MIMI UPMEYER RESOURCE PAPER COLLECTION

RESOURCE PAPER

ASSOCIATION OF NEW JERSEY ENVIRONMENTAL COMMISSIONS

P.O. Box 157 • Mendham, NJ 07945 • Tel: 973-539-7547 • Fax: 973-539-7713 • Website: www.anjec.org

Open Space Is a Good Investment

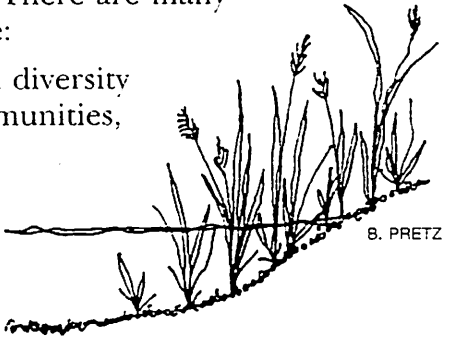
The Financial Argument for Open Space Preservation

By exploring and explaining the economic benefits of open space, this Resource Paper aims to help environmental commissions, open space committees and other groups in their land preservation efforts. Citizens can use this information to help sell the idea of preservation to local decision makers.

In New Jersey, open space can be a breathtaking view from a mountaintop in Sussex County, an urban park in Newark, a suburban walking path in Morris County, rolling farmland in Hunterdon County, a wildlife observation center in Gloucester County, a quiet garden in Trenton, or a sea of saltwater marshland in Cumberland County. Whatever form it takes, open space provides sustenance for humanity and all living things.

In our densely populated state, we understand the urgency of open space preservation. Only about a million acres of land remain undeveloped, and the pressure on that land is great. Once developed, land is unlikely to be returned to its "natural" state. There are many reasons to preserve open space:

- To ensure the health and diversity of plant and animal communities,
- To prevent increased flooding caused by additional impervious land cover,
- To provide space for the inland migration of coastal wetlands as they are inundated by rising sea levels,
- To maintain New Jersey's thriving outdoor tourism industry, providing places to fish, swim, boat, hunt and hike,
- To protect the quality and quantity of our surface and ground water,
- To preserve agriculture as an industry,
- To provide opportunities to exercise and play sports,
- To avoid some of the costs associated with development,
- To preserve our connection with the natural world, and
- To provide tranquil islands amid the rush and bustle of life.



One of ten recommended placemaking principles for economic development in New Jersey: "Preserve, restore and enhance open space, agricultural and recreational lands."
– *The Governor's Institute on Community Design, NJ,* Final Report, 2011.

"Preserving land for open space, farmland and historic reasons is the smartest way a community can save taxpayers' money in the long run."

– William Cogger, Mayor, Chester Township, NJ, *Morris County Daily Record,* Oct. 1, 2009.

In New Jersey, where there is heavy reliance on local property taxes to fund schools, conservationists may encounter resistance to open space preservation because it takes parcels off the local tax rolls. This paper shows that the benefits of preservation can outweigh both the cost of an open space purchase and the loss of a "ratable" from the tax rolls. Major points in this discussion include:

- In New Jersey and across the nation, studies show that residential development costs municipalities more in educational and public services than it generates in additional tax revenue. In the long term, municipal investment in open space and farmland is usually less costly than allowing development.

- Parks and preserved open spaces generally increase the value of, and therefore the property taxes paid by, nearby properties. Additionally, the quality of life benefits of having adequate local open space and recreational amenities makes a municipality more desirable, in general, also helping to maintain property values.

- There is economic value in avoiding projects that will create new environmental problems. Land development eliminates some or all of the natural resource functions of open lands such as flood buffering, filtering surface water runoff, and groundwater recharge. Replacing these natural functions with additional sewer treatment, water supply and flood control projects can be very expensive. Climate change, bringing the likelihood of more frequent and extreme storms, makes avoiding new contributions or vulnerabilities to flooding even more economically prudent.

Open Space Preservation Is Our Responsibility

Providing open space is a major goal of the *Municipal Land Use Law* (MLUL, *N.J.S.A. 40:55D-1 et seq.*), which regulates land use in New Jersey. Three of the MLUL's stated purposes relate to open space.

The MLUL directs towns to

- "provide light, air and open space;"

- "provide sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial and industrial uses and open space, both public and private, according to their respective environmental requirements in order to meet the needs of all New Jersey citizens;" and

- "promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources...and to prevent urban sprawl and degradation of the environment through improper use of the land."

The 1968 State law (*N.J.S.A.* 40:56A *et seq.*) that permits municipalities to establish environmental commissions directs commissions to "keep an index of all open areas, publicly or privately owned."

It further gives them the power to

- "conduct research into the use and possible use of the open land areas of the municipality;" and

- "recommend...plans and programs for inclusion in a municipal master plan and the development and use of such areas."

- As land is developed, municipalities and developers can save on costs of infrastructure and municipal services by using a compact or clustered, rather than a sprawling development pattern. This allows the same number of new units while leaving some land undeveloped as permanent open space, at no cost to the municipality.

