

The year 2017 was once again a productive year for the Warrington Environmental Advisory Council (WEAC). With the support of active members, and many other volunteers, we were able to obtain two grants to support our programs, hold a highly successful Community Service Day, naturalize detention basins and enhance one of the Township Trails.

## Return on the Environment

Protected open spaces – public parks, preserved farmland and private conserved lands – provide substantial economic, environmental and public health benefits to surrounding communities. These benefits, however, are generally not well understood and are often undervalued in policy debates, investment decisions and personal choices. In the interest of fostering a better understanding of these benefits, Warrington Township is conducting a study to estimate the economic value generated by protected open space.

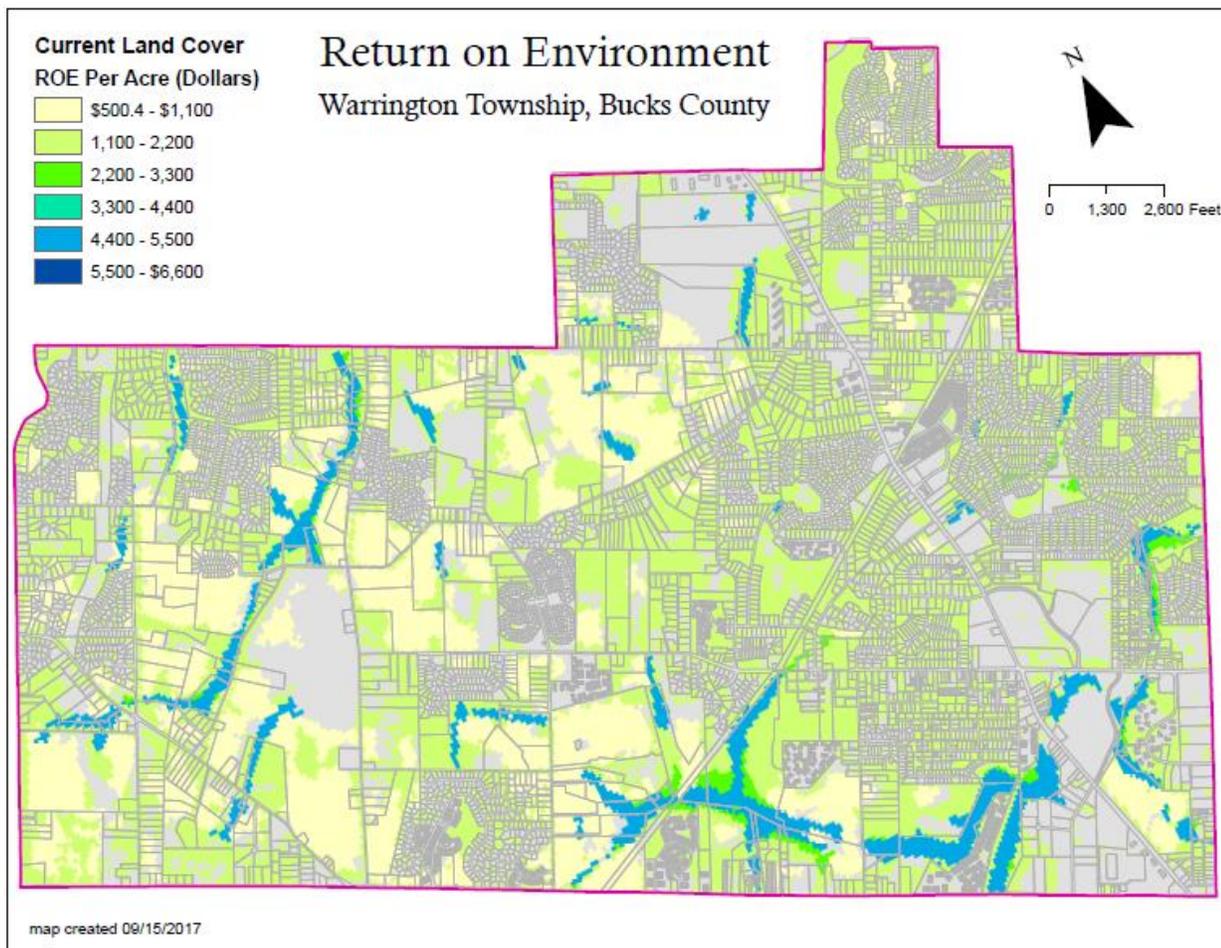
Just as financial analysts express return on investment, Return on Environment studies (ROE) explain nature's invisible financial value in terms everyone can understand. As a result, policy makers, businesses and residents begin to see natural systems as a portfolio of financial assets, rather than a commodity or added expense.

