

## **Economic Value of Open Space**

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GreenSpace Alliance (GSA) and the Delaware Valley Regional Planning Commission (DVRPC) are partnering on an effort to conduct a study that will quantify the economic value of the protected open space (publicly owned and eased lands) in Southeastern Pennsylvania. The study is funded by the Pennsylvania Department of Conservation and Natural Resources (PADCNR) and The Lenfest Foundation.

### **Background and Need for Study**

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*Green Space Connection to Economy:* During the development of GSA’s communication plan, a series of interviews was undertaken to identify the themes that legislators and informed stakeholders were hearing regarding open space issues in the region. Two inter-related themes emerged from these interviews. (1) Green space is an important tool for environmental and economic stability, and (2) To be heard in the midst of this economic downturn, the green space issue must be explicitly connected to economic development and vitality. Discussions at public forums and municipal meetings indicate a common misconception that undeveloped or conserved land is non-productive and non-revenue producing. Some see this land as a loss to the community without recognizing the economic benefits this “open land” provides.

*Land Development Trends and Open Space Needs:* The five-county southeastern Pennsylvania area is forecast to grow by 393,000 people and 241,000 jobs over the 30 year period from 2005 to 2035. Continuing at the current rate of land consumption, 167,000 acres of natural and agricultural lands from the region would be subject to development over this period – an area itself more than half the size of Montgomery County. Regional planning efforts have strategically targeted more than 230,000 acres in southeastern Pennsylvania for preservation based on their ecological and recreational values. (Source: DVRPC) While the region has done a commendable job in protecting open space, far more needs to be done as many priority lands remain threatened by anticipated development. Now is clearly the time to raise awareness of the value of these lands, and raise the funds to protect them for present and future generations.

While land trusts, public agencies, and local governments are proud of the nearly 200,000 acres of protected land in the region, none of these entities believes their work is done. The success of land conservation in Southeast Pennsylvania to date can be attributed to a diverse combination of funding streams from local municipalities, county bonds and general funds, state resources, foundations and private donations. Maintenance of this multi-layer funding, never a simple matter, becomes even more challenging in the current context of constrained or shrinking resources. To continue working toward the goal of a network of protected lands, a clear and compelling case needs to be made that protection of natural, recreational, and agricultural lands is both a sound and strategic investment in our region’s economic prosperity.

*Benefits of Open Space:* The Greater Philadelphia region is host to numerous treasured open spaces, ranging from historic landscapes like Valley Forge National Park to peaceful natural areas like White Clay Preserve, to working farms like Norristown Farm Park, to recreational corridors like the Delaware Canal Park. These varied spaces offer a destination for family outings, an attraction for tourists (including students and scholars), a place to walk, ride bikes

and exercise, and a visual refuge from the built environment. Many of these spaces are of enormous historical and cultural importance, just as they also provide habitat for many species, including those that are threatened, and they provide ecological functions of cleaning the air, retaining stormwater, and preventing flooding.

Our regional network of open space creates a deep sense of pride and place that enriches the lives of our residents and visitors. In recent times, our greenways and open spaces have been referred to as green infrastructure, providing a complementary and essential function to the traditional grey infrastructure (transportation, water and sewer) systems. Yet, when it comes to investment, parks and open space generally do not receive the same consideration as highways, convention centers, and stadiums. A recent report “How Much Value Does the City of Philadelphia Receive from its Park and Recreation System? – A Report by the Trust for Public Land’s Center for City Park Excellence for the Philadelphia Parks Alliance” proves that parks are undervalued, and in fact provide a tremendous return on investment to both residents and governments.

*Philadelphia Park Alliance Study:* The new research undertaken for the Philadelphia Parks Alliance (PPA) by the Trust for Public Land (TPL) shows that the 10,000 acres of parkland within Philadelphia’s corporate limits provide the city and its residents with huge value: \$1.26 billion in city revenue, municipal cost savings, wealth generated for residents and cost savings for citizens on an annual basis. Extending the scope of this research to encompass the parks and privately protected lands in the region’s four suburban counties would be expected to reveal a comparable magnitude of benefit. PPA has used the study as an advocacy tool in their interactions with a diverse constituency of stakeholders and partners. After years of advocating on behalf of increased investment in Philadelphia’s parks, PPA found it invaluable to advance their case in more quantitative terms, buttressed by data and language that focuses attention on the generally understood but less documented connection of protected open space to economic return on investment. In addition, by linking parks and recreation to improved sustainability, public health, and tourism, the community of advocates are far better positioned to expand their constituency and partners beyond their traditional supporters.

