



Governor's Award for
ENVIRONMENTAL
Excellence

2019



APPLICATION

Commonwealth of Pennsylvania
Tom Wolf, Governor



Department of Environmental Protection
Patrick McDonnell, Secretary



Project Application Form

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| <p>A. Name of organization:</p> <p>Wilma Quinlan Nature Preserve Committee of New Britain Borough.</p> |
| <p>B. Brief paragraph about the organization:</p> <p>This is a committee of 11 community members, all volunteers, that is responsible for the management and stewardship of the Wilma Quinlan Nature Preserve, a 30+ acre natural area that is owned by New Britain Borough. This application is being submitted by the committee's chairperson, Tom Price (thomasprice112@gmail.com)</p> |
| <p>C. Title of project:</p> <p>Ecological Restoration of the Wilma Quinlan Nature Preserve</p> |
| <p>1. Provide a description of the project including, characteristics, objectives, goals, benefits and outstanding attributes:</p> <p>In 2007, the Nature Preserve Committee commissioned Natural Lands Trust to create a Stewardship Plan for the Preserve. After revisiting the Preserve in 2014, NLT wrote an Addendum to that original Stewardship Plan. <i>These documents can be found on the Nature Preserve page on New Britain Borough's website (http://newbritainboro.com/committees/nature-preserve-committee/).</i></p> <p>In 2015, the Nature Preserve Committee wrote a Strategic Plan for the Preserve, <i>which can also be found on the Borough website.</i> This Strategic Plan is based on the recommendations provided by NLT and outlines our stewardship goals and priorities for the Preserve.</p> <p>For the purposes of this application, the environmental and ecological priorities outlined in the Strategic Plan are most important. These priorities include:</p> <ul style="list-style-type: none">• Removing and controlling invasive plant species• Protecting and enhancing existing native plant communities• Addressing gaps in the forest canopy and the general lack of native tree and shrub regeneration caused by competition from invasive plant species and deer browsing• Improving and restoring habitat for resident and migratory wildlife• Controlling soil erosion caused by storm water runoff• Protecting the water quality of the Neshaminy Creek and its tributaries that flow through the property |

2. What results did your project achieve to improve Pennsylvania's environment?

The Nature Preserve Committee has been working hard over the past three years to carry out these stewardship goals and this application is based on the progress we have made since our Strategic Plan was adopted in April 2015. The following list highlights the Committee's most important achievements over this three-year span:

Habitat Creation and Restoration

- **Miriam's Meadow, a 1.5 acre native warm-season grass and wildflower meadow installed by Larry Weaner Landscape Associates in 2010, has been routinely maintained and enhanced with the installation of additional native plant species.**
- **Native, bird-friendly understory trees and shrubs have been added to the borders surrounding Miriam's Meadow and the two cool-season grass meadows in the Preserve.**
- **Hundreds of milkweed and other wildflower plugs have been planted in the cool-season grass meadows to improve those meadows as pollinator habitat.**
- **A large section of the Upland Forest unit of the Preserve has been cleared of multiflora rose and other invasive species and replanted with native trees and shrubs. Two additional small sections within the Upland Forest unit have been cleared and reforested with native tree seedlings.**
- **Several areas within the riparian unit of the Preserve have been cleared of brush and invasive plant species and replanted with native trees and shrubs.**
- **123 Eastern Red Cedar and 11 Eastern White Pine trees were transplanted from a nearby retention basin scheduled for brush-hogging and replanted in the Preserve.**
- **A total of 386 native trees and 119 native shrubs have been planted in the Preserve over the past three years.**
- **Newly planted trees and shrubs have been caged or planted in tree tubes to protect them from deer browsing.**
- **Scores of trees within the Preserve have been freed from choking vines and hundreds of invasive plants have been removed from the Preserve.**
- **30+ nesting boxes for species such as Bluebirds, Screech Owls, and Wood Ducks, have been constructed and installed by volunteers.**

Storm Water Management

- **Several serious soil erosion issues caused by storm water runoff have been resolved using packed rock in these areas, or in one case, by the redesigning of a trail.**

Additional Improvements and Signage

- The experience of visiting the Preserve has been improved through the addition of trail signs, trail improvements, additional benches, dog leash signs, a second dog waste station, additional boundary signs, and the creation of another entrance to the Preserve.

Environmental Studies

- Since 2015, an inventory of all plant species found in the Preserve has been conducted by Dr. Ann F. Rhoads, former Director of Botany at the Morris Arboretum. Dr. Rhoads is a neighbor, a frequent visitor to the Preserve, and an invaluable consultant to the Nature Preserve Committee.
- Both a soil study and a herpetological study were conducted in the Preserve in 2017 by undergraduate and graduate students from Delaware Valley University.

