

STATE OF THE ENVIRONMENT

• BERKS COUNTY, PA •

Learn what you can do to make Berks County greener through simple, everyday choices.



See the **progress.**
Take the **challenge.**

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About the Berks Conservancy

The Berks Conservancy is a non-profit organization whose mission is to be the leading agent for the conservation of the environment in Berks County. Serving the community since 1974, the Conservancy has established partnerships with businesses, municipalities across Berks County, community leaders and its 1000+ members to help protect special places, manage sensitive environmental habitats and encourage growth in the right places. Conservancy activities include land and water protection, municipal relationships, urban gardening, environmental education, support of the agricultural community, land management, GIS mapping, trail creation, and coordination of events for our members. To date, we have permanently preserved nearly 6000 acres through conservation easements, acquisitions, and transfers. As important as these land preservation efforts are, we also realize that a healthy community needs economic growth. By using our County's Comprehensive Plan as a guide, we continue to work with municipalities and developers to promote growth in the proper places, such as areas surrounding existing development and away from lands that have a high natural resource value. Most local residents that learn about the Berks Conservancy soon realize that it plays an important role in maintaining the unique characteristics that make Berks County a special place to live, work, and play.

Executive Summary

Hear the progress and take the challenge

Last year the Conservancy introduced a new program to the community – *State of the Environment in Berks*; and we asked people to “join the conversation” about the environment. The report evaluated specific data and trends in five environmental categories: Air, Energy, Land, Waste, and Water. Within each category, several specific quantitative indicators are evaluated using available data, trends in the data are assessed, and specific action items that residents can practice to make each specific indicator more “positive” are identified. The response to the program has been very positive and engaging. Our companion website www.greenberks.com has a full copy of the State of the Environment Report Volume 1 report which contains concrete, measurable data with local examples. The primary goal of the State of the Environment program is to raise awareness of conservation choices we can make in Berks that will improve the environment and this effort has been a catalyst for conversation about these issues throughout the community.

We knew when we embarked on this project that the data supporting each of our indicators would not change significantly in any given year and that we would most likely not issue a new published report on an annual basis. **In this year’s report we plan to showcase the progress made as a community toward improving these indicators by sharing amazing examples of how people have made a difference in the community this past year.**

Over the summer 2010, we held a “summit” for each indicator asking valued partners, experts and stakeholders from throughout the community to come together to discuss these issues with others. We were extremely pleased at how successful the summits were and how incredibly diverse our attendees were. Our goal for the summits was to collectively frame out an “environmental strategic plan” for our community and to address the following questions.

1. What is the priority order of the five sub-indicators?
2. What would it take to shift the numbers in a more positive direction? And/or how do we keep the rating at a “thumbs up”?
3. Who are the partners, organizations, businesses and interested individuals that should be involved in the conversation?
4. What is the plan? What action steps need to be taken to move these indicators in a positive direction? What is a reasonable timeline?
5. Are there new environmental threats that should be looked at? Or are there indicators that weren’t included in the initial report that should be included at this point in time?
6. What can the general public do to help? What actionable data is out there to engage general citizenry in the care for our environment?

The answers to these questions are contained in this State of the Environment Report Volume 2 publication along with two new features:

The **ACTION ITEMS** developed on each page underscore what can and needs to be done to move priority indicators in a more positive direction. Those featured in this publication focus primarily on action steps that institutions, schools, businesses, and local governments can take; while our “Take the Challenge” will focus primarily on individuals.

THUMBS UP IN THE COMMUNITY recognizes the good work that a particular institution, school, business or local government is doing to contribute to the health of the environment as they act as a positive role model for the change we’d like to see. What are you doing to join the “Thumbs Up Club?”

We invite institutions, local governments, schools and general citizens to take the challenge as we work to move these indicators in a more positive direction for our community. We hope you learn something new, consider changing some of your behaviors as a result, and invite you to become engaged in our work and that of other conservation and environmental organizations; the health of our community depends on it.

– Kim Murphy
President, Berks Conservancy

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Summary of Indicators

The following indicators are the same as we reported in 2009 with the exception of AIR. With new federal and state regulations initiated and further consultation with local experts and summit attendees we have decided to reorganize the AIR indicators to those listed below. A more detailed description can be found on page 10.

 **THUMBS UP**
This is generally encouraging; keep up the good work!

 **THUMBS DOWN**
This is not tracking the way we want to see it; hard work to do.

 **THUMBS NEUTRAL**
We'll need to track this a while longer to see what happens.

WATER

 1. Groundwater Elevations Groundwater at Fleetwood well relatively constant; Berks could use more monitoring wells.	 2. Miles of Impaired Streams About 361 miles of Berks streams and rivers are listed by PADEP as impaired.	 3. Source Water Protection Plans Only 6 of 63 community water suppliers have water protection plans so far.	 4. Act 537 Sewage Facility Plans Most Berks County 537 plans are more than 10 years old (updating is triggered by major change).	 5. Aquatic Life in Streams Measures of stream health based on organisms in Berks County streams are mixed.
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ENERGY

 1. Vehicle Miles Traveled Per Year Berks residents travel less in vehicles than State average; but number is increasing.	 2. Use of Public Transportation Berks residents use public transportation less than average PA resident.	 3. Energy Generation & Use Berks County relies mainly on fossil fuel for energy, with few alternative sources available.	 4. Household Energy Use Many Berks residents rely on fuel oil and electric for heat; and should consider alternative and more renewable sources.	 5. "Green" Construction Berks has only a few building projects that have been LEED-registered.
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AIR

 1. Number of "Bad" Air Days Number of "bad" air days this year increased, and some standards not attained.	 2. Lead Air Quality Portions of Berks County lead-in-air concentrations will be designated nonattainment.	 3. Air Toxics Air toxic levels in Berks County are lower than expected by EPA.	 4. Regional/National Air Pollution Continuing work needs to be done to address air pollution on the state and federal levels.	 5. Localized Air Pollution Continuing work needs to be done to address air pollution on the local level.
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WASTE

 1. Waste Generation Even with increased recycling, the percentage of waste generated in Berks is outpacing the percentage of population growth.	 2. Waste Disposal Tonnage of wastes disposed of in Berks declining slightly in recent years.	 3. Recycling Rate Recycling percentage for Berks County well over State goal of 35% for last three years.	 4. Special Waste Collections More participation and more special wastes collected as programs become known.	 5. Clean Up Our American Lands and Streams COALS cleanup program very successful.
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LAND

 1. Protected Land About 11 percent of Berks' lands are permanently protected.	 2. Tree Cover Forested lands make up the largest land-cover category in Berks County (236,014 acres or 42.6%).	 3. Impervious Cover More than 12% of the land in Berks County is classified as impervious cover.	 4. Multi-Municipal Cooperation Participation is high in joint comprehensive planning, zoning, and special planning.	 5. Outdoor Recreation Areas About 7% of Berks is classified as outdoor recreation. Connections and regional planning are necessary.
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Water

Many factors can impair our local waterways, including runoff from agriculture and land development, removal of vegetation, and misuse/overuse of pesticides and fertilizers. Conditions in surface waters reflect what is happening in the surrounding watershed, i.e., the land area that provides water to a particular stream or river. There are many ways to reduce the impact we have on the watershed that surrounds us. The following two priority indicators were selected by a team of local experts as areas in which the community and our partners can take action to make an immediate, positive impact for a greener Berks.