Avoiding the Costs of Residential Development

Preserving open space has the long-range benefit of avoiding future costs. Communities across New Jersey and the nation are finding that residential tax ratables don't cover the costs they generate for municipal services, community infrastructure and local schools. A Penn State study in 2006/2007 surveyed selected towns in Pennsylvania and found that for each dollar of residential property taxes assessed annually, the municipalities spent between $1.03 and $1.48 for services, infrastructure and education.[1]

In the 2010 *Fact Sheet on Cost of Community Services Studies*, American Farmland Trust compiled some nationwide figures from the past two decades showing an average cost of community services for residential land uses to be $1.16 for each dollar of revenue raised. This contrasts with $.29 and $.35 for commercial/industrial uses and working/open lands, respectively. The publication notes

Preserving open space has the long-range benefit of avoiding future costs.

that, "agricultural land is similar to other commercial and industrial uses in generating a fiscal [property tax] surplus to help offset the shortfall created by residential demand for public services." This holds true despite the fact that agricultural lands are typically taxed at a lower rate.[2]

The purchase price of an open space parcel, often financed with a bond or loan, is generally paid off in 20 years or less; the services that a municipality must provide to residential development continue indefinitely. On a home paying $5,000 per year in property taxes, the gap between taxes paid and services provided (using the American Farmland Trust average in the previous paragraph) would come to $800 per year; multiplied by 20 years, that comes to $16,000. Additionally, many towns in New Jersey obtain State Green Acres grants that reduce the cost of open space, so they are not paying the full market price out of municipal funds.

Case Studies

In recent years, several New Jersey municipalities have analyzed the fiscal impact of residential development to help them make land preservation decisions.

In the 1990s, Washington Township (Morris County) conducted a financial analysis that showed the Township could save money in the long run by purchasing the development rights to a large farm in the municipality. Considering only the impacts on the school district's operating budget, and not additional capital costs that could also result from residential development of the tract, the Township found that buying the development rights would cost taxpayers less than allowing a new residential subdivision to be built there.

The Township's zoning ordinance would have permitted 300 units of small, clustered housing on the 740-acre property. The average cost per household to the school district, assuming one student per home, was $5,568. The average residential property tax for schools was $2,172. Given these facts, Washington Township concluded:

- the annual cost to the school district would be approximately $1,670,400 ($5,568 x 300 children).
- the anticipated revenue would be approximately $651,600 ($2,172 x 300 homes).
- the annual deficit for the school district budget would be $1,018,800 ($1,670,400 minus $651,600).

The net cost for the development rights of the 720 acre farm was $10.4 million. The public investment for the development rights could be offset in less than 15 years by avoiding the higher cost of the development. From then on the town would incur only the positive revenue flow from the farmland. In contrast, the cost of services for a residential development would continue forever.[3] Purchasing development rights to the farm was also consistent with municipal and state goals of promoting farmland preservation.

A 2003 study conducted by the Mendham Open Space Trust Committee compared the economics of open space versus development using a 208-acre natural area that was originally slated to be developed with homes in the 1990s.

The first scenario considered the approved plan for a proposed development of 39 homes on the 208 acres. Income from property taxes and costs for schools dominated the "developed" scenario. The analysis showed that, by the end of a 20-year period, the developed property would have cost the Township a total of about $1.9 million.

The second scenario addressed the property as it was at the time of the study: protected open space. The major cost was debt service on loans. The property has no compensating income such as property taxes, and some minor costs including trail and sign maintenance. As protected open space, the property was projected to cost the Township about $2.7 million over 20 years. The study showed the difference between the two scenarios to be about $780,000 at the end of 20 years, in favor of development.

What is important to note is that in the 21st year, after debt service is completed, the cost of keeping the parcel as open space drops to a very low amount. Because the costs for schools and services for the developed scenario would continue forever, after 20 years the open space scenario is favorable by about $100,000 each year.[4]

Mendham residents preserved the 208 acres of natural environment and recreational opportunity for less than $20 a year per household for 20 years.

Another related way of looking at the economic impacts on municipalities of preservation vs. development is to compare municipal property taxes. The NJ Pinelands Commission's *Long-Term Economic Monitoring Program 2013 Annual Report*,[5] which contains data about the economic/fiscal impacts of development limits on land within the New Jersey's Pinelands, noted that the average 2012 residential property tax bills in Pinelands towns

were approximately 14.9% lower than southern municipalities not within the Pinelands. This finding is consistent with the notion that the flip side of losing properties from the tax rolls through open space preservation is the net "gain" of avoided costs of education and community services created by residential development.

Long-Term Costs of Commercial Development

Although many municipalities believe that commercial and light industrial development (requiring no schools and fewer services than residential) is the key to increasing tax revenues for the community, there is presently little proof of this. A 1990s study of Morris County showed that "ratable rich" towns had not gained tax relief through their pursuit of commercial ratables.[6] In its 2010 report *Chasing Their Tails: Municipal "Ratables Chase" Doesn't Necessarily Pay,*[7] New Jersey Future analyzed equalized municipal tax rates in New Jersey, and found no clear link between increasing the proportion of non-residential properties in the tax base and lower municipal tax rates.

Reasons for these findings may include the following:

- Municipalities often give tax breaks (abatements) to lure commercial development, reducing the net tax benefit to the community. Although the municipal government may reap more revenue in the form of PILOT (payments in lieu of taxes), the local school district and county receive little or no payments. They may feel the pinch in their budgets and ultimately need to raise their portion of the property tax rate.
- The courts have increasingly ruled in favor of companies that appeal for tax relief.
- Although commercial businesses may not directly raise the number of school children in a municipality, the influx of new employees and their children over time may do so.
- Commercial and light industrial development may take an increased toll on roads or other infrastructure, eventually increasing a town's maintenance or improvement costs.
- Over time, commercial real estate is depreciated while residential real estate is not, changing the balance of property tax assessments. Thus the proportion of municipal revenue provided by taxes on commercial ratables generally declines over time.
- New commercial development may gradually have the effect of pushing out existing businesses, leaving empty commercial buildings and depressing property values.

