

Open Space  
Conservation  
**Investing In Your Community's Economic Health**

John Tibbetts

# Open Space Conservation

This report explores how American communities have historically protected and maintained **open space** through a combination of planning strategies, regulatory measures, public investments and private initiatives. Since the fiscal and economic implications of **open space conservation** are crucial to policymaking, the report describes several methods for estimating the **economic value of open space** to communities. It then analyzes the effectiveness of various alternatives used to finance **open space acquisitions**. With this information, citizens and policymakers can think strategically about conservation opportunities in their communities.

# Open Space Conservation: Investing in Your Community's Economic Health

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This report is one in a series of policy focus reports published by the Lincoln Institute of Land Policy to address timely land use issues of concern to policymakers, scholars and citizens. Each report is designed to bridge the gap between theory and practice by combining published research and information gleaned from face-to-face discussions among practitioners representing diverse academic disciplines, professional experiences in public and private sectors, and types of communities.

Over the past three years, the Lincoln Institute has offered workshops on municipal open space conservation in different regions of the country: Sturbridge, Massachusetts; Salt Lake City, Utah; and Orlando, Florida. The programs addressed common concerns about measuring the economic value of open space and delineating techniques that local officials and citizen activists can use to make the economic case for acquiring and protecting land in their communities.

Faculty for the workshops were:

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Around the country, communities are recognizing that conservation of open space can benefit their economic health. At the edge of rapidly growing cities, protected farmland and wildlife areas are stemming suburban sprawl and encouraging more compact development, thus decreasing the public costs of road and sewer construction. In inner cities, park renovations are sparking redevelopment and enhancing the value of adjacent neighborhoods. Conservation easements on farmland are helping to preserve the economic backbones of many traditional local economies. And wilderness areas are attracting hikers and other nature tourists who spend money in local communities.

While the benefits of protected open spaces are increasingly evident, many communities still face great difficulty funding their land acquisition plans. In recent years, federal grants for land purchases have decreased sharply, while an economic boom has pushed land prices through the roof in rapidly growing areas. As a result, the escalating costs of acquiring properties can be far beyond the capacity of many town budgets. Nevertheless, many communities acknowledge that they must take greater initiative to protect their valuable green spaces for future generations.

This report explores how American communities have historically protected and maintained open space through a combination of planning strategies, regulatory measures, public investments and private initiatives. Since the fiscal and economic implications of open space conservation are crucial to policymaking, the report describes several methods for estimating the economic value of open space to communities. Finally, the report analyzes the effectiveness, practicality and fairness of tools now used by communities to finance open space acquisitions. With this information, interested parties can think strategically about local conservation opportunities.

Communities can protect open space in three basic ways, which are often used in combination. First, land can be preserved through regulatory measures, such as agricultural zoning, conservation zoning, impact fees, and dedications of land. Growth management policies have proven useful in numerous communities experiencing rapid development. But despite the effectiveness of these measures in some areas, land use regulations can be challenged or rendered unenforceable by new political leadership.

Secondly, localities and states can acquire land outright or provide funding to maintain open spaces through bond issues, sales taxes, real estate transfer taxes, special districts, special assessment areas, and business improvement districts. This option is expensive and often politically complex. Many communities with limited financial resources have difficulty competing with developers to acquire valuable land. Still, citizens in many localities have voted to pay higher taxes to acquire green space and protect ecologically sensitive areas such as watersheds. A variety of public/private partnerships also offer hope for new financing alternatives, especially in more urbanized areas.

A third approach is the use of conservation easements to protect land while keeping it in the hands of private owners, a popular and practical method of preserving open space championed by both landowners and environmental groups. Easements are increasingly being used in rural and suburban areas, where they can help protect productive agricultural lands and stem the pace of rapid development.

Protection of environmentally sensitive lands, such as watersheds and floodplains, presents special challenges that usually require a combination of regulatory approaches with public and private financial support. In fact, all communities should consider the pros and cons of various techniques and collaborations to devise an open space conservation plan based on a shared vision of the community's long-term land use needs and local economic conditions.



## Introduction

For many years, ambitious communities have filled potholes, polished up downtowns, and repaired school buildings to attract new residents and industries while striving to keep existing ones. Local leaders know that maintaining public facilities and burnishing a community's image can help stimulate economic development.

Increasingly, communities recognize that conserving open space is also crucial to their economic health. Acquiring parks, greenways and farmland development rights can be as fundamental to economic development as building a new bridge or improving a sewage treatment plant.



Some planners make distinctions between parkland (generally urban and suburban spaces that accommodate heavy visitation) and open space (rural and wild areas protected for wildlife habitat, scenic vistas and often restricted human use). For the purpose of this report, "open space" encompasses a wide range of places, including tiny urban parks, large recreation areas, suburban greenways, productive agricultural lands, and natural systems such as watersheds and floodplains.

Open spaces are central to the planning and economic development of our metropolitan areas. They help shape older, urban neighborhoods and provide coherence for rapidly growing suburbs. Well-designed open spaces can increase property values in adjacent neighborhoods, bringing higher tax revenues. New or refurbished parks can trigger redevelopment in inner-city neighborhoods and downtowns. Many companies are attracted to regions with

scenic and recreational opportunities for their employees, and in some rural areas open spaces draw nature tourists who contribute directly to the local economy.

Designated open spaces can also help a community protect its historic village center, farms and forest lands, which form the traditional economic backbone of many small towns. The existence of secured open spaces can encourage more compact development and help to decrease the costs of new road and sewer construction. Protected watersheds filter drinking water, saving communities millions of dollars in treatment costs. Public acquisition of open space for wildlife habitat can even reduce legal pressures on private landowners to protect rare plant and animal species.

Thus, many communities no longer see open spaces as just decoration, but rather as necessary for their long-term prosperity. The economic values of open space protection, however, can be very difficult to gauge. These values are often site-specific and dependent on many complex variables, including non-monetary values. Still, more and more communities are recognizing the need to understand and articulate economic values in hopes of building greater public support to buy, conserve, protect and maintain open space, and to guide financing decisions when several options may be available.

Time for investing in open space is growing short in many areas. The recession of the late 1980s and early 1990s slowed development pressures in many parts of the country, but the recent economic recovery has made land prices rise rapidly again. Now many communities cannot raise enough funds to acquire increasingly valuable open space, especially when faced with strong competition from developers to build low-density residential subdivisions and mega-malls. Development is out-pacing population growth in many metropolitan areas. For example, the Regional Plan Association in New York estimates that the amount of urbanized land in its region, encompassing parts of New York, New Jersey and Connecticut, has



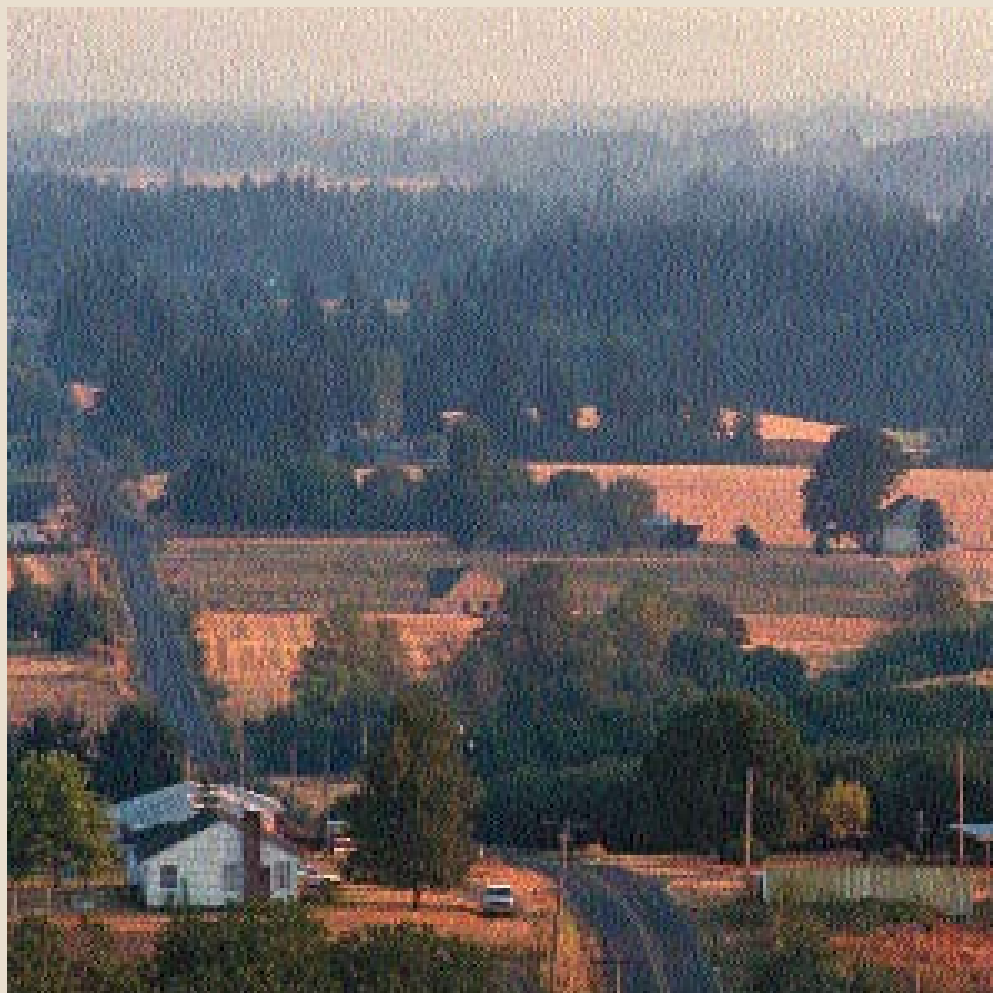
*More and more communities are recognizing the need to understand and articulate economic values in hopes of building greater public support to buy, conserve, protect and maintain open space, and to guide financing decisions when several options may be available.*

increased by 60 percent in the past 30 years, despite a population increase of only 13 percent.

In recent years, federal grants to states for open space acquisitions through the Land and Water Conservation Fund have declined dramatically, and several billion dollars of authorized federal parkland acquisitions and maintenance projects have gone unfunded.<sup>1</sup> As a result, local communities are realizing they must take the initiative for financing open space themselves. This can be especially challenging when multiple jurisdictions may be involved in a regional land protection effort.

This report explores America's heritage of open space conservation and describes several methods of analyzing and estimating the economic value of open space. The

report also explores the effectiveness, practicality and fairness of numerous tools used to finance open space conservation. Experience suggests there are three types of approaches available to communities: regulatory measures such as conservation zoning and impact fees; public acquisition through bonding, transfer taxes or special assessment districts; and conservation easements that protect open space through private ownership. The special case of open space conservation in sensitive watersheds and floodplains highlights the need for a combination of approaches. Planners, developers, government officials, land trust representatives, homeowners and citizens can use this information to think more strategically about land conservation opportunities in their communities.