Priority #1

MILES OF IMPAIRED STREAMS

Over 25% of Berks County streams are considered impaired by the PA Department of Environmental Protection. Changes to the land surrounding streams can significantly improve the water quality of the stream. Agricultural impacts on surface waters can be reduced by using well-recognized best management practices (BMPs) — for example, stream bank fencing limits cattle access to the stream which prevents them from eroding the stream banks and degrading water quality. This past year, many partnerships have continued in Berks County to help farmers protect the streams on their properties.

For non-agricultural properties and owners, many of the same BMPs as recommended for farms apply to residential, commercial, and industrial sites. Try to minimize land disturbances and soil erosion, apply the minimum amounts of pesticides or fertilizers to achieve your objective, and don't discharge hazardous materials where they can enter the soil or surface waters. Although a direct connection may not always be self-evident, many contaminants can eventually make their way into drinking water supplies, whether such supplies are surface reservoirs or groundwater wells.

Priority #2

SOURCE WATER PROTECTION PLANS

The Source Water Protection Technical Assistance Program (SWPTAP) is available to all community water systems (groundwater and surface water) in Pennsylvania. Currently, there are six community water systems in Berks County with Source Water Protection Plans. There are four water systems in the county that are currently working on a plan. These ten systems serve over 50 percent of the population in Berks County using public water. Additionally, the protection zones for these water systems often include areas with private wells, so source water protection work completed by water systems benefits many private well owners, and best practices used by private land well owners will often benefit public water supplies. The hope is that the number of Berks County water systems with source water protection plans shows a substantial increase over the next few years.

INDICATORS



Groundwater Elevations

Groundwater at Fleetwood well relatively constant; Berks could use more monitoring wells.



Miles of Impaired Streams

About 361 miles of Berks streams and rivers are listed by PADEP as impaired.



Source Water Protection Plans

Only 6 of 63 community water suppliers have water protection plans so far.



Act 537 Sewage Facility Plans

Most Berks County 537 plans are more than 10 years old (updating is triggered by major change).



Aquatic Life in Streams

Measures of stream health based on organisms in Berks County streams are mixed.



THUMBS UP IN THE COMMUNITY!

- Schuylkill Action Network works to protect and restore Schuylkill Waters through partnerships with organizations, businesses and governments and continues to work with Berks County's agriculture restoration projects.
- The Berks Watershed Restoration Fund is a new effort that has been initiated to link businesses and individuals with farmers and landowners who are looking to incorporate best management practices (BMPs) into their operations.
- Western Berks Water Authority, Oley Township Municipal Authority, and Boyertown Municipal Authority are undertaking source water protection plans.
- Maiden Creek Watershed Association created a rain garden at the Maiden Creek Township municipal building and they published a riparian buffer brochure.

Tulpehocken Creek



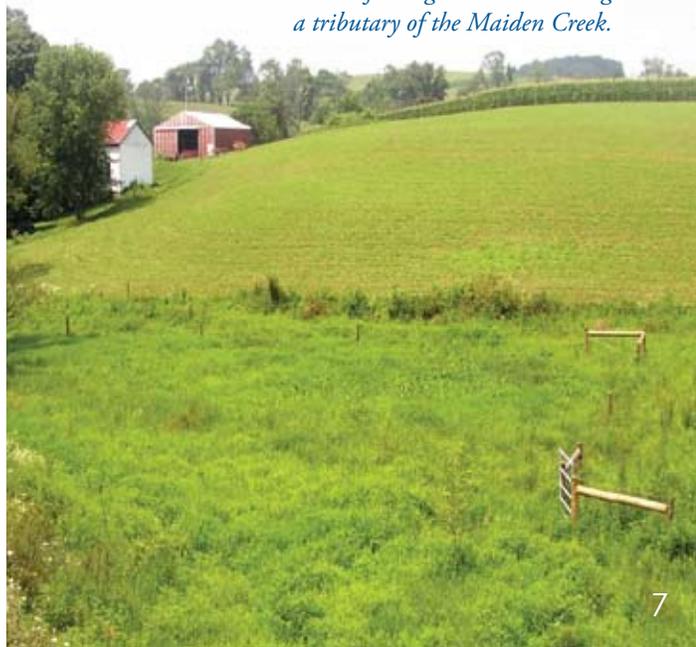
The line of trees and shrubs act as a buffer between the crops and Kutztown wellhead.



ACTION ITEMS

- Work with existing development, municipalities, private landowners, and school districts to retrofit stormwater facilities to enhance effectiveness and natural habitat of the sites. For example, discourage mowing and landscaping in and around existing stormwater facilities.
- If you own land (municipalities, private landowners, and school districts), learn how to create streamside buffers through the PA Department of Environmental Protection at www.depweb.state.pa.us. Search on Streamside Buffers.
- Work with farmers, the Berks County Conservation District, the Natural Resources Conservation Service, and the Schuylkill Action Network to promote proper manure management, soil management, and riparian corridor management on farms.
- Promote source water protection among private well owners, beginning in the watersheds of Exceptional Value/High Quality streams. It should be recognized that source water protection areas for community water supplies often overlap with areas using private wells, therefore source water protection work for private wells will often benefit community water systems, and vice versa. One example could be to coordinate and host Master Well Owner training sessions. For details on training sessions, visit <http://extension.psu.edu/water/mwon>.
- Encourage networking among community water systems to develop partnerships, share source water protection experiences and success stories, and develop collaborative projects.
- Community water systems should develop source water protection plans. Contact your water supplier to see if they have one. Funding is available from the PA DEP.

Planting of native vegetation and cattle exclusion fencing installation along a tributary of the Maiden Creek.



THUMBS UP IN THE COMMUNITY!



Kutztown community takes responsibility for their water supply

The water that surrounds us - lakes, rivers, streams, and aquifers - make up our drinking water sources. These source waters can be threatened by potential contaminants such as hazardous chemicals, stormwater runoff, waste disposal sites and underground storage tanks. In order to protect water wells and the surrounding area from pollution, and to protect public health, municipalities set ordinances that regulate use near wells. For example, gas stations, junkyards and landfills are kept at a safe distance from wells or public water systems. Farmers are encouraged to implement best management practices (BMPs) to minimize the effect agriculture has on surface and groundwater.

Partnerships are key to protect our water supply. Kutztown Borough created a Source Water Protection Plan in 2008 which lists the steps needed to protect the drinking water supply. Many different organizations and businesses simultaneously worked on projects to protect the water supply this past year. In 2009, Kutztown Borough embarked on implementation of their wellhead protection plan with the Berks Conservancy to buffer and enhance the Sacony Creek and borough's wellheads. With the help of Maiden Creek Watershed Association, Kutztown Middle School, Kutztown University's Environmental Action Club and Kutztown's Environmental Advisory Council, over 1,300 trees were planted as a riparian and wellhead buffer to help protect the borough's water supply and improve the quality of the Sacony Creek. By intercepting surface runoff, the riparian buffer removes or reduces the effects of excess nutrients, pesticides and other chemicals which could otherwise enter the waterway.