3. How does this project serve the public's best interest and provide environmental protection?

The Wilma Quinlan Nature Preserve is open to the public. The Preserve was established in 1971, but little was done to actively manage it for the next forty years. The result of this neglect was a heavily degraded Preserve overrun by invasive plant species. It was rarely visited, as a result. Today, the Preserve is actively managed in an all-out, long-term effort at habitat restoration and has become a source of much pride in our community.

Our restoration efforts were recognized earlier this year, when our committee was awarded the 2018 Land Ethics Award, given out annually by Bowman's Hill Wildflower Preserve. The judges at Bowman's Hill had this to say about our restoration efforts:

"Starting with a considerably degraded site, the directors, designers, and volunteers created a nature preserve that exemplifies what the Land Ethics Award seeks to celebrate. Located along the Neshaminy Creek in New Britain Borough, Pennsylvania, the preserve demonstrates the creative use of native plantings to create a sustainable habitat for wildlife and a place for the public to learn about and enjoy nature. The combination of the use of native plants, volunteer involvement, educational component and well documented public and ecological impacts earned this project the top honor."

<https://bhwp.org/learn/conferences-and-symposia/land-ethics-symposium/#award>

4. In what ways did the project involve community members, government officials, and/or employees?

New Britain Borough doesn't have a public works department and has no paid employees who do maintenance work in the Nature Preserve. Other than mowing, tree removal, and occasional clearing, all the maintenance work in the Preserve is done by volunteers. While the planning and much of the physical labor that lies behind the above achievements has been carried out by the members of the Nature Preserve Committee, it should be noted that we have also had the help of many

other volunteers. We have gradually been increasing the number of volunteer work days in the Preserve to where we now have six each year.

On our spring and fall work days, we have greatly benefited from the help of both community and student volunteers. Community volunteers have included Borough residents, local Boy Scouts, and a local church youth group. Our student volunteers (sometimes 25-30 at a time!) have come from the National Honor Societies of both C.B. South and C.B. West high schools, and the Key Club of C.B. West. Without the help of these enthusiastic volunteers we could not have come close to achieving everything that we have.

5. How does this project use innovative technology or solutions to achieve results?

In our restoration efforts, we are making every effort to follow the best practices employed by organizations such as Natural Lands and Bowman's Hill Wildflower Sanctuary. We also have sought out the advice and recommendations of experts such as Larry Weiner and Dr. Ann Rhoades.

6. In what ways does this project educate people about environmentally responsible practices?

- Two new message boards at the Preserve's entrances are kept updated and are used to educate visitors about topics such as native plants, pollinator and bird-friendly landscaping, as well as our habitat restoration efforts in the Preserve.**
- We have published several articles about our restoration efforts in our quarterly Borough newsletter, sent to all Borough residents.**
- The Preserve has been registered in PA Audubon's Bird Habitat Network and has been certified as pollinator habitat with both the Xerxes Society and the Penn State Cooperative Extension. New signage in the Preserve advertises these certifications.**

7. Can you describe the potential economic impact your project created (e.g., total project costs, long-term cost savings, potential job creation)?

Our committee currently has an annual budget of \$12,500. Only \$2,500 of these monies comes from the Borough's General Fund, however. The remaining total comes from the rental income of a house next to the Preserve, which was deeded to the Borough by Dr. Miriam Groner, a long-time resident and former member of our committee. This means that the Borough's taxpayers pay very little for the work we are doing in the Preserve.

8. How does this project address sustainability, climate change, or pollution prevention?

Our project goal is the long-term sustainability of the local Nature Preserve, one very small corner of the planet. But all habitat restoration projects such as this, no matter how small, help address the larger problems facing the global environment.

Project Photos

Habitat Creation and Restoration with Native Plants



Miriam's Meadow, a native, warm-season grass and wildflower meadow, was professionally installed from seed in 2010, but requires ongoing maintenance by Borough volunteers, including weeding and the planting of additional native plants every year. All three of the small meadows in the Preserve are mowed annually, in late winter, to maximize the benefit to wildlife.



The borders of Miriam's Meadow have been planted with native, bird-friendly, understory trees and shrubs. A number of non-native shrubs, planted before our Strategic Plan was adopted in 2015, have been removed during the past three years, as well.



Since 2015, Eastern Red Cedars and other native, bird-friendly, shrubs have been planted around the edges of the East Meadow, one of two small cool-season grass meadows in the Preserve. We began to add plugs of swamp milkweed and other native wildflowers to this meadow in 2017 to increase its value to butterflies and other pollinators.