Until the late nineteenth century, few American cities planned for extensive green spaces or public parks. With abundant forests and fields nearby, communities may have seen little need to protect open areas within city limits. Civic green spaces were usually limited to courthouse squares, though some cities had a single, prominent gathering place, such as the Boston Common or the New Haven Green. Most large parks and gardens were privately owned.

### URBAN GARDENS AND NATIONAL PARKS

One of the country's first grand-scale, public green areas was Mount Auburn Cemetery, near Boston, which opened in 1831. Dr. William Bigelow, a botanist, designed this garden cemetery to include rolling hills, lakes, curving roadways and grave sites shaded by groves of trees.<sup>2</sup> As American cities exploded in population during the nineteenth century, urban leaders commissioned Frederick Law Olmsted and others to plan civic gardens in the Mount Auburn style. These visionaries created such urban treasures as Central Park in New York City and Fairmount Park in Philadelphia.<sup>3</sup>

Urban reformers considered parks an important influence on an entire city's development. They believed that public funds spent on parks were a good investment in public health and well being. They also expected that spending on parks and open space would be returned to public coffers through increased taxes as real estate values rose on properties nearby. As a consequence, advocates said, parks would not cost taxpayers anything. Instead open spaces would earn the city increased revenues that could be used to pay for maintenance and other services.<sup>4</sup>

Around the same time, the nation also began conserving larger and wilder tracts of public lands, especially in the West. In 1872 President Ulysses S. Grant signed legislation to create Yellowstone as America's and the world's first national park, and in 1916 Congress established the

National Park Service "to conserve the scenery, natural and historical objects and wildlife."<sup>5</sup> Today, about 610 million acres (25 percent of America's land base) are protected in national parks and other federal lands, but these resources are being seriously threatened by overuse. Future demands on public lands will only rise as the nation's population continues to expand.

### THE SUBURBAN DREAM

In 1902, the English utopian Ebenezer Howard published *Garden Cities of Tomorrow*, which described problems of city living, including overcrowding, lack of natural areas and air pollution, as well as problems of living in rural areas, including unemployment and a lack of entertainment and cultural opportunities. He proposed a third alternative, a "garden city," which he hoped would blend accessible parks, clean neighborhoods, and social, cultural and economic opportunities. Farms in the surrounding greenbelt would supply all the food needed by the city residents.

In the United States, Howard's ideas influenced Clarence Stein's 1929 design of a new town, Radburn, New Jersey. Notable for its park system, pedestrian parkways and clusters of homes around public open spaces, Radburn became a model for later land use innovations. Many of Howard's ideas did not take hold, however, especially the protection of common space and agricultural greenbelts.

After World War II, Americans began moving in droves to new suburbs where they could enjoy private space in their own large yards. Land subdivided into uniform residential building lots typically did not include much public open space, and now many of these older suburbs suffer from a lack of sufficient parks and recreational facilities.

Those suburbs that have remained economically and socially stable over several decades were well-built and well-designed from the beginning. They have protected a strong sense of place with open spaces and other valuable



amenities. Greenbelt, Maryland, for example, is one of three garden cities built during the 1930s near Washington, D.C., which mimicked the Radburn plan, with pedestrian walkways and extensive parks. From 1960 to 1990, Greenbelt's population remained constant and its median family income declined by only 3.6 percent relative to median incomes in the Washington metropolitan area. In contrast, relative family income dropped by 20 to 42 percent in nine nearby inner-ring suburbs that have lost population and investments to newer suburbs on the metropolitan fringe.<sup>6</sup>



## REGULATORY APPROACHES

As sprawling subdivisions continue to swallow up undeveloped land near cities, valuable farmland is being lost to development in highly productive regions such as the Central Valley of California. Wetlands continue to be drained and filled for development, despite federal laws aimed at protecting them, and growing numbers of rare species face extinction, primarily due to habitat loss.<sup>7</sup> Concerns about these and other environmental threats have contributed to the development of various types of land use regulations at all levels of government.

In 1974, Oregon responded to loss of farmland and open space by becoming the first state to establish a

growth management plan with strong regulatory powers. Oregon's plan created urban growth boundaries that surround each of the state's 241 towns and cities. These boundaries divide the urban areas from the countryside, protect farmland and forests, and require that most new development be built in existing communities. The growth boundary has been especially effective in controlling sprawl in Portland, where the average lot size of new single-family homes has dropped from about 10,000 square feet in 1979 to about 7,000 in 1996.<sup>8</sup>

Since the mid-1970s, nine other states have passed growth management acts, according to Douglas R. Porter, president of the Growth Management Institute. Increasing numbers of local governments are also designing comprehensive plans that determine where, how and when land can be developed.

Through the comprehensive planning process, nearly 700 communities in 24 states have adopted agricultural zoning that strictly limits the development of farmland parcels. Most of these ordinances apply strict limits on development, but to be effective agricultural zoning has to fit the type of the agriculture in a particular area, says Robert C. Wagner, director of field programs for the American Farmland Trust. In Maryland, for example, zoning land for one dwelling unit per 20 acres could protect some small-scale farming operations, while in Colorado a minimum zoning of one unit per 35 acres could not protect ranching operations that require huge tracts to survive economically.

Regulations that restrict economic uses of land are highly controversial in some regions. Property rights advocates argue that such land use regulations place the costs of protecting the nation's ecologically sensitive lands more heavily on private property owners than the public sector. They claim that landowners should be compensated if their property values are adversely affected by environmental rules. In other words, if Americans want to





protect open space, then they should pay for it collectively, rather than put the burden on individual landowners.

Of course, government has the constitutional “police power” to limit development for the public welfare, including the protection of open space, wetlands and endangered species habitats, and the courts have upheld many such cases. But so-called “takings” bills introduced in the U.S. Congress would require federal agencies to pay landowners whose property is adversely affected by regulations. While these federal measures have failed, 20 states have passed “takings” bills, though most only require analyses of regulations that could affect private land before environmental rules can be enacted.<sup>9</sup>

In this political climate, some governments are buying ecologically sensitive land outright. Dozens of Midwestern communities and several states have chosen to use federal funds to purchase floodplain development rights and to buy floodprone land rather than design regulations to prohibit further development in these areas. Yet, “government purchase alone is simply not the way to protect the hundreds of millions of acres that are threatened or could be threatened” by development, says John Humbach, law professor at Pace University. Land use regulation, he argues, must be one of the primary tools for protecting the nation’s declining natural resource base.<sup>10</sup>

## PRIVATE LAND TRUSTS AND EASEMENTS

Establishing a middle ground between conservationists and property owners, private, non-profit land trusts play an increasingly important role in protecting open spaces. More than 1,100 local and regional land trusts around the country now acquire land outright, manage preserves and, perhaps most importantly, manage conservation easements.

Until the 1960s, conservation easements were little known outside the Northeast, where they were used primarily

to save productive farmland and prevent subdivision development on environmentally significant lands. They have become popular because they keep lands in private hands and on tax rolls, though usually at a lower valuation.

By selling or giving a conservation easement to a land trust or a qualified government agency, a landowner can convey the development rights to subdivide a property. Many easements are initiated voluntarily by landowners seeking to protect their land while gaining a potentially significant tax advantage. The Internal Revenue Service allows a taxpayer to deduct from taxable income the value of a donated easement (up to 30 percent of adjusted gross income) as a charitable donation, provided the easement is perpetual and other conditions are met. In some cases, as in Boulder County, Colorado, easements may be required as a condition of approval for higher-density development.

Some conservationists believe that easements have many advantages over land use regulations. Easements are generally permanent, unlike land use regulations, which can be changed as a result of future economic or political conditions. Easements also have the advantage of being both more restrictive and more individualized than regulations. Land trust representatives may work closely with property owners to craft specific conservation plans tailored to the owners’ needs and to the property’s resources.

Even many property rights advocates support conservation easements because these mechanisms recognize both the rights of landowners to develop their land and to sell or give away those rights. As a result, the use of easements can help avoid conflicts with some landowners. On the other hand, some observers object to the permanence of most easements, claiming that unforeseen future conditions may render the conservation restrictions a potentially dangerous precedent. Nevertheless, “the conservation community hopes that easements will reduce conflicts” over preservation of open space, notes Phyllis Myers, an expert in conservation finance.

# Measuring the Economic Value of Open Space

When activists argue for more funding of open space in their communities, they often point out that new parks or greenways can add value to the local economy. Refurbishing an inner-city park may spark rebuilding of nearby neighborhoods. A protected habitat could draw birdwatchers, hikers and other nature tourists who spend money in local restaurants and gas stations. And a greenbelt of protected farmland surrounding a city could prevent rising costs of public infrastructure and services associated with suburban sprawl.

Open spaces also provide a wide range of ecosystem services, such as cleansing air and water, treating wastes, renewing soil fertility, regulating watersheds, maintaining biological diversity, and providing aesthetic and recreational amenities. Each of these services may be economically important, but it is difficult to determine their monetary value in the traditional marketplace. For example, from a real estate perspective, an acre of land may be worth \$1,000 as farmland but far less if it is left wild or far more if it becomes a residential subdivision.

Some environmentalists argue that it is impossible to calculate a dollar value for ecosystem services, such as a forest's air-cleansing function. Nevertheless, researchers continue to seek new ways to measure ecosystem services—to counter economic arguments in favor of development and to illustrate its hidden costs.

In their 1996 Lincoln Institute working paper, "The Economic Value of Open Space: A Review and Synthesis," Charles J. Fausold and Robert J. Lillieholm describe numerous methods, varying widely in sophistication and reliability, that can be used by states and localities to measure the economic value of open spaces. A summary of six methods follows.

## FISCAL IMPACT ANALYSIS

As communities sprawl from downtown centers, local leaders often hope that growth will solve their economic problems by increasing the tax base and keeping tax

rates down. But localities soon find that revenues from growth are not enough to pay for rising demands for public services such as schools, police and fire protection, roads and sewers. So communities often must raise taxes to pay for development, especially for residential subdivisions on previously unoccupied land.

To measure the economic consequences of various kinds of development, some localities and conservation groups have employed fiscal impact analysis to estimate and compare the costs and benefits of residential or nonresidential growth. For each kind of land use, localities can project how much public investment would be required for services and infrastructure, and how much revenue would be gained from property taxes.

Governments can then determine the net fiscal impact of future development in a particular area.

Source: *Cost of Community Services in Southern New England*, Executive Summary, September 1, 1995. Southern New England Forest Consortium.