A recreational trail along the Sacony Creek was installed that leads to an observation deck with educational signs about water resources. Kutztown Schools utilize the trail to further the education with the school students.

Further upstream, the Schuylkill Action Network Agriculture Workgroup, which consists of partners such as the Environmental Protection Agency, Department of Environmental Protection, Reading Area Water Authority, SSM Group, Philadelphia Water Department, and the Berks County Conservation District worked with farmers on BMPs. Conservation and nutrient plans were completed for five farms to guide BMPs. Projects such as stream bank fencing, barnyard runoff controls, and manure storage were implemented. Saucony Meadows Apartments, located immediately adjacent to the borough's wellheads, also planted more trees as a buffer on their property. All of these actions made a difference to the water quality in Kutztown Borough.

Energy

Knowing what activities consume the most energy helps consumers identify how to prevent waste, reduce their energy costs and increase their energy efficiency. However, consumers are not alone in energy conservation. Companies, organizations and groups have a responsibility to increase their energy efficiency - from using fluorescent bulbs, energy efficient windows, and Energy Star appliances to more efficient product manufacturing and waste management. The following two priority indicators were selected by a team of local experts as areas in which the community and our partners can take action to make an immediate, positive impact for a greener Berks.

Priority #1

HOUSEHOLD ENERGY USE

Buildings consume most of the energy we use in a typical day. On average, a US home produces twice the carbon emissions as a US car. The industries and businesses where we work also use a great deal of energy. Most of this energy comes from burning fossil fuels and in the form of electricity, which is generated by a utility provider. For 2008, the US Energy Information Administration (EIA) ranked Pennsylvania 32nd for per capita energy use (310 million BTU), below the national average (327 million BTU).

In last year's report, we found that many Berks residents use electricity (16%) or fuel oil (45%) to heat their homes. While the number of gas customers is increasing, the heating demand has slowly decreased. This could indicate an increase in efficiency as people weatherize their homes and install high efficiency furnaces.

Energy use savings techniques can apply to organizations and businesses. Since many homes in Berks use fuel oil or electric heat, the data indicates that customers could be conserving fuel, installing more efficient appliances, or weatherizing their homes. Renewable energy can also be researched - such as sunlight, wind, rain, tides, and geothermal heat—which are naturally replenished.



Priority #2

NEW CONSTRUCTION WITH GREEN CERTIFICATION

Energy efficiency and conservation in our buildings is essential for lowering our carbon footprints. The best way to accomplish this is to build a new or retrofit restored buildings for being "green." There are 2 main organizations that certify buildings to a "green" environmental standard. One organization is National Association of Homebuilders. The NAHB provides 4 ratings of green certification for newly constructed homes. The other organization is US Green Building Council. The USGBC has developed the LEED certification system that can be applied to both residential and commercial buildings. New construction can be certified by an independent verifier, and the building becomes listed on the USGBC project directory. The Green Valley Elementary School and the Governor Mifflin Elementary School are two buildings in Berks County that recently acquired LEED certification.

The LEED project directory is a great resource to estimate the amount of green building in different locations. Businesses and schools are motivated to register with LEED so they can show their commitment to the environment and energy conservation. The di-

rectory has approximately 14 projects listed for Berks County. LEED certification encourages projects that re-use existing building sites, brownfields and/or urban areas in close proximity to public transportation and cultural districts, therefore LEED buildings are more common in urban areas. However, the Federal government has created grants for schools that incorporate energy efficient technology and sustainable design practices.

Contact Berks County's Home Builders Association at www.hbaberks.org for local resources. Learn more about green building techniques at the Berks Lancaster Green Building Association's website at www.blgba.org. They offer a growing network of resources and educational opportunities for those interested in reducing the environmental impact of buildings -- from construction and design to ultimate use and occupancy.



INDICATORS



Vehicle Miles Traveled Per Year

Berks residents travel less in vehicles than State average; but number is increasing.



Use of Public Transportation

Berks residents use public transportation less than average PA resident.



Energy Generation and Use

Berks County relies mainly on fossil fuel for energy, with few alternative sources available.



Household Energy Use

Many Berks residents rely on fuel oil and electric for heat; and should consider alternative and more renewable sources.



"Green" Construction

Berks has only a few building projects that have been LEED-registered.

THUMBS UP IN THE COMMUNITY!



Wyomissing Area School District energy conservation and saving

Wyomissing Area School District started an energy conservation program in March 2007 with the help of Energy Education Inc. (www.energyed.com) to reduce energy consumption and budget costs. Using remote HVAC controls through an Energy Management Systems (EMS) website, reducing the heating and air conditioning systems in the school buildings accounts for 60-70% of the savings. Monthly savings vary dependent on temperature, time of year, and number of school days per month, but the savings range between \$15,000-20,000 per month with an average yearly savings of about \$250,000.

Other ways that the school district saves money is by optimizing heating and cooling equipment, instituting holiday and summer electrical shutdowns of each building, getting electrical equipment and lighting turned off at the earliest possible time at the end of each day, performing weekly building audits to ensure effectiveness of the energy saving measures, and monitoring all utilities cost and consumption using customized computer software. These are many of the things that net the school the most savings, but they are constantly trying to make things better by continually looking for ways to enhance the HVAC controls system.

Green roofs provide ecological, aesthetic, and financial benefits

The Millmont Elementary & 6th Grade Magnet School in Reading has a “green roof” - a vegetated roof on the school. This roof was planted because the school has a focus on agriculture and ecology and the green roof areas became an effective means of providing stormwater management requirements onsite.

Green roofs serve several purposes for a building, such as absorbing rainwater, controlling stormwater runoff, conserving energy, providing insulation, creating a habitat for wildlife, and helping to lower urban air temperatures. The plantings are a combination of sedums including white stonecrop, blue spruce, and roseum.

Green roof at the Millmont Elementary and 6th Grade Magnet School, Reading School District



ACTION ITEMS

- Establish an Energy Curriculum or program at all Berks County schools that promotes energy conservation and efficiency.
- Become a certified Green Business through the Green Building Initiative. Visit www.thegbi.org for details.
- Municipalities should establish codes for residential windmill and solar, for example, allowing windmills over 35 feet.
- Commit to buying only EnergyStar and EPEAT certified PCs, laptops, and monitors. EPEAT is a program of the Green Electronics Council that helps purchasers evaluate, compare and select electronic products based on their environmental attributes. Visit them online at www.epeat.net.
- Establish a policy for a commuter tax benefit at your business. Visit www.pacommuterservices.com to get a workplace program started. They will help businesses find their employees commuting alternatives such as carpooling, walking or riding a bike.
- Establish mandatory building codes for new construction for energy efficiency and green “points” following the Boulder, Colorado city model (www.bouldercolorado.gov), search on “Green Building”.
- Attain LEED or Energy Star certification for new and existing buildings.
- Accelerate the implementation of the Berks County Bicycle and Pedestrian Plan, and prioritize the revisions provided by the Berks County Bicycle and Pedestrian Advisory Committee.
- Install bike racks and showers at your workplace to encourage employees to ride their bike or walk to work.
- Establish a green committee at your business. Start with simple things like installing motion sensors for lights in your workplace restrooms and conference rooms.
- Install a green roof. A green roof is a roof of a building that is partially or completely covered with vegetation and a growing medium, planted over a waterproofing membrane.
- When a vehicle fleet replacement is needed, only purchase hybrid or electric vehicles.

