PRESERVING OPEN SPACE AND AGRICULTURAL LAND THROUGH A PROGRAM OF TRANSFER OF DEVELOPMENT RIGHTS

by

JOHN JAMES CARLSON

A RESEARCH PAPER

submitted to

THE DEPARTMENT OF GEOGRAPHY

in partial fulfillment of
the requirements for the
degree of
MASTER OF SCIENCE
March, 1980

Directed by
Dr. Ray M. Northam

TABLE OF CONTENTS

Introduction1
Why a New Planning Tool Is Needed2
Possible Uses of TDR's
TDR's Defined4
Benefits of a TDR System5
Setting Up a TDR System7
Problems With TDR11
The Present Position of Boulder, Colorado14
Potential of a TDR Program In Boulder21
Conclusions23
Footnotes25
Bibliography29
Appendix A - Status of TDR Proposals35
Appendix B - Boulder Open Space Plan Area Priority List36
TABLES and FIGURES
Figure 1 - Boulder's Open Space Map18
Table 1 - Boulder's TDR Purchases

PRESERVING OPEN SPACE AND AGRICULTURAL LAND THROUGH A PROGRAM OF TRANSFER OF DEVELOPMENT RIGHTS

ABSTRACT. Existing land use controls have not effectively achieved the goals of resource protection and preservation. Prime agricultural and potential open space lands are rapidly being diminished by ever increasing pressures of development. The transfer of development rights presents an opportunity to safeguard these vital lands. The Boulder Valley would benefit greatly through implementation of a TDR program.

A major dilemma facing us today concerns the need for a land use control which can equitably and effectively protect distinctive natural resources from the intense pressures of development and urbanization.

The technique of Transfer of Development Rights (TDR) is an attempt to protect such critical natural areas, while at the same time accommodating the necessary development demands of our society.

TDR seeks to utilize the separability or transferability of one of the many rights included in the ownership of real property - the development right. Through TDR legislation, this development right can be transferred from one parcel of land where development is undesireable to another more suitable designated site within the region.

The purpose of this paper is to first describe the state of the art of the TDR technique, including the economic, legal, and planning implications arising through the use of such a program, followed by a study of the applicability of a TDR program to the sites and situations

of present day Boulder, Colorado.

WHY A NEW PLANNING TOOL IS NEEDED

Existing land use controls have not effectively achieved the goals of resource protection and preservation. To understand how this paradox has been propogated, it is necessary to review the history of American attitutes toward land ownership and development.

Historical Review of American Attitudes Toward Land Ownership

American land use policy has historically been centered around land development. American attitudes toward real property were inherited from the English land tenure system and were strengthened during colonial times when unlimited land appeared to be available. The central idea of the Northwest Ordinances of 1787 was ownership of land in "fee simple", which meant "ownership that confers the owner to do anything he wishes with his land except what is prohibited by local, state, and federal governments." As urbanization increased, zoning adopted under the exercise of "police power" (the power to pass regulations to insure public health, safety, and welfare), began to restrict the owner's freedom to develop his land as he wished. Today increasing awareness of environmental problems is narrowing even further that unlimited freedom to develop.

Shortcomings of Conventional Land Use Controls

The basic technique used to guide land use and development is conventional zoning which is not suited to protect open space and agricultural lands. "Under zoning, land is considered a commodity programmed to be developed for some appropriate use." Conventional zoning was not designed to protect areas from developm

provide for the efficient and harmonious 'development' of all the land.

Regulations based on police power are often attacked by landowners who claim their property is being "taken" without compensation - thus violating the fourteenth ammendment. Indeed, zoning regulations intended to preserve large areas of land have often been found by the courts to be unduly restrictive, confiscatory, and therefore unconstitutional.

A second major deficiency of existing controls involves inequity in implementation. Zoning often results in "massive increments of land values which are destroyed, created, transferred, and conferred, without any effort being made to adjust the highly disproportionate land valuations that are produced." Hagman has referred to this inequity as the windfall-wipeout problem.

Clearly what is needed is a land use control technique which will balance legitimate development needs with valid environmental concerns in a positive and equitable manner. It has been suggested that TDR's can fill this current void in the planning process.

POSSIBLE USES OF TDR'S

A variety of examples describing both theoretical and actual implementations of TDR schemes have been widely discussed in the literature. Included among possible uses are preservation of landmarks, historic sites, prime agricultural and open space lands, and fragile natural resources. It has also been proposed as a tool to regulate the location and timing of growth, and ultimately as the primary system of land use regulation.

This paper will focus primarily upon the utilization of a TDR

program for the explicit purpose of open space and agricultural lands preservation. The economic, legal, and planning issues which arise through the critique of such a program, must be addressed by proponents of all TDR legislation.

TDR'S DEFINED

Development rights are not a new innovation. These rights have always existed as one of the many rights included in the ownership of real property. A development right, is that right which allows the owner to build upon or develop his land. Mineral rights, air rights, and water rights, are other examples of land ownership rights. These rights may be separated from other ownership rights and regulated by a government entity, or sold by the owner and transferred separately on the open market. A landowner may sell his mineral, air, or water rights while continuing to use the land for other purposes. Similarily an owner under a TDR program, would be able to sell his development rights and continue to use the land for nondevelopment uses such as agriculture or recreation.