## SUMMARY OF EXPENSE/REVENUE RATIOS FOR SOUTHERN NEW ENGLAND TOWNS

TOWN	RESIDENTIAL DEVELOPMENT	COMMERCIAL/ INDUSTRIAL	OPEN SPACE
<b>CONNECTICUT</b>			
Durham	\$1.07	\$0.27	\$0.23
Farmington	\$1.33	\$0.32	\$0.31
Litchfield	\$1.11	\$0.34	\$0.34
Pomfret	\$1.06	\$0.27	\$0.86
<b>CT Average</b>	<b>\$1.14</b>	<b>\$0.30</b>	<b>\$0.44</b>
<b>MASSACHUSETTS</b>			
Becket	\$1.02	\$0.83	\$0.72
Franklin	\$1.02	\$0.58	\$0.40
Leverett	\$1.15	\$0.29	\$0.25
Westford	\$1.15	\$0.53	\$0.39
<b>MA Average</b>	<b>\$1.09</b>	<b>\$0.56</b>	<b>\$0.44</b>
<b>RHODE ISLAND</b>			
Hopkinton	\$1.08	\$0.31	\$0.31
West Greenwich	\$1.46	\$0.40	\$0.46
Little Compton	\$1.05	\$0.56	\$0.37
<b>RI Average</b>	<b>\$1.20</b>	<b>\$0.42</b>	<b>\$0.38</b>
<b>Eleven Town Average</b>	<b>\$1.14</b>	<b>\$0.43</b>	<b>\$0.42</b>



# VALUE CAPTURE

Land values often increase because of community growth and investment, rather than through the individual actions of private owners. Such community action may take the form of protecting public open space, causing neighboring private lands to experience an increase in value because of their proximity to parkland or recreational areas. If “captured” by the community through taxation, some portion of this publicly generated wealth could provide a new source of revenue for the purchase and maintenance of open space.

The ethical and economic implications of taxing “unearned increments” in property value have been the subject of special attention since the time of Henry George, an innovative late nineteenth-century political economist and social reformer who advocated land value taxation. The issues he raised concerning the appropriate balance between private property rights and public interests in land are relevant to contemporary land policy debates.<sup>11</sup>

Many fiscal impact studies show that residential development is quite expensive for communities.<sup>12</sup> Local governments often pay more for supplying new subdivisions with infrastructure than is generated in new property taxes. Commercial development may create a net gain for local budgets, though it also tends to attract residential growth as well. Open space falls at the break-even point.

Communities must be careful about evaluating the results of fiscal impact analysis, however. The assumptions and methodologies used for such analysis can strongly influence the findings, and many studies seem to conform surprisingly well with the policy inclinations of the sponsor, say Fausold and Lilieholm. Since specific fiscal and land use circumstances vary considerably among communities, results can not be generalized from one study to another without careful evaluation.

## REAL ESTATE MARKET VALUE

The most direct economic measure of open space is its real estate market value. In rural areas where the “highest and best use” of land is usually for agriculture or forestry, open space value is reflected in market transactions. In urban areas, market transactions are based on each parcel’s development value, which can be difficult to separate from its potential open space value. Land placed under conservation easements presents even more complicated valuation and appraisal dilemmas.

Some property rights advocates have argued that land is worth little unless it can be developed. Environmentalists argue, however, that open spaces clearly have strong market values aside from their development values.

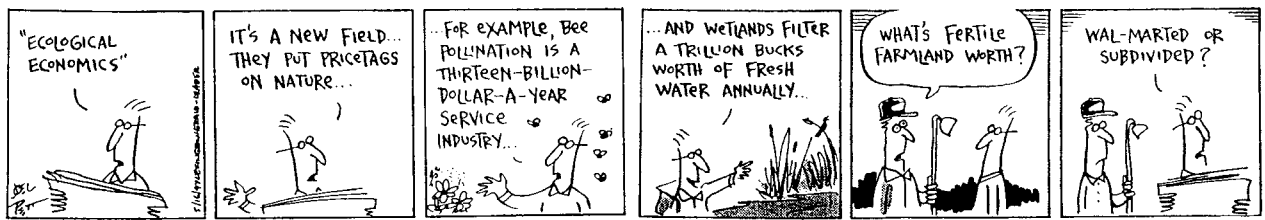
Landowners often buy and sell open land to buffer their homes and businesses from encroaching development and to heighten the value of their own developed property. Some landowners purchase open space for improved vistas or to gain access to lakes, waterways and beaches. Even industries maintain open space around factories to provide better security and to maintain peaceful relations with neighbors who might complain about odors and noise.

## ENHANCEMENT VALUE

Several studies have tried to measure to what degree a park, greenbelt, water body or wetland will enhance the value of nearby properties. Even in rural areas, where most land is already open space, a protected tract can create measurable enhancement value. In some urban areas, where green spaces are limited, a park or other open space can raise nearby property values dramatically.

Many people are willing to pay for the purchase and maintenance of open space to keep their neighborhoods attractive and valuable. Conserving the natural or historical character of a community helps increase housing values, business activity and local investments, especially in rural or tourist areas. People realize they will benefit from increases in property values over time.

In Boulder, Colorado, for example, greenbelts have had a significant impact on adjacent residential property values. In a 1978 study that is still considered valid, economists found that properties adjacent to greenbelts in three neighborhoods were worth an average of 32 percent more than those just 3,200 walking feet away, resulting in a significant increase in property tax



revenue.<sup>13</sup> In such cases, enhancement value can offset the negative effects of removing the market value of open space (which is usually tax-exempt or taxed at a low value) from the local property tax base.

Open space will not always benefit adjacent neighborhoods, though. “We have many poor neighborhoods in the South Bronx near parks,” explains Marcia Reiss, deputy director of the Parks Council, a nonprofit advocacy organization in New York City. “But the parks are not helping them. If you put money into a park, chances are that you will improve one portion of the neighborhood. But if the park does not have proper security and maintenance, it becomes a liability for nearby homes.”

### AGRICULTURAL PRODUCTION VALUE

Open space has production value in crops produced from farms and orchards, animal products from pasture and grazing lands, and wood products from forests. In the United States, agriculture directly or indirectly employs nearly 20 percent of all workers. Nearly three million people were employed on farms in 1992, when more than 300 million acres of agricultural lands were harvested, with a value of more than \$86 billion.<sup>14</sup>

Some local economies are highly dependent on productive lands. In the Northern Forest, covering nearly 26 million acres of Maine, New Hampshire, New York and Vermont, forest products and forest-based tourism and recreation account for 250,000 jobs and \$26 billion annually.<sup>15</sup> Protecting these lands helps to preserve the unique cultural heritage of forest and farmland communities, while also preserving their economic base.

### NATURAL SYSTEM VALUE

As noted previously, open space can provide a variety of public goods that are not usually measured in dollars and cents. A wetland has many natural system values due to its various functions, including flood storage, wildlife habitat and pollution filtration. Economists have tried various

techniques to estimate the economic value of any one of these wetland services to a community, but it is difficult to analyze them separately. When an economist measures a single functional value as a discrete phenomenon, the ecosystem’s actual worth could be undervalued. On the other hand, if the wetland’s functions are double- and triple-counted, the ecosystem’s economic value can be inflated.

Many people argue that economic analysis could never truly capture the intangible values of a wetland, or any ecosystem for that matter. Nevertheless, the benefits of wetland protection remain a compelling argument in many watershed locations compared to the expense of man-made filtration systems or the costs of potential damages resulting from flooding.

### CONTINGENT VALUATION

The contingent valuation method is another way of measuring nonmarket values, though it is considered controversial. With this technique, researchers design a survey and ask people about their “willingness to pay” to gain or avoid losing access to an attractive wilderness or recreational area. Researchers can measure how much people value an ecosystem they may never see. For example, people in Kansas or Nebraska could be asked how much they would pay to keep an Alaskan wilderness safe from oil spills.

On a more local level, contingent valuation can help policymakers judge the community’s willingness to pay special park assessments or other fees to support open space in the area. The Androscoggin Land Trust and Bates College in central Maine conducted two surveys in the summer of 1995 to ascertain the value residents placed on open space and recreational opportunities along the Androscoggin River corridor. Their findings showed that respondents did place significant value on the preservation of open space and were willing to pay for land acquisition. By one measure, 80 percent of respondents were willing to pay at least \$5 per year for five years to increase the amount of open space.<sup>16</sup>



## Alternatives for Open Space Financing

Local officials know they need a steady stream of funds to build and maintain schools and roads, provide police and fire services, and meet other basic community needs. But many local governments do not fully appreciate the role of open space and parks as equally valuable elements of their infrastructure that also must be constantly maintained and expanded as the community grows.

As poorly planned development sprawls across the countryside, growth is outstripping local governments' ability to respond. Faced with ugly strip malls, polluted waterways and skyrocketing property tax bills, localities often lack the financial resources to control and focus development by acquiring ecologically sensitive properties, especially ones that become available on short notice and at inflated prices. Annual budgeting limits the capacity of local governments to respond to private land transactions, even those with significant public benefit.

Most communities finance their infrastructure improvements from current revenues such as property and sales taxes, fees, service charges, special funds or special assessments. Communities may dedicate some of these funds for their park systems, or they may support their open spaces through general appropriations. In

either case, park systems must compete for funds against other community needs, and managing open space is often considered a low priority compared to education and human services.

To close this substantial funding gap, voters in many local and state elections have approved the spending of millions of dollars from property tax assessments, sales taxes and other public sources to acquire, develop and maintain open space. In November 1997, voters approved almost 70 ballot measures for parks, farmland, open space, recreation and water quality projects. These initiatives provided some three-quarters of a billion local dollars for these purposes, largely from small property tax assessments or sales tax set-asides.<sup>17</sup>

Raising taxes is still difficult to accomplish in many places, however. Another problem is that funds raised through new taxes may pay for land acquisition, but not for operating expenses, long-term maintenance or future acquisition. Therefore, communities that want to balance conservation with economic growth should consider establishing a "diversified portfolio" of financing alternatives to plan for and protect their open spaces.



## BORROWING THROUGH BONDS

Since the early 1980s, local governments have increasingly turned to borrowing money to purchase open space, generally through the issuance of tax-exempt, long-term bonds. By issuing general obligation bonds, the jurisdiction obtains needed funds up-front and pledges to pay principal and interest to retire the debt over many years. Voter approval may be required for such obligations, although revenue bonds sold for projects such as water and sewer systems that produce revenues do not usually require voter approval.

Borrowing money to acquire open space is often advantageous to a community because those undeveloped properties may not be available in five or ten years. Even when land does become available, market pressures may make it more expensive in the future. The rate at which land values appreciate is often higher than the tax-exempt interest rate at which most governments borrow. So even with borrowed money, acquiring land now can be less expensive than acquiring it in several years.