What are YOU doing to be GREEN ?

East Penn Manufacturing Company, Inc. operates its own transportation fleet out of Lyon Station, PA. To improve overall fuel efficiency (increased MPG) and reduce truck exhaust emissions (particulate matter, oxides of nitrogen and green house gases), a truck retrofitting project has been underway since 2008. The project involves retrofitting a total of forty Class 8 trucks with Auxiliary Idle Reduction System or Auxiliary Power Unit (APU). The systems will be maintained by East Penn Garage personnel/mechanics. The diesel fuel savings for one year is 52,800 gallons and the reduced emissions is 617 tons of green house gases, 328 lbs. of particulate matter and 15,407 lb. of oxides of nitrogen per year.

Air

The winds they are a changin' and we've decided to change with them. Air is the only category in which new federal and state regulations have been initiated. After further consultation with our local experts and summit attendees, we have decided to reorganize our 2009 indicators.

NUMBER OF "BAD AIR DAYS"

This indicator has been expanded to include four primary air pollutants of concern: Ozone, Fine Particles (PM_{2.5}), Nitrogen Dioxide (NO₂) and Sulfur Dioxide (SO₂). Ozone and PM_{2.5} pollution have been the most challenging air pollution problems facing Berks County for the past several years. The good news is that pollution levels have been dropping due to cleaner new cars and trucks, installation of scrubbers on large power plants to our west, and various state and federal regulations. Unfortunately the heat waves we have experienced this summer (2010) have resulted in high Ozone and PM_{2.5} pollution levels this year.

The US EPA established new air quality standards earlier this year for NO₂ and SO₂ pollution to protect the public from short-term high concentrations of these pollutants. Berks County is expected to meet the new NO₂ standard but not the new SO₂ standard, based on our review of the PA Department of Environmental Protection's (DEP) monitoring data for these pollutants. Violations of the new SO₂ standard in Berks County have been tied to operation of an old coal-fired power plant without a state of the art SO₂ scrubber (Titus Station) that reports more than 94% of the County's SO₂ emissions.

The PA DEP monitors all four of these pollutants in Berks County at their Reading Airport air monitoring site and we plan to use the DEP's monitoring data to compute the number of "bad air days" per year based on the Air Quality Index values for each of these four pollutants. The number of days which are classified "Moderate" and "Unhealthy" will be tracked for this Air indicator. Because of the high Ozone and PM_{2.5} levels experienced during this year's heat waves, and because the SO₂ pollution levels in Berks County are expected to violate the new SO₂ standard, this indicator is being assigned a Thumbs Down.

LEAD AIR QUALITY

Air quality lead concentrations have decreased over the past 30 years in large part due to the phase-out of leaded gasoline. However, lead concentrations in the vicinity of metals industries like lead smelters and battery manufacturers remain a concern. Berks County is home to two lead smelters and to multiple lead-acid battery plants. The PA DEP has proposed to designate two portions of Berks County as "nonattainment" with the 2008 Lead NAAQS standard. The good news is that the lead nonattainment areas are relatively small and that background lead levels measured at the Reading Airport and Kutztown University are well below the lead standard. Because portions of Berks County will be designated nonattainment, this indicator is being assigned a Thumbs Down.

AIR TOXICS

A new category has been added to encompass air pollutants that are classified as "air toxics". These pollutants include metals like cadmium, chromium, and manganese; organic compounds like benzene, trichloroethylene, and formaldehyde; and acid gases like hydrochloric acid and hydrogen fluoride. Air toxics have been in the news over the past two years due to concerns about cancer and non-cancer risks associated with elevated levels of these pollutants, particularly at schools. The US EPA has conducted several National Air Toxic Assessments (NATA) to compare predicted air toxic level among counties in the U.S. Berks County was predicted to have elevated levels of several air toxics and to have elevated cancer and non-cancer risks as a result. However, recent air toxic monitoring programs in Berks County conducted by the PA DEP and by PICEH (see story about PICEH's air monitoring programs on page 11) have shown that air toxic risks are lower than those predicted by the EPA in their NATA studies. In addition, recent air toxic sampling for hexavalent chromium by the EPA at a school in Reading have also shown much lower levels of this toxic than were previously estimated. Because air toxic levels in the County are lower than expected, this indicator is being assigned a Thumbs Up.

INDICATORS



Number of "Bad" Air Days
Number of "bad" air days this year increased, and some standards not attained.



Lead Air Quality
Portions of Berks County lead-in-air concentrations will be designated nonattainment.



Air Toxics
Air toxic levels in Berks County are lower than expected by EPA.



Regional/National Air Pollution
Continuing work needs to be done to address air pollution on the state and federal levels.



Localized Air Pollution
Continuing work needs to be done to address air pollution on the local level.

REGIONAL/NATIONAL AIR POLLUTION

A new category has been added to provide information regarding the significant impact transported pollution from upwind areas has on the county's air pollution levels. For example, it is estimated that more than half of our PM2.5 pollution levels are caused by secondary sulfate and nitrate aerosol pollution largely caused by coal-fired power plants located outside Berks County in western PA and along the Ohio River valley in Ohio, West Virginia, and Kentucky. The US EPA is addressing this long-range transported pollution from power plants under their recently proposed Transport Rule. The metric for this indicator is the percentage of PM2.5 pollution contributed by "secondary sulfate" and "secondary nitrate". The PA DEP operates a specialized PM2.5 monitor at their Reading Airport monitoring site which provides data necessary to calculate the secondary nitrate and sulfate aerosol percentages present in PM2.5 pollution. These percentages will be computed annually and trended to show the impacts of the federal rules on reducing the county's pollution levels due to transported regional pollution. Because of the significant contribution of regional pollution to our air quality, this indicator is being assigned a Thumbs Neutral to reflect the continuing work that needs to be done to address air pollution on the state and federal levels.

LOCALIZED AIR POLLUTION

A new category has been added to communicate the county's local air pollution issues. This is an area where local citizens and the Conservancy can make a significant impact. Because pollution from automobiles contribute significantly to air quality problems, it is important to consider the impacts on traffic congestion associated with land development decisions. Households have become increasingly dependent on the automobile for youth activities, transportation to schools, shopping and many other things that only a few decades ago were within walking distance. Other localized air pollution concerns include open burning (e.g., burn barrels), older wood stoves, and the use of wood "hydronic heaters". Education to discourage open burning and to promote the use of clean burning stoves and heaters can help improve local air pollution caused by these activities. One of the metrics that will be used to track this indicator will be the number of municipalities who have enacted open burning ordinances. Because of the contribution of localized air pollution to our air quality, this indicator is being assigned a Thumbs Neutral to reflect the continuing work that needs to be done to address air pollution at the local level.



