

THE IMPACT OF PARKS ON PROPERTY VALUES

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Documenting the Benefits

NRPA has published a 116 page publication titled *The Impact of Parks and Open Space on Property Values and the Property Tax Base*. The publication reviews the principles and empirical evidence relating to the economic impact of parks, open spaces, greenways, and golf courses on property values. The economic impact derives from two premises.

First, these amenities often increase the value of proximate properties, and the resultant incremental increase in revenues that governments receive from the higher property taxes is frequently sufficient to pay the acquisition and development costs of the amenities.

The second premise is that development causes public expenditures to increase, because the costs to a community of servicing residential sub-divisions usually exceed the property and sales tax revenues that accrue from the development. Thus, conversion of open space to housing often results in an increased tax burden on existing residents.

The publication reviews and synthesizes a convincing body of evidence, dating back almost 150 years to pioneering work by Frederick Law Olmsted, which suggests the conventional wisdom that park amenities offer no economic return is wrong.

This is the second publication in NRPA's series documenting the economic benefits of parks and recreation. The first monograph, published last year, was titled *Measuring the Economic Impact of Visitors to Sports Tournaments and Special Events*. The publication can be obtained from NRPA by calling (703) 858-2190.

The challenge for park advocates is to achieve widespread recognition of the economic contribution of parks and to measure it, so it is adequately represented in the planning, social and political calculus of community land use decisions.

The primary purpose of acquiring parkland or encouraging the preservation of open space may not be financial, but financial justification for these actions is nearly always required. The difficult fiscal environment that prevails in many cities, and the escalation of urban land values, have made the economic justification of parkland and open space increasingly necessary in order to rebut the persuasive rhetoric of those who say: "I am in favor of parks and open space, but we cannot afford the capital acquisition and development costs because of more pressing priorities."

The challenge for park advocates is to achieve widespread recognition of the economic contribution of parks and to measure it, so it is adequately represented in the planning, social and political calculus of community land use decisions. If park and open space advocates are limited when

making their case to general statements like, "We know the presence of parks has a beautiful and beneficial effect on our community even though we cannot place a specific value on it," then they are likely to lose contests with developers for land. In contrast to such subjective generalities from conservationists, developers are likely to cite the specific increase in dollar value of the tax base that will accrue if the site is developed.

Although real estate sections of newspapers are replete with advertisements proclaiming the virtues of "leisure living" and stressing proximate recreational and open space amenities, contemporary conventional wisdom among many elected officials and decision-makers is that open space and parkland is a costly investment from which a community receives no economic return. The social merit of such investment is widely accepted, but social

merit amenities frequently are regarded as being of secondary importance when budget priorities are established.

One approach to rebutting the conventional wisdom is to demonstrate the effect of the proximate principle. The premise of this principle stems from the observation that people frequently are willing to pay a larger amount of money for a home located close to an attractive park or open space area than they are for a home further away. The increase in home value means that owners of these properties will pay

higher property taxes. In effect, this represents a “capitalization” of parkland into increased property values for proximate landowners.

In some instances, if the incremental amount of taxes paid by each property that is attributable to the presence of the park or open space is aggregated, it will be sufficient to pay the annual debt charges required to retire the bonds used to acquire and develop the park. In these circumstances, the park is obtained at no long-term cost to the jurisdiction.

This principle is illustrated by the hypothetical 50-acre park shown in Figure 1. It is a natural, resource-oriented park with some appealing topography and vegetation. The cost of acquiring and developing it (fencing, trails, supplementary planting, some landscaping) is \$20,000 an acre, so the total capital cost is \$1 million. The annual debt charges for a 20-year general obligation bond on \$1 million at 5% are approximately \$90,000.

A projected annual income stream to service the bond debt was based on the

following assumptions:

- If properties around the park are 2,000 sq. ft homes on half-acre lots (40 yd x 60 yd) with 40 yard frontages on the park, then there would be 70 lots in Zone A (30 lots along each of the 1,210 yard perimeters and 5 lots along each of the 200 yard perimeters).
- Assume total property taxes payable to the city, county, and school district are 2% of the market value of the property.
- Assume the market value of similar properties elsewhere in the jurisdiction

beyond the immediate influence of this park is \$200,000.

- Assume the desire to live close to a large natural park creates a willingness to pay a premium of 20% for properties in Zone A; 10% in Zone B; and 5% in Zone C, and that there are also 70 lots in Zones B and C.

Table 1 shows that, given the above assumptions, the annual incremental property tax payments in the three zones from the premiums attributable to the presence of the park amount to \$98,000. This is sufficient to pay the

\$90,000 annual bond debt charges.

