



WATERSHED RESTORATION
REVIVING A WATERSHED AREA



PUBLIC ENEMY #3
KUDZU
THE PLANT THAT ATE THE SOUTH



WHY SO MANY DEER?
PT. II
WHAT ONE TOWN IS DOING ABOUT IT



WAIT! I THOUGHT THAT FARM WAS PRESERVED
IS THAT ALLOWED?

CONSERVATOR

Celebrating Summer

Summer in Bucks County is a vibrant time of the year. With abundant sunshine, long days, and warm temperatures, it is cherished for its blooming nature, outdoor activities, and the chance to create lasting memories with loved ones. The season's joyful and carefree ambiance makes it a much-



anticipated time of the year for many people. It all begins with the summer solstice which occurs around June 21st in the Northern Hemisphere (December 21st in the Southern Hemisphere) and marks not only the day with the longest period of daylight, but the official start of summer.

The Summer Solstice

During summer, the Earth's axial tilt is such that the hemisphere experiencing summer is tilted towards the Sun, resulting in more direct sunlight and higher temperatures. On the summer solstice the North Pole is tilted closest to the sun, and the sun is at its highest point in the sky at noon. This day has the longest daylight hours and the position of the noontime sun changes very little for several days. The term "solstice" is derived from the Latin words "sol" (sun) and "sistere" (to stand still), indicating the apparent pause of the Sun's movement during this period.

[Find out more about the Summer Solstice](#)

[A guide to summer fun in Bucks Co.](#)

Watershed Restoration

The US Geological Service defines a watershed as "an area of land that drains all the streams and rainfall to a common outlet such as the outflow of a reservoir, mouth of a bay, or any point along a stream." A watershed restoration repairs the dynamic function and integrity of the area within a watershed area. It involves a combination of conservation, rehabilitation, and management efforts to address various environmental issues and restore the natural balance and ecological soundness of the watershed.

Some of the key steps and strategies involved in restoring a watershed include:

Conduct a comprehensive watershed assessment of the watershed area to identify current environmental conditions, water quality issues, sources of pollution, erosion-prone areas, and the health of aquatic habitats and species.

Engaging all relevant stakeholders, including local communities, government agencies, conservation organizations, landowners, and businesses, to ensure collaboration and support for the restoration efforts.

Establishing a monitoring program to regularly track water quality in the area.

Protecting and restoring critical lands within the watershed, including wetlands and natural habitats. This includes creating or enhancing riparian buffers along stream banks. Also **improving stormwater management** practices to reduce runoff and implementing erosion control measures in areas prone to erosion.

Implement habitat restoration projects by controlling and managing invasive plants and animals that negatively impact native ecosystems and biodiversity.

Establish a long-term monitoring plan that continuously monitors the watershed's health and the effectiveness of the restoration efforts. Use the data that is collected to adjust and refine strategies as needed.

Watershed restoration is a coordinated endeavor that requires commitment, resources, and cooperation from multiple stakeholders. By restoring watersheds, we can protect and improve water quality, preserve habitats, and ensure the long-term sustainability of valuable natural resources.

Did you Know?

Click and Learn



[PA is home to the first nationally chartered bank: The Bank of North America, established 1781](#)



[Tun Tavern in Philadelphia was the birthplace of the United States Marine Corp](#)



[We are the "Keystone State" because of our central location among the](#)

Watershed Restoration in PA

In 2012, PA established a fund to finance watershed restoration and protection projects. The Watershed Restoration and Protection Program (WRPP) is a state-funded program aimed at supporting projects that focus on restoring and protecting the state's watersheds. The program is administered by the Pennsylvania Department of Environmental Protection (PA DEP).

[Click here for WRPP Guidelines](#)

Here in Bucks County, The Conservation District Watershed Management Program is actively involved in various watershed restoration initiatives to protect and enhance the health of the county's water resources. Specific projects and programs include the Achey Mill Dam Removal/Streambank Stabilization Project, the Bradford Lake Water Chestnut Control Project, and the Cooks Run Restoration Project.

[Learn more about BCCD watershed management](#)

In our next issue we will report on the Aquetong Creek Watershed restoration.

Bucks 100 Road Rally

The 2023 Bucks 100 road rally will be held on Sunday, October 1st, rain or shine. The rally will start at the Solebury Township Building located at 3092 Sugas Road, East Lot, New Hope, PA.