Under a TDR program, development rights are severed from the land and transferred to another site within the region where they can be used to permit denser development. TDR programs typically designate certain parts of a municipality as conservation areas, where development is severely restricted. Transfer zones are areas which have been determined to be capable of supporting a greater density than that presently allowed, without adversely effecting the environment. Increased density, up to a specified limit, will be allowed if the owners of such

land purchase development rights from land owners in the conservation areas. As such, land owners in the conservation areas are compensated for restrictions on development by the ability to sell the unusable development potential or "development rights".

BENEFITS OF A TDR SYSTEM

A large number of potential benefits of TDR over traditional land use controls have caused a growing interest it it's use as a technique for land use regulation.

Preservation With Equitable Compensation

Urbanization has thrust enormous economic pressure onto landowners to develop their land. Development due to urbanization results in irreversible changes in the use of open space and agricultural lands. An SCS study based on land use changes between 1967 and 1975 revealed that two million acres were lost each year to urbanization."

The most vulnerable land in this context is agricultural. Such land requires minimum site preparation and construction costs, is usually located near urban areas, and typically consists of large tracts of land under single ownership, making development extremely profitable.

"Land that is in less than its highest and best use" such as open space and agricultural land, "has a fair market value that is often much greater than its current use value . . . the pull of potential capital gans received from the conversion of the land to more intensive use and the push of rising taxes are strong inducements to the owner to develop his land."

The primary advantage of TDR is the protection of such aesthetic

and environmentally important areas for public benefit while providing equitable compensation to the private property owner - without government expense.

Reduction of Windfalls and Wipeouts

Certain communities faced with the loss of important agricultural and open space lands, have passed laws severely restricting or prohibiting development of those lands. This action leads to a drastic reduction in the fair market value of the properties affected and results in a disproportionate cost to the landowner for a "public" benfit. "This 'wipeout' is inequitable, especially when viewed in juxtaposition to the 'windfall' benefits that the same regulation may confer to the owners of more fortuitously located land."

Regulations that force such a drastic reduction in land value run the risk of being declared a "taking" and found unconstitutional as an unreasonable exercise of the police power. Since the landowners in conservation areas are compensated under a TDR program for giving up their development rights, the taking problem is eliminated, at least in theory.

TDR also acts as a balancing mechanism to cancel out "unearned" gains and losses in the private sector due to governmental land actions. Owners of conservation land are equitably compensated, while the windfall of increased land values to owners within the transfer zone is offset by the payments they must make to purchase additional development rights.

No Cost To Taxpayers

Municipalities wishing to preserve agricultural and open space lands

have often used their power of eminent domain to aquire either full title or "less than fee" interests in the land they wish to protect. The municipality, however, cannot generally generate sufficient funds through taxation to aquire and manage the necessary or desired property interests. In addition, the use of eminent domain reduces tax revenue as it removes property from private ownership, and thereby from taxation. TDR eliminates this dual expense of condemnation as the taxable development rights remain in public hands and no municipal expenditure for the property is necessary.

Aid To Curb Urban Sprawl

By focussing development into smaller geographic areas (transfer zones), TDR would promote economies of scale and more efficient use of municipal public services such as sewer and water systems and road networks. Through concentrated development TDR could also act as a tool to aid planners in controlling urban sprawl.

SETTING UP A TDR SYSTEM

Developing a TDR system that will rely on the open market to effect the transfer of development rights requires profound insight.

First, developers must be given an economic incentive to buy available development rights. At the same time, landowners in the conservation areas must be offered enough compensation to stimulate selling their distributed development rights. The market value of those development rights must be high enough to allow "just compensation" to landowners in order to avoid legalities of the taking issue.

Level of Government

A TDR program might be implemented at any level of government.

TDR schemes have been proposed or implemented at the state, regional, and municipal levels of government. Political, legal, and phsychological implications suggest that the most effective system would be an ordinance developed and authorized by the municipal government.

State action in the form of enabling legislation would undoubtably speed the process and reduce legal considerations of a TDR program. Some localities have adopted TDR systems without the benefit of enabling legislation, but such systems are only voluntary supplements to existing zoning controls. "Mandatory TDR systems . . . require 8 state enabling legislation."

Creating a TDR Ordinance

It has been suggested that land zoned for commercial or industrial uses should be excluded from designated conservation areas. If development rights are issued for commercial and industrial development, the program would soon become too complex to administer Secondly, "land zoned for these purposes may be too expensive or otherwise inappropriate for open space preservation."

The following is a suggested model to be used in creating a mu10
nicipal TDR ordinance. This model, based on the New Jersy Plan,
should be modified according to individual community needs and desires.

Conservation Area Identification. The first step toward implementing
a TDR program is to designate those areas which the municipality
wishes to preserve as conservation areas. These areas should consist
of farmland, flood plains, substantially undeveloped, and undevelopable

land. The preserved areas should correspond to a community's master or comprehensive plan to assure that these areas represent a rational and long range planning scheme for the community's future growth and development.

Calculation of Residential Development Potential. Next, the residential capacity or potential under current zoning must be calculated and converted into development rights. A development right would be equal to each dwelling unit eliminated throughout the preservation area. The total number of development rights will represent the development potential of the preserved conservation areas.

Allocation of Development Rights. Each owner is then allocated development rights according to the value of his tract of land in relation to the value of all the land within that particular conservation area. This method of distribution is utilized in order to take into account the site and particular characteristics of a parcel of land which might result in varying market values between the parcels.