However, many taxpayers dislike reaching into their own pockets to fund public infrastructure, and many oppose borrowing in particular. In some communities, fiscally conservative public officials may be unwilling to pay for the cost of carrying a debt. Bond issues do add fees and interest to the costs of open space projects. Although growing numbers of communities have supported bond issues for open space, some states and communities have debt limits or other spending restrictions that prohibit further bond issues.

## IMPACT FEES

During the permitting process, some governments require that developers and property owners dedicate land for parks. Other governments receive impact fees, or payments in lieu of dedication, which fund municipal trusts for park purchases. These requirements or conditions, called exactions, are one-time charges assessed on

development to offset the costs of providing infrastructure to serve new residents. Exactions have become popular in states with dramatic growth but strict limits on new property taxes, such as California and Florida. Other impact fees include charges for permits, water and sewer investments, and roads to help communities recover some of their own infrastructure investments that have increased the value of new subdivisions and malls.

Some critics say impact fees are inequitable because they put burdens on new homebuyers and inflate real estate costs. In fast-growing states, impact fees can average about \$10,000 per new home, with some fees as high as \$50,000. In a 1995 National Association of Home Builders survey, developers said that rising impact fees and development exactions were their greatest concern.<sup>18</sup>

On the other hand, sometimes impact fees are too small to cover the costs of acquiring parkland. In Greeley, Colorado, for example, the park impact fee of \$600 per housing unit is “way, way too low,” says Becky Safarik, the city’s community development director. She estimates that it covers only half the cost of acquiring parkland for new residents.

If impact fees are too high, they can mask long-term deficits in property taxes. During the 1980s, when Loudon County, Virginia, near Washington, D.C., was booming, the average household received about \$5,800 in county services while paying only \$1,280 in property taxes. Impact fees covered the difference. But when development slowed down and this source of funds dried up, county deficits soared.<sup>19</sup>

Two U.S. Supreme Court cases have upheld the validity of exactions, though with limitations on their use. In a 1987 case, *Nollan v. California Coastal Commission*, the Court said there must be a logical connection between a development’s impact on a community and the exaction tied to the permit. In 1994, in *Dolan v. City of Tigard*, the Court shifted the burden of proof to the locality to justify an exaction. That is, the Court found that communities





## COURT TESTS FOR TAKINGS CLAIMS

For generations, most landowners have understood that property can be used only with certain restrictions. Thus, an owner of a one-acre lot in a neighborhood zoned for single-family residences cannot use the property for a garbage dump or a five-story office development.

In recent years, some powerful and increasingly vocal landowners have been trying to alter the land use playing field. They “want to redefine what constitutes property,” says R. J. Lyman, assistant secretary for environmental impact review at the Massachusetts Office of Environmental Affairs. “Some property owners believe they should be reimbursed if they can’t use land in an unlimited way.”<sup>20</sup>

These property rights advocates argue that when a regulation diminishes a property’s fair market value, then the land, in effect, has been “taken,” just as if the government had physically occupied it, so the landowner should be paid compensation from public coffers. To bolster their claim, property rights advocates refer to the Takings Clause of the U.S. Constitution, which states, “[N]or shall private property be taken for public use, without just compensation.”

But the U.S. Supreme Court has noted that while property rights are important, they are often secondary to the public good. Within certain limitations, communities can protect their social and economic goals, even when environmental and land use regulations drastically diminish a property’s market value.

Communities that want to design politically acceptable land use regulations and also hope to avoid landowner lawsuits must consider three broad tests used by the courts for takings claims, experts say. By following these tests, governments can usually protect critical resources and avoid infringement on private rights. Courts use these three tests in various combinations, often using terms other than the ones used in this brief overview.

First, courts consider the economic impact of a regulation. That is, courts ask whether a regulation has caused an actual economic harm to the landowner. Does the regulation devalue the land completely? Or is the property left with a “reasonable economic use” such as farming or forestry? A reasonable economic use of land does not have to be the most profitable use or the use that the landowner prefers, but it must be beneficial to the owner.

The second test addresses whether a regulation advances a legitimate government interest, such as environmental protection, control of floods or protection of drinking water. In other words, courts often ask whether the public benefits from a regulation. In most states, the preservation of agricultural land and community character can be considered a legitimate state interest, as long as the affected lands have some economically beneficial use.

Third, courts ask whether there is a logical relationship (a “rough proportionality”) between the state’s interest and the regulation. That is, the regulation must be fair and applied equitably, without an inordinate burden on one landowner. A government agency must also offer reasonable, documented proof that its regulations are logically tied to its legitimate public purpose.<sup>21</sup>





*The U.S. Supreme Court has noted that while property rights are important, they are often secondary to the public good. Within certain limitations, communities can protect their social and economic goals, even when environmental and land use regulations drastically diminish a property's market value.*

must prove that their permit requirements would directly reduce a development's impacts. "Government must reasonably prove that its requirements of a property owner are tied to a legitimate public purpose," comments Gus Bauman, an attorney with Beveridge & Diamond, in Washington, D.C.<sup>22</sup>

While both of these decisions involve land dedications only, they have bearing on other types of exactions, such as impact fees, says Michelle J. Zimet, senior research fellow at the American Planning Association. For example, if a local government receives funds through an impact fee from a new development in region "A" and puts the money into the locality's general fund, it can not later use the fund to acquire parks throughout the entire community in regions "B" and "C," Zimet notes.

A park fee must be put into a separate, interest-bearing trust account—not into the general fund—and it must be used for acquisition of parks solely in areas affected by the development. An impact fee cannot be used to fund a backlog of improvements; it can only be used for current projects. An impact fee also must be based on evidence that the affected portion of the community is actually deficient in open space and parks. That is, local governments must prove that there is a logical tie between the open-space needs caused by the development and the amount of the impact fee. And communities must update their fee schedules periodically. Finally, stringent federal court requirements for impact fees will usually "trump" less-stringent state laws on impact fees, according to Zimet.

Despite these limitations, however, "exactions are alive and well in many states around the country," says Jim McElfish, an attorney with the Environmental Law Institute, a non-partisan organization in Washington, D.C. Still, experts agree that communities should update their impact fee rules to accommodate U.S. Supreme Court rulings.

In April 1996, for example, a consultant's report commissioned by the city of Greeley, Colorado, recommended that the city should raise impact fees for

the purchase of new parks and other infrastructure. The city was seeking to raise the low level of impact fees, as noted above, but had erred in imposing its charges on development without an impact fee ordinance. Current "fees are not based on detailed impact fee studies now required by the courts," the report noted. If the city wants to raise impact fees to purchase new parks, it must also pass an ordinance to require detailed studies of impact fee needs, along with accounting and reporting procedures.<sup>23</sup>

### REAL ESTATE TRANSFER TAXES AND FEES

Increasingly popular in rapidly growing suburban and resort areas trying to protect existing open space, real estate transfer taxes are assessed when people make transactions such as buying homes or other real property. Transfer taxes, like impact fees, are an entrance or acquisition cost for developers or home purchasers to help pay the public expenses of growth. But these taxes can push up the costs of new housing, affecting the purchasing ability of younger and lower-income families.

It is important to make a distinction between taxes and fees, although the terms are often used interchangeably. Legally, taxes are much more difficult to initiate than fees. Taxes can only be imposed by a vote of the electorate, and they must be uniform. Impact fees are more flexible because they are enforced through a community's regulatory authority. Perhaps most important, taxes can be put into a general fund and used for any government service, including but not limited to park maintenance.

A number of states and localities use transfer taxes for conservation. Maryland's Program Open Space, funded through a one-half percent transfer tax, has been a primary source of funds for state and local land acquisitions since it was enacted in 1965. The program has purchased 180,000 acres directly and has nurtured a statewide land trust movement encompassing agricultural easements, land trust grants, and heritage conservation to protect additional lands.<sup>24</sup>





## Cape Cod and the Islands

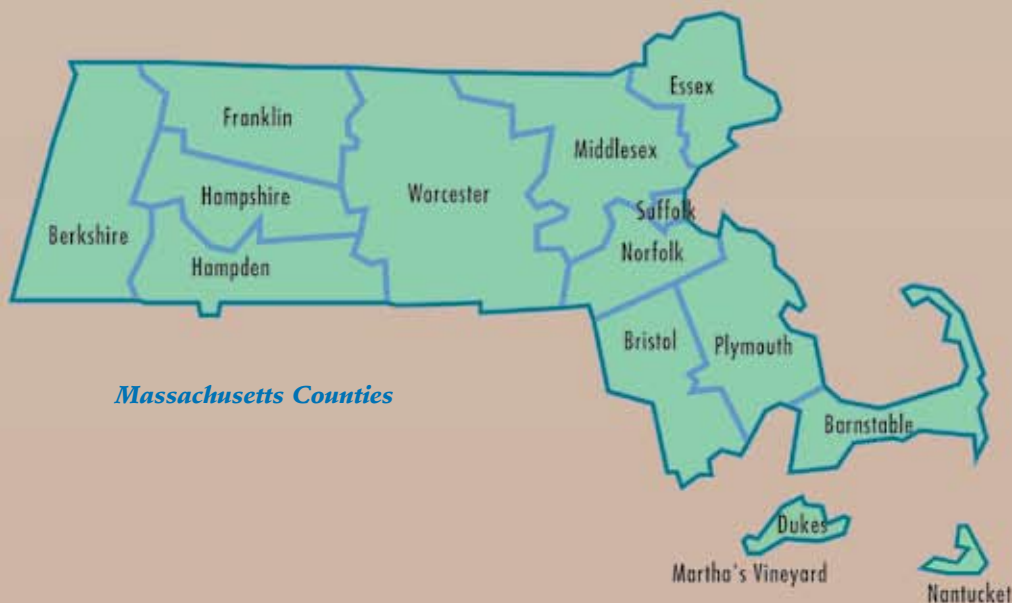
Nantucket and Martha's Vineyard have land banks funded by two-percent transfer fees, which provide revenues to pay off bonds. Established in 1983 by a special act of the Massachusetts Legislature, Nantucket's land bank was the first of its kind in the nation. Martha's Vineyard's land bank was created a year later by the Legislature.

For Nantucket's land bank, an elected five-member commission has acquired beaches, wetlands, aquifer recharge areas, moorlands, and other lands significant to the island's rural character. Through 1997, the commission has issued more than \$22 million in general obligation bonds, revenue bonds or notes, and the transfer fees pay an annual debt service of more than \$2 million. To date, the Nantucket Land Bank Program has made more than 142 land acquisitions, preserving more than 1,750 acres of open space at a cost of over \$54 million.<sup>25</sup>

On Cape Cod, 15 municipalities in Barnstable County had hoped to be able to acquire open space through real estate transfer taxes. In November 1996, voters in a nonbinding county referendum passed a proposal for a land bank funded by a one-percent fee on all home sales, with the first \$100,000 exempted.