This project is designed to be a follow-on study that measures the economic value of the *region’s* parks and privately protected lands, and quantifies the results in dollar terms that will provide regional open space advocates an effective way to convey the importance of preserving the region’s natural areas. The goal of the study is to quantify the economic value of the protected open space (publicly owned and eased lands) in Southeastern Pennsylvania. The results of the study will be used to:

- Educate the public and decision makers about the economic value of protecting open space;
- Raise political and financial support for more open space preservation;
- Promote policy changes that will favor open space protection
- Reframe the dialogue about open space as a benefit, not just an expense.

## **Project Study Area**

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The project study area is the five counties of Southeastern Pennsylvania: Bucks, Chester, Delaware, Montgomery and Philadelphia. Since the TPL study was already conducted for Philadelphia, this effort will build on those results, using additional data and methods.

The consultant will evaluate market and non-market benefits for the three types of protected lands within each of the five counties: parkland (85,000 acres), land trust owned and eased lands (60,000 acres), and preserved farmland (42,000 acres).

## **Selected Consultant Team**

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GSA and DVRPC issued an RFP in September, 2009, with proposals due October 16, 2009. A consultant selection committee comprised of DVRPC, GSA, DCNR, counties, and land trusts reviewed all proposals and selected the winning team of the Economy League of Greater Philadelphia, Econsult Corporation and Keystone Conservation Trust. The US Forest Service was added to the team for their expertise with the i-Tree Models.

## **Scope of Project**

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The consultant will examine the market and non-market benefits associated with protected open space within the following four categories:

- Enhanced Property Values
- Environmental Benefits
- Improved Health and Quality of Life
- Strengthened Local Economy through Job and Revenue Generation

## Summary of Open Space Valuation Study Analysis

Consultant Team: Economy League, Econsult, Keystone Conservation Trust, US Forest Service  
1/20/10

Benefit	Analysis	Responsible Consultant(s)
Enhanced Property Values	Hedonic regression analysis revealing the percentage of property value linked to proximity to open space	Econsult
Stormwater Management Cost Savings	Estimate the stormwater management cost savings associated with protected open space for four representative sites, using the i-Tree Hydro model in consultation with the U.S. Forest Service	Econsult, US Forest Service, Keystone Conservation Trust
Water Quality Improvements	Estimate the value of water quality improvements associated with protected open space for the same sites examined in the stormwater management cost savings analysis, using the i-Tree Hydro model in consultation with the U.S. Forest Service	Econsult, US Forest Service, Keystone Conservation Trust
Air Pollution Mitigation and Carbon Sequestration	Estimate the value of air quality improvements associated with protected open space in the study area using i-Tree software to analyze carbon storage, carbon sequestration, and CO, NO <sub>2</sub> , O <sub>3</sub> , SO <sub>2</sub> , and PM <sub>10</sub> pollution removal	Econsult, Keystone Conservation Trust
Drinking Water Treatment Cost Savings	<i>Either</i> an estimate of the value of drinking water treatment cost savings associated with protected open space <i>or</i> a general discussion of drinking water treatment cost savings	Econsult, Keystone Conservation Trust
Flood Protection	<i>Either</i> an estimate of the value of properties within the 100- and 500-year floodplains in the study area that face increased risk of flooding if nearby open space were developed <i>or</i> a general discussion of the value of flood protection associated with protected open space	Econsult, Keystone Conservation Trust
Direct Use Value	Estimate recreational usage using SCORP data and monetize by using the Army Corps of Engineers' unit day value method	Econsult
Health Care Cost Avoidance	Estimate recreational usage for specific types of exercise using SCORP data and monetize by using the unit day value method	Econsult, Keystone Conservation Trust
Civic Capital / Community Cohesion	General discussion of increased civic capital associated with protected open space; examples highlighted in case studies	Economy League
Crime Reductions	General discussion of crime reductions associated with protected open space; compare crime data for communities surrounding at least one case study location with data for similar communities that do not have the same open space characteristics	Economy League

