

THE
Business\$
OF
Nature

The "Return on Environment" in Berks



STATE OF THE **ENVIRONMENT** ADDENDUM

Brought to you by:





Habitat



Food



What is the environment worth?

Does it have a value beyond the health and welfare of our community; a bottom-line contribution to our economy? We all talk about “Quality of Life” and intrinsically know that is important to the way we live but can we put a dollar value on what that means if we have a “better” or “worse” quality of life?

Studies show that workers and companies look for communities where there are abundant natural resources and recreational amenities to live, work and play. Are we leveraging what we have here in Berks County to attract economic development and a more educated work force? What if we invested more or less in our environment? Berks County’s water resources, landscapes and trail systems are the envy of many communities in southeast Pennsylvania. These are things that many of us take for granted. Only when we don’t have them will we realize how valuable they are.

As we consider the importance of our region’s open spaces, it’s essential that we recognize the roles our trees, fields, and forests play in filtering our water, cleansing our air, controlling flooding, and providing other environmental services. Although these vital services are provided naturally, they would be costly to replicate. If we maintain nature’s ability to provide environmental services, we will be saving on future costs to provide those same services.



Pollination



Exploration



Clean Air



Education

Solar Energy



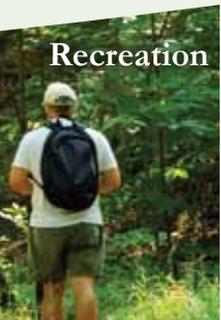
“The *economies of the Earth* would grind to a halt without the services of *ecological life-support systems*, so in one sense their *total value to the economy is infinite.*”

The Value of the World's Ecosystem Services and Natural Capital

In a 2010 Knight Foundation/Gallup study, *aesthetics* such as the physical beauty of a community including the availability of parks and green spaces are consistently listed as 1 of 4 factors as to why people are attached to their local community. The study also found that there is a positive correlation between community attachment and the local GDP (gross domestic product) growth. This is a key metric in assessing community success because local GDP growth not only measures a community's economic success, but also its ability to grow and meet the residents' needs. The community's most attached residents have strong pride in it, a positive outlook on the community's future, and a sense that it is the perfect place for them.

The **Business of Nature** is intended to raise awareness and appreciation of our exceptional natural resources in Berks, and to stimulate action and discussion to protect these resources.

Recreation



Clean Water



Community



"The fishing is great
in Berks County."

Photo by Mike Roush.



Fishing provides \$43 million every year to the local economy.

According to the PA Fish and Boat Commission, there were 29,020 licensed fishermen (2008) in Berks County who spend an average of \$865-\$1,400 annually on fishing, which includes food, lodging, equipment, transportation, license fees, and miscellaneous expenses. (To simplify the math, if you assume these licensed fishermen annually spend \$1,000 each, then more than \$29 million is spent on fishing in Berks County.) About 33% of the people fishing in Berks County are from outside the area. That adds another \$10 million. When you add the induced income (people who work for restaurants and stores who serve fisherman) and indirect income (people who make fishing rods), the annual income for fishing in Berks County comes to \$43 million per year. Fishing isn't the only industry that boosts the economy - hunting and other sports all benefit from a healthy environment!

\$87 million

Hunting provides every year
to the local economy.

1,366 miles

Streams that flow through
Berks County.

\$93 million

Walking and Hiking
provide every year to
the local economy.

So What?

Unhealthy streams *mean* No fish.

Protecting streams and the land that surrounds them should be a priority in Berks because if the water deteriorates the aquatic life and fish cannot survive; and without fish we will lose this part of our local economy.



What would happen to the outdoor recreation industry if our parks, trails and healthy streams were not there?

What Now?

26.4% of Berks County stream miles are considered impaired by the PA Dept. of Environmental Protection.