Proponents of the measure, such as the nonprofit Association for the Preservation of Cape Cod, believe this is the best approach to protect the Cape's fast-disappearing open space, its threatened water resources and its quality of life. Realtors and others, including Acting Governor Paul Cellucci, oppose the transfer tax, saying it is a burden on consumers and is simply a way to circumvent the state's "Proposition 2<sup>1/2</sup>" cap on local property taxes.<sup>26</sup>

The Cape Cod Land Bank bill has experienced a roller-coaster ride. It was passed by the Legislature in October 1997, but then vetoed by Cellucci. The Legislature overrode the veto by a two-thirds vote in both the House and Senate. When the transfer tax proposal faced ratification by Cape Cod voters in January 1998, it was defeated. Many other Massachusetts communities are now evaluating the outcome of this vote so they can pursue their own transfer tax proposals.



In 1986, the Rhode Island legislature passed a law creating the Block Island Land Trust for the 6,000-acre island. The town established a two-percent transfer fee on real estate sales, raised in 1988 to three percent, which is paid by the purchaser. The fee exempts the first \$75,000 of the purchase price of a primary residence for first-time buyers. This program has generated more than \$4.5 million to acquire 123 acres in direct purchases and easements on another 50 acres through cooperative acquisitions with other conservation organizations on the island.

### CONSERVATION ZONING

Over the past several decades, many suburban communities have zoned new subdivisions to allow large houses on lot sizes of an acre or more. The homes in these subdivisions are usually spread uniformly across the landscape, so that virtually all of the buildable land is absorbed by house lots and streets.

Under conservation or cluster zoning, a subdivision is allowed the same overall density on a particular tract as would be allowed under existing or conventional zoning. The crucial difference is that conservation zoning requires new construction to be located on no more than half of the land. The remaining open space is forever protected and can include such valued amenities as walking trails, scenic views and farming. The open space is either offered under an easement to the town as a park or donated to a land trust to manage. Advocates of conservation zoning

argue that this technique can reduce infrastructure costs, that it has marketing and sales advantages, and that home values increase more rapidly in cluster developments than in traditional subdivisions.<sup>27</sup>

For example, in a development called Farmview, in Lower Makefield Township, Pennsylvania, 332 single-family homes are situated on less than half of a 418-acre site. Fifty-one percent of the property—68 acres of woodlands and 145 acres of farmland—is permanently protected. The woodlands were given to the township as a permanent preserve, and the farmland was donated to a municipal land trust, the Lower Makefield Township Farmland Corporation, which leases the land to local farmers.<sup>28</sup>

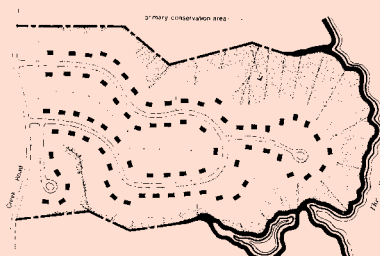
## Sussex County, Delaware

A 58-acre site in Sussex County, Delaware, illustrates an alternative approach to subdivision development that recognizes natural features of woodlands, farmland and tidal creeks.<sup>29</sup> Through careful site analysis, the most sensitive perimeter areas are protected as open space while land suitable for development is laid out for house lots that maximize privacy and pleasant views.

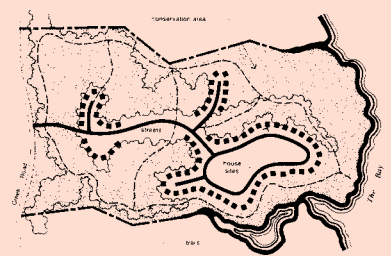
The yield plan would allow 72 standard 100 ft. x 200 ft. half-acre lots, whereas the conservation plan places the same number of houses on lots of only 5,000 to 6,000 square feet. As a result, nearly 70 percent of the site is available for shared open space. This feature offers a significant marketing strategy to a growing number of people who want modest sized homes requiring less maintenance as well as easy access to natural areas for passive recreation.



*Before Development*



*Yield Plan*



*Conservation Design*



Conservation zoning is compatible with a broader movement that is attracting popular attention, variously known as neo-traditional or New Urbanist design. New Urbanist designers say that each of their developments should include common areas in the form of squares, greens and parks, as well as a clearly defined edge, such as an agricultural greenbelt or wildlife corridor permanently protected from development.

To make the New Urbanist model work, developments must have densities of six or seven units per acre on land not dedicated to open space. This density is at least twice that of most traditional subdivisions. Consumers traditionally prefer low-density developments, which are considered more private and quiet. Still, surveys show that when homeowners have views of green areas, or when parks are carefully integrated within neighborhoods, residents are satisfied with higher densities.<sup>30</sup>

### COMMUNITY STEWARDSHIP ORGANIZATIONS

The trend toward collaborative solutions that integrate conservation and development will continue to gather momentum as Americans increasingly choose to live in areas adjacent to national parks, coastlines or other significant natural amenities. To preserve those amenities, a new model of nonprofit organization, known as a Community Stewardship Organization (CSO), is addressing concerns about balancing local land development and conservation and providing a built-in mechanism for financing conservation.

CSOs are tailored to local community needs, but they tend to be associated with new master-planned developments designed to appeal to buyers committed to civic values and environmental stewardship. These developments are often located in environmentally sensitive settings where developers can capitalize on the natural assets to market the community, or in rapidly growing areas where market competition requires developers to establish a distinct niche.

The mission and scope of activities vary considerably among CSOs, but they share a commitment to natural resource management and educational programs designed to familiarize new residents, businesses and visitors with the community and its natural environment. Long-term funding for these conservation activities is typically secured through market-oriented mechanisms that link the fate of the CSO to that of the new community. The nongovernmental fees connected with this kind of development include surcharges on hotel rooms, real estate transfer fees, homeowner fees, fees on recreational uses, and endowments created by levies on building activities.

The Sonoran Institute based in Tucson, Arizona, for example, works with communities in the western United States and northwestern Mexico to promote community-based strategies that preserve the ecological integrity of protected lands and at the same time meet the economic aspirations of adjoining landowners.





## Rocking K Ranch and the Rincon Institute, Arizona

A 1989 proposal by the owner of the 6,000-acre Rocking K Ranch near Tucson, Arizona, to develop a 21,000-unit resort and residential community for more than 50,000 people raised numerous concerns about the ecological and scenic integrity of the adjacent Saguaro National Park. Intensive growth was occurring throughout the Tucson Basin, and both Park Service and local officials realized that on this site a planned development with significant environmental safeguards along the Park's border was preferable to the kind of helter-skelter subdivision prevalent elsewhere.

The Park Service, local and national conservationists, county officials and Rocking K Development Company developed a collaborative plan. It minimizes the development's overall environmental impact by clustering and reducing the total number of units to 10,000. It also preserves more than one-half of the site as natural open space with wildlife corridors and trails connected to the park. In addition, about 2,000 acres of the most ecologically significant habitat was sold to the Park Service and a two-and-a-half mile degraded section of Rincon Creek is being restored.

The Rincon Institute, an independent, nonprofit Community Stewardship Organization, was established as part of this innovative partnership. Its professional staff and volunteers conduct ecological research, natural open space management, and environmental education activities to increase public understanding of how development affects desert ecosystems and to foster a conservation ethic in the community. In 1995, the National Park Foundation and the U.S. Department of the Interior awarded Saguaro National Park and the Rincon Institute the prestigious National Park Partnership Leadership Award in recognition of their collaborative programs.

Long-term funding for the Institute will derive from deed restrictions binding all future businesses and homeowners, including hotel surcharges, occupancy fees on commercial and retail outlets, monthly homeowners fees, and real estate transfer fees on both new and resale transactions. One-third of the Institute's annual budget of \$130,000 currently comes from the Rocking K Development Company and the remainder from outside grants, cooperative agreements and donations from individuals. Once the development is fully built (phase one breaks ground in the spring of 1998), it is projected to generate \$200,000 per year for resource conservation adjacent to Saguaro National Park.



*“Parks have fared well when they are separated from other services, so people can know what services are proposed and can more directly evaluate how their tax money is being spent.”*

— Phyllis Myers

## SPECIAL DISTRICTS

To provide a steady stream of funds for open space, hundreds of communities have created a variety of special districts. Independent of county and city governments, special districts began as a mechanism to help rural counties finance certain infrastructure needs, such as sewer and water lines. In recent decades, these limited-purpose governments have been used with greater frequency in urban areas as well, providing a method for people to tax themselves for particular services. Special districts now make up one-third of all local government entities.<sup>31</sup> Some special districts have the same boundaries as city or county governments, others serve a portion of a city or county, and still others serve a combination of counties or a city and its surrounding area.

A special park district has many advantages over a city park department. Valuable green areas often do not fit neatly into political jurisdictions, spilling over geographic and bureaucratic jurisdictions. A special district, therefore, could be practical for financing and managing parkland that runs through a city and various suburbs.

Special park districts can finance their services and facilities directly and without having to balance competing social and infrastructure demands.<sup>32</sup> “Parks have fared well when they are separated from other services, so people can know what services are proposed and can more directly evaluate how their tax money is being spent,” says Phyllis Myers. Parks and recreation areas, she notes, are often likelier to get support through the special district mechanism than they would in a consolidated, centralized government.

Initiating a special district can be difficult, though. In some communities voters must approve special districts or tax increases in a general election. In other places the state must pass legislation that will authorize local governments to map a special district. Under such legislation, a district can elect a park board, which allocates a fixed proportion of sales and property taxes for park purposes. The

legislation may also authorize the park board to use that money for park maintenance and debt service on bonds.

Special districts have been criticized for creating another level of expensive government. For two decades, Chicago’s Park District was notoriously inefficient, assessing property tax increases almost every year while offering mediocre services at best, and its payroll was bloated with patronage jobs. In 1993, a new commissioner cut park district jobs by 25 percent, streamlined programs and stimulated support from private donations.<sup>33</sup>

Even well-managed park districts struggle to maintain adequate funding. Minneapolis is one of the few exceptions. It receives a dedicated stream of tax revenues from property taxes, which the city can pledge as payment to bondholders who lend money for capital projects. The park system is operated by an independent park commission, which is popularly elected by the constituency it serves.