Check-in is at 10:00 am. First car off at 11:00 am.

Our popular road rally is a great way to explore the highways and byways of scenic Bucks County. We recommend you bring along a friend to help you navigate our scenic roads and provide assistance with trivia questions along the way. The competition is based on accuracy and not speed.

[What is a Road Rally?](#)

The entry fee is \$35 per car for advance reservations and \$40 on the day of the rally. This is a family friendly event and car clubs are welcome.

Ermentrout Retires



On April 18, 2023, longtime Board member Laurie Ermentrout stepped down after serving sixteen years on the LTBC Board.

Laurie joined the Board in 2007. She was the former President of E&S MedEd Group and held management roles at several medical education and technology companies.

As a small nonprofit, we rely heavily on volunteers and Laurie was amongst our strongest and most dedicated. We wish to express our gratitude for her invaluable service to this Board, her leadership as President, and her commitment to land conservation. A trainer of champion mini longhaired Dachshunds, we wish her success in all her future endeavors. Laurie will be missed.

Michael Brady Memorial

On May 20, 2023, former colleagues, friends, and family joined together at Aquetong Spring Park in New Hope to dedicate a tree in honor of longtime friend and LTBC Board member Michael Brady who passed away in January 2021.



The tree is a London planetree (*Platanus × acerifolia*): the British capital's most common tree and a hybrid of the American sycamore (*Platanus occidentalis*) and Oriental planetree (*Platanus orientalis*). Michael's farm in New Hope is called Sycamore Farm and the London planetree was selected as a living tribute to the man and the preserved farm he loved. It is also resistant to Sycamore anthracnose: a disease that threatens American sycamores.

[Learn more about Sycamore anthracnose](#)

After a distinguished career in teaching and consulting, Michael dedicated his time in retirement to land preservation. He started with the Land Trust of Bucks County as a volunteer monitor, served as a Board member, and became President in 2016.

Michael Brady believed in this organization and supported our mission through action. His absence is still felt to this day.

We want to thank Solebury Township for its help and generosity in creating this memorial.

Hazardous Waste Recycling

Stuff. Comedian George Carlin said that the meaning of life is trying to find a place to put our stuff. With time we accumulate stuff including household items that are no longer used. Aerosol cans, pesticides, batteries, paint cans, motor oil, light bulbs, and other chemicals are just a few of the items that we tend to store. They need to be disposed of safely and properly, but how do we do that?

The good news is there are free Household Hazardous Waste (HHW) collection events held here in Bucks County that make it easy to dispose of hazardous items. The reclamation and reuse of these hazardous materials is good for the environment and good for us.

Think of all the shelf space you will have for more stuff.

[Learn more about hazardous waste recycling](#)

[2023 Bucks County collection events](#)

Public Enemy No. 3

Public enemy #3 in our series on invasive species is Kudzu (*Pueraria montana*): an invasive vine native to East Asia. It belongs to the legume family, is related to the pea, and was first introduced to the United States during the Philadelphia Centennial Exposition of 1876 where it was promoted as a useful plant for erosion control and as a forage crop.



Planted extensively in the first half of the 20th century, it was promoted by the Soil Conservation Service in the 1930s as a way to control farm soil erosion during the dust storms. In fact, the service paid farmers up to \$8.00 per acre to plant the vine as a cover crop. It was also used to cover and stabilize embankments.

As popular as Kudzu was—there was even a Kudzu Club of America in the 1940s with over 20,000 members—the vine spread so

quickly throughout the southeastern United States that in 1953 the USDA removed kudzu from its list of permitted cover plants. In 1962 it was further restricted and by 1970 it was listed as a common weed. In 1997 it was placed on the Federal Noxious Weed list. In PA, Kudzu is classified as a high invasive risk of ecological and economical concern. Kudzu is a great example of good intentions gone wrong.

The Problem with Kudzu

Kudzu is a perennial climbing vine with large trifoliate leaves and a deep extensive root system that helps it survive and spread rapidly. It produces small purple flowers in late summer that are attractive to pollinators. It can grow up to several feet per day and uses tendrils to climb and cover surrounding vegetation, trees, and structures. Its astounding rate of growth earned it the nickname "the plant that ate the south".

Kudzu outcompetes other plants for light, water, and nutrients. It will quickly smother native vegetation leading to a loss of biodiversity and a disruption of natural ecosystems. Left unchecked, it can damage agricultural lands and forests.