Before clearing



After clearing

A large, degraded portion of the Upland Forest portion of the Preserve was cleared of brush, vine damaged trees, and invasive multiflora rose in 2015.



25 Eastern White Pines were planted in the southern part of this cleared area of Upland Forest in 2015 and numerous Eastern Red Cedars were planted along the northern edge of this once heavily degraded area.



A portion of this cleared area of Upland Forest is being established as shrubland, creating a habitat not naturally occurring in the Preserve. These cages protect Blackhaw Viburnums and Gray Dogwoods that were planted in 2017.



Several smaller areas in the Upland Forest portion of the Preserve were cleared and reforested with Red Maple, White Oak, Black Gum, and Pin Oak seedlings purchased from Octoraro Native Plant Nursery in the fall of 2017. These seedlings are protected by tree tubes. Some larger Black Cherry, Flowering Dogwood, Chestnut, and Shagbark Hickory trees were also planted in this section of the Preserve.



Degraded portions of the riparian area of the Preserve were also cleared and reforested in 2017 with Red Maple, White Swamp Oak, Black Gum, Pin Oak, and River Birch seedlings. Several larger Black Gum, Sweet Gum, and Sycamore trees were also planted in this area, along with Winterberry and Button Bush.



123 Eastern Red Cedars were moved from a nearby retention basin scheduled to be mowed and were replanted in the Preserve in 2018.

Removal of Invasive Plant Species



Invasive vines, such as Japanese honeysuckle, have caused considerable damage to trees in the Preserve. Shown here are two young Crabapple trees that were freed from such vines by volunteers.



Hundreds of invasive vines and shrubs have been removed from the Preserve over the past three years, including this pile of mostly Burning Bush, Bush Honeysuckle, and Autumn Olive -- removed on a work day in 2016.

Storm Water Management



A severe erosion problem caused by storm water runoff at the Aarons Ave. entrance to the Preserve was addressed by packing the trail with crushed stone in 2016.



Another erosion problem on a trail leading to the creek was corrected by rerouting the trail and building a new trail with switchbacks to divert storm water runoff.

Wildlife Enhancements and Signage



30+ nesting boxes for species such as Bluebirds, Screech Owls, and Wood Ducks that have been built and installed in the Preserve by volunteers. In the first photo, taken in 2016, volunteers are installing a Kestrel/Screech Owl box in the Upland Forest portion of the Preserve.



The Preserve has been registered in PA Audubon's Bird Habitat Network and has been certified as pollinator habitat with both the Xerxes Society and the Penn State Cooperative Extension. New signage in the Preserve advertises these certifications.

Volunteer Work Days





Volunteers Help Implement Nature Preserve's Strategic Plan



In 2015, the Borough's Nature Preserve Committee wrote a Strategic Plan for the management of the Wilma Quinlan Nature Preserve, which is located on Mathews Avenue and is open to the public for passive recreation. This plan outlined our stewardship goals and priorities for the Preserve and was based on the recommendations outlined in the Stewardship Plan created by Natural Lands Trust in 2007. The Strategic Plan was adopted by Borough Council and can be found on the Borough website.

Much progress has been made over the past two years in carrying out our stewardship goals – and much still needs to be done. Many of the tasks are ongoing and will never be “completed.” These tasks include the control and removal of invasive plant species and the restoration of native habitat. We have removed hundreds of non-native and invasive shrubs, for example, and have begun to replant parts of the Preserve with native shrubs instead. Other areas of the Preserve are being reforested with native trees and our meadows are being replanted with native grasses and wildflowers. All these projects will improve biodiversity in the Preserve and create valuable habitat for wildlife, including birds, butterflies, and pollinators.

In addition to the ongoing tasks mentioned above, we have completed numerous other projects and improvements

since 2015 intended to enhance the experience of visitors to the Preserve. These improvements include the creation of a new entrance with parking on Landis Mill Road, new trail signs, additional benches, and other trail improvements. Other such projects are in the works, including a new message board for the main entrance and a trail map of the Preserve.

None of these achievements would be possible without the dedication, time, and energy of numerous borough volunteers. Most importantly, credit should be given to the members of the Nature Preserve Committee, who have given countless hours to meetings and to work at the Preserve. In 2016 there were 5 work days. Other volunteers have also helped on our work days. Most notably, these work day volunteers have included scores of National Honor Society members from C.B. South and C.B. West. We are extremely grateful to these students for their continued and enthusiastic support!

