indicated, but the property is later proposed for development. Third, development is intended and if the sale goes ahead with the development rights intact, development is subsequently proposed. Fourth, development is intended, but the town purchases the development rights and, therefore, no development occurs.

In the first situation, the town would not purchase the development rights, preservation funds would be saved and the land would remain in its present use. There might be some injury to the seller, however, if he would have remained in possession had the town purchased the development rights.

In the second situation, the town would not purchase the development rights at the time of proposed sale of the property, but when the new owner requested subdivision approval or a building permit, the town would again conduct a TDR review. The expenditure of preservation funds would be delayed. Here too the seller may suffer some damage, but no more than he would experience if a right of first refusal provision was not in effect.

Preserving Open Spaces, 75 HARV. L. REV. 1622, 1637 (1962). But there is yet to be an empirical analysis of any type of open space PDR or TDR program.

332. Right of first refusal provisions in cooperative and condominium by-laws may require that the seller provide the directors of the homeowners' association with certain information including "such other information as the Association may reasonably require." By-laws of the Meadow Hill Condominium Homeowners' Association, art. X, § 2 (n.d.) (Glastonbury, Conn.).

In the third situation, the town would give serious consideration to purchasing the development rights. If it decided not to purchase the development rights, the sale could be completed. If development was subsequently proposed, there would be a second TDR review. Allowing the sale to be completed in this case gives the town an advantage. On the second review, the type of proposed development will be clear and the town will be able to judge how much damage the change would do to the preservation area. Once again, the seller can suffer some loss.

This strategy (allowing the sale and taking a second review) appears to present at least one difficulty. The developer is placed in a highly disadvantageous position, since he will be allowed to purchase the land with its development rights intact, only to risk losing the right to develop when requesting subdivision approval or a building permit. For the developer, the simple solution is to request subdivision approval or the building permit at the time the conveyance is proposed. This can be done by the common practice of purchasing an option on the property subject to the granting of subdivision approval or the building permit. Proceeding in this manner would prevent the developer from having to submit to a second review and would protect the present owner by allowing him to remain in possession if the town did purchase the development rights.

In the fourth situation, the right of first refusal does its intended job—it prevents development of land in the preservation area and allows the present owner to continue his ownership if he desires to do so.

If development rights are purchased by the town, they can be extinguished as in conventional PDR programs or sold to transfer zone developers. In most instances, however, the request for permission to convey will result from the inability to complete transfers of development rights in the private market and, therefore, when the right of first refusal is used, it is unlikely that immediate resale of the development rights will be possible. Thus, the right of first refusal concept differs from the Chicago Plan[333] and the Puerto Rico Plan[334] in that its use is extraordinary and intended only to stop conversion of critical areas when there has been a failure of private market incentives. If the planning is at fault, then the variables of development rights supply and demand could be altered, for example, by increasing the size of the transfer zone, by downzoning the transfer zone or by increasing the maximum density allowed with development rights.[335] In the meantime,

333. *See* text accompanying notes 134-45 *supra*.
334. *See* text accompanying notes 159-64 *supra*.
335. *See* text accompanying note 242 *supra*.

the community could avoid the conversion without having to maintain a full-scale development rights bank as required in the Costonis plans.[336] From the standpoint of economic efficiency, the right of first refusal approach is more sensible than wide-area purchase of development rights because it operates at the margin—that is, only on those parcels or portions of parcels that are threatened with immediate development.

The right of first refusal provision is similar in some respects to the power of eminent domain. For example, the right of first refusal approach is based on the principle that private property rights can be taken for public purposes if the owners are adequately compensated. The important difference between the right of first refusal and the condemnation power is that the former technique automatically identifies those parcels most likely to be developed.[337] A program based solely on eminent domain would require that local government correctly identify those lands that are both necessary to meet the objectives of the preservation program and likely to be converted. Many areas are valuable as open space but do not need to have their development rights stripped away by the condemnation power because the owner is not willing to sell the land to a developer or because there are no willing buyers. Why bother to waste limited preservation funds when the land will remain in its present use regardless?

The unnecessary purchase of development rights is at the center of the economic problems of TDR plans.[338] The right of first refusal is a marginal strategy. It allows the town to look at each parcel right before conversion. In the example set out in figure 1,[339] Farmer would report to Town that he and Developer had signed a sales agreement for twenty acres. Town would then decide whether or not to buy the development rights on the twenty acres to stop the conversion. The cost of these rights, as was discussed, would be much less than the cost of buying the development rights from the entire parcel. But won't Farmer and Developer enter into another sales agreement on twenty acres of the remaining land? Probably not, for with the development rights on the marginal twenty acres sold, Farmer is moved up and back on the value of marginal product (VMP) curve and will be willing to sell twenty acres only if Developer offers more than he did for the marginal twenty acres. Developer will look elsewhere for a site for his "El Rancho"

336. *See* text accompanying note 140 *supra*. Some funds will have to be available for the purchase of development rights. For suggestions on financing the purchases, see note 273 and accompanying text *supra*.