Kudzu is challenging to control and eradicate once established. Small areas can be controlled with weeding, mowing, or grazing. Grazing animals will eat Kudzu and eventually control the plant. Larger areas that cannot be grazed should be cut close to the ground and treated with an approved herbicide. Contact the PA Department of Agriculture for information and advice on safely dealing with Kudzu.

The Governor's Invasive Species Council has proposed a permanent state-funded regional invasive species management program for minimizing the damage caused by invasive species. The Partnerships for Regional Invasive Species Management (PRISM) program, if funded, proposes a regional approach to managing and eradicating invasive species. Similar programs have been successful in other states.

[Find out more about PA's PRISM program](#)

Wait! I Thought That Farm Was Preserved

By Kate M. Harper, Esq.

Every now and then—usually when land protected by a conservation or agricultural easement changes hands—the new owner begins to carry out new or different activities on the land and the neighbors are surprised and then angered by what they perceive as prohibited land uses taking place on a farm they thought was preserved.

Their reaction is certainly understandable, but it doesn't answer the big question: "Are they allowed to do that?"



Agricultural preservation easements, conservation easements, restrictive covenants and the local zoning ordinance can all have a profound effect on what a property owner can do with his land. Other than the local zoning ordinance—which can be found on the township's website or by talking to the elected officials or the zoning officer—a restriction on real estate must be written down and then the document is recorded at the Recorder of Deeds office, so the restriction is a publicly available document to be read by anyone. It is said to "run with the land," and becomes a part of the title to the land, binding future owners "in perpetuity."

Sometimes the new property owners themselves have not actually READ the document that restricts what activities can lawfully be carried out on the land. They are shocked to discover they can't cut trees down here, or put up a fence or horse shed there. "I thought I just couldn't subdivide it and develop it, and I'm NOT," they say when someone complains. But that doesn't answer the question, "Are they allowed to do that?" It all depends on (1) what the document actually says and (2) who has the power and the obligation to enforce the restriction.

Conservation easements sometimes allow certain activities on a portion of the land, and restrict it in other places. There might be a "standard protection area" that permits residential uses and even construction and a "highest protection area" which requires the land to be kept in its natural state. The original conservation easement might have been donated by the landowner to a conservancy or land trust and only the conservancy or land trust has the power to enforce its restrictions. The original landowner and the conservancy might have negotiated the terms of the conservation easement, but it is binding on subsequent owners. Land trusts inspect those properties at least once a year to make sure the new landowner adheres to the requirements of the conservation easement. They are empowered to enforce the restrictions if there's a problem.

Agricultural easements are often drafted by the Pennsylvania Department of Agriculture to promote agricultural activities and are purchased from a farmer actively engaged in farming. The agricultural easement can be enforced by the County or the state, but is usually inspected annually by the county and enforced by the County. However, because it deals with a business—agriculture is an important



part of Pennsylvania’s economy—if the current landowner is actively engaged in agricultural activities, even activities that smell, exclude the public, or make noise, the complaint of activity might not violate the terms of the agricultural easement even if it’s not pleasant for its neighbors.