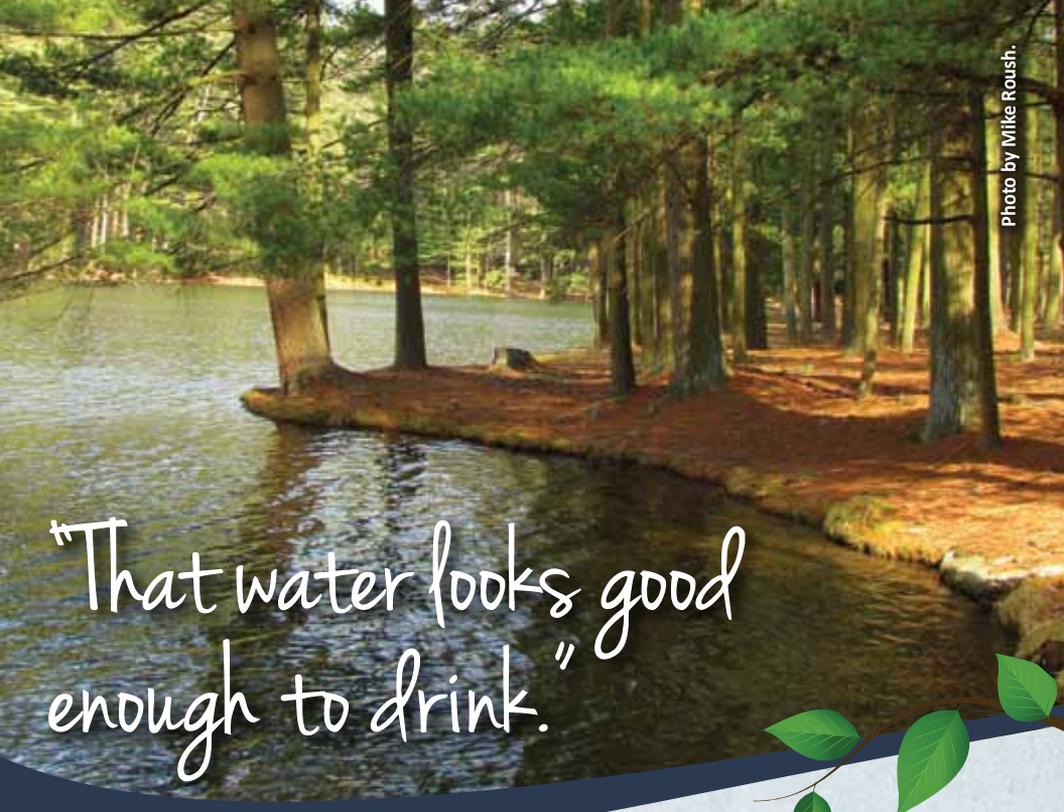
Changes in the way that land surrounding streams is managed can have a significant positive impact on the quality of the water. For example, installing rain gutters to reduce runoff from a barnyard can help, or even simply planting trees. Improvements to impaired streams needs to continue; especially fishing destinations such as the Tulpehocken, Hay and Angelica Creeks.



Stream Improvements

The good news is that there are numerous professionals in Berks County that have the necessary stream restoration expertise to help improve impaired streams. The challenge is finding the funds to help the landowners pay for such improvements. To help address this challenge the *Berks Watershed Restoration Fund* was created utilizing private and corporate donations. Nearly 10 stream restoration projects have already been completed, and more will continue as additional funds are raised!





"That water looks good enough to drink."



Water treatment costs are decreased by 20% with every 10% increase in forested land around a watershed.

According to the Trust for Public Land and the American Water Works Association study of 27 water suppliers, the more forest cover a watershed has, the fewer dollars suppliers must spend in treatment costs. For example - when sixty percent of the watershed is forested, average annual treatment costs are \$297,110. When only ten percent is forested, average annual costs rise to \$923,450.

1,000

Amount of trees the Reading Area Water Authority plants per year to reduce costs.

\$1.51 million

Philadelphia partners have invested in Berks County to improve the water quality in the past 5 years.

46%

Berks Countians rely on private wells for drinking water.

So What?

More Trees near a water supply mean Less Treatment and Chemicals.

The more trees that surround our drinking water supplies mean that your water supplier has to use less treatment and chemicals to make the water safe to send into our homes, businesses, schools, etc. to drink and use. Reduced treatment is not only healthier, but also results in cheaper water bills for you.



What Now?

More than 12.5% of Berks County land is classified as impervious (or paved) cover.

This reduces the amount of rainfall that recharges groundwater resources, and increases surface runoff to streams and rivers. Increased surface runoff not only increases the potential for erosion and flooding, but also carries more soil particles, nutrients, and contaminants into the streams and rivers receiving this run-off. If these sources include your drinking water, then it needs to be treated more heavily or frequently to be fit for consumption. General rule of thumb is that if a watershed is more than 10% impervious cover, it is impaired.

What can you do to cut down on the amount of impervious cover on your property and in your community? A further increase in impervious surfaces can affect quantity as well; if necessary could you reduce your water consumption by 5%, 10%, 15%?



The Reading Area Water Authority (RAWA) plants about 1,000 trees a year all around Lake Ontelaunee, the main source of their water supply.

According to Michael Reider, Watershed Manager for RAWA, *“All of these efforts really add up to a cleaner product entering the water treatment facility - from the planting of trees around the lake to the farm practices maintained upstream. Can you put a dollar figure on it? Not quite, but what you can do is quantify more of the longterm benefits. You can reduce costs from the filtration process, chemical costs and treating of algae blooms in the lake, which has a price tag of \$10,000 for each treatment.”*

RAWA hasn't seen an algae bloom in 4 years. All of these efforts combine for better drinking water for the City of Reading and its customers.

Local Feature

How far does your food travel before it reaches your dinner plate? Does buying from local businesses or farms really make an impact on the local economy? Is there a difference in price or quality? Studies estimate that processed food in the United States travels over 1,300 miles, and fresh produce travels over 1,500 miles, before being consumed.

Does buying “local” help the economy?

Yes! When you go shopping at the grocery store, consider this - when you buy a non-local piece of fruit in a national store, the majority of that dollar goes to the corporation that owns the store. When you buy that piece of fruit at a farmers market, the farmer takes home 100 percent of that dollar. Of course, farmers have expenses too, but one of the reasons that it helps the local economy is that owners tend to spend more on local employees, who in turn spend their money with area merchants, who tend to provide greater support for local organizations and activities.

Over 220,000 acres of Berks County is farmland with over \$367 million worth of products. That's a lot of products for Berks County buyers to choose from including staples like produce, milk, and poultry to products that are unique to Berks County such as pretzels, birch beer and ring bologna!