## Case Studies

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Case studies will be conducted for 6 to 7 unique open spaces across the region. The case studies will collect more in-depth primary data that illustrates a particular economic benefit that that protected land provides, and the results will complement and confirm findings from the other part of the study. They will be presented as place-based, memorable, appealing stories. The lessons learned from these stories (of actual jobs created, restaurants and bike shops opened, visitors and tax revenues generated, property values increased, crime reduced, water treatment cost saved, etc.) may be transferable to similar places within the region. The selected case study sites to date are:

- Bucks County – Peace Valley Park
- Chester County – Hopewell Big Woods (large natural landscape) and Honeybrook Township (large agricultural landscape)
- Delaware County – Radnor Trail
- Montgomery County – Perkiomen Linear Park/Trail
- Philadelphia – Clark Park

## Advisory Committee

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An advisory committee has been convened to guide the study and help select the case study sites. The first meeting took place January 20, 2010, and the meeting was used to review the study's scope and methodology, and to select the areas for case studies. The next meeting will be scheduled in the spring, to review the study's draft findings. The final meeting will be in the summer 2010 to review the final report.

<b>First Name</b>	<b>Surname</b>	<b>Title</b>	<b>Affiliation</b>
Laurie	Actman	Mayor's Liaison, Metropolitan Caucus	City of Philadelphia
Jen	Adkins	Executive Director	Partnership for the Delaware Estuary
Steven	Beckley	Senior Planner	Delaware County Planning Department
Blaine	Bonham	Executive Vice President	Pennsylvania Horticultural Society
Lauren	Bornfriend	Executive Director	Philadelphia Parks Alliance
Glen	Abrams	Watershed Planner Manager	PWD
Marc	Cammarota	Manager, Watershed Engineering	PWD
Cliff	David	President	Heritage Conservancy
Patty	Elkis	Associate Director of Comprehensive Planning	DVRPC
Mike	Eschemann	Community Recreation Partnerships	DCNR
Sherri	Evans-Stanton	Director, Environmental Management Center	Brandywine Conservancy

Dulcie	Flaharty	Executive Director	Montgomery County Lands Trust
William	Gladden	Director	Chester County Department of Open Space Preservation
Judy	Thomas		Chester County Department of Open Space Preservation
Philip	Hopkins	Vice President	Select Greater Philadelphia
Ann	Hutchison	Senior Director	Natural Lands Trust
Kristine	Kern	Open Space Coordinator	Bucks County Planning Commission
Christine	Knapp	Director of Outreach	PennFuture
Diane	Kripas	Greenways and Conservation Partnerships Division	DCNR
Graciela	Cavicchia		The Reinvestment Fund
Chris	Linn	Senior Environmental Planner	DVRPC
Mary Anne	Hunter	Board member	City Parks Association
Deenah	Loeb	Executive Director	City Parks Association
David	Kraybill	Executive Director	Pottstown Health and Wellness
David	Masur	Director	PennEnvironment
Jake	Michael	Open Space Planner	Chester County Planning Commission
Molly	Morrison	President	Natural Lands Trust
Beth	Pilling	Senior Planner	Montgomery County Planning Commission
Donna	Pitz	Executive Director	GreenSpace Alliance
Todd	Poole	President	4ward Planning LLC
Patrick	Starr	Vice President, Southeast Region	PEC
Spencer	Finch	Director of Sustainability	PEC
Mindy	Lemoine	Watershed Specialist	PEC
Jeff	Knowles	Watershed Planner	PEC
Carolyn	Wallis	Recreation and Parks Supervisor	DCNR

## **Project Timeline**

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January 2010 – consultant team begins work

January 2010 – first Advisory Committee meeting held on project scope, methodology and case study selection

Spring 2010 – second Advisory Committee meeting on draft findings

Summer 2010 – third Advisory Committee meeting on final report

Summer/Fall 2010 – report released and publicized

**For more information, contact**

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Patty Elkis, Associate Director of Planning, DVRPC, [pelkis@dvrpc.org](mailto:pelkis@dvrpc.org) or 215-238-2838

Or

Donna Pitz, Executive Director, GreenSpace Alliance, [dpitz@greenspacealliance.org](mailto:dpitz@greenspacealliance.org), 215-592-7020 x 111