ACTION ITEMS

- Encourage your school district to retrofit older school buses with diesel retrofit technologies to clean the air and protect children from harmful diesel exhaust fumes. The EPA provides funding for these projects. Visit www.epa.gov/cleanschoolbus.
- Encourage your company, suppliers, and distributors to join EPA's Smartway Logistics program to reduce fuel usage and costs associated with transportation of raw materials and products. Investigate diesel retrofit costs for your company's trucking fleet and installation of auxiliary power units to minimize diesel emissions during truck idling. For information, visit www.epa.gov/smartwaylogistics
- Promote clean indoor air for your employees and their families. Encourage employees to have their homes checked for radon and lead paint. Radon is the second leading cause of lung cancer after tobacco smoking. Lead paint in older homes is a huge risk to children and their intellectual development. Secondhand smoke exposure is a serious health hazard. For details, visit the American Lung Association at www.lungusa.org/healthy-air.
- Encourage your school district to implement EPA's Tools for Schools program to maintain a healthy environment in schools by identifying and addressing problems. For your free "School Action Kit", log on to www.epa.gov/iaq/schools.
- Join the Lehigh Valley-Berks Air Quality Partnership at www.lybcair.org. Advise others about what to do when Air Quality Action Days are declared. Reducing unnecessary driving, commuting or biking to work, avoiding activities like lawn mowing, use of aerosol spray products, and burning during Alerts should all be encouraged.

THUMBS UP IN THE COMMUNITY!



We've Got you Covered –
Air Quality Monitoring



Thumbs up to PA DEP (Department of Environmental Protection) for operating two air quality monitoring sites in Berks County where many counties have none; and PICEH (PA Institute for Children's Environmental Health) operates two other sites, in addition to conducting air toxic monitoring and conducting air toxic risk assessments. The reports from this monitoring data are amazingly complex, but the true value is not in the reports alone, but the idea that within Berks County we have the ability to do such work on an ongoing basis. This data can be used for future research. The average citizen who is concerned about air quality and their health can know that within Berks County experts working for PICEH, or other reputable research organizations are analyzing the air they breathe to determine its level of safety. The value of this is immeasurable and a testament not to one organization, but the many that saw a problem and are addressing it by first collecting reputable data.

Waste

Berks residents can reduce the waste they generate by reducing the number of disposable items they buy and use, and by recycling those materials that are accepted in their existing municipal or county recycling programs. It may not seem like much, but small changes in waste generation from lots of residents can add up to substantial reductions in the overall waste stream for the County.

The following two priority indicators were selected by a team of local experts as areas in which the community and our partners can take action to make an immediate, positive impact for a greener Berks.

Priority #1

SPECIAL WASTE COLLECTIONS

The Special Waste Collections implemented by the Berks County Solid Waste Authority have been effective in collecting hazardous wastes, electronic wastes, used tires and pharmaceuticals from residents and businesses. With the increase of awareness of these programs, participation has grown and the frequency of the collections has increased also. The Electronics Recycling Center now has a permanent location where residents can drop off items. Listed below is the complete list of special wastes that Berks County recycles.

- Household Hazardous Waste
- Pharmaceuticals
- Paper Shredding
- Tire Collection
- Electronics

(A new full-time Recycling Center located at 1316 Hilltop Rd. in Bern Township started. Visit website for details.)

Priority #2

RECYCLING RATE

Even though Berks County's recycling rate is above the state's average, there are easy ways to improve this indicator. For homeowners, make sure you know what items can be recycled, set up containers in your house or business for storage of recyclables, and know the municipal schedule for pick-ups (if that system is in place) or the location of other recycling centers throughout the County. For schools, institutions and businesses, there are many ways to save costs through recycling. Municipalities can expand recycling and yard waste collection programs. Businesses can be creative with bidding requirements by working with the cooperative purchasing council to negotiate waste/recycling contracts. Schools should establish or expand recycling programs to teach this habit at a young age.



Contact the Berks County
Solid Waste Authority office
for collection dates and times.
610-478-6362
www.co.berks.pa.us/swa

INDICATORS



Waste Generation
Even with increased recycling, the percentage of waste generated in Berks is outpacing the percentage of population growth.



Waste Disposal
Tonnage of wastes disposed of in Berks declining slightly in recent years.



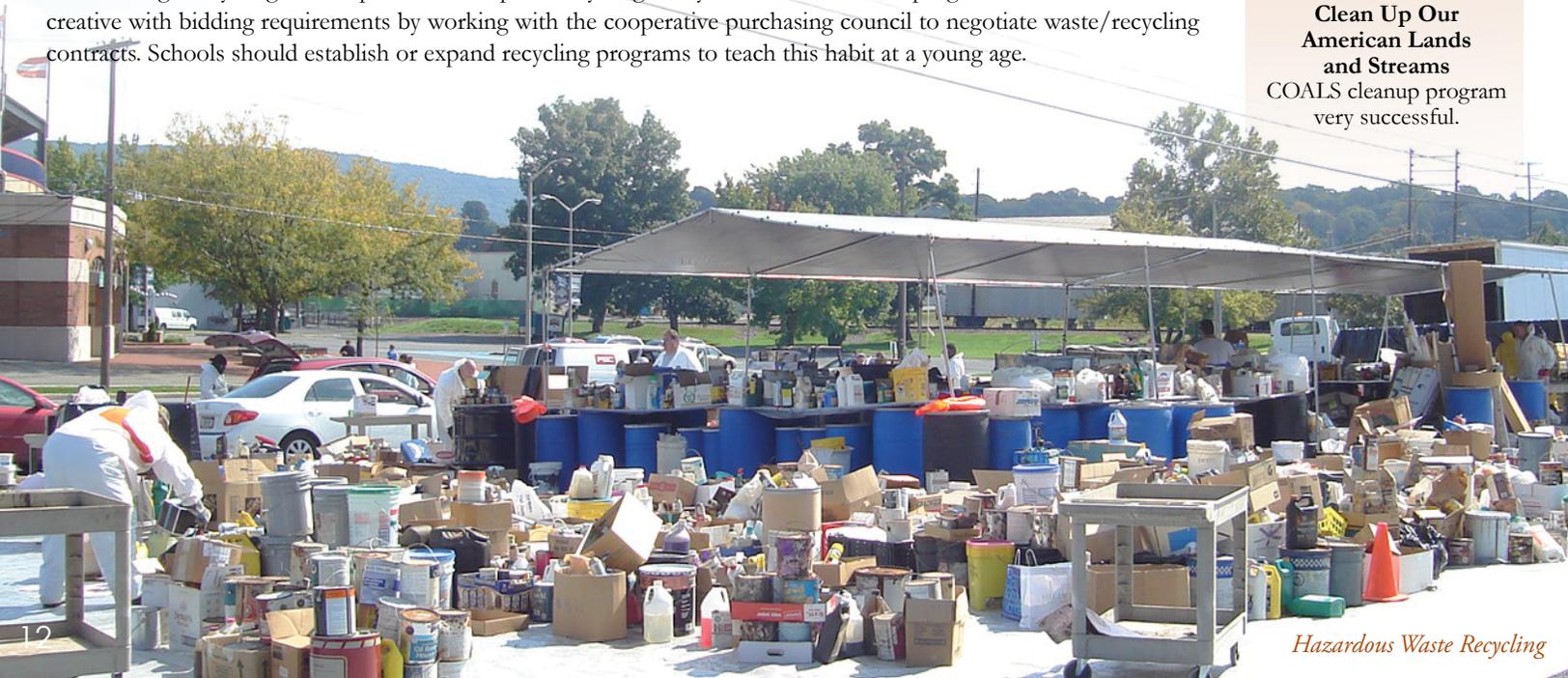
Recycling Rate
Recycling percentage for Berks County well over State goal of 35% for last three years.