Consumers who are committed to buying local products, enjoy fresher, healthier food, support local farmers, keep their money in the community, know where their food comes from, and reduce their carbon footprint.

Berks County's Agricultural Coordinator Sheila Miller has teamed up with an array of partners in developing a branded program to promote Berks County grown and processed foods. You can identify locally-grown food in stores and markets with the below logo. This program connects local growers to the Berks Community.

Sheila states that, “Berks County farmers are second to none in producing quality food for consumers. The Bountiful Berks™ logo will help shoppers identify products that are grown in our community. Supporting local farmers directly at the farm gate, farm market, or at the supermarket makes economic sense for our county and sustains our efforts in keeping agriculture a leading industry that is able to feed our people now and in the future. Our investment in farmland preservation ensures our food security.”



A down economy doesn't affect the love of nature!



Terry and Sandy Gerhart have been in the *business of nature* for 19 years. They are owners of Wildbirds Unlimited Nature Shop located on Shillington Road in Sinking Spring. The store offers just about everything needed for birdlovers – from 50 pound bags of seed to unique

recycled plastic bird houses to binoculars and bird identification books to simply enjoy birdwatching in your own backyard! And what makes a visit to their store so special? The expertise and guidance provided by Terry and Sandy and their staff.

Perhaps their expertise and relationships are responsible for the fact that their store has seen more revenue over the past two years than ever before in their 19 year history. Two years ago they were nationally ranked the “2nd most improved store” out of the 300 stores in the franchise due to their increased sales. In 2009 the store had a 48% increase in sales, and in 2010 an additional 18% increase on top of that. According to recent trends, 2011 will run another 15% increase.

What one can learn from this is that people are dedicated to nature and their backyard habitats; but most importantly, are spending more time locally – enjoying what Berks County has to offer. Perhaps Terry and Sandy are reaping the benefits of many quiet evenings watching wildlife in Berks County backyards... Maybe more and more people are grabbing binoculars to enjoy the fantastic show of birds and wildlife that millions of people come here to see at places such as Lake Ontelaunee, Hawk Mountain, Blue Marsh, French Creek State Park and Antietam Lake. Terry and Sandy fully believe that a healthy environment and the ability to enjoy nature go hand in hand. “Both are equally important” said Terry, “we will not be able to enjoy the birds and wildlife without a healthy environment to support them”.

Whether it is from staycations, commitment to birding, or an increased appreciation of our natural resources; the business of nature is alive and well at Wildbirds Unlimited.



“When the economy went down we just kept getting busier and busier”, said Terry (pictured above). “We started surveying our customers and learned that people were staying home and enjoying their own backyards instead of spending money on big ticket vacations. A few customers even said they would buy less at the grocery store before they would stop feeding their birds!” That is commitment!



"Is someone going to mow those weeds?"

Photo by Mike Roush.



Plants and trees along streams provide \$77 million of flood control in Berks.

Riparian buffers (plants and trees along streams) and wetlands are natural systems that provide services in the form of flood protection, water treatment, pollination and fauna to the local economy. According to the SmartConservation™ Model, a monetary value can be placed on natural systems. The SmartConservation™ Model is a conservation planning tool for policy-makers and conservation practitioners to make educated decisions about how to prioritize conservation projects, thereby focusing conservation dollars for the maximum impact.

\$13.00

Restoring wetlands can return thirteen dollars in benefits for every dollar invested.

over \$3,000

Headwaters & riparian areas provide per acre to the local economy each year in ecosystem services..

\$0.00

Cost to create your own riparian buffer along a stream – stop mowing and nature will do the rest!

So What?

Riparian Buffers *mean* Healthier Water.

Riparian buffers are also known as stream-side forests - the wooded areas along rivers and streams. They are vital to the protection of stream water quality, and are typically composed of trees, shrubs, flowers, grasses, and groundcovers. Riparian buffers provide:

- Food and shelter for plant and animal communities.
- Cooling of the stream to enhance aquatic habitats.
- Filtering of sediments and pollutants, preventing them from entering the stream or waterway.
- Stabilizing river banks and reducing bank erosion.
- Providing flood control.



Riparian buffers save money!

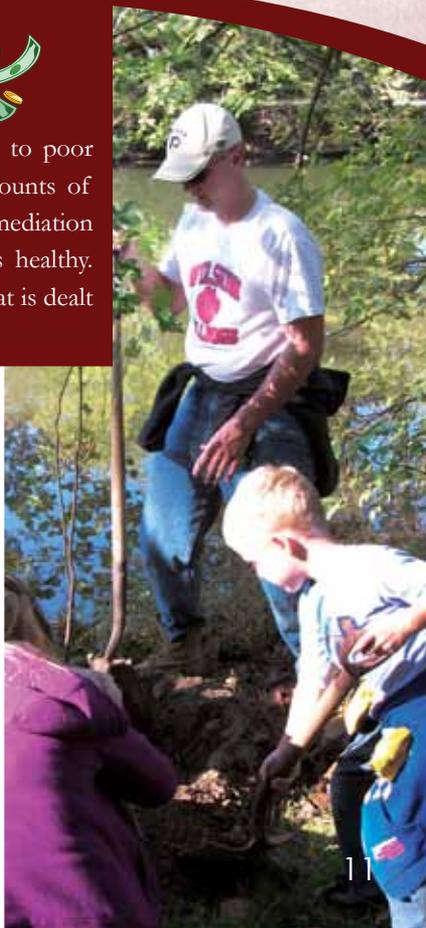


Riparian buffers reduce the amount of stormwater runoff that enters streams. Stormwater contributes to poor water quality and erosion problems. The lesser amounts of stormwater entering our streams saves municipalities remediation costs, reduces flooding, and helps keep the streams healthy. Every cubic foot of stormwater (about 7.5 gallons) that is dealt with naturally reduces stormwater costs by \$2.00.