In *Keeping Our Garden State Green: A Local Government Guide for Greenway and Open Space Planning,*[8] author Linda Howe points out that, "Commercial development may have hidden municipal costs. Such development, for

example, may affect state requirements for low and moderate income housing. Or it may necessitate an incremental increase in spending for police and fire protection or traffic control." In some NJ communities, tax revenues from new commercial developments also affect state aid allocations to schools, resulting in no net change in local revenue. Less wealthy communities, which rely on substantial State school aid, may experience a reduction. Wealthier communities, which don't rely heavily on State school aid, may see little change.

The NJ Office of State Planning (since reconfigured as the NJ Office for Planning Advocacy), in its publication *Big Box Retail*,[9] states: "Many communities view the capture of nonresidential ratables as an important means of stabilizing or even reducing local property tax rates. While this may be true for some communities for short periods of time, the tax implications of non-residential ratables, particularly retail, are often considerably more complex than anticipated. New retail development...require(s) outlays for public services such as police, fire, courts, road maintenance and traffic control. In addition the availability of retail services often stimulates residential development nearby, requiring additional public services." Decreases in State aid for schools and municipal services and increases in county and regional school taxes may offset increased revenues.

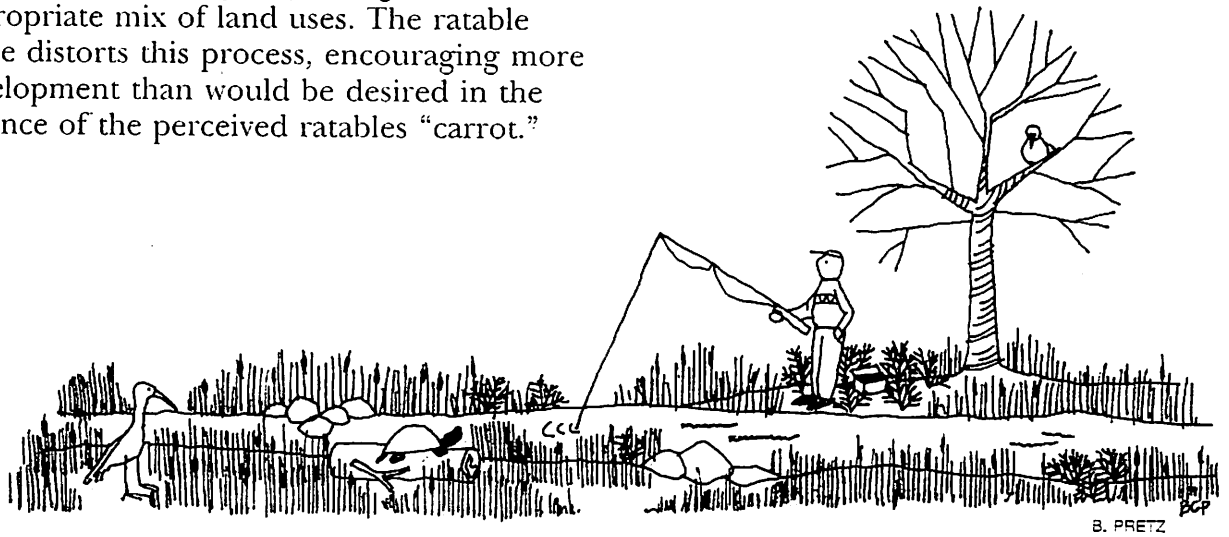
To create livable communities, municipal land use planning should be based on a careful assessment of capacity and goals, with an appropriate mix of land uses. The ratable chase distorts this process, encouraging more development than would be desired in the absence of the perceived ratables "carrot."

County Farmland Preservation Programs

Atlantic	609-625-3144
Bergen	201-336-6446
Burlington	856-642-3850
Camden	856-858-5211
Cape May	609-465-1086
Cumberland	856-453-2177
Gloucester	856-307-6451
Hunterdon	908-788-1490
Mercer	609-989-6545
Middlesex	732-745-4014
Monmouth	732-431-7460
Morris	973-829-8120
Ocean	732-929-2054
Passaic	973-569-4040
Salem	856-769-3708
Somerset	908-231-7021
Sussex	973-579-0500
Warren	908-852-2579
New Jersey Farmland Preservation Program	609-984-2504

ANALYZING THE COSTS OF DEVELOPMENT

A worksheet on pages 7 and 8 will help you analyze the costs of residential development vs. the costs of preserving of open space.



ECONOMIC ANALYSIS WORKSHEET

Certain general information is necessary for making this analysis. Local permutations abound. Discuss figures with local administrators and be sure that all assumptions are acceptable. A word of caution: A fiscal impact analysis doesn't address secondary or long-term impacts.

The following worksheet is based on work by David Nissen (Rutgers University). ANJEC's Resource Center has his 1988 analysis for Cranbury, NJ, with notes, comments, assumptions and uncertainties.[10] For this (2014) revision of *Open Space Is a Good Investment*, the "New Facility Costs" section figures were revised to reflect current State requirements for square footage, current construction costs, and lower interest rates.

Basic Demography

- Number of households: (Source: recent tax information) a. _____
- Number of students currently in public schools: (Source: School Board) b. _____
- Number of students school system can accommodate before new facilities are needed: c. _____
  (Source: School Board, which should have generated working estimates for long-range planning.)

