

Economics of Open Space Conservation

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INTRODUCTION

The protection and continued survival of Neotropical migratory birds depends on the amount and quality of habitat that remains available to them. To date, strategies used to protect habitat have relied primarily on biological arguments such as protection of biodiversity, wetlands, watersheds, and endangered and threatened species, as well as aesthetic arguments relating to preservation of beautiful scenery. Unfortunately, many people are unmoved by these types of arguments. For habitat protection to be successful, new strategies are needed to convince people who cannot be swayed by biological or aesthetic arguments. In the 1990s this group includes those involved with the conservative "revolution" that is now attacking open space conservation.

An emerging strategy for protecting habitat and wildlife is the use of economic information and arguments. This paper describes the economic value of open space to communities, and explains how this value is greater than commonly believed. The paper is meant to serve as a primer, and is applicable primarily to suburban and rural areas, where many open-space conservation battles are being fought. Although I have not provided a detailed "how to" for the reader, it should be obvious how economic arguments can be integrated into open-space conservation strategies.

THE ECONOMIC VALUE OF OPEN SPACE

The value of undeveloped land differs depending on the viewer. To environmentalists and conservationists, economic value may not come to mind. To a real estate developer or a builder, land is a commodity that represents an investment, a salary, profits, tax benefits and liabilities, and future earnings. To a town planner, open land may represent a park, a school, a parking lot, houses, a factory, a farm, or tax rateables. Therefore, many factors must be considered to determine the true, long-term value of a piece of land. A few of those considerations are presented below. The importance of each is contextual; none are absolutes, because they depend on geographic location, current land use practices, economic character of the area, the physical and biological attributes of the land, and the political climate.

Property tax stability

Open-space conservation often contributes to controlling taxes. Why? Soaring property taxes usually can be attributed to poor planning or to unplanned development of open space within communities. Ironically, tax reform and tax rebellion groups have rarely seized the fact that building houses costs a community more than these homes generate in property tax revenues (called rateables). Fifty years ago, taxes generated from housing developments helped to finance roads, public schools, police departments, fire departments, and other community-driven expenses. As the cost of these services rises, property taxes rarely cover them, especially in townships that

have grown rapidly (American Farmland Trust 1986). Services often cost 125 to 150% of taxes generated, forcing township governments to raise taxes and to seek federal subsidies (loans, grants.) Despite these facts, real estate developers and builders still manage to convince township officials that the houses they build will generate tax revenues that benefit the community. In communities with a master plan that concentrates housing and business development near existing services and that stipulates conservation of open space, taxes do not increase, or they do not increase as rapidly as in townships that do not plan. In sum, thoughtful master plans not only insure open space for parks and conservation, they also limit development that is costly to a community.

Ecotourism

Some of the most important areas for migrating birds and other wildlife offer marvelous economic opportunities because they attract large numbers of nature lovers or ecotourists, who spend billions of dollars annually to watch and enjoy wildlife.

More than a dozen recent studies of birding ecotourism and birding economics have demonstrated that wildlife refuges, parks, sanctuaries, preserves, and other forms of open space attract millions of tourists and their dollars each year (Wiedner and Kerlinger 1990, Kerlinger and Wiedner 1991, Kerlinger 1993, Eubanks et al. 1993, Kerlinger and Brett 1995). These dollars represent important revenues to rural and suburban communities. From the business and community side, ecotourism is a good form of economic development because it requires little investment in infrastructure. Funds that are required are routine business investments by the private sector, which provides accommodations, places to eat, services, and products to purchase. The community provides an attraction, which costs it very little.

The suitability of an area for ecotourism is determined largely by the presence of natural attractions. For example, beautiful scenery and rock formations draw people to parks in the Rocky Mountains and the desert southwest. For birding ecotourism, migratory bird stopover sites, high biodiversity, and endangered or threatened species all serve as attractions. In the past decade, ecotourism has experienced faster growth than any other form of tourism. For ecotourism to be a sustainable form of economic endeavor, the natural resources on which this industry depends must be protected. Thus, ecotourism is a sustainable form of economic endeavor as long as the resource is protected.