What Now?

Stream side buffers and wetlands act as an important sponge in times of heavy rain. They are not as effective when filled-in or mowed. When we allow these areas to be natural and vegetated they are able to function as “ministorage reservoirs”. This not only saves stormwater costs, but results in making Berks County’s impaired stream miles (26.4%) healthier too.

Natural areas that are healthy and abundant with native plants are an important part of our landscape. Consider how you might plant more native plants and trees rather than mowing and manicuring yards and open space.



"Mommy, can we breathe without trees?"



The annual ecosystem service value of Berks' forests is \$535 million.

Let's face it, we could not exist as we do if there were no trees. A mature leafy tree produces as much oxygen in a season as 10 people inhale in a year. Tree cover also acts as a giant filter that cleans the air we breath. According to the USDA Forest Service, trees are major capital assets in cities and towns. Just as streets, sidewalks, sewers, public buildings and recreational facilities are a part of a community's infrastructure, so are trees. Trees are important assets that require care and maintenance the same as other public property. Trees are on the job 24 hours every day working for all of us to improve our environment and quality of life.

The annual benefit for 100 large mature street trees include:

24 tons

Amount of carbon dioxide (CO₂) removed.

261 pounds

Amount of air pollutants removed.

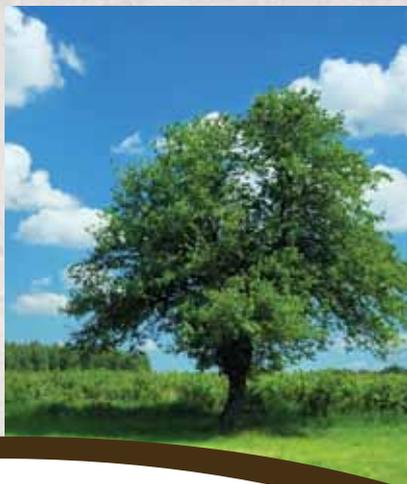
190,900

Amount of gallons rainwater collected.

So What?

Trees Increase our Quality of Life

Trees add value to your home, help cool your home and neighborhood, break the cold winds to lower your heating costs, clean our air, and provide food for wildlife – they are nature’s air conditioners. Without street trees and our healthy forests in Berks our quality of life would decline substantially.



What Now?

The TreeVitalize Matching Grant Program has come to Berks County! This program’s main purpose is to increase tree cover in urban and suburban settings on publically controlled property; for example, along streets, in parks, and on school grounds.

Notify your appropriate municipal departments (Public Works or Recreation departments) and the associated Boards/Commissions (Shade Tree Commission, Park and Recreation Board, Environmental Advisory Council), as well as your school’s Building and Grounds Superintendent in order to assess your community’s tree planting needs and visit www.TreeVitalize.net for more details.

42.6% of Berks County is forested, what would happen if we lost 10% of our trees?



Plant a Native Tree!

If you plant a tree today on the west side of your home, in 5 years your energy bills should be 3% less. In 15 years the savings will be nearly 12%.”



Ecosystem Services Value



Climate Control



Food (Crops)



CROPS
\$103 Million



Inspiration



ACTIVE RECREATION & PARKS*
\$203,800

* While active recreation is important, note the relatively low ecosystem service value of this mowed and manicured green space.

What are ecosystem services?
People benefit from many resources and processes that are supplied by natural ecosystems. These benefits are known as ecosystem services and include products like clean drinking water, food, medicine and processes such as the decomposition of wastes, energy creation and crop pollination. Ecosystems also serve as cultural and spiritual inspiration, recreation and scientific discovery.



Drinking Water



WATER
\$2.3 Million



Food (Fish)



Flood Protection



Recreation



Timber

FOREST
\$535 Million



Air Purification

Natural resources are vulnerable and finite. The need to better consider long-term ecosystem health and its role in the quality of life and economic activity is important. Two ways that this study valued ecosystem services in monetary terms is by avoided cost (service costs that would have been incurred in the absence of those natural services) and replacement costs (service costs that could be replaced with man-made systems.)



Beauty

**PASTURE/
MEADOWS**
\$10.4 Million



Soil Formation



**RIPARIAN/
WETLANDS**
\$4.28 Million



Natural Waste
Recycling



Nutrient
Cycling



Pollination

"Should we develop this land?"



Open space and farmland demand only \$0.35 in community services compared to \$1.16 that residential demands for each dollar of economic benefit.

The American Farmland Trust conducts Cost of Community Services (COCS) studies to determine the fiscal contribution of existing local land uses. It provides a snapshot of current revenues and expenditures on a land use basis. The studies analyze the demands on public services (e.g., schools, fire protection and road maintenance) and show how much it costs to provide public services to each land use in your community (e.g., residential, commercial and farmland). The studies evaluate working and open lands on equal ground with residential, commercial and industrial land uses providing a baseline of current information to help local officials and citizens make informed land use and policy decisions. COCS studies show open space and farmland generate more public revenues than they receive back in public services.