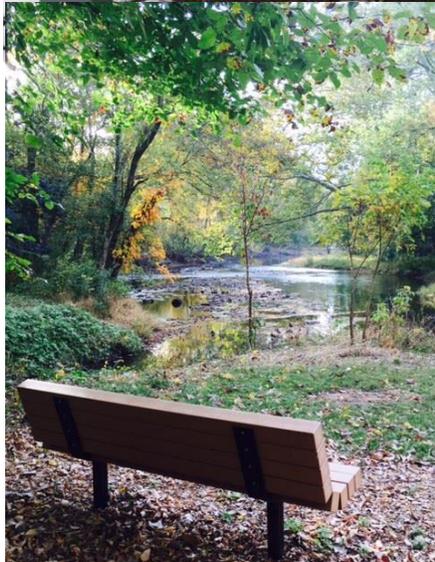
So please visit the Preserve.

Walk its peaceful trails and think about how lucky we are to live in a community with this type of natural open space – and with the committed volunteers to maintain it. Then come out and help us on a work day and experience for yourself the satisfaction that comes from getting involved in this kind of community service. Our next work day is on Saturday, May 20, 2017 from 9:00 a.m. until

noon and additional work days will be scheduled for the fall. We can always use and will always appreciate your help!



Additional Preserve Improvements and Signage 2015-2018





NEWS OF NEW BRITAIN BOROUGH

“A Friendly Place to Live”

Volume 27 ~ Number 2

Summer 2018

Nature Preserve Committee Wins Land Ethics Award

Tom Price ~ *Chair of Nature Preserve Committee*

Bowman's Hill Wildflower Preserve held its 18th Annual Land Ethics Symposium at Delaware Valley University on March 15th. This symposium is an event dedicated to the sharing of best practices and new ideas to conserve our native landscape. The highlight of this event is the presentation of the Land Ethics Award, which honors the creative use of native plants in the landscape and ethical land management practices. Individuals, non-profit organizations, government agencies, community groups, and business professionals may be nominated for this prestigious award. According to Kelly Joslin, Bowman Hill's Educational Coordinator, "the Preserve received an overwhelming number of submissions in 2018."



This year, the judges selected the Wilma Quinlan Nature Preserve Committee of New Britain Borough as the 2018 recipient of the Land Ethics Award. This all-volunteer Borough committee is

responsible for the management and stewardship of the Borough's 30-acre Nature Preserve located on Mathews Ave.

According to the press announcement released by Bowman's, the committee's work in the Wilma Quinlan Nature Preserve "exemplifies what the Land Ethics Award seeks to celebrate" by demonstrating, "the creative use of native plantings to create a sustainable habitat for wildlife and a place for the public to learn about and enjoy nature." The press release goes on to say that, "the combination of the use of native plants, volunteer involvement, the educational component as well as documented public and ecological impacts earned this project the top honor."

The Nature Preserve Committee won this award based on the habitat restoration work it has carried out in the Nature Preserve over the past three years. In 2015, the Nature Preserve Committee wrote a Strategic Plan outlining the Committee's stewardship goals and priorities for the Preserve, which can be found on the Borough's website.

Highlights of the Committee's work over this three-year span include the following:

- The Preserve's three meadows have been routinely maintained and enhanced with the installation of additional native plant species to improve them as pollinator habitats. Native, bird-friendly, understory trees and shrubs have been

added to the borders surrounding these meadows.

- Key degraded sections of the Preserve have been cleared of multiflora rose and other invasive species and replanted with native trees and shrubs. A total of 261 trees and 113 shrubs have been planted in the Preserve over the past three years. Scores of existing trees within the Preserve have been freed from choking vines and hundreds of invasive plants have been removed from the Preserve.

- 30+ nesting boxes for species such as Bluebirds, Screech Owls, and Wood Ducks have been constructed and installed throughout the Preserve.

- The experience of visiting the Preserve has been improved through the addition of message boards, trail signs, trail improvements, additional benches, and the creation of another entrance to the Preserve on Landis Mill Road.

While the planning and much of the physical labor that lies behind the above achievements has been carried out by the eleven members of the Nature Preserve Committee, it should be noted that the Committee has also had the help of many other community and student volunteers on the six work days that it now holds each year. Community volunteers have included Borough residents and local Scouts. Student volunteers have come from the National Honor Societies of C.B. West and C. B. South High Schools, and the Key Club of C.B. West. Without the help of these enthusiastic volunteers, the Nature Preserve Committee couldn't have reached these achievements and would not have won this award.



Nature Preserve Committee Members: (First row, left to right) Peter LaMontagne, Hilsey White, Bertsey Klinger, Tom Price, Sue Minetti, Marge Eberz, (Second row) Jo Schuler, Dave Horne, Bob Binkley, Mimi Volker, and Taylor Thompson.