Assumptions

- Number of students generated by each housing unit: d. _____
  (Source: School or planning board figures. On average, a large single family house produces one school child; a townhouse produces 0.1 to 0.3 school children; senior citizen housing, none; modify planning estimates using your town's actual data.)
- Cost per student: e. _____
  (Source: School budget. Add capital budget and operating budget; divide by the number of students in the system.)
- New facility cost: f. _____
  (Once the threshold is passed, this figure comes into play. Capital outlay is roughly estimated: State requires 125 (elementary) and 150 (secondary) square feet of school space per student; approximate cost per square foot = $180 (elementary) or $200 (secondary); capital cost per secondary student (150 x $200) = $30,000; capital charge factor would likely be based on a 20-year bond at current interest rate. (Approximate 2014 rate is 2.25%; interest rates will vary.) This produces an annual cost per student. Since new facilities are built with room to spare, and add-ons such as fields, parking, meeting rooms and additional amenities are often included in new school construction, a more accurate figure can be estimated after conversation with school administrators.)
- Average cost of municipal services per household: g. _____
  (Source: Municipal budget. Subtract non-property tax revenues from total outlay and divide by the number of households. This number may be modified to reflect discussions with fire and police departments regarding at what point new facilities or equipment might be needed. Recognize that not all portions of the municipal budget vary directly with population increase or decrease.)

(Continued on next page)

(Continued from previous page)

- Average market value of new housing unit: h. _____
  (Source: Tax information from other recent new units; developer or real estate estimates)

- Effective municipal assessment rate: i. _____
  (Source: Local tax assessor)

- Municipal tax rate: j. _____

Method

- Educational outlay:
  students per housing unit ..... (d) _____
  x cost per student ..... (e) _____ = $_____

  PLUS (if applicable)

  new facility cost per unit ..... (f) _____
  x students per housing unit ..... (d) _____ = $_____

total 1. _____

- Cost of municipal services per housing unit (g): 2. _____

- Total municipal cost of one new housing unit
  (line 1 + line 2) 3. _____

- Municipal tax revenue for one new unit:
  Calculate by multiplying average market value (h), x effective assessment rate (i), x municipal tax rate (j) 4. _____

- Net annual burden or revenue of an additional new unit:
  Subtract line 4 from line 3 5. _____

To compare the costs of residential development with the cost of a State (Green Acres) loan, a municipality has to determine the debt service on a 20-year loan at 2 percent interest. Your township administrator or financial officer can help. Costs for farmland preservation vary with each municipality's contribution and level of indebtedness. Your county farmland preservation program can help here. (See contacts on page 6.)

In making your case, emphasize that the obligation to pay off loans or bonds for preservation is finite. For example, a Green Acres loan will be paid after 20 years. The costs of servicing development are unending and will increase over time.

Another important consideration is the availability of county and State (Green Acres) open space grants to offset a portion of the purchase price of a parcel. Every county in New Jersey has an open space trust fund supported by an open space tax, and municipalities often receive some county funding for local preservation projects. Towns can also apply to the state for NJ Green Acres grants, either for a specific project or through the Planning Incentive Program *(www.nj.gov/dep/greenacres/)*.

Other Open Space Benefits

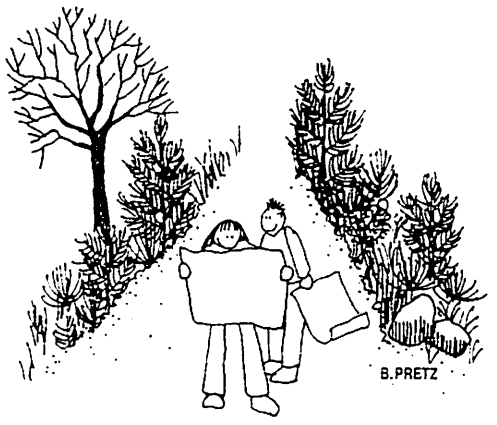
Avoided Public Costs for Flood Protection, Water Supply, Pollution Reduction

Natural systems such as wetlands and floodplains provide water purification and help prevent floods. Wetlands naturally filter and store water and help maintain water supply by recharging groundwater. Undisturbed floodplains provide storage area for high water. Other open space benefits include soil conservation, preservation of biological diversity and air purification. It is difficult and complicated to attempt to calculate a specific monetary value for a particular ecological service provided by open lands. One method of assigning value is to use the amount of *avoided costs*.

Undisturbed floodplains provide storage area for high water. Other open space benefits include soil conservation, preservation of biological diversity and air purification.

That is, what costs might the community incur if it were to lose the natural functions of an open space parcel, and be required to replace those functions with a constructed system such as a water treatment plant, levees or other flood control mechanisms.

In the Passaic River Basin in New Jersey, over time, local governments allowed a high level of development along the river. Residents' safety is at risk, and the public cost for property damage claims has been tremendous. Flood damage from storms between 2010 and 2012 caused about $2 billion in property damage. Proposed remedies to these problems range from a federal- and state-subsidized $4.7 billion stormwater tunnel, to property buyout and building elevation plans. To buy out approximately 800 homes situated in the most vulnerable area of the river corridor, the



floodway would cost roughly $300 million. These homes would be razed and the land permanently protected from development. To purchase the 6,300 residential structures affected by a 10-year flood *would cost* $3.4 billion.[11] (Note: The total number of buyouts could depend on the number of willing sellers.)

Passaic River Basin towns such as Pompton Lakes, which has many properties that have suffered "repetitive" or "severe repetitive" (FEMA) losses from flooding, have been a focus of New Jersey's Blue Acres Program and the federal FEMA Program for buyouts. Pompton Lakes' *2012 Open Space & Recreation Plan* recommends giving priority to flood properties that are adjacent to existing preserved land. The Plan notes, "Flood prone areas are best utilized for open space and recreation, as high water does not impact practice fields and conservation areas the same way it does...structures."[12]

Preserving watershed lands instead of allowing them to be developed is a proven strategy to protect the quality and quantity of a water supply. It also makes economic sense. A case in point is New York City, which gets its drinking water from upstate lands. In the 1990s, the City made a decision to spend over $1 billion over time to acquire and protect watershed lands. Then-Mayor Rudolph Giuliani, a fiscal conservative, was willing to impose a water rate increase of 1 - 2%, noting that it was a tiny fraction of the billions that would have to be raised if increasing pollution from development were to force NYC to build and operate treatment plants. The USEPA recognized the effectiveness of New York

City's land preservation program to protect water quality by extending the City's Filtration Avoidance Determination in 2007, to continue for 15 more years.