1.47 acres

Berks County farmland lost per day for the last 5 years, according to the Census of Agriculture (2007).

12.4%

Percentage increase of developed land in Berks, while our population grew only 10% (2008).

\$8,270

Added value to Southern Berks homes within ¼ mile of the Hopewell Big Woods area due to their location.

So What?

Open Space provides

Economic Benefits

Open space provides substantial economic, public health and environmental benefits to Berks County. If developed, our community would need to replicate costly recreational resources, natural systems functions, agriculture and farm market value impact, air quality filtration, carbon sequestration and storage, medical benefits, real estate values, and sense of place.



What Now?

The Berks County Vision 2020 Comprehensive plan identifies 29.2% (162,199 acres) of Berks County land to be used as agricultural production/preservation. (This percentage does not account for forested, rural lands). In 2008 only 11.4% of our sensitive conservation lands were permanently protected. Only 7% of Berks is classified as parkland and recreational facilities. More connections, promotion and regional planning are necessary. In addition, a coordinated strategy to protect those agricultural and conservation lands that provide the greatest value to our community should continue, as well as smart growth projects and development where infrastructure exists (future growth areas).

Following current agricultural land protection guidelines (Berks County Ag Land Preservation Board reimburses landowners up to \$2500 per acre) it could cost up to \$247 million to permanently protect the remaining 98,985 acres to reach the 29.2% goal.



FOR SALE

2 BR, 2BA home with garage...Next to community park... Located on tall tree street setting... Walking distance to schools... Bike trail nearby... Great neighborhood...

These are all descriptions used in actual ads from Berks County realtors. It is hard to assign a dollar figure on it, but open space, parks and trails are definitely a selling point!



"People that live here and people that I help to relocate here are thrilled when they learn about the amount of open space and trail systems that we have in Berks. In my eyes, and in my clients eyes, there can never be enough open space and opportunities to get out and enjoy our beautiful county!"

- Dave Mattes, Realtor RE/MAX of Reading



Bike. Fish. Hunt.
Bird Watch.
Hike. Camp.
Kayak.

All of the above and more! Recreational resources alone create 6,000 jobs in Berks.

According to data sets from the U.S. Bureau of Economic Analysis and one of the most standard economic modeling systems, IMPLAN, the number of jobs created from an industry can be determined from annual economic revenue. For example, if a new sporting goods store moved into Berks County with an estimated \$100 million worth of revenue, the number of jobs created can be determined by adding the direct jobs (all jobs created at the sporting goods store), indirect jobs (jobs of all the suppliers to the sporting goods store) and induced jobs (people working to service those spending their paychecks on groceries, entertainment, etc.).

\$31 million

Kayaking contributes to the Berks economy annually.

18

\$6 million

Hawk Mountain Sanctuary annual local economic impact from tourism

60,000

On average, people who use the Schuylkill River Trail in our region annually.

So What?

Open Space means Outdoor Recreation Businesses and Jobs.

If we don't have attractive open space, forests, healthy streams, and maintained trails then we won't have local businesses that support outdoor recreation. Losing the 6,000 outdoor recreation related jobs would be equivalent to losing all of the employees of the Reading Hospital & Medical Center and Carpenter Technology Corporation combined!

10 million people visit Berks County annually – much of the attraction is due to our natural resources and our quality of life. We need to maintain this standard so we don't lose this part of our economy.

What Now?

Outdoor recreation activities (and the associated jobs) rely on natural resources. Help to promote the natural resources (public parks, lakes and trails) to your friends, family and colleagues; and organize volunteers to help maintain them. Find out who owns your favorite park, trail or picnicking spot and see if there are ways that you can support them. Find out who owns your favorite farm, landscape or view in your community and ask if they have considered protecting the land from development. Ultimately, the thoughtful protection and stewardship of all of our natural resources will ensure ongoing outdoor recreational opportunities in Berks.

JB Mountain Bikes, located in Shillington, is one of the local businesses that cater to the outdoor industry. This local business thrives on Berks County's trails and natural resources.



Justin Bernardo, owner of JB Mountain Bikes thinks that, *“Berks County’s steadily growing and interconnecting trail network not only gives people easy access to safe cycling thoroughfares, it will no doubt help to eventually influence many commuters to trade their car for a bike, if only for a few days out of the week. More trails, bike lanes, wider shoulders would certainly be a positive for cyclists and the community in general. Connecting off-road trails and responsibly expanding mountain bike access with the help of private land owners and other land managers could also be a catalyst to make Berks County a cycling destination.”*

Local Feature

Investing in Land Protection

In Berks County we have 73 different municipalities making important decisions related to our land use, which directly affects the future of our landscapes that give our community character and provide significant economic value. A recent municipal partnership in Berks County is aimed at a direct investment in land protection. Protecting these landscapes is good for our quality of life and also good for the bottom line.