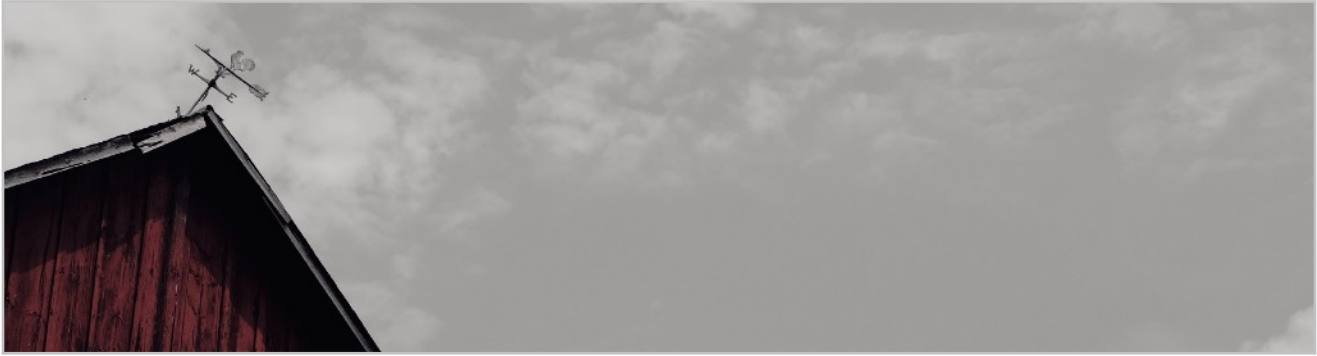


In places like Bucks County, operating a farm next to a residential subdivision can be a challenge for both the farmer and the neighbors. Residential neighbors might trespass or encroach on the farmer’s lands, or permit their children to come into contact with farm animals without supervision, and might honestly be surprised when activities like fertilization or harvesting smell or make noise or do both. The farmer who owns a farm preserved by an agricultural easement might not have any choice but to continue what he’s doing in order to keep the farm—preserved in perpetuity against being used as anything else—profitable.

There are situations, however, where owners of a preserved property are using it for activities that require a large piece of land but which are *not* normal agricultural activities, such as assembling road building materials or landscaping loads not produced on the farm and not intended to be used on the farm. It’s questionable whether these activities are “agriculture” or something else. If so, the County might bring an enforcement action to stop the activities that are not agricultural.

In suburban Philadelphia, some large landowners use their preserved lands for generating income from “agritainment,” or entertainment venues that utilize farm themes or holiday themes. This is generally a zoning issue if a conservation easement or agricultural preservation easement doesn’t apply.

Does the Township permit composting in the agricultural zone? Does it permit hayrides, pony rides, firewood sales, farm sales and even farm stores? Some do. Some don't. The individual locally elected township supervisors make those kinds of decisions. If what the landowner is doing violates the zoning ordinance, then the Township can file a code enforcement action to stop it. It's important to remember, however, that merely "running a business" on the farm or land is not enough by itself. If the zoning ordinance permits farming (and it must) then neighbors must understand that agriculture is, itself, a business.



PA has a Right to Farm or ACRE Law (Agriculture, Communities and Local Environment) that lets a farmer have a local ordinance restricting normal farming activities tested by the PA Attorney General who may sue to have the ordinance invalidated. The Attorney General can render an opinion that will help the local government bring its ordinances into line with the state law which generally does not allow restrictions on normal farming operations.

So, can the landowner do that? Well, it's complicated. The recorded conservation easement deed, or agricultural preservation deed or zoning ordinance must be reviewed before the question can be answered. A landowner of preserved land must comply with ALL restrictions on his land--- the zoning, the conservation or agricultural easement or a deed restriction and the landowner is not protected by the Right to Farm law if a previous owner accepted a conservation easement that is more restrictive than the local ordinances.

In the meantime, it's good for our communities to have lands preserved for their environmental or agricultural values and conservancies such as the Land Trust of Bucks County who actively encourage open space preservation and help keep the lands they steward open.

Catherine "Kate" M. Harper, Esq. is a partner at Timoney Knox LLP

Why So Many Deer? Pt II

In a follow up to our spring newsletter article, Why so Many Deer? we decided to take an in-depth look at what one municipality in Bucks County, specifically Solebury Township, is doing to aggressively control its deer population. We sat down recently with Nate Spence from the USDA Wildlife Services who is actively managing deer damage in Solebury through a cooperative service agreement the Township has with the agency.



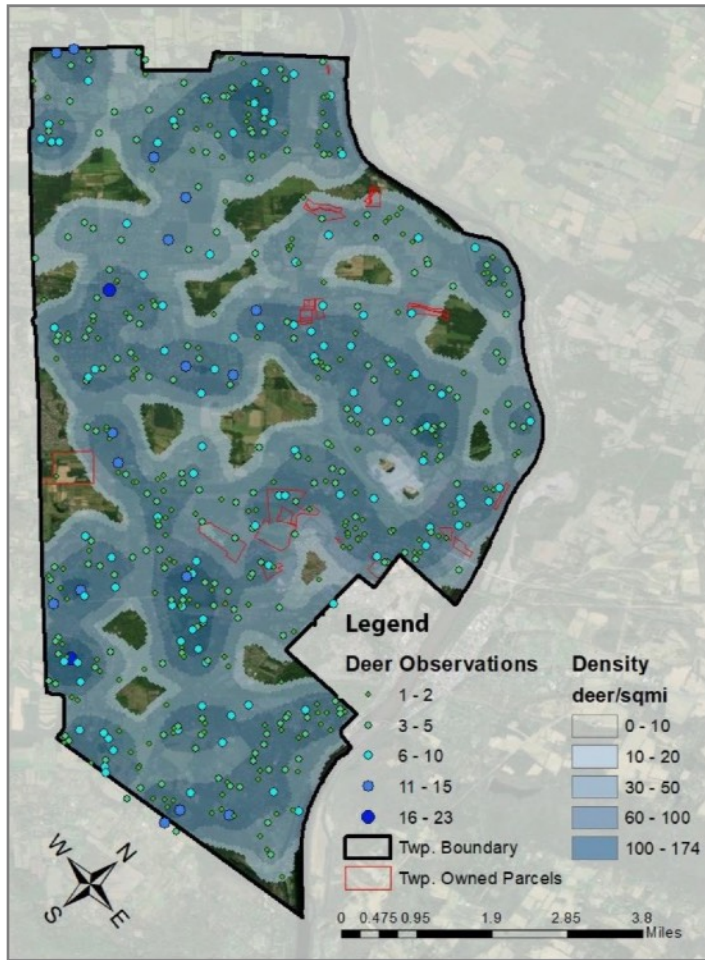
When asked about the progression of Solebury Township's deer damage management approach, here is what he had to say:

Although recreational sport-hunting occurs annually within the Township on both public and private land, the exploding deer population was recognized as problematic and costly due to the increase in property damage and deer-vehicle incidents. The Township initially attempted to address the issue by increasing hunter harvests using auxiliary tags/permits in addition to the statewide licensing program. Although additional management tags were provided to hunters, deer related damages remained elevated and alternative solutions were discussed.

In a somewhat controversial decision, Solebury Township and the USDA initiated a professional deer damage reduction program. USDA representatives would safely, humanely and rapidly decrease the deer population utilizing specialized equipment such as suppressed firearms and forward looking infrared to engage deer on properties willing to participate in the effort. USDA deer removal operations for this project were structured to be conducted after the traditional deer hunting season outlined by The Pennsylvania Game Commission and continue through the end of April.

Initially the Township chose to assess current deer density so as to develop a baseline for management effort comparison. An infrared drone survey was conducted by The Raritan Valley Community College Center for Environmental Studies in March of 2021. That survey indicated an elevated inventory of 2,054 deer or 76 deer per square mile:

As the sport-hunting program continued and USDA deer removal was conducted, RVCC provided a subsequent drone survey which evidenced a reduction in population down to 1,231 in 2023 or 45 deer per square mile. In 20 months, this dynamic effort of deer management between traditional sport-



hunting and USDA deer removal harvested over 1,500 deer throughout the Township, a 40% population reduction with no reproductive rebound. All deer harvested by USDA operations were processed and donated to local charitable food outlets which distributed over 35,000 pounds of lean protein during this project. Solebury Township will continue to rely on traditional sport-hunting to maintain the reduction in deer damages while funding supplemental USDA deer removal on a smaller scale annually.

Figure 1 - local deer density within Solebury Township in 2021 based on a 1.0 M² maximum home range size

The overall goal of this project was never to eradicate deer from Solebury Township as evidenced in the 2023 survey results but moreover to drastically reduce associated deer damages. One metric utilized to indicate program success and track progress toward established goals are police reports related to deer-vehicle incidents which observed a 50% reduction following initial

USDA deer removal in 2022 (figure 2) As this trend continues YTD 2023, roadway safety increases in addition to the well-being of deer that would have otherwise been compromised by a collision situation.