In the Chesapeake area, where excess nutrients (nitrogen and phosphorus) in the Bay are a serious pollution problem, preserving forest buffers that remove nitrogen through natural filtration processes was calculated to cost about $3.10 per pound of nitrogen removal in 2006 dollars, as opposed to $8.50 per pound using conventional wastewater treatment.[13]

The New Jersey Highlands Region is a 1,343 square mile area in the northwest part of the state, noted for its beauty and environmental significance. It yields approximately 379 million gallons of water daily and is a vital source of drinking water for millions of residents. The 2004 *NJ Highlands Act* established growth limits in the Highlands Region to protect the quality and quantity of drinking water resources. The NJ Highlands Council website notes that, "Protecting New Jersey's drinking water is critically important to maintaining the future economic viability of the entire state." Strategies to limit development will avoid future costs of cleaning and treating water that would have been degraded by runoff from more intensive land development.

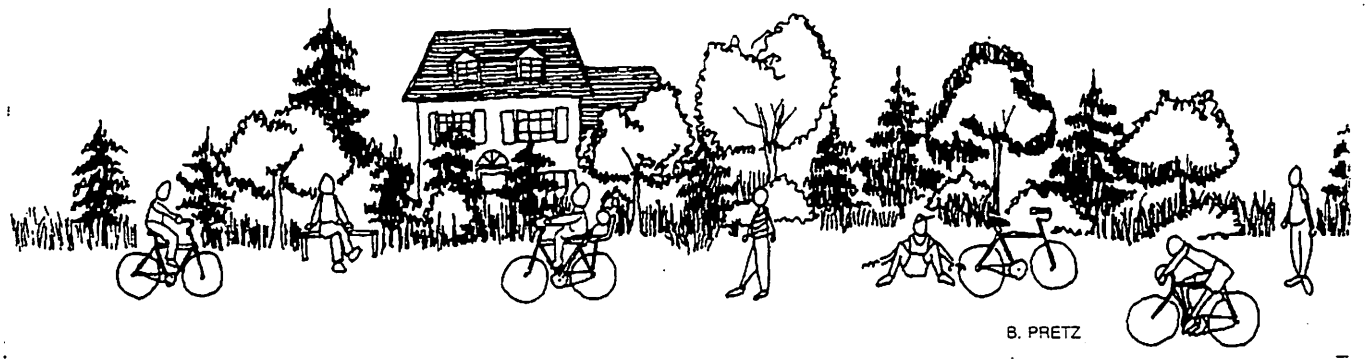
Increased Property Values

Many studies have looked at changes in the value of property adjacent to open space. In the mid-1800s, Fredrick Law Olmsted documented the positive impact of public parks on real estate values, and used the information to convince New York City that Central Park would pay for itself through increased property tax collection.[14]

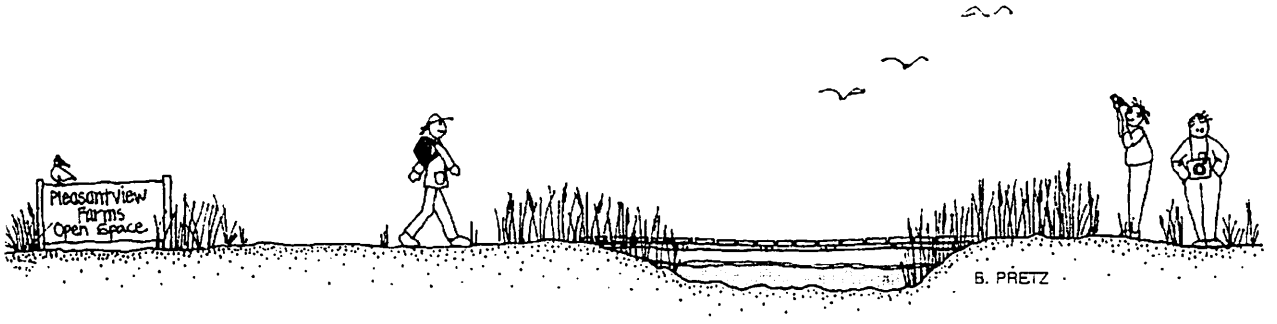
Although open space used heavily for active recreation may not enhance adjacent property values, natural areas and greenways with trails usually do make neighboring properties more valuable, and even a heavily-used recreational facility may enhance property values several blocks away. As property values increase, tax assessments eventually reflect the increased value, helping to offset property tax loss from preserved open space. To find out whether your community assesses houses next to open space at a higher value, consult your tax assessor.

...Natural areas and greenways with trails usually do make neighboring properties more valuable....