The flows of this investment cycle are shown in Figure 2: (i) the council invests \$90,000 a year for 20 years (annual debt charges on a \$1 million bond) to construct or renovate a park; (ii) which causes the values of properties proximate to the park to increase; (iii) leading to higher taxes paid by the proximate property owners to the council; (iv) that are sufficient to fully reimburse the \$90,000 annual financial investment made by the council.

There are three additional points worth noting which may further strengthen the economic case. First, this illustration assumes that no state or federal grants are available to aid in the park’s acquisition and development. If these were available to reduce the community’s capital outlay, then the incremental property tax income stream would greatly exceed that required to service the debt payments. Second, the incremental property tax income will continue to accrue to the community after the 20-year period during which the debt charges will be repaid, at which time the net return to the community will be substantially enhanced.

Third, there is evidence to suggest that investment in parks affects the comparative advantage of a community in attracting future businesses and desirable residential relocators such as retirees. However, the proximate capitalization approach does not capture the secondary economic benefits attributable to park provision that accrue from such sources.

The Empirical Evidence

The research evidence validating and supporting the hypothetical scenario described above is substantial. The results of any single study are easily challenged. The cumulative insights gained from multiple studies, however, reduce such skepticism. Their acceptance is increased in situations like

FIGURE 1 LAYOUT OF A 50 ACRE NATURAL PARK AND THE PROXIMATE NEIGHBORHOOD AREA

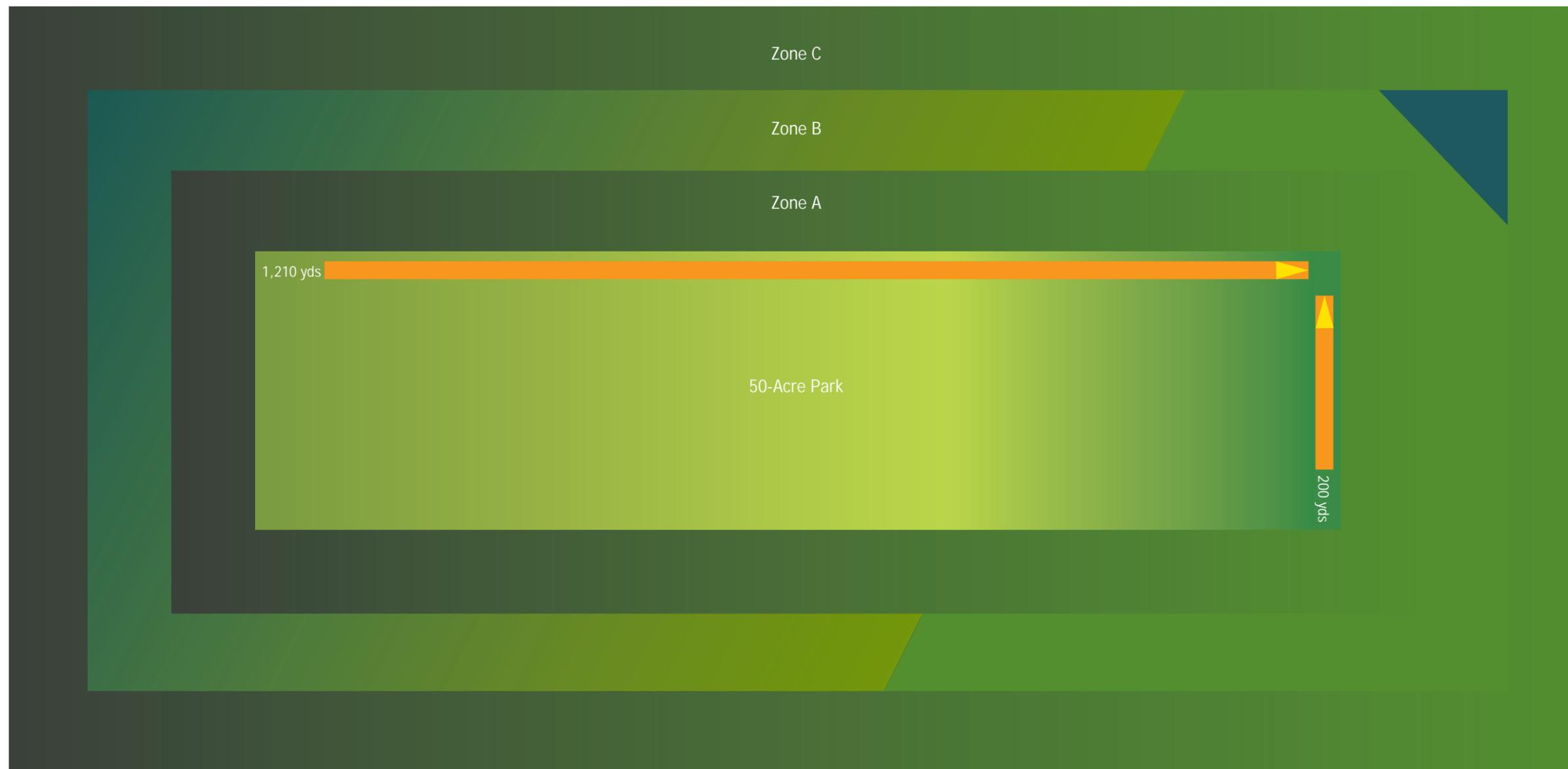
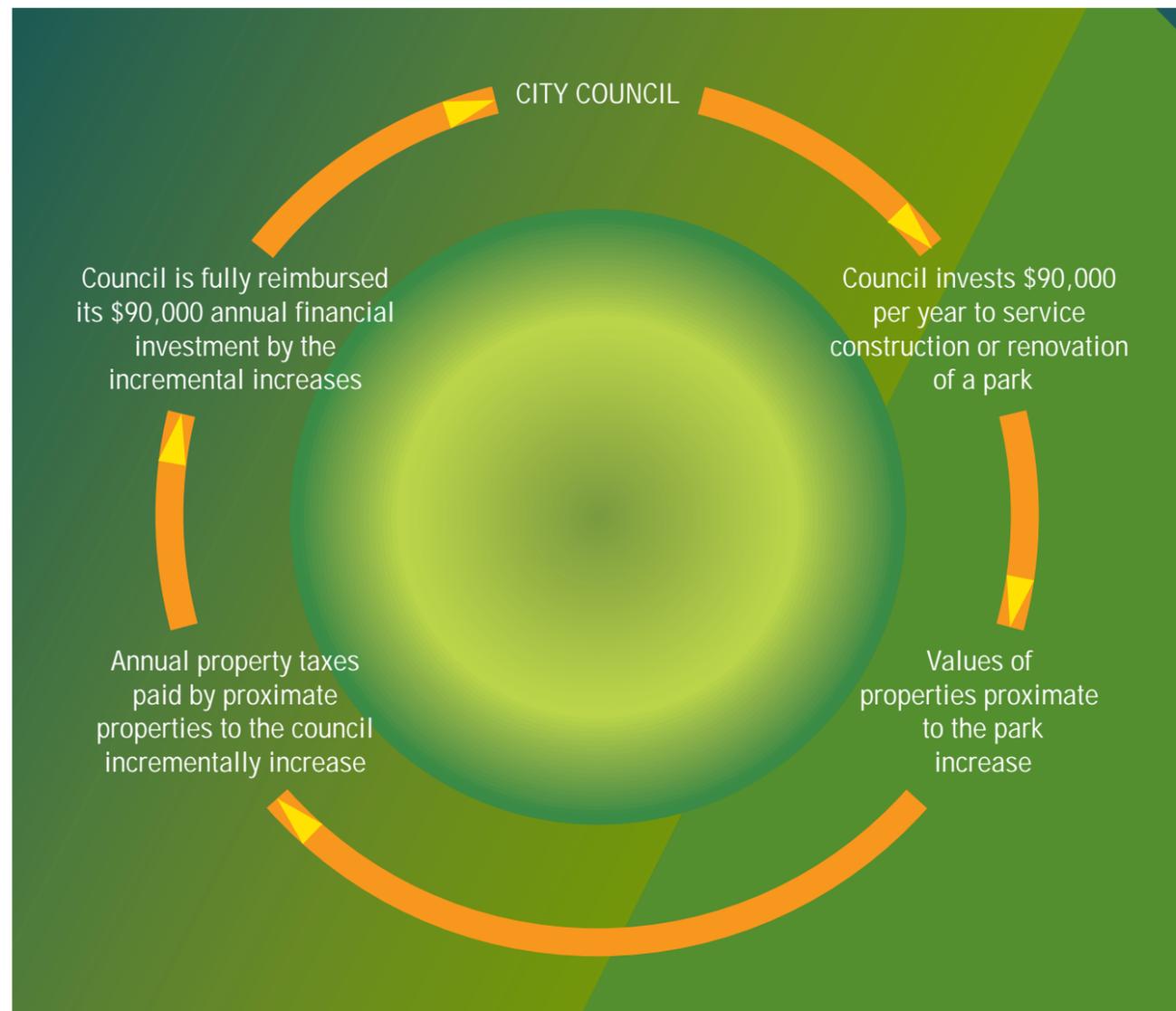