Creation of a Market For Development Rights. A market must be created to give value to the development rights. In order to accomplish this, the municipality must designate districts in which increased density will be allowed if accompanied by purchased development rights. The new density requirements must create a district where it is more desirable to build with development rights because it is more profitable to the developer. This increase in residential development over that previously allowed, is the incentive which should attract buyers of the development rights. "Planning and zoning for the higher permitted densities must be based on sound planning principles to avoid

incompatible land use patterns and undue strains upon the natural en
11

vironment and infrastructure."

Ensuring the Continued Marketability of Development Rights. The incentive to purchase development rights must be perpetuated until the entire supply is utilized in order to ensure the continued marketability of development rights. If the development potential of previously designated zones has been consumed, an additional transfer zone or zones might need to be established by the municipality. This action would ensure a market for the remaining outstanding development rights.

Public Hearings. At each step in the above process, public meetings should be held, and proper notice granted to landowners in conservation areas, transfer zones, and all other affected parties. Citizen involvement should be encouraged in order to familiarize citizens with the TDR process, and to assure the programs continued compatibility with the community's long range goals and desires.

Taxation of Development Rights. As development rights represent a substantial part of the value of undeveloped land, they should be taxed as real property. For assessment purposes, "the initial value of a development right would equal the difference between the assessed value of the land for agriculture or lesser purpose and the assessed value of the land for development." As soon as a market for development rights is established within the juristiction, actual sales would provide value for assessment purposes. Through this procedure, land in the conservation areas is taxed as real property, although it is assessed at its lesser value, without degrading the tax base.

PROBLEMS WITH TOR

TDR programs present complex questions of planning, law, and economics. Although several TDR programs have been adopted, only a few of those have been implemented, and several of those have been 13,14,15 declared invalid or are currently under litigation.

Economic Issues

The issue of TDR marketability is a critical element determining the success or failure of a TDR program. There must not be so few TDR's available as to allow TDR owners to charge exhorbiant prices, nor so many TDR's that prices crash leaving owners with little incentive to sell. In short, the anticipated demand must be accurately estimated to ensure that the supply of TDR's created corresponds to their demand for development purposes.

Several basic ground rules have been established to aid in balancing TDR supply with market demand. First, transfer zones should be
located in areas experiencing high development demand. Secondly, developers must be allowed a high enough density to make purchase of
development rights economically feasible. Finally, granting of zoning
variances that allow greater density must be severely limited as they
eliminate the need for purchase of development rights.

Since TDR's are taxable property rights not attatched to a particular tract of land, the market might be flooded as owners with development rights, but without the intention of developing, unload TDR's that are constituting an economic drain. This effect might be countered however, by those owners which will engage in speculation by refusing to sell their rights in the early stages of the program in

anticipation of larger profits later on. Another alternative would be for the municipality to purchase the excess development rights and regulate their flow. This alternative might realistically be too expensive for most localities to consider as TDR purchase would constitute "land banking" and carry the dual expense of administering the land and removal from the tax rolls in addition to the expense of condemnation procedures.

Legal Issues

A principal question which arises through the implementation of a TDR program is whether the scheme should be voluntary or mandatory. The political and legal obstacles will be greater with a mandatory program, but so would be the potential benefits accrued and the effectiveness of the program. There is presently no operating TDR program which is totally obligatory, although this is clearly the desired dirrection a TDR program should take to fully utilize the benefits of such a program.

The major legal problem of the TDR concept, particularily in a mandatory program, is that it does not fit the definition of either police power or eminent domain. A mandatory TDR program cannot be viewed strictly as a regulatory mechanism under the police power.

Such transfer goes beyond police power regulations.

If it is the power of eminent domain being employed by the municipality, the principles of just compensation must be answered.

These legal principles create a difficulty, especially if the demand for TDR's is not high enough to give landowners a reasonable return on the sale of their development rights. Just compensation requires

compensation must be in money, unconditional, and based on the value of the property at the time of the taking. TDR cannot satisfy these requirements.

TDR, however, is not a traditional eminent domain taking. Under TDR the landowners retain both title and limited use of the land. The only right taken away is the right of future development. A judicial decision concerning the validity of TDR will largely depend upon "the ability of counsel to explain, and the ability of the court to understand 16 the unique nature of the TDR proposal."

Planning Issues

Success of a TDR program upon implementation is contingent upon the proficiency of its planners and the integrity of the governing body responsible for its administration. Projections of future economic demand for development must be accurately tabulated, and designation of conservation areas and transfer zones must be skillfully performed in order to successfully create a viable TDR market - on which the whole proposal depends.

Conservation areas and transfer zones should correspond to a community's comprehensive plan to assure their integration in a long range plan for the communities future growth and development. Existing zoning in the municipality must be sufficiently stringent to encourage developers to aquire development rights.

Political pressures will undoubtably be impsed upon the governing body to modify planners recommendations in order to enhance personal rather than public objectives. This pressure will increase over time as the municipality grows and development pressures increase. The

integrity of the governing body in upholding and promoting the TDR program at this time is imperative to its success.

A new land use technique such as TDR is subject to much suspicion and doubt by landowners due to a lack of understanding of the new concept. TDR owners uncertain about the new program may decide to hold their development rights, waiting to see if such a program will actually work. In order to overcome this difficulty, assurances must be granted that the program will not be abandoned or rules changed by future administrations.

