Evaluating Strategies to Protect Open Space and Slow Sprawl in the Philadelphia Region

Abstract

This paper uses the Philadelphia metropolitan region of Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties as a case study, examining historical land use and socioeconomic data to demonstrate the negative effects that urban sprawl has on regional quality of life and, the natural and built environment. The paper shows that open space conservation initiatives sponsored by governing bodies and land conservation groups may not be able to keep pace with the rate of sprawl or be able to meet the conservation benchmarks set by the Delaware Valley Regional Planning Commission, the regional Metropolitan Planning Organization, and the GreenSpace Alliance, a regional non profit land conservation group. The paper examines the urban redevelopment and revitalization initiative as an underutilized but effective tool available to slow sprawl, and the need to combine these initiatives with land protection measures. Evidence is presented that counters claims that sprawl is a natural result of the free market economy that should be allowed to correct itself without intervention. Finally, existing growth management strategies are offered that might be incorporated into future efforts to slow the expansion of the built environment and improve quality of life in the region.

2. Land protection strategies to protect open space and combat sprawl aren't keeping pace.

Between 1988 and 2008 county and municipal governments have raised \$762 million through bond and tax referendums to protect open space (Trust For Public Land 2008). During this time frame population in the outlying counties has increased 18.2% while Philadelphia County population has decreased by 16.6% (Adams et al., 1991; DVRPC 2007). 84% of the outlying population is white with a per capita income 43% higher than the inner city population, which is 55% non-white (US Census; DVRPC 2007). Development in the outlying counties has mainly been in the form of low density, auto dependent, single-family dwellings that require large amounts of open space and the installation of new and costly infrastructure.

Existing research shows that efforts by governments and NGOs to protect high value lands may be too late, as these lands may already be compromised by development. Also, the affluent population group making up the bulk of the outlying population may be resigned to a certain level of land protection and look elsewhere for their open space needs through vacation travel and second home purchases (Kline 2006). Other research has shown that dollars generated by land trusts and municipal governments to buy land outright can't keep pace with the dollars developers and affluent individuals are willing to pay for these lands (Howell-Moroney 2005). The statistics seem to bear this out, with a steady increase in high income, white individuals moving into these areas and a reduction in the number of referendums voted on between 2006 and 2007 (Trust For Public Land 2008).

Due to the exclusionary nature of zoning, deindustrialization, advances in transportation infrastructure, and socioeconomic preferences based on income, race, and ethnicity, the urban population has been spreading out at about 3% per decade while development is consuming open space at a rate ten times this amount (Brookings Institution 2003; Fischel 2002; Licht & Scranton 1986) This sprawl has come at a cost and could ultimately impact quality of life in the region, as open space for wildlife habitat, watershed protection, and recreation have been reduced along with high value farmland (Brookings Institution 2003; Clarion Associates 2000; American Farmland Trust 2008).

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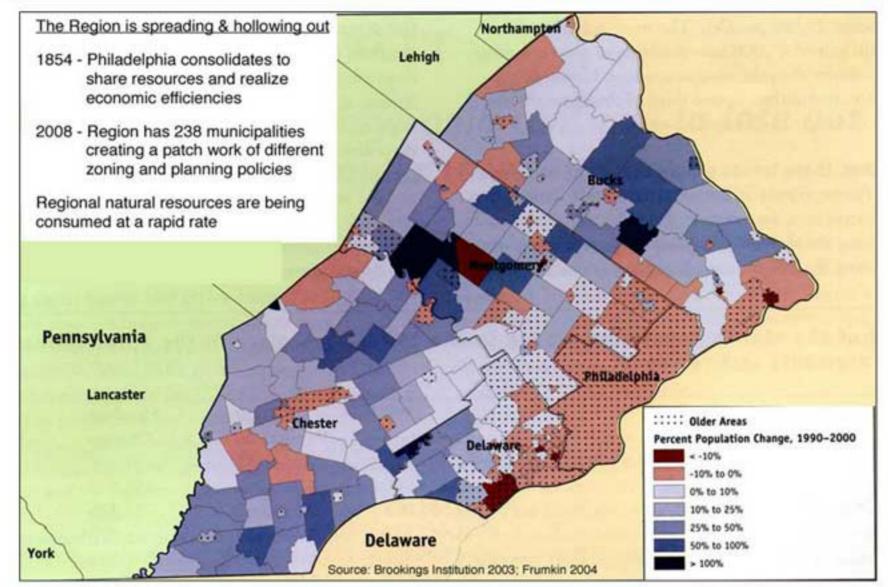
1. As the population spreads out and hollows out, NGOs and governments attempt to protect high value open space resources.