A benefit assessment district is like a special district in that it taxes residents to provide a community service within a defined boundary, but it is not an independent governmental body so it can be created more easily. Typically, a levy is placed on individual parcels and the assessment is structured so that landowners pay in proportion to their benefit. Faced with rapid development and restrictions on voters’ willingness to finance infrastructure through the ballot box, California has been in the forefront in devising benefit district mechanisms.<sup>34</sup>

In 1992, the East Bay Regional Park District, including Alameda and Contra Costa counties in California, needed a financing mechanism to pay for maintenance of its heavily used trails. In 1988, voters had approved \$225 million in bonds to acquire new parks and trails, but did not provide funds for maintaining them. Meanwhile, growing numbers of bicyclists, walkers, joggers and horse riders were enjoying the 1,000 miles of trails that wound through the district’s 47 parks. In 1993 the district

established the Regional Trails Assessment District. Each landowner in the two counties was assessed \$5.44 for trail maintenance, raising about \$4 million a year.<sup>35</sup>

## BUSINESS IMPROVEMENT DISTRICTS

A similar technique is a business improvement district (BID), which is usually supported by annual assessments on commercial property owners, sometimes bolstered with subsidies or tax breaks from traditional governments. Just as some private developers use Victorian-style street lights, information kiosks, brick sidewalks, and other architectural amenities to revitalize urban centers, business leaders who form BIDs often create and maintain public open spaces in the form of small urban parks.

More than 1,500 BIDs have already been established in 47 states, but some critics fear that this trend is creating urban governance problems through the privatization of public spaces. Furthermore, the economic and political impacts of BIDs may distort market forces, circumvent public development processes, and exert tax, design or regulatory pressures on smaller businesses in the district.<sup>36</sup>

Most BIDs are dedicated to sanitation, security, street improvements and business promotion, says John E. Petersen, president of the Government Finance Group, a financial advisory and research firm based in Arlington, Virginia. These special districts, in effect, establish a user charge for services that local governments once offered. People seem to be willing to pay more because they recognize that property values will increase over time and they can “capture” that value later. But special districts are also a sign of the widening gap between rich and poor, Petersen warns. In the future, traditional governments may offer only basic services, while “wealthier people will design districts to meet their expectations.”

In spite of these concerns, some special districts have created stellar new urban parks that are enhancing the value of their neighborhoods. In the early 1980s, members of Boston’s business community were concerned

about an unsightly and poorly placed municipal parking garage in the historic heart of the financial district. Recognizing the need for open space in this bustling, maze-like downtown neighborhood, they formed the Friends of Post Office Square, a nonprofit organization with the goal of turning the parking garage into a park.

After a long process of creative financing, design and construction, the group succeeded in constructing a seven-level underground garage topped with a brand-new, award-winning 1.7-acre urban park. Revenues from the 500,000-square-foot, 1,400-space garage, as well as concessions from the park restaurants and kiosks, are used by the Friends to manage the park and pay back the \$76 million required for construction.

Revitalization projects such as Post Office Square point to the promise for greener cities in more ways than one. While the economics of this project are complex and the city forswore millions of dollars of tax revenue from a potential skyscraper on the site, the park has received rave reviews from all sectors. Over the past few years the economic value of the buildings, shops and hotels on and near the park has been rising because of the amenity of Post Office Square, thus raising city tax receipts and spurring both workers and business owners to stay in the area.<sup>37</sup>







## Bryant Park, New York City

Located between 40th and 42nd Streets near Times Square, Grand Central Station and the New York City Public Library, the seven-acre Bryant Park had a checkered past, including a chronic and well-publicized crime problem in the 1980s. In 1988 the park was officially closed for renovations, coinciding with a major underground expansion of the Library.

After four years and \$9.5 million in renovations, the park reopened to wide public applause from residents, planners and business leaders alike. Today, Bryant Park is one of the hottest spots in the city, hosting up to 10,000 visitors per day during special events and around 4,000 during lunch time on pleasant days.<sup>38</sup> As BID-boosters are quick to note, each of those visitors brings money to be spent in the district, making a quick return on the investment.

The secret to this urban planning success is to be found in the gutsy investment and strong leadership of the Bryant Park business community, organized by the nonprofit Bryant Park Restoration Corporation, which raised \$3.2 million toward the renovation costs. The balance came from public funds.

Over half of the nearly \$2 million needed to maintain the city-owned park is generated through assessments on commercial property owners who pay about 14 cents per square foot, earning about \$950,000 annually. Additional revenues come from food concessions, rentals for special events, private donations, and the city's park budget.<sup>39</sup> Through recognizing the potential economic value of open space enhancement, the Bryant Park business community transformed a case of urban blight into an attractive urban destination supported by an innovative public/private partnership.

*"Almost every step in the revival of Midtown Manhattan's derelict Bryant Park was groundbreaking. A wisely planned and managed investment in open space has turned a disaster into an asset, dramatically improved the neighborhood, and pushed up office rents and occupancy rates."*

— Public Award conferred by the Urban Land Institute in December 1996.<sup>40</sup>

## EASEMENTS ON PRIVATE LANDS

In some regions of the country, people are deeply suspicious of government purchases of land for parks or habitat protection. Especially in rural areas, many residents have strong feelings against government ownership of land, arguing that properties should not be taken off tax rolls, and that governments are considered poor land managers. With land under government control, less property is available for economic development, they say. In addition, government is seen as an intrusion, potentially affecting the property rights of adjacent landowners. Yet, local people also worry about loss of farmland and forests that support local industries and businesses.

In response to these concerns, coalitions of environmentalists, land trusts, landowners, scientists and government agencies have been protecting property through the innovation of the conservation easement, a technique usually used in suburban and rural areas. Conservation easements, once relegated to a small place in the fiscal toolbox for land protection, are now enjoying acceptance as state and local governments expand their involvement in buying partial interests in land to protect resources while leaving it in private ownership.<sup>41</sup>

To protect farmland from development, property owners sell agricultural conservation easements to qualified government agencies and private land trusts. In purchasing an easement, an agency or land trust usually compensates the landowner for the difference between a property's agricultural value and its "highest and best use," which is usually residential or commercial development.

In general, an agricultural easement prevents subdivision of the property, though some states allow lots created for employee houses or for children of the current owner to be included in such easements. But even after selling the easement, the landowner retains all other rights of ownership, including the right to farm the land, to exclude trespassers, and to sell or bequeath the land.

Since the 1970s, 11 states have established programs to purchase agricultural conservation easements. Another four states have authorized and provided funding to local programs that purchase easements. Together, these state and local programs have protected 491,000 acres of farmland at a cost of \$750 million. By comparison, an American Farmland Trust study found that between 1982 and 1992 some 4.3 million acres of prime farmland was destroyed by sprawling development.<sup>42</sup>

Governments have used a wide range of methods to raise funds to purchase agricultural easements. For example, in New Jersey and California, voters have passed bond referenda for easement programs. Vermont and several Pennsylvania counties authorize expenditures for easement programs from general or discretionary funds. Maryland uses real estate transfer taxes. Sonoma County, California, has a dedicated local sales tax. Virginia Beach, Virginia, pays for easements through a cellular phone tax.<sup>43</sup>

In northwest Colorado's Routt County, near the resort town of Steamboat Springs, more than 10,000 acres have been preserved through conservation easements, mostly through donations from landowners. In November 1996, Routt County passed a one-mil property tax increase to purchase agricultural development rights over a 10-year period, with anticipated proceeds of \$360,000 annually. This is a remarkable achievement in the West, putting the county in league with such agricultural preservation strongholds as Maryland, Vermont, Pennsylvania and California.<sup>44</sup>

Purchasing development rights on farmland can vary dramatically in cost. Easements cost up to \$10,000 an acre in Massachusetts and \$20,000 an acre near New York City, while they can cost as little as \$425 an acre in remote areas of Vermont.<sup>45</sup>



## A NEW TAX INCENTIVE FOR CONSERVATION

A provision of the Taxpayer Relief Act that went into effect on January 1, 1998, helps conservation-minded property owners establish conservation easements and relieves the pressure on their heirs to sell inherited land for development in order to pay estate taxes. The new law recently enacted by Congress:

- Cuts estate taxes by up to 40 percent on land that is left undeveloped by placing it under conservation easements, allowing limited agriculture and forestry but no new building
- Gives heirs nine months after an owner's death to enact conservation easements with a qualified conservation organization or local land trust
- Requires eligible land to be within 25 miles of a national park or metropolitan region to encourage buffer zones to control sprawl in environmentally vulnerable areas under pressure for development
- Increases the maximum asset value that can be exempted from estate tax from \$600,000 to \$1 million by 2006, including land.<sup>47</sup>

Montgomery County, Maryland, has one of the largest agricultural protection programs in the nation. Over the past 18 years, the county has protected more than 43,000 acres of farmland through agricultural zoning, purchase of development rights, and transfer of development rights, at a cost of \$18 million.

In 1980, the county initiated its farmland protection policies by creating an 89,000-acre Agricultural Reserve in the rural part of the county, restricting development to one dwelling unit per 25 acres. The county also established a program through which landowners in the Agricultural Reserve and another 30,000-acre rural area could sell their development rights on the open market to landowners in 18 county "receiving areas." Landowners who purchase development rights could then develop their properties at higher densities than ordinarily would be allowed under existing zoning.

In 1989, the county created a program to purchase development rights directly from farmers, as well. The program is funded by agricultural transfer taxes collected on land that is being removed from farm production. These transfer tax rates range from three percent to five percent, depending on the type and condition of the property. Prices for development rights in the Agricultural Reserve range from about \$1,200 an acre for smaller tracts of poor, relatively remote farmland to more than \$4,000 an acre for large farms near urban areas.<sup>46</sup>

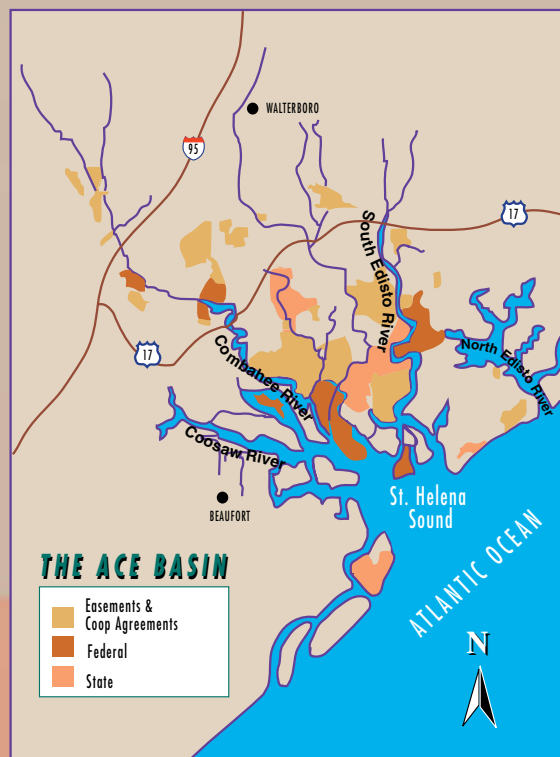




In 1987, a group of South Carolina conservationists began searching for methods to conserve a vast landscape of river bottomlands, salt marshes and upland forests in the 350,000-acre Ashepoo, Combahee, Edisto watershed, known as the ACE Basin. Conservationists were worried about development spreading south from Charleston and north from Hilton Head Island.