THE PRESENT POSITION OF BOULDER, COLORADO

Nestled at the base of the Front Range of the Rocky Mountains,
Boulder possesses a spectacular and unique natural environment. With
a population of 20,000 in 1950, Boulder's population topped 37,000
by 1960, 66,000 by 1970, and is nearing 90,000 in 1980. The unique
setting and natural beauty of the Boulder area - those aesthetic qualities which had themselves prompted growth - were rapidly being destroyed by rampant growth and development.

Wishing to protect their quality environment, the long range goals of preserving the mountain backdrop, directing growth, and keeping surrounding productive pasture lands open, were advanced by the citizens of Boulder. In 1958 the first step was taken tward these goals, as a charter ammendment was passed which established the "Blue 17 Line", an elevation above which the City would not supply water. It soon became evident that more action was needed as growth and sprawl continued at a rapid pace.

Boulder's Open Space Program

On November 7, 1967, the citizens of Boulder voted to tax themselves an additional one cent sales tax, forty percent of which was to be utilized solely for the aquisition and protection of open space land. Boulder's Greenbelt - Open Space Program was thus initiated.

In 1970 a Comprehensive Plan was adopted for the fifty-eight square mile Boulder Valley. This plan designated large expanses of open space within the valley, but was not specific as to properties. Sales tax revenues were not going to be sufficient to purchase the desired lands.

In 1971 a charter ammendment was passed to allow the City Council without "approval by vote . . . to issue bonds . . . committed to the purposes of open space real property purchases or interests

18
therin."

Real estate purchases began, and recognizing the potential of the 19 program, the City Council in 1973 passed Ordinance 3940. This ordinance established the Open Space Board of Trustees (OSBT), a five member citizen board charged with making advisory recomendations to the City Council, who, through the City Manager, would be responsible for implementation, aquisition, preservation, and protection of the purchased open space lands.

In 1974 the OSBT recommended and the City Council passed "Boulder's 20 Open Space Plan." The plan does not attempt to define the concept of open space, as it was recognized that "inherent in an explicit definition are limiting and controlling elements that would restrict the 21 program."

The purposes and functions set forth in the Plan are as fol-22 lows:

- 1) Preservation of natural areas (including unusual terrain, unusual flora and/or fauna native and/or unique to the area, unique geologic formations, water resources, scenic areas and vistas, scenic areas, wildlife habitat, and fragile ecosystems.)
- 2) Passive recreational use (such as hiking, bicycling, horseback riding, and fishing.)
- 3) Agricultural uses and areas.
- 4) Preservation for future land use needs.
- 5) Shaping development through limiting urban sprawl and disciplining growth.
- 6) Spatial definition of urban areas.
- 7) Prevent encroachment of flood plains.
- 8) Encourage more intensive use of urban areas.
- 9) Promote and provide aesthetic and recreational values in proximity to and within the city.
- 10) Provide balance and harmony between open space and development.

 Aquisition of Open Space Lands

Upon determining the purpose for aquisition of a specific parcel of land, the OSBT requests the Real Estate and Open Space Department of the City of Boulder, to negotiate for the aquisition of the desired rights or interests. After negotiations have been completed, the OSBT makes its recommendations to the City Council. Prior to any recommendation, the OSBT considers the existing and projected use or uses, citizen input, and area priorities as described below.

Area Priorities

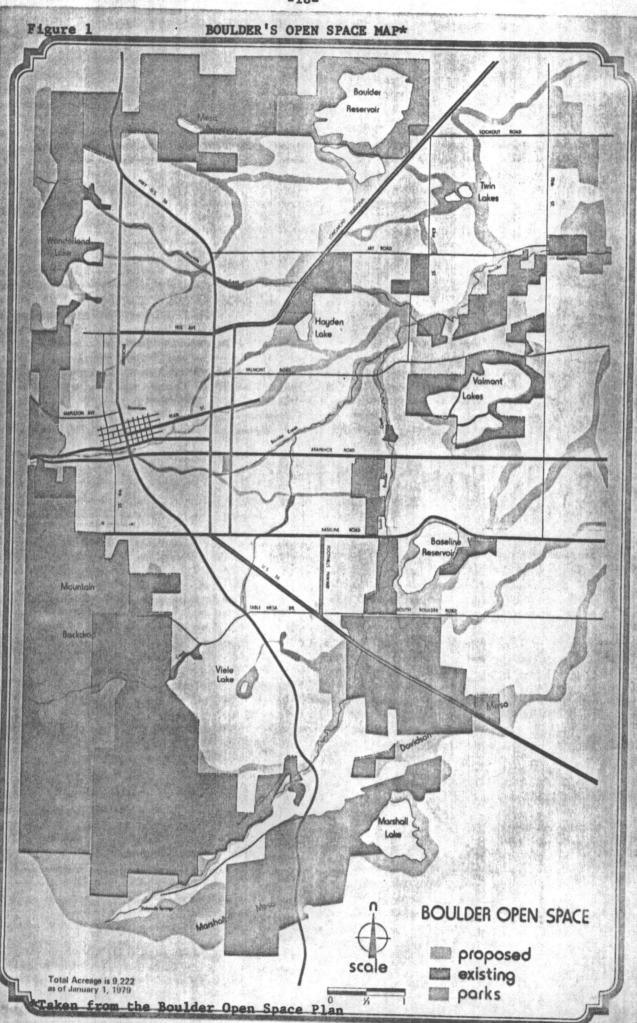
Desired Open Space locations are designated as first, second, or third priority locations. The selection of an areas designation is a composite of aesthetics, cost, availability, geographic location, need for immediate action, and use potential. This list which is updated annually, does not preclude the consideration and purchase of parcels which may not be specifically listed; it merely places emphasis on the aquisition of certain parcels of land. First priority areas receive aggressive action by the administration. Second and third priority areas include properties that will be considered in a "responsive mode", that is, if threatened by development or the owner is actively attempting to sell.