PROTECTED LANDS

County Lands - 28,854

eserved Farmland - 35,093

Land Trust Lands & - 66, 000



Urban sprawl is an inefficient and unsustainable method of land development

3. Urban redevelopment and revitalization is an underutilized tool that should be promoted along with with land protection measures



- o The region requires resources from distant areas to survive and therefore covers an ecological area that is two to three hundred times larger than its physical area. Every regional inhabitant requires fifteen acres of land, far above the world average.
- Ourrent United States resource consumption and waste would require three earths to be sustainable, global carrying capacity has been exceeded.
- o Inefficient urbanization in wealthy countries account for 64% of world pollution.
- o The traditional, western economic model that inputs resources and outputs wastes operates independently of the ecosphere and treats it as limitless.
- ° 80% of the population in high-income countries live in cities and this number is expected to increase.

5. Recommendations

- Ontinue to protect high value open space via referendums, easements and direct purchase, and look to coordinate these efforts so that high value lands are protected
- Owork to change zoning policy, making mixed use, walkable communities the norm rather than the exception
- o Exploit opportunities to reinvest in urban/suburban revitalization and educate stakeholders on the need look inward rather than outward for future growth
- O Educate rural landowners and municipal officials on the need to protect high value land a head of development
- O Educate stakeholders on the significance of reevaluating the economic model and the urban ecological footprint in an effort to become more sustainable

American Farmland Trust. State Pages, http://www.farmlandinfo.org/pc.nnsylvania/
Brookings Institution Center on Urban and Metropolitan Policy. (2003). Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania. Washington
Clarion Associates, Inc., (2000) The Cost of Sprawl in Pennsylvania: Executive Summary of the Study on the Cost of Sprawl in Pennsylvania Prepared for 10,000 Friends of Pennsylvania and Sponsoring Organizations. Philadelphia, PA: 10000 Friends of Pennsylvania, www.10000friends.org/

Delaware Valley Regional Planning Commission (DVRPC). (2007) Data Bull etin #67: 1980-2000 Census Population by MCD (28-County Area) Delaware Valley Regional Planning Commission (2006) Destination 2030, Philadelphia: DVRPC, http://www.dvrpc.org/LongRange.htm

Fischel, W. A. (2002) An Economic History of Zoning and a Cure for its Exclusionary Effects. Urban Studies. p.317-340. EBSCO. http://proxy.library.upcnn.edn

Frumkin, H., Frank, L. and Jackson R. (2004) Urban Sprawl and Public Health: Designing, Planning, And Building For Healthy Communities. Washington, D.C., Island Press
Howell-Moroncy, Michael. (2005) NEconomic Implementation Constraints on Prescrying Land From Sprawl: The Case of the Delaware Valley. OPublic Administration (29)1, p55-77. EBSCO Mega File.
Univ. of Pennsylvania, Franklin Lib.

Kline, Jeffrey D. (2006). Public Demand for Preserving Local Open Space, Society & Natural Resources, (19):7, EBSCO Mega File. Univ. of Pennsylvania, Franklin Lib. 28 Sept. 2007 Licht W., Scranton, P. (1986). Work Sights: Industrial Philadelphia, 1890-1950. Philadelphia: Temple University Press

Rees, W.E. (1999) Consuming the Earth: The Biophysics of Sustainability, Ecological Economics, 29(1), p. 23-27. EBSCO Mega File. Univ. of Pennsylvania, Franklin Lib. 1 Dec. 2007. Trust For Public Lands (2008). LandVote, http://www.tpl.org/tier2_kad.cfm?folder_id=2386

United States Census. (2006) State & County QuickFacts, http://quickfacts.census.gov/qfd/states/42000.html