Protected open space provides value in the form of natural system services provided by nature, free of charge. Warrington Township's forests, wetlands and stream valleys are productive assets that generate millions of dollars annually in avoided costs for water supply, stormwater and flood management, erosion control, nutrient uptake, aquatic and upland habitat, pollination and biological control.

Warrington Township's open spaces are more than just pretty places. They are productive assets that generate significant economic value. Open spaces positively affect property values, they also reduce stormwater runoff which improves water quality. In addition, there are increased revenues from outdoor sports and other activities. Open Spaces provide additional benefits to public health because of improved air and water quality.

A report prepared for Warrington by Keystone Conservation Trust shows that just by protecting these lands, the Township is providing cleaner water, and improving air quality; just these benefits account for over \$10 million dollars each year. If we add in the additional benefits from using some of these lands for outdoor recreation these lands provide an additional \$31 million. By factoring in the avoided health care costs from outdoor recreation adds an additional 17 million. Total estimated benefits exceed \$58 million. Once lost these services maybe irreplaceable.

This study estimates the avoided costs associated with these services. These financial values are based on what people and government have been willing to pay for these services in other situations. Once lost, regaining nature's full capacity can take fifty to one hundred years. In the meantime, these services must be replaced at the taxpayers' expense.



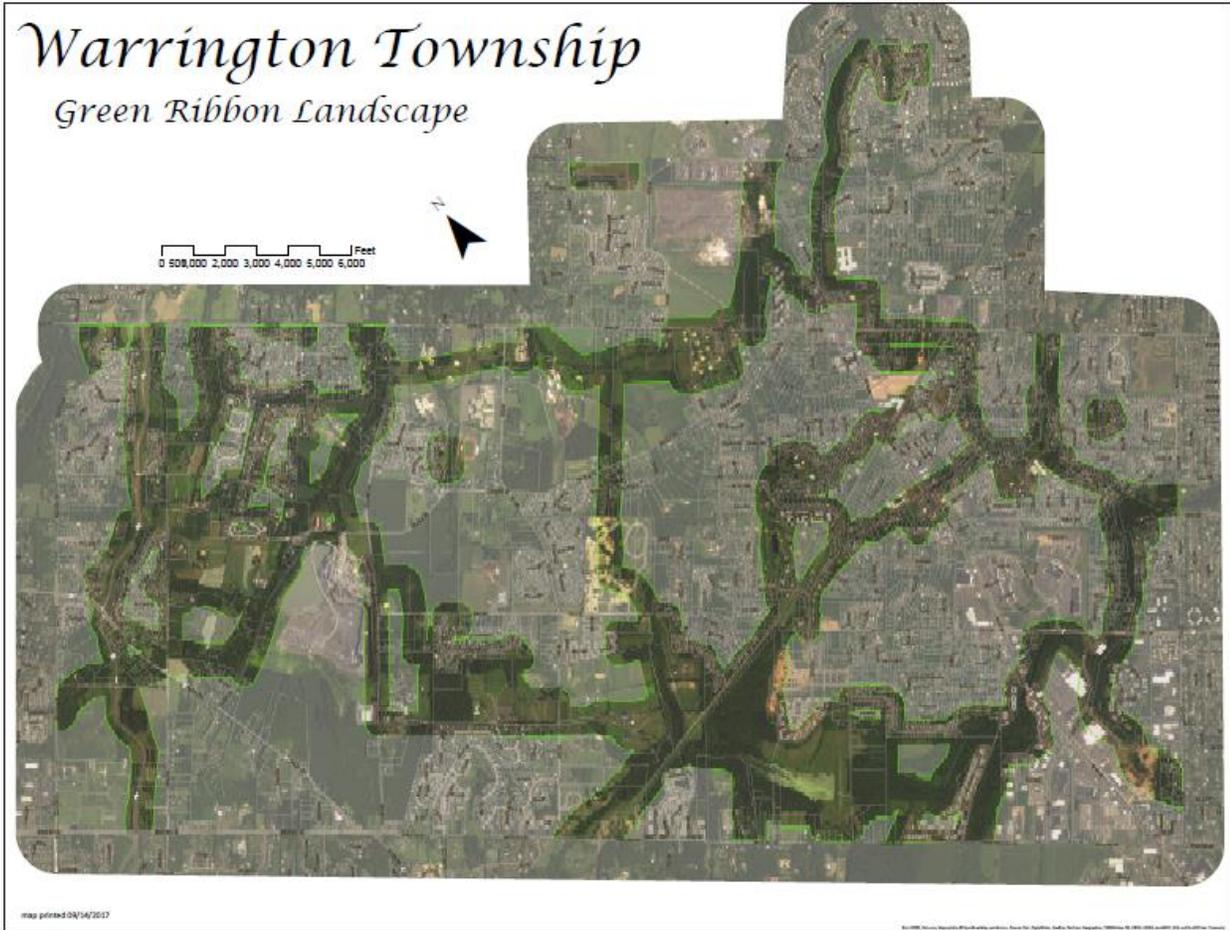
The WEAC has started a program to encourage homeowners to plant native trees and shrubs and create backyard habitats for birds, bees, butterflies and other pollinators. By getting your neighbors involved we can expand our natural system services and create a connected pattern of open space. This is the best way to maximize nature’s ecological and financial value and maintain long-term ecological benefits. Only then can we build a foundation for a vibrant, balanced economy and a healthy, desirable community for current residents and future generations.