Scope of the Plan

Approximately thirty-eight percent of the fifty-eight square mile Boulder Valley, over fourteen thousand acres, is now designated for purchase as Open Space. Today 9,345.5 acres of land are controlled at a purchase price of \$18,569,227. (See Figure 1) 1980 sales tax revenues for Open Space aquisition are projected to be 2.2 to 2.4 mil-23 lion dollars.

Methods of Aquisition

The majority of Open Space aquisitions have been negotiated using some form of a revolving-option arreement. The City agrees to purchase a portion of the property in the first year, thereby obtaining the option to aquire another portion the following year and so on until the transaction is completed.



Other methods of aquisition have also been utilized. Open Space and scenic easements have been aquired, as well as development rights purchased.

Boulder's Development Rights Experience

In four separate purchases, Boulder has aquired development rights on 222 acres of land. (See Table 1) At an average cost of \$1,105 dollars per acre, the Boulder Real Estate and Open Space Department estimates that overall the development rights have been aquired at thirty to
sixty percent of the cost of full title purchase.

Table 1

24

BOULDER'S TDR PURCHASES

Name	Location	Date	Acres	Cost
Reich	NE1/4S.14T1S.R70W.	1972	25	\$32,500
McKenzie	SE1/4S.16T1S.R70W.	1974	84 (of 234)	\$105,000
Parson	NW1/4S.12T1N.R71W.	1976	33 (of 276)	\$24,000
Schneider	NW1/4S.8T1N.R70W.	1977	80	\$84,000
			222	\$245,500

The development rights deed defines the purchased development right a "the right to change the tract in question, or any portion therof, from its current use to any use except agriculture or no 25 use."

In each case the property owners are prohibited from erecting signs, maintaining dumps, cutting trees, erecting mobile homes,

quarrying minerals, placing utility poles, or conducting commercial activity. Residential construction is severely restricted within the development deeds themselves, and the city's architectural control board is granted the right to review all plans for residential construction. Landowners retain the right to exclude the public except on those portions planned for recreational access and covered by easements for public entry.

Success of Present Purchase of Development Rights

The present limited purchase of development rights has proven an effective if underutilized tool in aquiring Open Space land around Boulder. Although only four purchases have to date been negotiated, the usefullness of the tool is being displayed. At a forty to seventy percent savings of full fee purchase, additional lands may be preserved without the need for increased expenditures.

The OSBT and the City of Boulder Real Estate and Open Space Department lend enthusiastic institutional and administrative support of development rights purchase. During negotiations with prospective Open Space landowners, development rights purchase is actively discussed as a viable option. Public acceptance of the device has been evidenced and should grow as awareness and knowledge of the program is expanded.

A serious drawback regarding development rights purchase in the Boulder area concerns the large market for speculation which presently exists. Land speculators have little interest in selling that part of the property right with which they are most concerned, that is the potential for development.

POTENTIAL FOR A TDR PROGRAM IN BOULDER

Although over 9,300 acres of Open Space lands have been aquired by the City of Boulder, large tracts of land are still necessary to fulfil the goals set forth in the Open Space and Comprehensive Plans. The transfer of development rights appears to hold great promise as a land use tool to furher open space aquisition in the Boulder Valley.

Benefits of a TDR Program In Boulder

The present open space plan, indeed innovative in its own right, is inadequate for several reasons. The major deficiency is that of substantial municipal expense. Under the plan, the desired property interests, simple fee or less than fee, is purchased. This purchased land must be managed. Maintenance factors include patrolling, fence construction, and general upkeep. Constituting a continuing function, maintenance drains the financial liquidity of the program which is needed to purchase additional lands. Sales tax revenues will fall further behind needs, as land prices continue to soar and inflated maintenance costs deplete the fund, considerably limiting future aquisitions.

Municipal purchase also reduces the regions tax revenue as property is transferred from private to public ownership. These two factors seriously limit the effectiveness of Boulder's Open Space Plan for the future.

Under a TDR program, no municipal expenditure for the property would be necessary. The taxable development right, as well as the costs of maintenance would remain in the hands of the private citizen.

TDR would also act to reduce the windfall-wipeout problem and the inequities it propogates.

Under TDR the purposes set forth in the Open Space Plan would be more readily obtainable. More intensive use of urban areas would be encouraged and those urban areas would be well defined. Agricultural, Open Space, and unique natural areas would be preserved and recreational opportunities provided. A TDR program would maintain the "balance and harmony of Open Space and physical development for the 26 human benefit", as described in the Open Space Plan.

Legal Issues

As a home rule city in Colorado, Boulder has the power to aquire land or interests in land outside its boundaries by purchase or by 37 eminent domain. A principal question is whether the TDR program would be voluntary or mandatory. If mandatory, it has been determined that state enabling legislation would be desired to diminish political and legal obstacles.