Pike Township is mostly a forested, rural landscape interspersed with farms and home to some of the highest quality streams in Pennsylvania. The municipal leaders are dedicated to protecting their township's natural resources, and have systematically and thoughtfully "done it right". With guidance from several environmental and conservation organizations, the township completed a natural areas inventory and prioritized its natural resources. Then, drawing upon the expertise of these partners and with the financial assistance of the Berks County Planning Commission's Conservation Zoning Incentive Program (CZIP), the township implemented a number of conservation zoning techniques. The county's CZIP

program is designed to assist municipalities to protect natural resource areas such as steep slopes and riparian buffers by providing technical and financial assistance to adopt conservation zoning regulations.

Pike has taken the final, permanent step to protecting seven high priority landscapes through its Municipal Land Protection Program by partnering with the County of Berks and the Berks Conservancy. Much of the forested land in Pike Township (known as the Oley Hills) has been identified as a high priority for conservation in the County's Greenway, Park and Recreation Plan. In line with that plan, the County has invested \$395,000 in grant moneys to protect 395 acres of Pike Township's high priority conservation



A balanced community is a healthy community; investing in growth where infrastructure already exists makes good economic sense and the protection of our open space is an investment, not an extravagant expense.

land. The landowners sell their development rights (conservation easement) at a sale price of at least \$1,000 per acre and may claim an income tax credit for the difference between the sale price and the market value per acre. Pike Township has matched the county's investment in this project with funds saved over the years for open space preservation and with moneys made available from several partners, such as the Berks Conservancy and the Pike Oley District Preservation Coalition. The Berks Conservancy continues to offer its technical expertise in helping to leverage additional funds. Two properties have already been protected under the township's Land Protection Program; the remaining five properties are scheduled to be permanently protected by December 2011. All of the property subject to easement will remain open space in perpetuity. At the end of the day, Pike Township knows that its investment and pro-active approach will benefit generations to come. Numerous cost-of-service studies have shown that residential development often costs more in public services such as schools and infrastructure than it generates in tax revenue, while farmland and open space result in a net revenue surplus.

(See the "100-Acre Farm" illustration.)

Jeff Gorrin, one of Pike Township's supervisors, notes: "Preserving open space benefits township residents in many ways. Removing parcels of land from subdivision helps to limit property tax increases which necessarily follow residential development due to the increased need for municipal and public school services. At the same time, open space preservation helps to reduce water runoff and flooding as well as the resulting damage to public and private property, and helps to keep our drinking water pure. Surface waters and adjacent watersheds are preserved for wildlife, benefiting not only hunters and fishermen, but all persons who love the outdoors. In short, saving open space preserves our rural landscape and way of life."

Development of the "100-Acre Farm" - Costs to the Community

Calculate the Public School Costs for the Development

100	Farm Area Acres
<u> x 0.66</u>	Dwelling Units per Acre (Average lot = 1.5 acres per home)
66	New Homes
<u> x \$7,526</u>	Public School Costs Per Home
\$496,716	Public School Costs for the 66 New Homes Per Year

Calculate the Public School Revenues from the Development

66	New Homes
<u> x \$3,377</u>	Average School Tax Revenues Per Home (RE and EIT)
\$222,882	Public School Revenues for the 66 Homes Per Year

Calculate the Annual Net Shortfall from the Development

\$222,882 (revenues) - \$496,716 (costs) = -\$273,834 (shortfall) Per Year

Preservation of the "100-Acre Farm" - Savings for the Community

Purchase the Conservation Easements

Calculate the Cost to Purchase the Conservation Easements

100	Acres Purchased
<u> x \$16,982</u>	Average Cost Per Acre - Easements Purchase
\$1,698,200	Purchase Price of the Easements

Calculate the Break Even Period

\$1,698,200/\$273,834 (shortfall) = 6.2 Year Break Even Point

"Where do you want to explore today?"



Nearly 336,000 people in Berks County participate in some form of outdoor activity – that is 82% of our population!

This is based on the PA Department of Conservation and Natural Resources' Outdoors Report on participation rates for the most popular recreational activities. With rising gasoline prices and volatile economic cycles, having nature available close to home becomes even more critical for people who want recreation and relaxation.

\$47 million

Camping contributes to the Berks economy annually.

\$84 million

Wildlife watching contributes to the Berks economy annually.

\$63 million

Biking contributes to the Berks economy annually.

So What?

Outdoor Recreation

is increasing in Berks County.

Demand for outdoor recreation is increasing at the state and Berks County level and the natural resource capacity needs to be maintained and expanded to meet future demand.

What would happen if your favorite park or fishing spot would close due to new development or lack of funds?



According to Berks Countians:

- Trails were ranked #1 as “most important” in satisfying household recreational needs.
- Water quality and streams were ranked as “most important” natural resources to Berks County citizens in a survey, followed closely by scenic views.
- 73% (mean) of respondents in a county-wide survey agreed that parks, protected natural areas, and greenways & trails increase the value of nearby properties.
- Over 82% of survey respondents agreed that it is important to preserve habitat and create connections that will allow for the movement of wildlife.

Citizens Survey Results - Berks County Greenway, Park and Recreation Plan

What Now?

Currently only 39% of Berks County residents live within ¼ mile of a public park or recreation area. The National Park and Recreation Association (NRPA) recommends at minimum, municipalities should provide 6.25 – 10.5 acres of open space/recreational opportunities per 1,000 residents. 62% of the 73 municipalities in Berks are deficient for providing recreational facilities to their residents.