A 2011 regional study funded by the Delaware Valley Regional Planning Commission (DVRPC, the bi-state Metropolitan Planning Organization for the Greater Philadelphia Region) examined the impact of protected open space on residential property values. Using a comprehensive regional property sales database and a standard economic analysis technique called hedonic regression



B. PRETZ



analysis, the study showed that, "homes in southeastern Pennsylvania as far as one mile away from protected open space capture a measurable increase in their value because of this proximity." The enhanced value increases with the property's nearness to the open space resource. The study further calculated an average increase of $10,000 per household in southeastern Pennsylvania (Bucks, Chester, Delaware, Montgomery and Philadelphia Counties) due to the effect of preserved open space, with a total value of $16.3 billion. This positive impact of open space on home values was found to endure even during the economic downturn that began in 2008.[15]

The concept of capitalizing the impact of open space on nearby properties is referred to as the *proximate principle*, a topic researched thoroughly by John L. Crompton of Texas A&M University. Dr. Crompton found that, in addition to proximity, the maturity of a park impacts property values. The full impact may not be realized until trees grow larger and landscaping fills in, which may help to stabilize the value of residential properties as they age. Also, the willingness of people to pay more to be near a park or open space is influenced by the available supply. In an urbanized setting with small lots and scarce open space, buyers are likely to pay a higher premium to be near a park.[16]

In 1979, Newton, Massachusetts, revived "betterment assessments," a 19th century tool, to help a municipality finance a recently acquired golf course. Owners of abutting property paid up to $4000 (payable over 20 years). The money raised by the assessments, when added to funds from a federal grant and funds raised by the sale of two small portions of the property for condominium development, enabled the town to preserve the land permanently.

Increased Revenues from Tourism

Birding, hunting, fishing, hiking, camping and paddling depend on forests and woodlands, wetlands and clean streams. Tourism in New Jersey generates over $35 billion in revenue annually, making it our second largest industry. While the shore areas generate the bulk of this revenue, there is substantial tourism throughout the state. More than 15 million people visit New Jersey's state parks and natural areas each year, with an estimated economic impact of hundreds of millions of dollars. The National Park Service reports five million visitors to its recreational sites in New Jersey each year, with visitors spending approximately $153 million.[17] Visitors to open space, for both passive and active recreation, often spend money locally for supplies, fuel

and food. This local economic stimulation helps to maintain commercial property values, and may help to attract business investment.

Visitors to open space, for both passive and active recreation, often spend money locally for supplies, fuel and food.

Chambers of commerce can help local businesses develop marketing strategies aimed at visitors to local parks and natural areas, attracting them to enhance their visits by using local restaurants, services and suppliers.

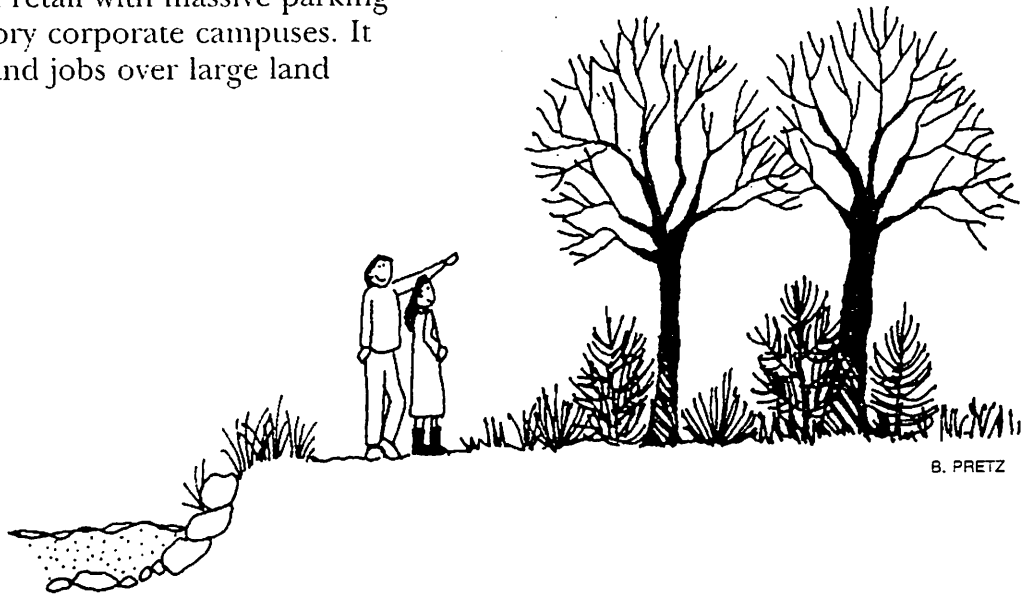
The Costs of Sprawl

Sprawl development has costs that are often ignored in community planning:

- **Environmental effects** – air pollution, water pollution, noise, loss of vegetation and wildlife, visual effects, water consumption and increased flooding.
- **Personal effects** – use of discretionary time, health and psychological costs, travel time and traffic accidents/deer collisions.

Sprawl results from low-density development such as single-family homes on moderate to large lots, big box retail with massive parking lots, and single-story corporate campuses. It spreads housing and jobs over large land areas, consuming forests and farmland many times faster than the population growth rate. In New Jersey during the period between 2002 and 2007, land consumption from development was 5.3% (16,000 acres per year) contrasted with population growth of 1.2% (21,000 people per year). The per capita consumption of land for each new person added to the population was .76 acres, 4.8 times the 1986 rate. Since 1950, New Jersey has lost more than half its farmland, and the number of farms has dropped by over two-thirds.[18]

Sprawl development requires more miles of road and sewer infrastructure per unit than compact development, and these costs extend to both developers and local governments. A town can save over the long term by directing development into existing or planned centers – places already (or planned to be) serviced with sewers, water lines and other infrastructure. Savings result from the ability to use excess capacity in sewers and school facilities, and avoiding the need to build and service fewer miles of new infrastructure. A study update in 2000 by the Center for Urban Policy Research documented the potential savings of compact development in New Jersey, concluding that the state could save $2.5 billion in water, sewer and road costs, as well as 122,000 acres of developable land between 2000 and 2020 through center-based development.[19]



A municipal cluster or conservation design ordinance can either allow or require a developer to cluster units on the least sensitive portion of a tract, leaving the rest open and preserved with a deed restriction. Recent legislation also allows NJ municipalities to adopt non-contiguous cluster ordinances, which enable a property owner to transfer development units from one property to another, increasing the density on one parcel and keeping the other parcel permanently undeveloped. These cluster techniques can preserve land at no net cost to either the municipality or the landowner, as the landowner can build the same number of units permitted by the underlying zoning.