Members of the ACE Basin Focus Area Task Force knew that local people would not be eager to have a park or wilderness area in their midst. So the task force hoped to conserve land mostly through private ownership rather than public purchase. The task force also wanted to conserve a network of properties where forestry and farming could prosper, and where nature tourists would find attractive recreational opportunities. The chosen mechanism was to encourage landowners to donate conservation easements to nonprofit organizations, including The Nature Conservancy.

By 1997, the major partners in the project—Ducks Unlimited, The Nature Conservancy, the South Carolina Department of Natural Resources, the U.S. Fish and Wildlife Service, and property owners—had protected about 125,000 acres. About 79,000 (65 percent) of these acres are in private hands, with 42,708 acres under conservation easements, 10,643 acres owned by nonprofit organizations, and 17,912 acres privately owned but managed under special agreements. One reason for the success of the project is that “we tried to perpetuate traditional uses on private lands, such as forestry,” says Charles Lane, director of the task force. “We made it clear that we were not taking land out of production.”<sup>48</sup>





## Protecting Natural Systems

*Some communities are learning that they can save money by protecting irreplaceable sources of drinking water. Others are discovering they can avoid disastrous, expensive flooding in the future by acquiring property and regulating development along riverways and floodplains. In each case, communities are gaining greater respect for the valuable services and ecological benefits that natural systems can provide.*

### WATERSHEDS AND WATER SUPPLIES

In hundreds of river basins, rainfall washes into upland creeks and then flows into rivers, which are the major arteries of many of the nation's drinking water supplies. Forests in the watershed slow sediment runoff into waterways and reservoirs. Wetlands hold water during floods, while recharging groundwater and filtering pollutants, removing excess nutrients and allowing trace metals to settle out.

But if a watershed's forests are cut down, sediments will wash into the streams and reservoirs. If the land is paved for highways, subdivisions and malls, oil and other contaminants will run off streets and parking lots into waterways. If forests near streams are cut for agriculture or vacation homes, pesticides and fertilizers spread on cropland and lawns will filter through the soil into the water table or wash directly into lakes and streams.

In recent years, the nation's lakes and streams have been increasingly harmed by such nonpoint source pollution (sources other than regulated wastewater discharges). As a result, many communities must pay for expensive filtration plants and chemical treatment to clean up public supplies. Other communities are purchasing land in their watersheds to keep their water supplies clean. New York City, for example, will spend \$1.5 billion to protect 80,000 acres of its upstate watershed, so it will avoid spending up to \$8 billion in water-filtration plant construction costs. The annual savings of \$300 million in operating costs is expected to recoup the city's investment in just five years.<sup>49</sup>

For other water systems, purchasing land is not politically or economically feasible. The Atlanta, Georgia, area has seen rapid development that has swallowed up eight reservoirs over the past 70 years, says Thomas C. Leslie, executive director of the Consulting Engineers Council of Georgia, a trade association of 250 engineering firms. "Years ago, as development spread and despoiled the water supply or a reservoir became insufficient in quantity, there was always a more remote water supply you could go to," says Leslie. "But you can't keep doing that." Today, he says, communities in the Atlanta area must exercise land use controls over watersheds to avoid losing water supplies.



## Sterling Forest, New York/New Jersey

Just 40 miles from downtown Manhattan, the 17,500-acre Sterling Forest straddles the New York and New Jersey border, contributing numerous ecological, economic and social benefits to both states. The forest offers otherwise scarce habitat for hundreds of species, provides recreational opportunities to the roughly 26 million people living within a two-hour drive, and helps to filter drinking water for three watersheds and a series of reservoirs serving some two million people—25 percent of New Jersey's population.<sup>50</sup>

Fears about the forest's vulnerability to sprawling development were realized in the early 1990s when the landowner, the Sterling Forest Corporation, a subsidiary of insurance company Home Holdings, unveiled plans to create a new community. Their master plan included over 13,000 new homes, three golf courses, and millions of square feet of commercial and office space. Appraisals on this land for development purposes put the price tag between \$70 and \$110 million. Placing a figure on the natural services the forest provides for free is much more difficult, and charging for these services would be nearly impossible.

Nonetheless, a number of local, regional and national groups, as well as key politicians, began to work on their own plans to preserve this valued resource. In May 1996, the Trust for Public Land (TPL) and the Open Space Institute (OSI) entered into an agreement with the landowner to acquire 90 percent of the property (15,800 acres) for conservation purposes.

A collaborative effort by state, federal and private sources succeeded in raising the \$55 million purchase price. New York Governor George Pataki, who made saving the forest a key priority, pledged \$16 million toward purchasing the land. New Jersey Governor Christine Todd Whitman, whose state could have lost an initial \$150 million in water treatment upgrades if the forest were developed, pledged \$10 million. The federal government through the Land and Water Conservation Fund pledged \$17.5 million, and TPL and OSI raised the remaining \$11.5 million from private foundations and other contributors.

After 18 months of intensive negotiation and fundraising, the goal of protecting this crucial watershed has been achieved. After the official closing on the land sale in February 1998, the Palisades Interstate Park Commission in New York will manage the 15,800-acre preserve.



In Douglas County, Georgia, 20 miles west of Atlanta, development and runoff pollution are threatening the water supplies of 90,000 residents. The Douglasville-Douglas County Water and Sewer Authority (DDCWSA) draws its water from reservoirs on the Dog River and Bear Creek, as well as from the Dog River itself. All of the land in the watersheds is privately owned, and “it’s not feasible for us to buy all the property” needed to protect the watershed, says Peter Frost, executive director of the authority.

The water system and city and county officials established a three-part solution to manage the watershed. A zoning ordinance requires buffer setbacks from 100 to 300 feet along Bear Creek, the Dog River and their tributaries. In addition, landowners cannot change zoning of properties from residential to industrial, commercial or high-density residential anywhere in the county. And third, the ordinance establishes various minimum lot sizes, such as one unit per five acres for any home within one thousand feet of a major waterway.

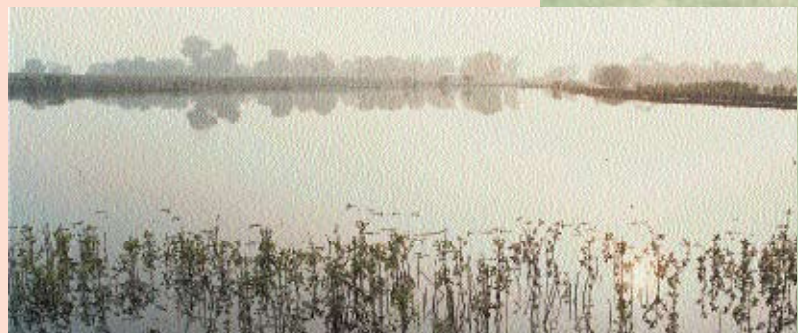
### FLOODPLAIN MANAGEMENT

Communities are also learning that keeping further development out of floodplains will save potentially disastrous expenses in the future. During the 1993 Midwestern floods, \$12 to \$16 billion worth of property was damaged. Since then, massive floods have occurred in Georgia, California, the Pacific Northwest, and in the upper Midwest again. To reduce flood damage, communities can prevent further building in hazardous floodplains by instituting and enforcing strict land use

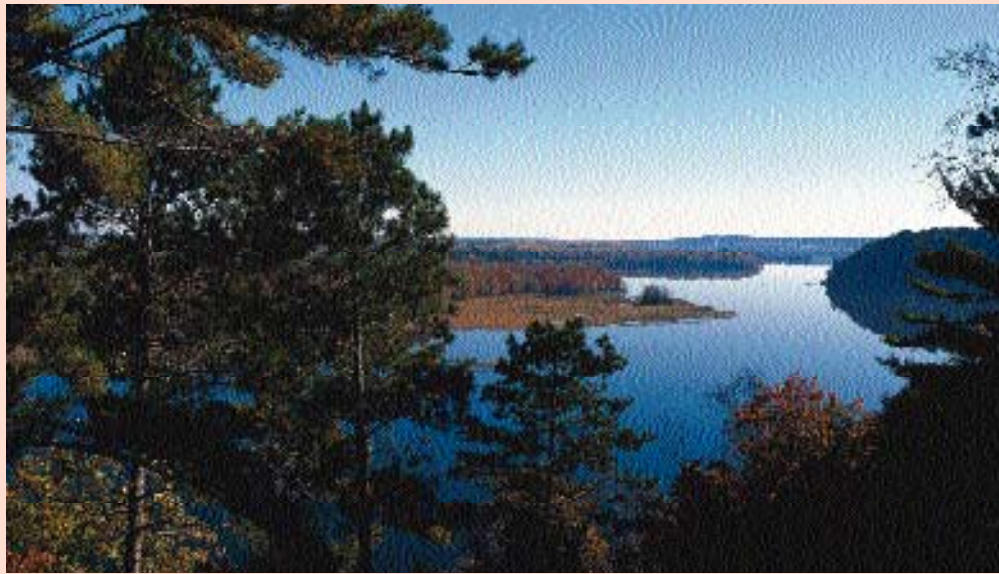
regulations, though, in fact, few localities are willing to do so.<sup>51</sup> In many instances, private landowners claim that strict regulations would be an unconstitutional “taking” of their property.

To avoid the takings issue, numerous local governments in the Midwest have been working with federal agencies to buy floodprone land and relocate residents elsewhere. For example, the Missouri Buyout Program received about \$100 million from the Federal Emergency Management Agency and Community Development Block Grant funds, which flowed through the state to the local communities. These funds were used to buy out floodprone properties, especially primary residences, and in many cases the land was turned into open space.

In Missouri, a former trailer court in the city of Arnold is now a football field for the Jefferson County Youth Association. In Lincoln County, buyout properties are being leased to seasonal campers, and funds collected will support a permanent emergency management director for the county. In Jefferson City, much of the property acquired through the buyout will be transferred to the local park system.<sup>52</sup>







Clearly, purchasing urban land is expensive. It would be wiser if states could buy conservation easements on farmland so rivers would have “release valves,” taking pressure off levees and protecting valuable urban areas downstream. Buying out agricultural areas and turning them into wetlands is the least expensive method of reducing flood damage, says Richard Sparks, director of the Illinois Natural History Survey’s River Research Laboratory, in the town of Sullivan.