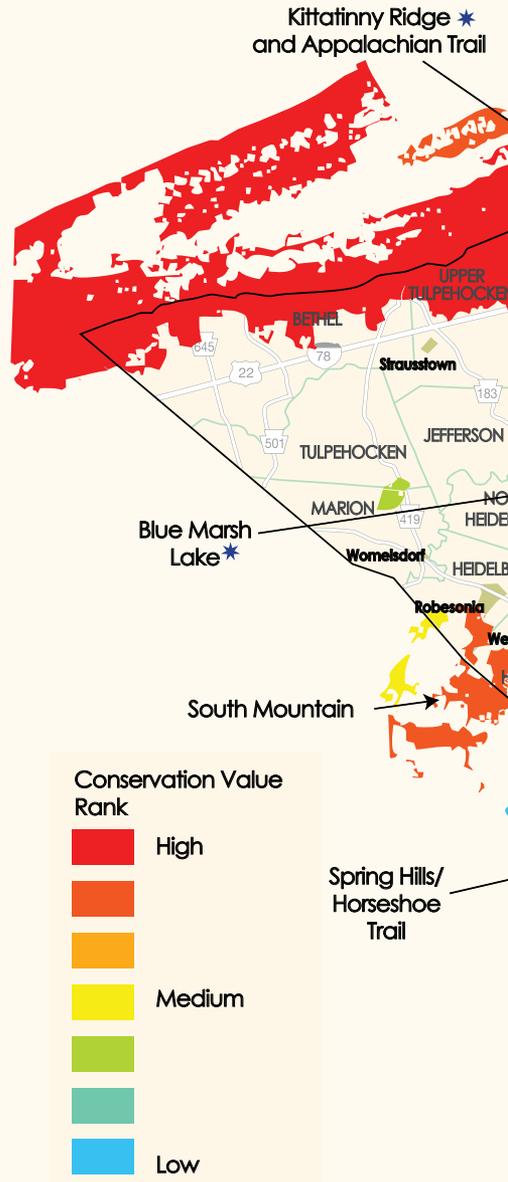
Implementation of the County Greenway, Park and Recreation plan and more connections and promotion are necessary to provide open space and recreational opportunities to the Berks county residents that better meet the national standard. Promote the public resources and volunteer to help maintain them. Local governments, agencies and non-profit organizations need to think across boundaries to utilize and promote greenways and recreation regionally.

High Conservation Value Areas

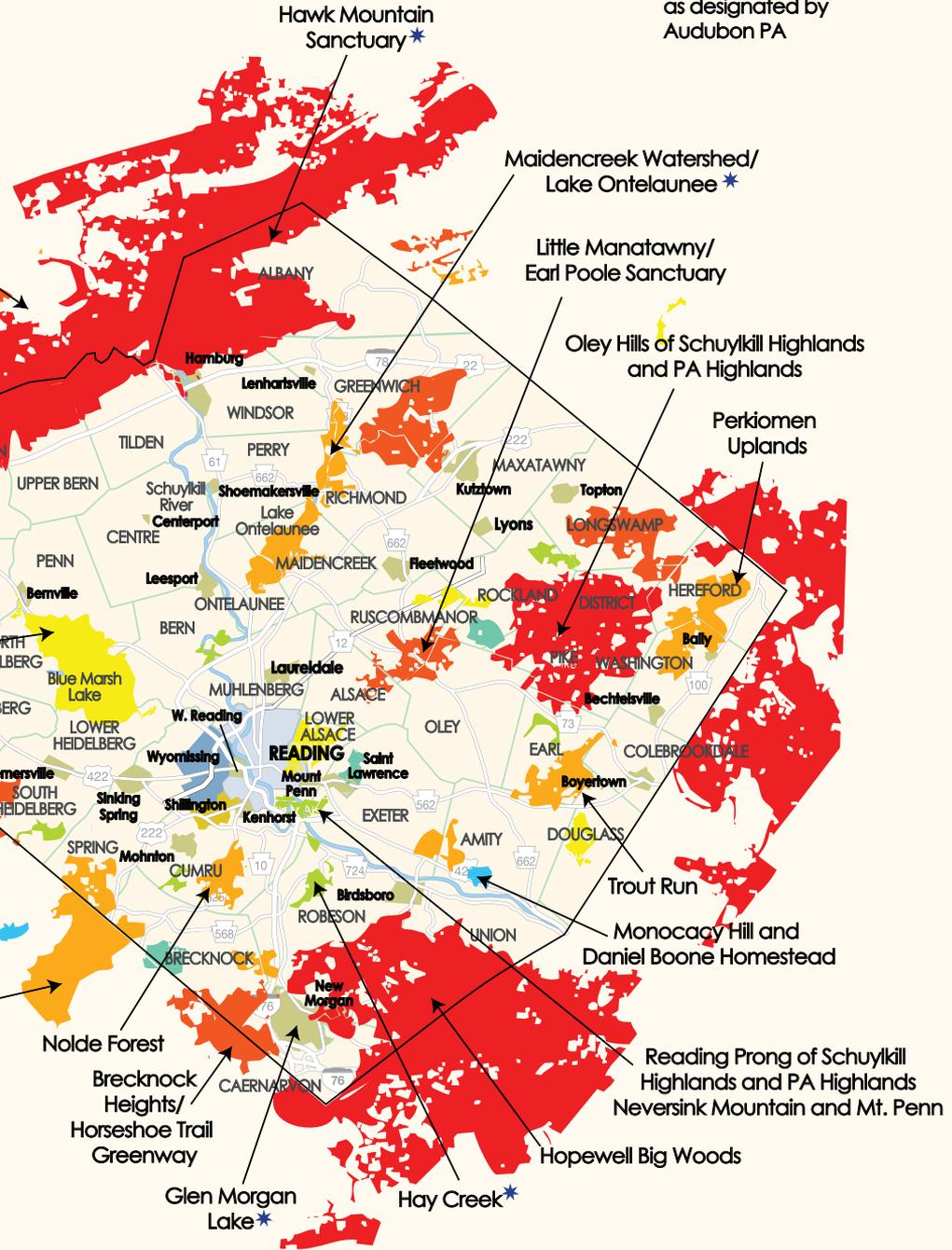
A Glance at our Natural Resources in Berks