Special Waste Collections
More participation and more special wastes collected as programs become known.



Clean Up Our American Lands and Streams
COALS cleanup program very successful.



Hazardous Waste Recycling

THUMBS UP IN THE COMMUNITY!



Conrad Weiser Recycling Program “Why Not, Weiser”

The recycling effort of the Conrad Weiser Area School District began as a pilot program in the district’s middle school. A team of six students from the Conrad Weiser Future Farmers of America (FFA) initiated the proposal with the help from a task force of students, district representatives and members from the county solid waste authority, PA Department of Environmental Protection and Environmental Protection Agency.



On Earth Day, 2008 the middle school launched their pilot recycling program focusing its efforts on the elimination of post consumer plastics from the waste stream. It was anticipated that this program would recycle approximately 750,000 milk jugs per year. When the pilot program began, it included the separation and collection of all pre and post consumer bottles and containers, food waste and the expansion of a paper recycling program in the classrooms and offices throughout the middle school building. After a successful pilot, the program was launched district wide in September of 2008. The recycling effort has been widely accepted in all four of the district’s buildings (two elementary, the middle school and high school) and has resulted in a new ethos of awareness of the need to properly handle both pre and post consumer wastes.

Measurable outcomes include:

- Reduction in the volume of trash from 122 to 76 cubic yards land filled per month, a difference of 38% and a savings of \$740 a month on trash hauling services.
- Water has been saved due to the elimination of running garbage disposals.
- Recycling nearly 100% of all cardboard, 80% of metal, plastic drink bottles and paper. Success is evidenced by the over 750,000 plastic milk containers that will be recycled this school year.

Public School District Recycling

School District	Paper	Commingled	Food Waste	Electronics	Batteries	Light Bulbs	Chemicals	Other
Antietam	Yes	Yes	No	Yes	Yes	Yes	Yes	Corrugated cardboard
Boyertown	Yes	Yes	No	Yes	Yes	Yes	Yes	Corrugated cardboard, Scrap metals
Brandywine	Yes	No	No	Yes	Yes	No	No	Aluminum cans collected by students
Conrad Weiser	Yes	Yes	Yes	Yes	Yes	Yes	No	Corrugated cardboard, Scrap metals
Daniel Boone	Yes	Yes	No	Yes	Yes	Yes	Yes	Scrap metals
Exeter	Yes	Yes	No	Yes	Yes	No	Yes	Corrugated cardboard, Scrap metals
Fleetwood	Yes	Yes	No	Yes	Yes	Yes	Yes	Corrugated cardboard, Scrap metals
Governor Mifflin	Yes	Yes	No	Yes	Yes	Yes	Yes	Scrap metals
Hamburg	Yes	Yes	No	Yes	Yes	Some	Yes	Cardboard, Newspaper, Scrap metals
Kutztown	Yes	Yes	No	Yes	Yes	Yes	Yes	Corrugated cardboard, Scrap metals
Muhlenberg	Yes	Yes	No	Yes	Yes	Yes	Yes	Metals, Cardboard, Construction waste
Oley	Yes	Yes	No	Yes	Yes	Yes	Yes	
Reading	Yes	Yes	No	Yes	Yes	No	Yes	Cardboard, Food cans, Scrap metals
Schuylkill Valley	Yes	Yes	No	Yes	Yes	Some	Yes	
Tulpehocken	Yes	Yes	No	Yes	Yes	Yes	Yes	Cardboard, Scrap metals
Twin Valley	Yes	Yes	No	No data	-----	-----	-----	
Wilson	Yes	Yes	No	Yes	Yes	Yes	Yes	Cardboard, Rainwater
Wyomissing	Yes	Yes	No	Yes	Yes	Yes	Yes	



ACTION ITEMS

- Make sure your municipality reports all of its recycling to the Berks County Solid Waste Authority at swa@countyofberks.com or 610-478-6362.
- Tell all of your employees and colleagues about Berks County’s new Electronics Recycling Center and use it often! www.co.berks.pa.us/swa
- Challenge your Purchasing Department to consider the effect packaging has on the waste stream and support purchasing changes that are greener.
- As a municipality, always include information on types of materials that are recyclable and drop-off locations in your newsletter to better educate your residents. Include and promote yard waste recycling in your municipality.
- Learn about Waste to Energy Technology and contact your local legislator(s) in support of local Waste to Energy Programs.
- Refer to the chart below and encourage your school district to develop additional recycling programs as other local schools have done. It can save the district money and is good for the environment.



Land

Berks County is blessed with abundant natural resources: forested ridges, numerous streams and rivers, fertile topsoil, and abundant rainfall. Thousands of acres of land in Berks County are protected through a combination of county ownership and land protection programs. Despite the vast inventory of public resources in Berks, much of the federal and state land is located along the periphery of the county, and in some cases municipal recreation land is not evenly distributed among its neighborhoods making accessibility problematic for many Berks County residents.

The following two priority indicators were selected by a team of local experts as areas in which the community and our partners can take action to make an immediate, positive impact for a greener Berks.

Priority #1

OUTDOOR RECREATION AREAS

Compared to the National Park and Recreation Association (NPRA), at a minimum, municipalities should provide 6.25 to 10.5 acres of open space/recreational opportunities per 1,000 population. In comparison to this standard, countywide we average 8 acres of local close-to-home recreation space per 1,000 persons. However, at a municipal level 62% of the 73 municipalities in Berks are deficient for providing recreational facilities to their residents - 16 of them provide no recreational facilities at all. More connections, promotion and regional planning are necessary to provide open space and recreational opportunities to the Berks County residents that meet the national standard.

Priority #2

IMPERVIOUS COVER

Impervious surfaces are roadways, driveways, parking lots, buildings, and other areas where natural movement of rainwater into the soil is partially or completely blocked. 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 runoff. This latter effect is commonly referred to as “non-point source pollution.”

More than 12% of the land in Berks County is classified as impervious cover. The densest areas of impervious cover are, as expected, in urban areas and along major roadways. Although Berks County is not considered highly developed, more than 10 percent of the land is considered impervious.

One way to reduce impervious cover is to plant more native trees. A new matching grant program (TreeVitalize) through the PA Department of Conservation and Natural Resources (DCNR) helps municipalities increase tree cover by sharing the expense. The following grants to plant trees have been awarded September 2010:

City of Reading	\$25,000
Wyomissing Borough	\$20,299
West Reading Borough	\$6,000
Borough of Wernersville	\$2,400

Municipalities can apply at www.treevitalize.net.

Shiloh Hills



INDICATORS



Protected Land
About 11 percent of Berks' lands are permanently protected.



Tree Cover
Forested lands make up the largest land-cover category in Berks County (236,014 acres or 42.6%).