Missouri, Illinois and Minnesota have been leaders in purchasing farmland easements, Sparks says. Minnesota has spent about \$37 million on permanent conservation easements in floodprone agricultural areas. State bond issues support two programs: the Reinvest in Minnesota Reserve, which retires marginal agricultural land; and the Permanent Wetland Preserve program, which purchases wetlands. These programs aim to reduce flooding and soil erosion, improve groundwater recharge, and enhance fish and wildlife habitat.<sup>53</sup>

In most cases, floodplain easements are being designed primarily for wildlife benefits, not for flood management, says Sparks, who is participating in a multidisciplinary study of an 80-mile stretch of the Illinois River, including several levee districts. The researchers, including ecologists, hydrologists and economists, are examining how to balance various benefits of purchasing easements in various ecosystems along the river. They are studying the hydrological benefits of buying a particular levee district and allowing it to flood. To what degree would the area provide a “release valve” in the river for nearby urban areas? They are also examining where an easement would provide the best wildlife habitat, while improving outdoor recreation and local economies. With this information, the state could make better decisions on where to acquire easements with limited funds.



## A Shared Vision for Open Space

Nearly every community in the United States has faced or will face difficult decisions about when and how to protect some part of its land base. The conditions and alternative solutions to a particular land conservation dilemma are seemingly endless. There is no easy, one-size-fits-all solution. Different states and localities have individual, and constantly changing, regulatory legislation and political characteristics that require open space advocates to “know the territory” before setting their sites on a particular financing technique. Furthermore, devolution from federal and even state agencies is continuing to put more pressure on local officials to solve land use problems.

In the best of all worlds, communities would have in place a comprehensive plan, backed by broad local support, that clearly outlines what areas should and should not be developed for appropriate, well-balanced land uses. Local leaders would be well-informed about major landowners whose holdings might become negotiable, potential public and private partners for various conservation plans, as well as other funding sources or mechanisms that might be legal and relevant for a particular site.

However, if your community is faced with the imminent loss of an important tract of open space and you do not feel prepared, stop and take a deep breath before taking action, advises Rand Wentworth, director of the Atlanta Field Office of The Trust for Public Land.

Before you start organizing to protect a piece of land, “make an objective assessment of whether the land has extraordinarily significant ecological or historical value,” says Wentworth. “Is this property worth it? I promise you, more often than not, saving a piece of property requires a process of years. So you’d better make sure that this is the right one to save. It may be that while you’re concentrating on this piece of property, you could have preserved the entire watershed.”



Once you’ve decided that this is the property that should be saved, then “broaden the circle of shared vision,” Wentworth adds. “Build a strong and broad community leadership with shared goals.” That is, ensure that a group of people is willing to cooperate and work together. “More community initiatives fizzle out due to egos and troubles with sharing power,” he says. Among the many actors potentially involved in local land conservation decisions are elected and appointed officials, landowners and abutters, the local newspaper, educational and environmental organizations, real estate and development companies, and citizens with a wide range of concerns and motivations about land use in their neighborhoods.

It may also be wise to involve a nonprofit group such as a local or regional land trust with experience in talking with landowners and negotiating agreements. It takes time and skill to develop relationships with landowners, to cultivate the needed trust to come to a mutually beneficial agreement. “You must listen to the landowner. The purpose of the first meeting is to get to know each other,” says Wentworth. The final ingredient is patience. “To save land in perpetuity is a marathon,” he says. “But don’t give up.”

## Conclusion

Open space lands, including city parks, suburban greenbelts, agricultural and forest lands, and recreation areas, are valuable economic assets for any community. Although the types and mix of values are community-specific, many approaches—some new and controversial, others tried and true—are available for measuring, expressing and capitalizing on local open space values.

Growing recognition of the economic importance of open space has sparked a wave of experimentation across the country to search for new approaches to “capture” the values associated with open space in ways that preserve those values and contribute to the long-term economic health of communities. This report has explored a variety of fiscal and land use mechanisms available to communities for open space conservation.

Communities can protect land through regulatory measures, such as agricultural zoning, conservation zoning, impact fees and dedications of land. This approach is especially effective in rapidly growing communities, although it must be recognized that sprawling development cannot be stopped cold by imposing stringent government regulations. Regulatory mechanisms require intense political momentum to be accepted and are always vulnerable to challenges from property owners or new political leadership. Conservation zoning can be a popular tool in some suburban areas, encouraging a mix of development and preservation.

A second option, buying land outright, is expensive and sometimes politically impractical. Nevertheless, such actions can be successful on case-by-case basis, and numerous localities around the country have voted in recent years to pay higher property assessments or taxes to acquire green spaces and to protect watersheds. Some communities have established special purpose government agencies or public/private partnerships to fund the purchase or maintenance of open space. In regions with fragile environments and explosive tourism and residential growth, some local governments have passed real estate transfer taxes to purchase open space. However, few communities can afford to buy enough open space to keep up with relentless development pressures.

In many high-growth areas, the most promising and flexible option for protecting open space is the use of conservation easements to protect agricultural and forestry lands on the urban fringe. Easements can allow some development to continue while protecting green areas in concert with conservation zoning, and they can keep development away from floodprone areas or vital watersheds. The increasing popularity of conservation easements among landowners and environmental groups is likely to provide many opportunities for land protection in the future.

As public policies and priorities about open space conservation change over time, and as fundamental notions of public and private rights and responsibilities in land continue to evolve, new mechanisms will need to be developed. The Lincoln Institute hopes that a lasting contribution of this report will be to encourage citizens and policymakers to approach the challenge of preserving important open space lands with new perspectives, fresh imaginations, and a spirit of innovation and collaboration.





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Following is a list of selected national and regional organizations and agencies cited in this report, and other types of private and public resources that may be useful to readers wanting more information about valuing, protecting and financing open space in their communities.

## Nongovernmental Organizations

**American Farmland Trust**  
1920 N Street, NW, Suite 400  
Washington, DC 20036  
202/659-5170  
www.farmland.org

**American Planning Association**  
122 South Michigan Avenue, Suite 1600  
Chicago, IL 60603  
312/431-9100  
www.planning.org

**Conservation Fund**  
1800 North Kent Street, Suite 1120  
Arlington, VA 22209  
703/525-6300  
www.conservationfund.org

**Environmental Law Institute**  
1616 P Street, NW  
Washington, DC 20036  
202/939-3800  
www.eli.org

**Greenbelt Alliance**  
116 New Montgomery Street, Suite 640  
San Francisco, CA 94105  
415/543-4291  
www.greenbelt.org

**Growth Management Institute**  
5406 Trent Street  
Chevy Chase, MD 20815  
301/656-9560

**Land Trust Alliance**  
1319 F Street, NW, Suite 501  
Washington, DC 20004-1106  
202/638-4725  
www.lta.org

**National Association of Conservation Districts**  
509 Capitol Court, NE  
Washington, DC 20002  
202/547-6223  
www.nacdnet.org

**National Association of Home Builders**  
1201 15th Street, NW  
Washington, DC 20005  
800/368-5242  
www.nahb.com

**National Audubon Society**  
700 Broadway  
New York, NY 10003  
212/979-3000  
www.audubon.org

**National Parks and Conservation Association**  
1776 Massachusetts Avenue, NW  
Washington, DC 20036  
202/223-6722  
www.npca.org

**National Trust for Historic Preservation**  
1785 Massachusetts Avenue, NW  
Washington, DC 20036  
202/588-6000  
www.nthp.org

**National Wildlife Federation**  
8925 Leesburg Pike  
Vienna, VA 22184  
703/790-4000  
www.nwf.org

**Natural Lands Trust**  
1031 Palmers Mill Road  
Media, PA 19063  
610/353-5587  
natlands@pond.com

**The Nature Conservancy**  
1815 North Lynn Street  
Arlington, VA 22209  
703/841-5300  
www.tnc.org

**Rails to Trails Conservancy**  
1100 17th Street, NW  
Washington, DC 20036  
202/331-9696  
www.railtrails.org

**Regional Plan Association**  
61 Broadway, 11th Floor  
New York, NY 10006-2701  
212/785-8000  
www.rpa.org

**Resources for the Future**  
1616 P Street, NW  
Washington, DC 20036-1400  
202/328-5000  
www.rff.org

**Sierra Club**  
85 Second Street, 2nd floor  
San Francisco, CA 94105  
415/977-5500  
www.sierraclub.org

**Soil and Water Conservation Society**  
7515 Northeast Ankeny Road  
Ankeny, IA 50021  
515/289-2331  
www.swcs.org

**Sonoran Institute**  
7290 East Broadway, Suite M  
Tucson, AZ 85710  
520/290-0828

**State Resource Strategies**  
1616 P Street, NW, Suite 200  
Washington, DC 20036  
202/797-5402

**The Trust for Public Land**  
116 New Montgomery Street, Fourth Floor  
San Francisco, Ca 94105  
415/495-4014  
www.tpl.org

**Urban Land Institute**  
1025 Thomas Jefferson Street, NW  
Washington, DC 20007  
202/624-7000  
www.uli.org

## Other Types of Local or Regional Organizations

Land trusts

Watershed associations

Conservation law and natural resources organizations

Historic preservation organizations

Natural science museums

Environmental education centers

Greenways/bikeways/rails-to-trails organizations

Colleges, universities and environmental research institutes

Churches, schools and other respected community resources

Local newspapers, radio and TV stations with public service concerns

Regional offices of national NGOs (The Trust for Public Land, National Trust for Historic Preservation, The Nature Conservancy, Audubon Society, etc.)

## Public Agencies

(Since the specific names and types of departments vary among states, regions and municipalities, consult your local library, telephone directory or other resources for relevant agency contacts.)

**Federal**  
Environmental Protection Agency  
Office of Policy Planning and Evaluation  
SmartGrowth Network

Department of Agriculture  
Natural Resources Conservation Service  
U.S. Forest Service

Department of the Interior  
National Park Service  
Fish and Wildlife Service

Department of Justice  
Environment and Natural Resources Division

Bureau of Land Management

Federal Emergency Management Agency

**State**  
Executive Office of Environmental Affairs

Department of Environmental Management/Protection/Services  
Land Acquisition Division  
Bureau of Natural Resources  
Conservation Division

Department of Food and Agriculture/Land Use

Department of Planning and Community Development

Department of Wildlife Management

Emergency Management Agencies

**Regional or County**  
County Land Use/Planning Districts

Metropolitan/Regional Planning Agencies

Special Parks Districts

Soil and Water Conservation Districts

Watershed Management Districts

Land Banks

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