TABLE 1. PROPERTY TAXES PAY THE ANNUAL DEBT FOR ACQUISITION AND THE DEVELOPMENT OF THE PARK

Zone	Market value of each home	Incremental value attributed to the park	Total property taxes at 2%	Incremental property taxes attributed to the park	Aggregate amount of property tax increments given 70 home sites
Outside the park's influence	\$200,000	\$ 0	\$4,000	\$ 0	\$ 0
A (20% premium)	240,000	40,000	4,800	800	56,000
B (10% premium)	220,000	20,000	4,400	400	28,000
C (5% premium)	210,000	10,000	4,200	200	14,000
					\$ 98,000

FIGURE 2. THE INVESTMENT CYCLE ASSOCIATED WITH A LOCAL GOVERNMENT'S INVESTMENT IN A PARK



this, where the studies have been carried out for more than a 100 year period, in varied settings, by researchers from different disciplines, using a variety of techniques.

Given his legendary inspirational role in the architecture, design and popularization of parks in the United States, it should come as no surprise that the earliest empirical validation of the proximate principle was reported by Frederick Law Olmsted. The work of Olmsted and a few other pioneers was responsible for establishing conventional wisdom.

As a result, from the earliest days of urban park development in the 1850s through the 1950s, there was an insistent, almost inviolate conviction among park and open space advocates of the legitimacy of the proximate principle. This conventional wisdom was also espoused by elected officials and was persuasive in convincing decision-makers to invest in parks.

In many ways, the early studies were naïve, reflecting the undeveloped nature of the statistical tools and research designs in the early years of the field. The increased capability of computing in the late 1960s and 1970s enabled more sophisticated statistical analyses to be undertaken. These generally confirmed the findings of the earlier studies. A detailed description and discussion of the results is provided in the monograph described in the box on page 91.

Among the conclusions were:

- The empirical evidence from 20 of the 25 studies reviewed supported the premise that parks and open space contributed to increasing proximate property values. In four of the five studies that did not support the proximate principle, it was suggested that the ambivalent findings may be attributable to methodological limitations.
- The support extended beyond urban

areas, to include properties that were proximate to large state parks, forests and open space in rural areas.

- The conventional wisdom that creating large state, or federal park or forest areas results in a net reduction in the value of an area tax base was not supported.
- Parks embracing primarily active use recreation areas showed much smaller proximate increases than those accommodating only passive use.
- The magnitude of the proximate effect will vary according to size, usage and design of park lands, but a positive impact of 20% on property values abutting or fronting a passive park area is a reasonable guideline as a point of departure.
- The proximate impact of parkland and open space is likely to be substantial up to 500 feet, and in the case of community parks is likely to extend out to 2000 feet.

Greenways and Golf Courses

In addition to reviewing the impact on parks and open space, the monograph considered the evidence relating to the impact of greenways and golf courses on property values.

In the 1990s, there was an explosion of interest in developing greenways. The rationale underlying the proposition that greenway trails may positively influence property values is different from that associated with parks. Unlike parks, any added property values are not likely to come from the views of nature or open space which a property owner enjoys because in most cases, especially in urban trail contexts, there are no such vistas.

Rather, any added value derives from access to the linear trail. It is a trail's functionality or activity potential that is likely to confer added value, not the panorama of attractive open space. The literature investigating the proximate

principle in the context of greenways is sparse, but a consistent pattern emerges from it. There is broad consensus that trails have no negative impact on either the saleability of property (easier or more difficult to sell) or its value.

There is a belief among some, typically between 20% and 40% of a sample, that there is a positive impact on saleability and value. However, the dominant sentiment is that the presence of a trail has no impact on these issues.

Almost 1,000 golf courses incorporated as central features of real estate developments were constructed in the U.S. in the 1990s. Developers include golf courses to increase the land values of their projects and to accelerate the absorption of real estate, i.e. to sell their lots more quickly.

Contemporary golf courses exemplify the important role of "edge" in maximizing real estate values. Traditional, almost rectangular shaped courses, similar to the shape of traditional parks, have been discarded in favor of linear courses which can accommodate much more real estate frontage. Lots and houses throughout a golf course community bring substantial premiums over comparable lots/units in non-golf developments.

The golf course developers' strategy mirrors that which has been advocated by supporters of public parks and open space for over a century, i.e. parks are an investment, not a cost, because they generate more property taxes for a city than it costs to service the annual debt charges incurred in creating the amenities. The high visibility, large number, and success of these golf course developments demonstrates by analogy to governmental stakeholders and decision-makers the viability of the proximate principle in the context of parkland and open space. ■