In 1974 a bill for state enabling legislation was proposed. The bill died in the Judiciary Committee, being postponed indefinately as 28 too complex and too comprehensive.

Institutional, Administrative, and Public Acceptance

The major problem with TDR is the lack of public understanding of the concept. Much of the general public does not fully understand the mechanics of the present system of land use regulation. It is therefore difficult for the public to accept a new concept which requires background knowledge of our present system and its failings. Before a TDR proposal can be accepted, "it will be necessary to abate this

anxiety, to dispel this apprehension, to exorcise this fear of the
29
unknown," These goals may be accomplished through a better understanding of the nature, consequences, and benefits of a TDR program.

Administratively and institutionally the major problem concerning TDR is complacency. The present Open Space program has accomplished a great deal. The plan has active public support and a continuing source of revenue through taxation. All seems to be functioning well.

A closer examination of the situation is necessary. It has been suggested that effective planning must be positive, goal oriented, and long range in scope. The Open Space Plan conforms to the first two requirements, it fails in the third. The plan does not adequately deal with the long range implications of preserving and protecting Open Space. The effectiveness of the taxation system will be lost as maintenance and protection cost of previously aquired lands deplete the Open Space fund, leaving no viable options for future aquisitions. It is necessary for Boulder to look ahead, as complacency with the present plan will result in failure to attain the goals set forth in both the Open Space and Comprehensive Plans.

CONCLUSIONS

Study and research of a TDR program to preserve agricultural and

Open Space lands show do be undertaken in Boulder. The Planning Department in cooperation with the Real Estate and Open Space Department,

should fuel administrative and public interest in a TDR program by

supplying information and initiating dialogue concerning this unque

30

land use device. The New Jersey Plan would supply a well studied

model on which to base TDR legislation. This model could easily be modified to meet the specific goals, needs, and desires of the citizens of Boulder. State enabling legislation should be encouraged to reduce political and legal friction of the TDR program.

A TDR program would facilitate planning within the Boulder Valley, and provide many benefits to its citizens. TDR would preserve
agricultural and Open Space lands without municipal expense. The
windfall-wipeput problem would be identified and reduced. TDR would
be compatible with the purposes set forth in the Boulder Open Space
Plan and the Boulder Valley Comprehensive Plan. In conclusion, TDR
would serve as a land use instrument to ensure the future viability of
the Open Space Plan, and the ambitious vision of preserving Boulder's
natural setting and scenic ammenities will be furthered.

FOOTNOTES

- 1 Chavooshian, B. Budd, George H. Nieswand, and Thomas Norman. "Transfer of Development Rights: A New Concept in Land Use Management."

 From Transfer of Development Rights. Rose, Ed. Center For Urban Policy Research. Rutgers University. New Brunswick, New Jersey.

 1975 Pages 165-185. Page 166.
- 2 Chavooshian, op. cit., end note 1, p.167.
- 3 Carmichael, Donald M. "Transfer of Development Rights As a Basis For Land Use Control" Florida St te University Law Review. Vol. 2. Winter 1974. Page 35.
- 4 Hagman, Donald G. Windfalls For Wipeouts. American Society of Planling Officials. Chicago, Illinois. 1977.
- Diderikson, Raymond I., and Neil R. Sampson. "Important Farmlands:

 A National View." From Retention of Agricultural Land. Soil Conservation Society of America. Special Publication Number 19. 1976.

 Page 18.
- Keene, John C. "Transferable Development Rights: An Evaluation."

 Land Use: Tough Choices in Today's World. Special Publication Number 22. Soil Conservation Society of America. Ankeny, Iowa. 1977.

 Pages 251 and 252.

- 7 Keene, op. cit., end note 6, p.252.
- 8 Harwood, Corbin Crews. <u>Using Land To Save Energy</u>. Environmental Law Institute. State and Local Energy Conservation Project. Ballinger Publishing Company. Cambridge Massachusetts. 1977. Pages 172-190. Page 180.
- 9 Rose, Jersome G. "As a Method of Preserving Open Space: The New Jersey Proposal." From <u>Transfer of Development Rights</u>. Rose, Ed. Center For Urban Policy Research. Rutgers University. New Brunswick, New Jersey. 1975. Page 189.
- 10 Rose, op. cit., end note 9, pg.186-189.
- 11 Chavooshian, op. cit., end note 1, p.173.
- 12 Chavooshian, op. cit., end note 2, p.174.
- 13 Keene, op. cit., end note 6, p.254.
- 14 Woodbury, Stephen R. "Transfer of Development Rights: A New Tool
 For Planners." American Institute of Planners Journal. Jan. 1975.
 Pages 3-13.
- 15 Woodbury, Stephen R. "Whatever Happened to TDR? A Survey of the Status of Proposals For Transfer of Development Rights." Environmental

Comment. Feb. 1976. Pages 13-16.

- 16 Rose, Jerome G. "Psychological, Legal, and Administrative Problems of the Proposal to Use the Transfer of Development Rights As a Technique to Preserve Open Space." From Transfer of Development Rights.

 Rose, Ed. Center For Urban Policy Research. Rutgers University. New Brunswick, New Jersey. 1975. Page 297.
- 17 Lehr, Ronald L. Growth Control and the Greenbelt. Unpublished Paper.