337. In addition, eminent domain requires that the public use test be met. *See* note 330 *supra*.

338. *See, e.g.*, notes 253-54 and accompanying text *supra*.

339. *See* text accompanying notes 252-54 *supra*.

subdivision until he selects one outside of a preservation zone or one that Town decides is not worth spending the money to preserve.

The marginal right of first refusal approach is therefore an efficient technique because it maximizes the land area that can be preserved during periods of TDR market failure. Moreover, it is an effective allocator of land use because it contemplates continuing competition between private developers and public preservers. Eminent domain, on the other hand, is anticompetitive and provides the local government with a monopsony. The demonstration that imperfect competition in the extreme form of monopoly or monopsony results in the inefficient allocation of scarce resources is best left for an introductory text in microeconomics.[340] It is enough to say that, compared to eminent domain, TDR is potentially a better allocator of land use.[341] Finally, it should be reiterated that the right of first refusal provision is proposed to serve only as an escape hatch under conditions of market failure when voluntary private transfers of development rights are insufficient to preserve designated farmland and open space.

VII. CONCLUSION AND A COMMENT ON THE CRITICAL ROLE FOR PLANNING

The development process in America is destroying irreplaceable resources in our man-made and natural environments.[342] Preservationists are only just beginning to make effective use of TDR as a strategy of intervention intended to close the windfall-wipeout loop in the interest of public welfare. The realization that existing development guidance instruments are inadequate,[343] the increasing acceptance of the proposition that numerous legal antecedents support the use of TDR,[344] the recognition of TDR in the courts[345] and the escalation of state and local experimentation[346] have all contributed to rapid development of interest in TDR. General ignorance of

340. For a readable introduction to the subject, see R. DORFMAN, PRICES AND MARKETS 201-07 (2d ed. 1972).

341. If TDR provides a competitive market for the allocation of development, if eminent domain is an exercise of monopsony, and if competitive markets allocate scarce resources better than markets dominated by monopolists, monopsonists, oligopolists or oligopsonists, then TDR will better allocate an area's development potential. For an argument that planners should rid themselves of zoning altogether in favor of private market controls over development, see B. SIEGAN, LAND USE WITHOUT ZONING 231-47 (1972).

342. "Past architectural achievements, regardless of their cultural significance to yesterday or tomorrow, are callously blown away—just so much dust on some appraiser's roll-top desk." Legner, *Putting Landmarks on a Firmer Footing*, 140 ARCHITECTURAL F., Jan.-Feb. 1974, at 56.

" 'When a man despoils a work of art we call him a vandal, when he despoils a work of nature we call him a developer.' " B. ROUECHE, WHAT'S LEFT 45 (1968) (quoting Joseph Wood Krutch).

343. *See* notes 6-20 and accompanying text *supra*.

344. *See* notes 43-63 and accompanying text *supra*.

345. *See* notes 95-132 and accompanying text *supra*.

346. *See* notes 153-238 and accompanying text *supra*.

both the process and economics of land conversion and lack of experience with TDR economics, however, have made it difficult to ensure that TDR programs will work. One alternative is to compensate for market failure and increase flexibility with a right of first refusal provision.

All these problems and prospects point to the need for adequate planning.[347] Planning is essential to the creation of enabling legislation and local provisions that not only optimize innovation while avoiding exclusionary effects, but prevent legal failure and ensure the adequacy of economic incentives. Planning for the implementation of TDR programs is vital if disruption of the private market is to be avoided and if political acceptance is to be achieved.

347. "TDR is not a substitute for sound planning and forceful implementation. Rather, it complements planning policies by providing solutions to political and economic problems created in certain situations." Manzer, *Transfer of Development Rights*, 24 COMMUNITY PLAN. REV., Dec. 1974, at 4, 6. The need for adequate planning is evident by the Council on Environmental Quality's assessment of the present state of TDR: "Given the gaps in existing research and the obvious problems of implementing poorly conceived transfer programs, extensive investigation, research, and experimentation are necessary before such a system is widely adopted." COUNCIL ON ENVIRONMENTAL QUALITY, FIFTH ANNUAL REPORT 59 (1974). *See also* Gruen, *The Need for Continued Sound Planning*, in PAS, *supra* note 32, at 34. Whether the optimal jurisdictional level for TDR planning is local, regional or state has not been widely discussed in the literature and is beyond the scope of this paper. It is noteworthy, however, that only one article argues for a regional approach. Deane, *The Potential for Planning Injustice*, in PAS, *supra* note 32, at 52.