Impervious Cover
More than 12% of the land in Berks County is classified as impervious cover.



Multi-Municipal Cooperation
Participation is high in joint comprehensive planning, zoning, and special planning.



Outdoor Recreation Areas
About 7% of Berks is classified as outdoor recreation. Connections and regional planning are necessary.

THUMBS UP IN THE COMMUNITY!

In the past year, many additions and improvements have happened in the outdoor recreation areas of Berks County including:

- Antietam Lake County Park acquisition and near completion of Master Plan
- Jim Dietrich Park, Muhlenberg, starting Phase II of new park
- Improvements to City Park Bandshell in Reading
- Angelica Trail completed from Angelica Park to Ken-Grill Pool in Kenhorst
- Draft Bike-Ped Transportation Plan was updated
- Muhlenberg rail trail in process of being finished
- Berks County is upgrading Stonecliffe Recreation Area
- Shiloh Hills Park and trails opened in Spring Township
- Gravity Trail from Neversink Mountain to Antietam Lake upgrades

THUMBS UP IN THE COMMUNITY!



Municipal partnerships in Berks help to achieve balanced communities

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. Communication and partnerships among these municipalities, school districts, corporations, and the involvement of individual residents have blossomed over the past year. The following is a sampling of recent municipal partnerships that we will encourage more of in Berks:

- Brecknock Township has an “out of the box” approach to land protection. The township sub-contracted with the Berks Conservancy real estate staff to work with landowners to acquire conservation easements on important landscapes in their community. For the township, this was an important investment that will provide benefit for many generations to come. This model can be replicated in any Berks community.

- Berks County established a Conservation Zoning Incentive Program (CZIP) that provides technical and financial assistance to municipalities to enact effective conservation zoning regulations to protect natural resource areas such as steep slopes, riparian buffer regulations, and new development clustering.

Municipalities that have Conservation Zoning Compliant Standards:

Upper Bern Township*	Lower Heidelberg Township
Pike Township	South Heidelberg Township
Penn Township*	Wernersville Borough
Hereford Township*	Spring Township
Cumru Township*	* completed through Berks County
Windsor Township*	

Municipalities in the process of completing CZIP through the County:

- Colebrookdale Township
- Pike Township
- Boyertown Borough
- Robeson Township

- Nearly every municipality in Berks has participated in at least one Municipal Networking for Conservation event over the past 18 months. These quarterly events are designed to engage municipalities in educational discussions and projects that will encourage local conservation. Municipal managers, elected officials, planning commissions, and environmental advisory council members are all encouraged to attend. The Berks Conservancy hosts these events with the involvement of many local partners.

Berks Conservancy worked with volunteers at the fall Tree Planting event at Grings Mill Recreation Area.



ACTION ITEMS

- Encourage your school district to work with other school districts and municipalities to discuss planning and sharing of facilities/resources.
- Challenge your municipality to institute a rain barrel incentive program. You can order a rain barrel and recycle at the same time! The Berks County Conservation District with help from the Berks County Prison is re-using 55-gallon plastic barrels and converting them into rain barrels. The cost is \$75.00. You can order them by calling 610-372-4657.
- Support your local farms by buying local produce which improves your quality of life.
- Advocate the repositioning of parks/recreation as an essential service with your local officials.
- Encourage educational leaders to institute planning and environmental education in schools.
- Challenge your economic development organizations to promote quality of place by illustrating economic advantages of our natural resources such as trails and streams.
- Encourage your municipality to use Smart Growth by reusing vacant commercial/institutional buildings instead of building new structures/infrastructure.
- Contact your municipality to learn how you can reduce your storm water runoff by retrofitting your parking lots and impervious cover.
- Plant more native trees. A new matching grant program (TreeVitalize) through the PA Department of Conservation and Natural Resources (DCNR) helps municipalities increase tree cover by sharing the expense. Apply for a TreeVitalize Matching Grant to increase tree cover in your area. For application details, visit www.treevitalize.net.

What are YOU doing to be GREEN ?

This fall, the Berks Conservancy planted trees with volunteers along the Tulpehocken Creek at the Berks Leisure Area of Grings Mill Recreation Area to improve the water quality. This will improve the water quality and aquatic habitat of the Tully (below Blue Marsh Dam) by establishing a healthy 20 foot wide riparian buffer, where none currently exists. This section of the Tully sustains an exceptional trout population and is known regionally for its fishing opportunities – a \$40 million annual business in Berks. Improving the stream quality will further enhance this habitat, and recreational opportunity.

Summit Attendees

*Thank you for attending the
State of the Environment Summits!*

AIR

Gavin Biebuyck, Liberty Environmental, Inc.
Mike Golembiewski, Berks County Planning Commission
Troy Greiss, East Penn Manufacturing Co., Inc.
Craig Hafer, Pennsylvania Institute
for Children's Environmental Health
Kim Lewis, Berks Conservancy
Kim Murphy, Berks Conservancy
Lorri Swan, Berks Conservancy

ENERGY

Karen Baxter, Met Ed, A FirstEnergy Company
Eugene Carroll, UGI Utilities, Inc.
Brian Falcon, Berks-Lancaster Green Building Assoc.
John Hill, Muhlenberg Greene Architects, Inc.
Jim Kurtz, Reading Electric
Kim Lewis, Berks Conservancy
Rick Mappin, Berks County Community Foundation
Kim Murphy, Berks Conservancy
Jim McTish, PA Department of Environmental Protection
Tracey Perry, UGI Utilities, Inc.
Sean Saffle, PA Commuter Services
Tami Shimp, Berks Conservancy
Lorri Swan, Berks Conservancy
Eleanor Sweeney, Nolde Forest EE Center
Bill Vitale, DesignWorks Architects, PC
June Winston, Nolde Sustainable Energy Committee
Jason Zerbe, EnerSys

LAND

John Hackman, Berks Conservancy
Terry Hand, Berks Conservancy Board
Tami Hildebrand, Berks County Ag Land Preservation
Judy Houck, Spring Township Parks & Recreation
Glenn Knoblauch, Berks County Planning Commission
Chris Lessig, Berks County Parks & Rec Department
Kim Lewis, Berks Conservancy
Chuck Liedike, Reading-Berks Association of Realtors
Neil McNutt, Muhlenberg Township Parks & Recreation
Sheila Miller, County of Berks Ag Coordinator
Kim Murphy, Berks Conservancy
Kate O'Brien, Berks County Conservation District
Ron Rohrbach, Home Builders Association of Berks
Josh Seidel, Berks Conservancy intern
Tami Shimp, Berks Conservancy
Pamela Shupp, Berks Economic Partnership
Lorri Swan, Berks Conservancy

WASTE

John Kramer, Center for Community Leadership
Kim Lewis, Berks Conservancy
Mike Maiolie, Department of Environmental Protection
Leon Mazurie, Spring Township Manager
Jane Meeks, Berks County Solid Waste Authority
Kim Murphy, Berks Conservancy
Karen Parish, Berks Conservancy Environment Committee
Adam Serfass, Conrad Weiser Ag. Dept.
Tami Shimp, Berks Conservancy
Lorri Swan, Berks Conservancy
Geoffrey Zolna, City of Reading Solid Waste Manager
Dave Zwicky, W.D. Zwicky & Son