 University of Colorado School of Law. 1973. Page 2.
- 18 "Bonding Authority for Open Space" The Charter of the City of Boulder as ammended 1965. Ordinance No. 3743. Adopted by the Electorate of the City of Boulder, Nov. 2, 1971.
- of Boulder as ammended 1965. Ordinance No. 3940 (as ammended), Adopted by the City Council of the City of Boulder, Colorado, September 18, 1975.
- 20 Open Space Board of Trustees. Boulder's Open Space Plan. 1974. Adopted by the City Council of the City of Boulder, October 1974.
- 21 Open Space Board of Trustees, op. cit., end note 20.
- 22 Open Space Board of Trustees, op. cit., end note 20.

- 23 Crain, Jim. Director of Real Estate and Open Space Services. Personal Communication.
- 24 Crain, Jim, op. cit., end note 23.
- 25 City of Boulder Real Estate Office Files. 'McKenzie Property Open Space Purchase." Unpublished. 1974.
- 26 Open Space Board of Trustees op. cit., end note 20.
- 27 Rowell, Mark S. Analysis of the Sales and Use Tax For Open Space In

 Boulder County. Unpublished Masters Dissertation. University of

 Colorado, Graduate School of Public Affairs. 1978. Page 2.
- 28 Hersmey, Norris. **Transferable Development Rights.** Unpublished
 Paper. Legislative Committee, Boulder Board of Realtors. 1974.
 Page 1.
- 29 Rose, op. cit., end note 16. Page 295.
- 30 Rose, op. cit., end note 9.

BIBLIOGRAPHY

- Barrows, Richard L., and Bruce A. Prenguber. "Transfer of Development

 Rights: An Analysis of a New Land Use Policy Tool." American Jour
 nal of Agricultural Economics. Vol. 57. November 1975. Pages 547
 557.
- Berry, David., and Gene Steiker. "An Economic Analysis of Transfer of

 Development Rights." Natural Resources Journal. Vol. 17. No. 1.

 January 1977.
- "Bonding Authority For Open Space." The Charter of the City of Boulder as ammended 1965. Ordinance No. 3743. Adopted by the Electorate of the City of Boulder, November 2, 1971.
- The Boulder Valley Comprehensive Plan. Adopted by the City Council of the City of Boulder. 1977. Revised 1978.
- Burns, Heather L. Development Rights Transfer: Introduction and Bibliography. Council of Planning Librarians. Exchange Bibliography
 No. 755. 1975.
- Bosselman, Fred., David Callies, and J. Banta. The Taking Issue. Wash-ington: Council on Environmental Quality. 1973.

- Carmichael, Donald M. "Transfer of Development Rights as a Basis For

 Land Use Control." Florida State University Law Review. Vol. 2.

 Winter 1974.
- Chavooshian, B. Budd, George H. Nieswand, and Thomas Norman. "Transfer of Development Rights: A New Concept in Land Use Management." From Transfer of Development Rights. Rose, Ed. Center For Urban Policy Research. Rutgers University. New Brunswick, New Jersey. 1975.
- Chavooshian, B. Budd, and Thomas Norman. Transfer of Development

 Rights: A New Concept in Land Use Management. Urban Land. December 1973. Pages 11-16.
- City of Boulder Real Estate Office Files. "McKenzie Open Space Purchase."
 Unpublished. 1974.
- Costonis, John. "Development Rights Transfer: Easing the Police Power
 Eminent Domain Deadlock." Land Use Law and Zoning Digest. Vol. 6.

 1974.
- Crain, Jim. Director of Real Estate and Open Space Services. Boulder,
 Colorado. Personal Communication.
- "Creating Open Space Board of Trustees." The Revised Code of the City
 of Boulder as ammended 1965. Chapter 2, Sections 100, 101, and

- 102. Ordinance No. 3940 (as ammended). Adopted by the City Council of the City of Boulder, Colorado, September 18, 1975.
- Diderikson, Raymond I., and Neil R. Sampson. "Important Farmlands: A

 National View." From Retention of Agricultural Land. Soil Conservation Society of America. Special publication No. 19. 1976.
- Foster, Phillips., Frank Schnidman, and Mark Bailey. "Transferable Development Rights: Are They a Step in the Direction of Better Land Use Management?" Urban Land. January 1975.
- Hagman, Donald G. "A New Deal: Trading Windfalls For Wipcouts." Planning. September 1974. Pages 9-13.
- Hagman, Donald G. Windfalls For Wipeouts. American Society of Planning Officials. Chicago, Illinois. 1977.
- Harwood, Corbin Crews. <u>Using Land to Save Energy</u>. Environmental Law

 Institute State and Local Energy Conservation Project. Ballinger

 Publishing Company. Cambridge, Massachusetts. 1977. Pages 172190.
- Hermamey, Norris. "Transferable Development Rights." Unpublished Report,

 Legislative Committee, Boulder Board of Realtors.

- "Imposition of Sales Tax." The Revised Code of the City of Boulder as ammended 1965. Chapter 15, Section 40-16. Ordinance No. 3288.