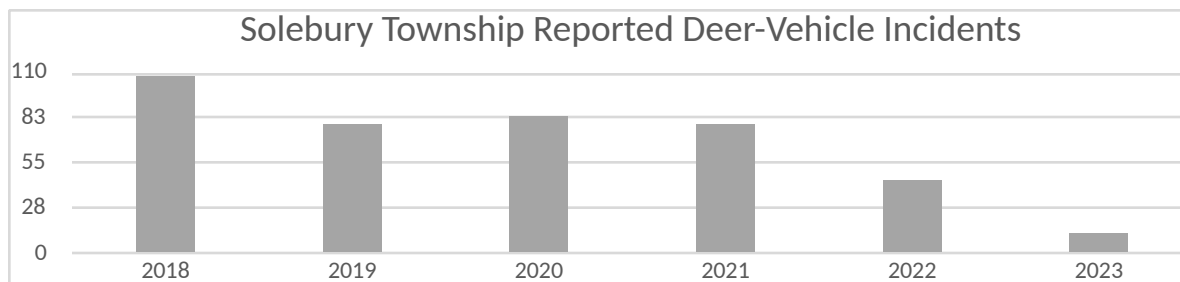


Fig. 2

Solebury Township’s agricultural community is also seeing benefits such as increased crop yields and the ability to bring certain crops such as soybeans and alfalfa hay back into rotation that could not be planted due to deer damage. This reduction in damage enables properties to be economically farmed that were historically utilized for low-income mulch hay. The downward trend in deer damage will also provide reduced landscaping losses in residential areas and more importantly, restore the balance of plant and animal species affected by deer overgrazing and the associated depletion of plant species

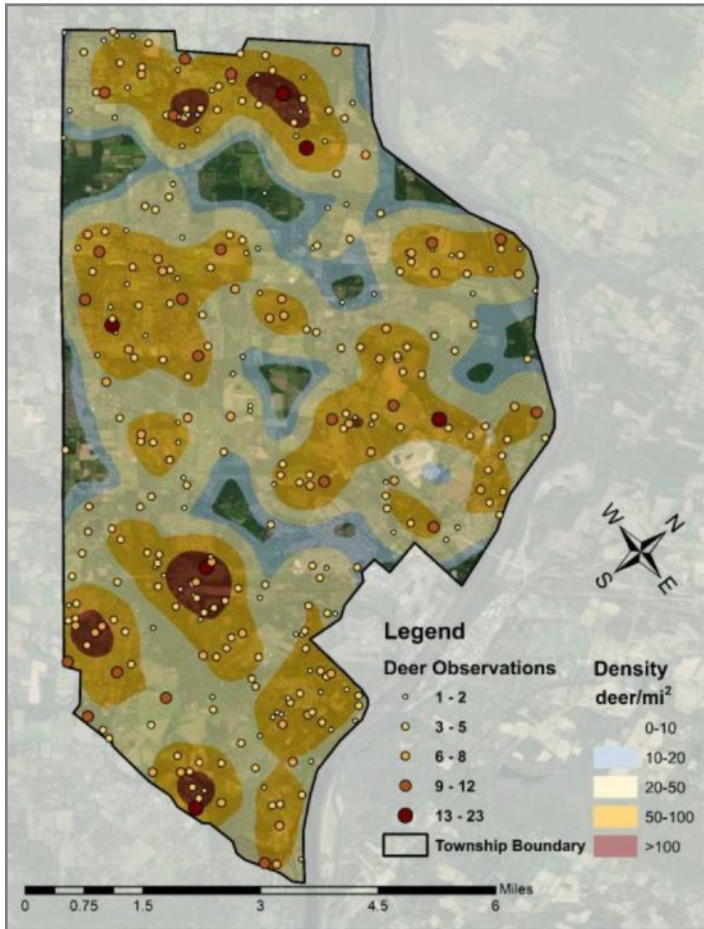


Figure 3 - Local deer densities within Solebury Township in 2023 based on a 1.0 M² maximum home range size.

The Land Trust of Bucks County currently co-holds over 70 conservation easements in Solebury Township which are monitored annually by walking the properties. Land Trust monitors have observed first-hand the positive impact of Solebury’s deer management program. They have noticed not only fewer deer sightings while inspecting the woodlands, but a denser and more diverse understory.

The success of this program is recognized and supported by landowners and farmers who currently have long-standing contracts on properties within Solebury Township.

While not without cost to the taxpayers, the Land Trust of Bucks County can confirm the program's significant benefits to the Township and the properties it preserves.

You Are Needed

You have heard it before: Bucks County is beautiful and we play a vital role in keeping it that way. The Land Trust of Bucks County conserves natural lands, working farms, and heritage—for our heritage—for the future of Bucks County.

2023 Membership Drive

We need new members. You can become a member of the Land Trust of Bucks County by contributing any amount. When you visit our donate page you will see recommended membership levels, but any amount will allow you to join the organization.

Your membership dollars go directly to preserving and protecting the land we love. You *are* needed, and you can help to conserve and protect our land and water every single day. Please visit our website and give what you can.

The Land Trust of Bucks County, a 501(c)(3) nonprofit organization, was established in 1997 by a small group of local residents to protect and preserve what makes Bucks County special. It's about the land.

*Give to the
land you love*

LAND TRUST
of Bucks County

[Click Here](#)