Recent studies indicate that compact developments with open space amenities tend to sell more quickly than comparable properties elsewhere, and walkable communities can command prices that are 5% higher or more.[20]

having a park within walking distance of one's home is a strong predictor of whether or not middle-aged and older people, adolescent girls, Hispanics, African-Americans, and many other population groups will use them.[22]

Residents who use local public open spaces save on private admission and user fees for recreation, and the cost of driving to remote commercial facilities, as opposed to local parks. Avoided fees include exercise club membership, facility rentals for team sports practice and games, and the difference in cost between public and private facilities that charge admission, such as golf courses and picnic areas reserved for private gatherings. A 2014 study by Harnik and Crompton of the economic value of parks in nine US cities computed "direct use savings" of various activities visitors carry out in public parks. They calculated a figure of $66 million in annual savings for users of a park system in the San Francisco-Oakland area.[23]

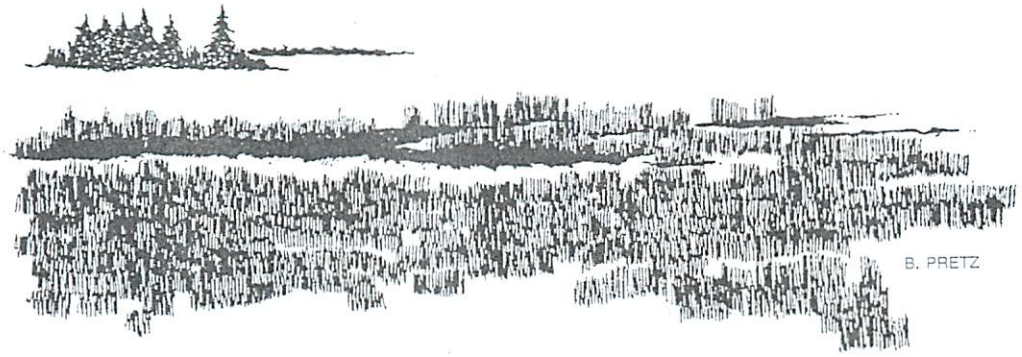
Health and Quality of Life Savings

The benefits to individuals of parks and open space, although difficult to monetize precisely, have economic value to communities. Health conditions such as heart disease, obesity and diabetes have high costs both to individuals and society, and physical inactivity is a primary contributor to those diseases. Research on health care spending indicates that, on average, people who exercise regularly reap an actual annual savings of $250 or more in health care costs.[21] The proliferation of corporate "wellness" programs that pay incentives for exercise indicates that companies see a financial benefit in promoting increased physical activity.

The availability of safe, convenient public space in which to walk, jog or ride a bicycle makes it more likely that a person will exercise regularly. Various US studies have shown that

Preserving Open Space in Your Community

A public education campaign helps to build support for preservation. Many towns conduct resident surveys, develop maps and guides, hold community meetings, and organize field trips or community open space days to help increase awareness of the value of preserving land. Picking a special site or goal can help focus a community's attention. Organizing a committee of community leaders is a key to success.



Open space advocates should be knowledgeable about the many methods of conserving open space: outright purchase, donation, conservation easement, clustering and conservation zoning, greenway or trails plans, and farmland preservation programs. They should also learn about various sources and methods of funding for open space, including New Jersey's Green Acres/Blue Acres grants and Planning Incentive Program, county and local open space trust funds funded through property tax assessments, the State's farmland preservation program, and local bonding, as well as partnerships with private land trusts, and bargain sale with tax benefits for the seller.

ANJEC has a variety of books and resources on various aspects of open space protection: examples of plans and studies from NJ municipalities, including environmental resource inventories (ERIs), open space inventories, analyses of buildout showing the potential for development under a municipality's current zoning, and open space, trails and greenway plans.

For additional information:

- For general guidance and sample ERIs, open space plans and surveys, call 973-539-7547 or email the ANJEC Resource Center at *resourcecenter@anjec.org*. Also, see the Open Space page on ANJEC's website: *www.anjec.org/OpenSpace.htm*
- ANJEC open space publications:
  - *Open Space Plan* (Resource Paper) – *www.anjec.org/pdfs/OpenSpacePlan2011.pdf*
  - *A Handbook for Public Financing of Open Space in New Jersey* – *www.anjec.org/pdfs/PublicFinancingOpenSpace.pdf*
- NJ Green Acres Program – *www.nj.gov/dep/greenacres/* 609-984-0500
- County Planning Departments can supply information on county open space trusts. See contacts on page 6.
- NJ Conservation Foundation, 908-234-1225 *www.njconservation.org*
- The Land Conservancy of New Jersey 973-541-1010 *www.tlc-nj.org*
- Land Trust Alliance, *www.lta.org/findalandtrust.org/states/newjersey34*
- Trust for Public Land, *www.tpl.org* (search "economic benefits")

FOOTNOTES

1. Pennsylvania State University College of Agricultural Sciences, Timothy Kelsey, *Fiscal Impacts of Different Land Uses - The Pennsylvania Experience in 2006*, 2007.