What we do to our land, impacts our quality of life, health, cost of living, sense of place and economy. Every resident has an important role to play. Our natural assets are essential to our everyday life.

- Reduce the size of your lawn by planting additional native trees and shrubs
- Create a pollinator garden
- Attract birds, owls and bats by installing houses
- Install rain gardens to capture roof run off
- Conserve water by installing rain barrels and water saving devises on showers
- Conserve energy by installing smart thermometers, insulating your attic

- Reduce the use of chemical fertilizers and pest controls and use natural products
- Replace your blacktop driveway with porous pavers

The following map shows the priority areas in the Township that the WEAC is hoping to increase native plantings. This area is called the “Green Ribbon”. It is a 300 foot buffer around our existing public open spaces and trails.



## Earthday Event at Valley Square April 22nd

Members of the WEAC set up and staffed our exhibit at the Valley Square Earth day event on April 22, 2017.



## Tree Planting at Lower Nike Park Sunday April 23rd

The WEAC planted 17 bare root trees at the beginning of the trail in Lower Nike Park. The Township purchased the trees at a very reduced price from the Pennsylvania Horticultural Society. The tree planting went extremely well with the help of over 35 National Honor Society (NHS) students from Central Bucks South High School. These young people worked well and did a job our community should be proud of. Special thank you to Warrington's Public Works Department for supplying water to the area so that members of the WEAC could water the new plantings throughout the summer and fall and also for installing two screech owl and two bluebird boxes.



### Warrington Community Service Day - May 20, 2017

The Warrington Environmental Advisory Council's logo is "Think Globally, Act Locally". With that goal in mind, on Saturday May 20<sup>th</sup> we worked with our community and held our annual Community Service Day. We had approximately 150 volunteers work on several projects within our township. The value of these services, donations from local business's and discounts on flowers and shrubs, saved the Township approximately \$20,000.

Our keystone project occurred in Lower Nike Park where we planted over 100 native shrubs along the trail. These shrubs complemented trees that were planted in April and others that were planted last fall. NHS students, several employees from TruMark Financial and WEAC board members worked tirelessly. Partial funding for the trees was provided by Philadelphia Horticulture Society, thru the tree tender program. These trees and shrubs will improve air quality by absorbing carbon, provide shade for those using the trail as well as provide habitat for birds and small animals.

Another project was to maintain one of our previously naturalized basin on Hidden Court. The native trees and shrubs that were planted in these basins absorb the rainwater, reduce flooding downstream and help to clean the pollutants in the runoff. Naturalized basins also create habitats for birds and other wildlife. We removed the cages and stakes from around the trees in the mature basin and reused them on new plantings in Lower Nike Park. Central Bucks High School's National Honor Society (NHS) students aided with the removal of the cages and stakes and installed tree tubes to provide protection from deer. Additional projects included flower planting at nine locations at IPW park and John Paul Park at Lower Nike and constructing Bat houses.