Adopted in December of 2007, The Berks County Greenway, Park and Recreation Plan is an official element of *Berks Vision 2020: A Comprehensive Plan for the County of Berks*. The Plan sets specific goals for the direction Berks County should take to provide future open space, greenways, and recreation for its citizens. The Plan also provides recommendations for the identification, protection, and preservation of the County's historic sites and districts.

During the County planning and modeling process The three most important and largest, ecological areas identified for Berks County are the **Hopewell Big Woods**, **Oley Hills**, and the **Kittatinny Ridge**. These three areas contained more of the identified highest valued conservation areas for ecological habitat preservation than anywhere else within the County. **This map represents the top 20% of ecological value in Berks County.**



★ Important Bird Area (IBA) as designated by Audubon PA



Methodology and References

In 2009 the Kittatinny Ridge Alliance (comprised of the *Appalachian Mountain Club, Audubon Pennsylvania, Berks Conservancy, Schuylkill County Conservancy and Wildlands Conservancy*) decided to undertake a pilot study to see what conservation was contributing to local residents and the local economy. Using Berks County as a pilot, we found that the practice of protecting and restoring our best remaining natural areas makes significant economic sense. The higher the quality of the natural resource, the more residents and tourists are interested in the natural experience and the more value to the economy. The more mature the forest and the higher the percentage of native plants and biological diversity, the greater the natural system services. People love where they live more when the landscape is greener and there are more outdoor activities.

John Rogers of Keystone Conservation Trust, in association with his colleagues Todd Poole from 4WARD Planning, and Dan Miles of ECONSULT began to research “*Conservation’s Bottom Line*” with the goal of capturing a dollar value for the natural environment and quantifying the economic services and commercial market value to the local economy. John and his team utilized many public resources in gathering information. The team’s analysis looked at data from a bottom up and top down perspective, carefully calculating formulas based on Berks County population and statistics. Further, Keystone Conservation Trust and the Berks Conservancy held numerous focus groups to ground truth the data and findings among various user groups such as fishermen, hunters, outdoor enthusiasts, business and chamber colleagues and others. What is published here is our best effort at quantifying nature’s value to our local Berks County economy.

PAGES 4-5: Fishing and the Economy

PA Fish and Boat Commission www.fish.state.pa.us/

The Economic Impact of Travel and Tourism in Pennsylvania - Travel Year 2007 Global Insight in partnership with D.K, Shifflet & Associates Ltd.

PAGES 6-7: Water Treatment Costs

Trust for Public Land - www.tpl.org

The Cost of Not Protecting Water

PAGES 10-11: Riparian Buffers along Streams

SmartConservation™ Model

www.smartconservation.org - www.natlands.org

PAGES 12-13: Value of Trees

SmartConservation™ Model

www.smartconservation.org - www.natlands.org

US Department of Agriculture - www.usda.gov

Trees Pay Us Back in the Northeast Region

PAGES 16-17: Cost of Community Services

American Farmland Trust www.farmland.org

PAGES 18-19: Outdoor Industry Jobs

IMPLAN Economic Modeling System

U.S. Bureau of Economic Analysis

www.4wardplanning.com

PAGES 22-23: Outdoor Recreation

Department of Conservation and Natural

Resources www.paoutdoorrecplan.com

The Economic Impact of Travel and Tourism in Pennsylvania - Travel Year 2007 Global Insight in partnership with D.K, Shifflet & Associates Ltd.

Berks County Greenway, Park and Recreation Plan
Countywide Citizen Survey 2004

OTHER RESOURCES include data from the County of Berks, Schuylkill Action Network, Schuylkill River Greenway Association, and Berks Conservancy’s State of the Environment Vol. 1&2.



THE BERKS CONSERVANCY PROTECTS LAND AND WATER RESOURCES IN BERKS COUNTY.

The Berks Conservancy is a non-profit, charitable organization whose mission is to be the leading agent for the conservation of the environment in Berks County. The Berks Conservancy connects people to nature through trail creation, water protection, land use projects, community gardens, municipal relationships, and educational activities such as nature walks and summer camp. Learn more and get involved today!

HELP PROTECT OUR NATURAL RESOURCES
BECOME A MEMBER! www.berks-conservancy.org

Want to get more involved?

Become a member of Berks Conservancy at www.berks-conservancy.org.
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