Maintenance of property values

One benefit of open space protection is maintenance of property values. Frequently, property values near refuges and preserves are higher than those of properties surrounded by houses. Properties near open space are desirable because they offer beauty, seclusion, and high resale value. The National Association of Home Builders estimates that parks and recreation areas can increase the value of nearby building sites by 15-20%. Therefore, these sites are prime targets for builders and realtors. Announcement of a new national wildlife refuge usually results in increased land prices within and around the new refuge boundaries. Property taxes of adjacent lots and

homes also increase, generating more revenue for a community without costing that community in services. These facts provide a sound basis for clustering homes and businesses to preserve open space.

Groundwater recharge and pollution protection

As development eats open space away, the integrity of existing water resources is threatened. In many suburban and most rural settings, household water is supplied by a single family well that taps an underground aquifer. Also, many houses have private septic systems, consisting of a concrete holding tank for solid waste, and an associated system of pipes (a leach field) buried several inches under the soil. Water passing into the leach field is supposedly clean, and either evaporates or percolates into the soil. In ideal situations, septic tanks are pumped regularly and do not leak, and leach fields emit relatively clean water. In reality, septic systems do overflow, or they fail to cleanse the water before returning it to the ground. Therefore, increased housing in rural or suburban settings often pollutes ground water, so that clean water must be piped from nearby towns and villages, and homes must be linked to city sewage. This engineering, whether for new construction or for retrofitting existing neighborhoods, is costly to taxpayers and rate payers (sewage and water). Rate increases then persuade homeowners to conserve water. This "conservation" measure can be construed as a decline in the quality of life.

In coastal areas, increased housing that relies on wells—either single home wells or city wells—often results in salt water intrusion. That is, when a large quantity of water is pumped from an aquifer, nearby salt water can migrate into the aquifer and then into the wells. Then, new wells or new, desalinized water systems must be developed, which is expensive.

The ultimate cost of "fixing" all these problems rests on the backs of taxpayers. The developers and township officials responsible for poor planning simply pass along the costly mistake of unplanned development. Taxpayers complain, but too late.

Open space can thus prevent both costly infrastructural construction and the service costs associated with water and sewage problems. Natural habitats act as giant sponges, allowing rainwater to percolate into the ground without being polluted, and to recharge aquifers with clean water. The result: taxpayer savings.

Trash removal and landfill costs

A rarely considered cost of developing open space is the creation and maintenance of landfills. With more trash accumulating from more houses, the demand for landfill space increases. Then, fees for disposing trash at landfills ("tipping fees") can increase from a few dollars to hundreds of dollars per ton. Landfill operators raise these fees to create disincentives; they have limited space, and too much trash can require trash-burning facilities, trucking trash to distant landfills, or even building new landfills, all at taxpayer cost.

Also, rural and suburban homes situated far from the center of trash-removal activity

are expensive to service. And, the property value of houses near landfills is lower than that of houses far away. The lower values result in lower property taxes for the township. If land is left undeveloped, community taxpayers can avoid many of the social, economic, and environmental problems associated with landfills and trash removal.

DISCUSSION

Developers often state that conservationists do not understand the economic imperatives of community development. In truth, not many developers understand (or are willing to understand) the long-term impacts of various forms of development on the economic stability of a community. They also do not understand that development of open space is often more costly than conserving it. The information provided in this paper can help to combat the myth that habitat conservation is an economic albatross around a community's neck.

Economic arguments can be important, powerful tools for protecting habitat and the birds that live within. When used properly, economic arguments make sense and are difficult to refute. Unfortunately, few conservationists have the expertise needed to delve into economic issues. In addition, some conservationists are philosophically opposed to economic arguments, believing that such arguments should not be used or will not work. Whatever the reason, if economic arguments are not added to the arsenal of tools used for open-space conservation, we will continue to watch those spaces disappear.

At the same time, economic arguments should not be perceived as a panacea or as the only tool for conservation. Instead, they should be incorporated into comprehensive strategies that also emphasize aesthetics, quality of life, biodiversity, endangered and threatened species, and ecosystem protection. The effectiveness of economic arguments for conservation usually will depend on the economic importance of the land. Such determinations are not easy, although recent and current research projects are addressing questions related to the true value of open space. The addition of such information is quickly changing public perception of the economic value of open space. As this perception changes, protecting lands that enhance our economy and our quality of life will become easier.

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