***We Would Like To Thank So Many of our Local Businesses' for Their Generous Support OF OUR COMMUNITY SERVICE DAY 2017!!*** ,Allstate Insurance (Eric Bonella), Amerikick, BJ's, Bound Beverage, Chickie's and Pete's, Chipotle, County Line Fence, Grow N Sell, Elbow Lane Day Camp, Eureka Stone Quarry, Home Depot, KC Prime, Lowes, Panera, Sopranos, Sports Clips, Starbucks, Stutz Candy, Target, TrueMark Financial, Victory Gardens, Walmart, WAWA, Wegmans, Lowes, Panera, Sopranos, Sports Clips, Starbucks, Stutz Candy, Target,

## **Butterfly Garden Planted at Titus Elementary School**

A beautiful new butterfly garden was planted during the spring of 2017, in the courtyard at Titus Elementary School. Butterflies and pollinators need living space, but a lot of their habitat is disappearing from Bucks County due to development. The plan to install a butterfly garden at Titus Elementary School began last winter. Members of the WEAC were glad to provide assistance to the students and staff at Titus Elementary School. Several members of the WEAC met with Ms. Carla Walls, one of the teachers at Titus.

Below is a photo of the Courtyard at Titus Elementary School, which was chosen as the site of the garden. The area was previously planted as lawn. The initial step, which covered a period of several months, was the collection of coffee grounds and newspapers. Students, parents, teachers, and school staff as well as WEAC members all assisted with the collection. The newspapers and coffee grounds were spread over the grassy area in late March. Compost was laid over top as a mulch cover. Boy Scout Troop #137 built two raised planting

boxes which were ready in plenty of time for planting. Students and teachers will maintain the garden and use it for educational purposes.



### Soccer Teams Weed Newly Planted Trees at Lower Nike Then Scrimmage

Approximately 25 players and parents from the Hunter Soccer Club 62 Blues and Warrington's FC Force weeded the trees and shrub along the trail at Lower Nike on Saturday August 26th. The trees were planted last fall and spring by other volunteers under the supervision of the WEAC. The players did a fantastic job of removing the cages clearing the weeds and replacing the cages. After the clean-up, the teams scrimmaged.



## Warrington Day

Members of the Warrington Environmental Advisory Council, gave out fun freebies and some great information about the environment at Warrington Day. Black Gum and American Sycamore trees donated by Bartlett Tree Company were given away for free. Many people signed up for a free backyard consultation, a workshop on planting and managing native plants and a native plant sale planned for during the spring of 2018. Members also sold rain barrels, screech owl, bat and blue bird houses. These had been made, with love, by Central Bucks National Honor Society students.



## Forest Trail Enhancement for a Greater Community Experience

The WEAC continues to manage the forested areas adjacent to the trail between Morning Walk Drive and Igo - Porter - Wellings (IPW) Park and in John Paul Park at Lower Nike, just past the bird blind. Woods of Plenty provided Warrington with the expertise to establish our forests as a resilient long-term source of food for both humans and wildlife. With their intimate knowledge gained from studying and observing the forest, Woods of Plenty staff removed invasive plants and created bio habitats. When these trees and shrubs mature; these nuts and berries will be available for all to feast on. Take a walk, beginning at the Morning Walk detention basin. Enjoy the educational signs that describes the naturalized basin. Walk down the trail towards IPW Park where many of the trees and shrubs have been identified. This is our first edible forest. Step off the trail and enjoy the forest. Continue down into John Paul Park at Lower Nike, just past the bird blind, and you will enter our second edible forest.





### Articles Written for the Links in 2017

Members of the WEAC contributed the following articles to the Link: Tree Mulch Volcanos, Reducing Storm Water Runoff From Your Property, Butterfly Garden at Titus Elementary School, Community Service Day, Return On The Environment, Forest Trail Enhancement for a Greater Community Experience, and Eagle Scout Plants Habitat Clusters and Shade Trees.

### Show Your Support for the Warrington Environmental Advisory Council

With all our (the WEAC) events, we aim to educate the public as to the importance of supporting our environment.

The WEAC works with our Township to make our community more environmentally friendly and in turn help the environment globally. With that goal in mind, we have created a removable (magnetic) bumper sticker that reflects our belief.