2. Farmland Information Center, *Cost of Community Services Studies Fact Sheet*, 2010.

3. New Jersey Conservation Foundation, Alison E. Mitchell, "Economic Analysis Shows Farmland Preservation Pays," *New Jersey Land Forum*, Winter 1995.

4. Mendham Township, *Open Space, Mendham Township*, September 2003.

5. NJ Pinelands Commission, *Long Term Economic Monitoring Program 2013 Annual Report*, April 2014. Appendix H: Municipal Fact Book.

6. Great Swamp Watershed Assn., Leonard W. Hamilton, and Paul B. Wehn, *The Myth of the Ratables*, 1992.

7. New Jersey Future, Tim Evans, *Chasing Their Tails: Municipal "Ratables Chase" Doesn't Necessarily Pay*, July 2010.

8. Assn. of NJ Environmental Commissions, Linda Howe, *Keeping Our Garden State Green: A Local Government Gide for Greenway and Open Space Planning*, 1989.

9. NJ Office of State Planning, *Big Box Retail*, Open Space Planning Memo, December, 1995.

10. David Nissen, *Additional Houses in Cranbury - Impact on Township Outlay, Revenue, and Taxes*. Background package for presentation to the Cranbury Twp. Planning Board, June 23, 1988.

11. Passaic River Basin Flood Advisory Commission, *Report to the Governor - Recommendations of the Passaic River Basin Flood Advisory Commission*, January 2011.

12. Borough of Pompton Lakes, *Open Space & Recreation Plan*, Adopted November 20, 2012.

13. US Environmental Protection Agency, *The Economic Benefits of Protecting Healthy Watersheds*, April 2012. (EPA 841-N-12-004)

14. National Recreation and Park Assn., John L. Crompton, *The Proximate Principle: The Impact of Parks, Open Space and Water Features on Residential Property Values and the Property Tax Base, Second Ed.*, 2004, page 49.

15. Delaware Valley Regional Planning Commission/ Green Space Alliance, *Return on Environment: The Economic Value of Protected Open Space in Southeastern Pennsylvania*, January 2011.

16. Ibid.

17. National Park Service, US Dept. of Interior, *2012 National Park Visitor Spending Effects - Economic Contributions to Local Communities, States, and the Nation*, 2014, NPS Report NPS/NRSS/EQR/ NRR - 2014/765.

18. John E. Hasse and Richard G. Lathrop, *Changing Landscapes in the Garden State, Executive Summary*, July 2010.

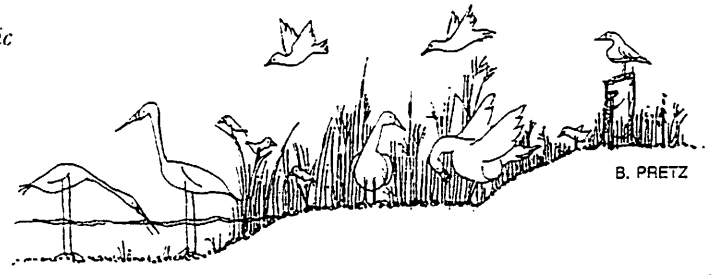
19. Center for Urban Policy and Research, Rutgers University, Robert Burchell et al, *The Costs and Benefits of Alternative Growth Patterns: The Impact Assessment of the NJ State Plan*, September 2000.

20. Robert Wood Johnson Foundation, *The Economic Benefits of Open Space, Recreation Facilities and Walkable Community Design*, May 2010.

21. The Trust for Public Land, Peter Harnik and Ben Welle, et al., *Measuring the Economic Value of a City Park System*, 2009.

22. National Recreation & Parks Association, Geoffrey Godbey and Andrew Mowen, *The Benefits of Physical Activity Provided by Park and Recreation Services: The Scientific Evidence*, Penn State University Dept. of Recreation, Park and Tourism Management Research Series, 2010.

23. Peter Harnik and John L. Crompton, *Managing Leisure*, "Measuring the Total Economic Value of a Park System to a Community," Taylor & Francis, 2014.



The ANJEC RESOURCE CENTER offers the following services free to all members:

- unique reference collection of more than 7,000 books, pamphlets, documents and government publications ranging from academic texts to environmental resource inventories;
- more than 1,200 individual current material files covering topics from acid rain to zoning;
- extensive material and files on state and federal laws including current legislation and regulations;
- extensive digital file of municipal ordinances covering topics such as light and noise pollution, critical areas protection and stormwater management;
- a response and referral center for questions and requests for information and materials relating to local, state and national environmental issues, problems and projects.

This publication was made possible through the generous support of the Victoria Foundation.

ANJEC is a statewide nonprofit organization that informs and assists environmental commissioners and interested citizens in preserving and protecting New Jersey's environment.

For further information, contact ANJEC at

P.O. Box 157, Mendham, NJ 07945 · Tel 973-539-7547 · Fax 973-539-7713

Email: info@anjec.org · Website: www.anjec.org

1.5M72014

MIMI UPMEYER RESOURCE PAPER COLLECTION

ANJEC dedicates its collection of Resource Papers to Mimi Upmeyer, who worked for ANJEC for 10 years and later served as a board trustee. As our State Plan project director, she worked with environmental commissioners and local officials in towns across New Jersey and provided them with information and contacts to help implement good land use planning and zoning. To help local officials deal with these issues, she conceived the idea for ANJEC's Resource Papers – and wrote the first three. Packed with concise, practical information on specific topics for local environmental protection, ANJEC's ever-expanding stock of Resource Papers has become a standard element of our educational program. For a list of all our Resource Papers, contact ANJEC at 973-539-7547 or visit the Publications page on www.anjec.org.

♻ PRINTED ON RECYCLED PAPER