 Adopted by the Electorate of the City of Boulder, November 7, 1967.
- Keene, John C. "Transferable Development Rights: An Evaluation." Land
 Use: Tough Choices in Today's World. Soil Conservation Society of
 America. Special Publication No. 22. Ankeny, Iowa. 1977.
- Lehr, Ronald L. "Growth Control and the Greenbelt." Unpublished Paper,
 University of Colorado School of Law. 1973.
- Moore, Audrey. "Transferable Development Rights: An Idea Whose Time Has Come." From Transfer of Development Rights. Rose, Ed. Center For Urban Policy Research. Rutgers University. New Brunswick, New Jersey. 1975.
- Open Space Board of Trustees. "Boulder's Open Space Plan." Adopted by the City Council of the City of Boulder, Colorado, October 1974.
- Rose, Jerome G. "As a Method of Preserving Open Space: The New Jersey

 Proposal." From <u>Transfer of Development Rights</u>. Rose, Ed. Center

 For Urban Policy Research. Rutgers University. New Brunswick, New

 Jersey. 1975.
- Rose, Jerome G. "Proposed Development Rights Legislation Can Change the Name of the Land Investment Game." Real Estate Law Journal. No.

276. 1973.

- Rose, Jerome G. "A Proposal For the Separation and Marketability of Development Rights as A Technique to Preserve Open Space." Real Estate Law Journal. No. 635. 1974.
- Rose, Jerome G. "Psychological, Legal, and Administrative Problems of the Proposal to Use the Transfer of Development Rights As a Technique to Preserve Open Space." From Transfer of Development Rights.

 Rose, Ed. Center For Urban Policy Research. Rutgers University.

 New Brunswick, New Jersey. 1975.
- Rose, Jerome G. "The Transfer of Development Rights: An Interim Review of An Evolving Concept." From Transfer of Development Rights.

 Rose, Ed. Center For Urban Policy Research. Rutgers University.

 New Brunswick, New Jersey. 1975.
- Rose, Jerome G. <u>Transfer of Development Rights</u>. Editor. Center For Urban Policy Research. Rutgers University. New Brunswick, New Jersey. 1975.
- Rowell, Mark S. "Analysis of the Sales and Use Tax For Open Space in Boulder County." Unpublished Masters Dissertation. University of Colorado, Graduate School of Public Affairs. 1978.

- Schnidman, Frank. "Transferable Development Rights: An Idea In Search of Implementation." Land and Water Law Review. University of Wyoming College of Law. Vol. 2. No. 2. 1976.
- Schnidman, Frank. "Transfer of Development Rights: Questions and Bibliography." Urban Land. January 1975.
- Shales, Jared B. "Who Pays For Transfer of Development Rights?" From

 Transfer of Development Rights. Rose, Ed. Center For Urban Policy

 Research. Rutgers University. New Brunswick, New Jersey. 1975.
- Walker, Donald V.H. "Boulder, Colorado: From Vision to Reality." Land

 Use: Tough Choices in Today's World. Soil Conservation Society of

 America. Special Publication No. 22. Ankeny, Loaa. 1977.
- Wengert, Norman., and Thomas Graham. "Transferable Development Rights and Land Use Control." <u>Journal of the Soil Conservation Society</u> of America. November-December. 1974.
- Woodbury, Stephen R. "Transfer of Development Rights: A New Tool For Planners." American Institute of Planners Journal. January 1975.

 Pg. 3-13.
- Woodbury, Stephen R. "Whatever Happened to TDR? A Survey of Proposals

 For Transfer of Development Rights." Environmental Comment. Feb.

 1976. Pg. 13-16.

APPENDIX A

13,14,15 STATUS OF TDR PROPOSALS

Purpose	Juristiction	Enacted	Rights Transferred
Historic	District of Columbia	No	
Preservation	Chicago	No	
	New York City	Yes	Yes
	Illinois Enabling Act	Yes	No
Environmental	Puerto Rico	No No	
Protection	Collier Co., Fla.	Yes	In litigation
Preservation of	Maryland Enbling Act	No	
Farmland and	New Jersey Enabling Act	No	
Open Space	Buckingham Twp., Pa.	Yes	Yes
	Chesterfield, Twp., Pa.	Yes	In litigation
	Hillsborough Twp., NJ.	Yes	No
	Sonoma County, Pa.	No	
	Southampton, Long Is.	Yes	No
	St. George, Vt.	Yes	No
	Sunderland, Mass.	Yes	No
	Upper Makefield Twp., Pa	.Yes	No
Area	Los angeles, Ca.	Yes	?
Development	Washington D.C.	Yes	In litigation
Zoning	Fairfax, Co., Va.	No	

Replacement

20

APPENDIX B BOULDER OPEN SPACE PLAN AREA PRIORITY LIST

The OSBT recommended that the following be considered the current area priorities.

FIRST PRIORITY

Mountain Backdrop/Dakota Ridge Properties

Davidson Mesa

Longmont Diagnol

Six Mile Reservoir Buffer

Boulder Creek/Arapahoe to 55th Street

17th and King

Baseline Lake Area

Baseline Reservoir

So. Boulder Creek from S. Broadway to Van Vleet

SECOND PRIORITY

Boulder Creek from 55th to 75th St.

Marshall Meaa/Shanahan Ridge Area

Gunbarrel Area

Bear Creek from Arapahoe to Wellman Canal

THIRD PRIORITY

Twin Lakes Area

South Boulder Canyon Ditch

Dry Creek

White Rock Ditch

Farmers Ditch

Wonderland Creek

Four Mile Creek

Valmont Reservoir Area