*Kim Murphy leads the conversation
at the Water Summit*



WATER

Elaine Bartholomew, Maiden Creek Watershed Association
Chip Bilger, Western Berks Water Authority
Matt Bixler, SSM Group, Inc.
Jim Cinelli, Liberty Environmental, Inc.
Craig Darosh, PA American Water
Eric Grindrod, SSM Group, Inc.
Tim Keeler, The Keeler Company
Eric Konzelmann, Berks County Conservation District
Andy Longenecker, Liberty Environmental, Inc.
Bob Ludgate, Sr., Ludgate Engineering
Kim Lewis, Berks Conservancy
Larry Lloyd, Berks Conservancy
Terry Maenza, PA American Water
Kim Murphy, Berks Conservancy
Kate O'Brien, Berks County Conservation District
Lyn O'Hare, SSM Group, Inc.
Steve Riley, Entech Engineering
Tami Shimp, Berks Conservancy
Lorri Swan, Berks Conservancy

Sponsors

The Berks Conservancy would like to thank the following businesses, individuals and foundations for their support of our State of the Environment in Berks program. Your support of our organization and this initiative is greatly appreciated. Through this support, the Berks Conservancy will continue to raise awareness of conservation choices we can make in Berks that will improve the environment.

Presenting Sponsor \$15,000

The Metropolitan Edison Sustainable Energy Fund of the Berks County Community Foundation

\$2,500

Entech Engineering
UGI

\$1,000

East Penn Manufacturing Co. Inc.
Fromuth Tennis
M&T Bank
SSM Group, Inc.

\$500

Bosco's Department Store, Inc.
Carpenter Technology Corp.
Metro Bank
Pennsylvania American Water
Susquehanna Bank
VF Outlet, Inc.

\$250

Anewalt's Landscape Contracting
Bellairs Real Estate
C.H. Briggs Company
DesignWorks Architects, PC
Fulton Bank - Great Valley Division
Herbein & Company
Muhlenberg Greene Architects
Olsen Design Group Architects
Securus Dunlop Group
The Keeler Company, Inc.
Tray-Pak Corporation
Wert Investment Consulting Group -
Wells Fargo Advisors

Other

Geissler Tree Farms Inc.
Go Fish! Seafood Market & Sushi Bar
Great Valley Consultants
Keystone Instant Printing
Martha Aynardi
Pioneer Crossing Landfill

This project was financed in part by a grant from the Commonwealth of Pennsylvania, Department of Community and Economic Development.

The Berks Conservancy is grateful for the support of the William Penn Foundation. They have helped to make our projects and partnerships a great success.

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TAKE THE CHALLENGE

FOR A GREENER BERKS

Whether you are a municipality, school or other organization, we challenge you to implement these action items for a greener Berks County. Let the Berks Conservancy know what you did and we will feature you in an upcoming GreenBerks.com news. Submit your story to info@berks-conservancy.org.

WATER

- Implement one practice to retrofit stormwater facilities to enhance effectiveness and natural habitat of the sites. For example, discourage mowing and landscaping in and around existing stormwater facilities or building a retention area to receive parking lot runoff.
- Create a streamside buffer if you own land (municipalities, private landowners, and school districts). Learn how to create streamside buffers through the PA Department of Environmental Protection at www.depweb.state.pa.us. Search on Streamside Buffers.
- Co-ordinate and host Master Well Owner training sessions for private well owners. For details on hosting training sessions, visit <http://extension.psu.edu/water/mwon>.
- Network among community water systems to develop partnerships, share source water protection experiences and success stories, and develop collaborative projects.
- Contact your water supplier to see if they have a source water protection plan. Funding is available from the state. Visit www.depweb.state.pa.us. Search on Source Water.

ENERGY

- Establish an Energy Curriculum or program at your school that promotes energy conservation and efficiency.
- Commit to buying only EnergyStar and EPEAT certified PCs, laptops, and monitors. Visit them online at www.epeat.net.
- For municipalities, establish codes for residential windmill and solar, for example, allowing windmills over 35 feet.
- At your work, establish a policy for a commuter tax benefit at your business. Visit www.pacommuterservices.com to get a workplace program started. They will help businesses find their employees commuting alternatives such as carpooling, walking or riding a bike.
- Attain LEED or Energy Star certification for new and existing construction for schools and businesses.
- At work, install bike racks and showers at your workplace to encourage employees to ride their bike or walk to work.
- Establish a green committee at your business. Start with simple things like installing motion sensors for lights in your workplace restrooms and conference rooms.
- Install a green roof.
- When a vehicle fleet replacement is needed or even a company car, only purchase hybrid or electric vehicles.

AIR

- For school districts, retrofit older school buses with diesel retrofit technologies to clean the air and protect children from harmful diesel exhaust fumes. Visit www.epa.gov/cleanschoolbus.
- Join EPA's Smartway Logistics program to reduce fuel usage and costs associated with transportation of raw materials and products. For information, visit www.epa.gov/smartwaylogistics
- Promote clean indoor air for your employees and their families. Encourage employees to have their homes checked for radon and lead paint. Visit the American Lung Assoc. at www.lungusa.org.
- For school districts, implement EPA's Tools for Schools program to maintain a healthy environment in schools. Order your free "School Action Kit", log on to www.epa.gov/iaq/schools.
- Join the Lehigh Valley-Berks Air Quality Partnership at www.lvbcair.org. Advise others about what to do when Air Quality Action Days are declared.

WASTE

- Encourage your school district to develop additional recycling programs as other local schools have done. It can save the district money and is good for the environment.
- Make sure your municipality reports all of its recycling to the Berks County Solid Waste Authority at swa@countyofberks.com.
- Tell all of your employees and colleagues about Berks County's new Electronics Recycling Center at www.co.berks.pa.us/swa
- Challenge your Purchasing Department to support purchasing changes that are greener.
- As a municipality, always include information on types of materials that are recyclable and drop-off locations in your newsletter to better educate your residents.
- Learn about Waste to Energy Technology and contact your local legislator(s) in support of local Waste to Energy Programs.
- Include and promote yard waste recycling in your municipality.

LAND

- Encourage your school district to work with other school districts and municipalities to discuss planning and sharing of facilities.
- Purchase a rain barrel from the Berks County Conservation District. The cost is \$75.00. You can order them by calling 610-372-4657.
- Encourage educational leaders to institute planning and environmental education in schools.
- Challenge your economic development organizations to promote quality of place by illustrating economic advantages of our natural resources such as trails and streams.
- Encourage your municipality to use Smart Growth by reusing vacant commercial/institutional buildings instead of building new ones.
- Reduce your storm water runoff by retrofitting your parking lots and impervious cover.
- Apply for a TreeVitalize Matching Grant to increase tree cover in your area. For application details, visit www.treevitalize.net.

TAKE THE CHALLENGE

FOR A GREENER BERKS



Want to get more involved? Become a member of Berks Conservancy at www.berks-conservancy.org.

For regular "Going Green" tips and local on-line conversations, visit GreenBerks.com.



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Reading, PA 19601

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