

Hopewell Township Environmental Newsletter

Barrett's Run Afforestation and Grassland Restoration Maintenance Plan

As you may have noticed a few weeks ago some mowing of the open-space conservation area took place along with the removal of some non-native trees. This was part of the maintenance plan that the HTEC has established for this area of the grassland. Following are the reasons that this plan was put in place, but first some history of how this area was originally developed.

Hopewell Township and several partners including the American Littoral Society, restored a 7.5 acre riparian buffer zone along Barrett's Run. The project's purpose was to restore natural conditions to the land and act as a buffer to the adjacent creek and wetlands in an effort to reduce agricultural and stormwater runoff into our local waterways. Funded through grants from the National Fish and Wildlife Foundation and the William Penn Foundation and with support from the US Fish and Wildlife Service, the buffer restoration project replanted the former farm field which is now preserved land with native grasses, trees, and shrub species to promote water infiltration and habitat for birds and animals. Part of this project was to create a living classroom - complete with signage and educational programming to teach school groups about wetlands habitats, and the need to protect our water resources. Environmental monitoring of the multi-year project site was planned but never fully executed.

The steps to this restoration program were as follows:

In June 2014 the site was seeded with various native grasses and wildflowers.

Following the seeding, soil tests and water tests were conducted by the Academy of Natural Sciences and the AmeriCorps Watershed Ambassador program.

In August 2014 the overall design concept for the project site with an outdoor classroom component, curving paths through the grassland, and pockets of trees and shrubs was developed. A clear plan was devised for planting additional native trees and shrubs.



Commission Members

Beth McClain - Chair

Jane Hankins - Vice Chair

Ken Strait - Land Use Board

Cheryl Lalancette - Secretary

Jerry Lewis

Burt Doremus

Marion Carll - Editor

Meetings

First Wednesday of every month @7:00 PM (new this year)

Newsletters

Available on township website and Facebook Page. Copies are available at the township office and at the Senior Center.

October, 2014 with the help of 107 volunteers, 525 native trees and shrubs were planted. This provided an opportunity to explain and develop the need for and the benefits of riparian buffers.

A local Blue Bird expert and a dozen volunteers installed 6 bluebird boxes, establishing a bluebird trail on the preserved property.

Part of the plan included installation of deer fencing at the site to allow the newly planted trees and shrubs to grow unaffected by the browsing deer. *(This fencing has since been removed.)*

June 2015 - 2,350 native pollinator plants were planted into a section of the grassland. These plants were generously donated. Later in the summer the Littoral Society's Restoration Corps visited the site to conduct some maintenance in the grassland and begin developing marked trails through the adjacent woodland. *(This trail system connects Mary Elmer Drive to the grassland.)*

Additional plans were discussed as to how to get school students involved and create learning opportunities for Hopewell Crest School to be involved. *(Those plans never came to fruition.)*

The area was opened to the public in the spring of 2016.

Since the area was opened to the public it has been widely used and enjoyed by Hopewell residents and other local visitors. There have been yearly mowing of the trails, some planting of milkweed and other seedings but there was never a yearly maintenance plan put into effect.

What's happening now?



Succession!

It is obvious from the history that some of the plans never developed, perhaps due to lack of interest or lack of funding or changes in thought. The most notable change is that a plan was never developed to maintain the original desire for native species of plants and the fact that even though the trails were cut and maintained nothing else was cut which allowed a process called succession to occur. Those trees and shrubs that were fenced in grew rapidly. Unfortunately, the non-native trees with the fenced areas also grew rapidly and can out compete the desirable native species. Succession takes place because through the processes of living, growing and reproducing, organisms interact with and affect the environment with an area gradually changing it. Plant succession is the most common example of succession, however, as plant communities change, so will the associated micro-organisms, fungus and animal species. Succession involves the whole community, not just the plants. If you look across the dirt road from the grassland you will see the process happening. There was at one time a nursery on the property. When the nursery business ended the plants remained. The trees that are there are largely non-native species. Ecological succession is the gradual process by which ecosystems change and develop over time. Nothing remains the same and habitats are constantly changing.

Take your lawn for instance, if you don't mow it over a period of time, you begin to see "weeds" and other growth that you perhaps don't want in your lawn. - So you cut your grass on a regular basis to maintain the look you desire. The same process has begun to take place in the open space grassland at Barrett's Run. There are less native plants growing and existing ones are being taken over by the invasiveness of other plants. The wildlife is changing as well. Species living in a particular place gradually change over time as does the physical environment with that area.

So What's the Plan?





The Maintenance Plan

Environmental studies have shown that “Conservation Mowing” has a place in managing habitat. Mowing can be used to mimic natural grazing and can help control annual weed growth when establishing native species. For example, mowing a grass field several times over the course of a growing season will thicken the grass component but reduce the unwanted competitors. Mowing to a height of 6 to 15 inches will help control invasive species but still provide necessary ground cover for wildlife. Strip Mowing where mowed and non-mowed strips are alternated can help and control woody plants. Trail mowing 2-3 times per year can facilitate access to the property and help to control invasive species. Timing for vegetation control needs to be considered. In general, any type of mowing should be delayed until after August 1 as primary nesting seasons for grassland wildlife extent from April 1st through August 1st. Mowing can be conducted between August 1 and October 1 to allow plants to reach sufficient heights to provide necessary winter cover. (<https://dnr.illinois.gov/content/dam/soi/en/web/dnr/conservation/csp/documents/update-csp-files/early-succesional-habitat.pdf> and <https://www.nj.gov/dep/fgw/artgrasslands06.htm>)

In January, as one of the project goals for the year the HTEC decided it was time to take action to stop the succession of the open-spaced grassland area at Barrett’s Run. It was determined that a general mowing was in order to cut down weeds and small shrubs that had begun to invade the area. It was also recommended that the invasive trees needed to be removed, the fencing around them removed, and to thin out the cedar trees from the area. This process was put into operation by the township maintenance crew. The extended plan is to reseed the area with natural grasses and native wildflowers, reestablish the bluebird trail, and recut the walking trails. If this procedure is done every year it should eliminate some of the invasive plants from continuing to take over the grassland. It is hoped that by late spring the areas will be rejuvenated and the public can enjoy the results.



Summer



Fall



Before mowing



Removing invasive trees and fencing

Why Grow Natives?

Drought Tolerant

Protect Soil Resources

Low Maintenance

Improve Water Quality

Natural Beauty

No Need for Fertilizer

Adapted to Ecosystem & Soil Conditions

HOPEWELL TOWNSHIP ENVIRONMENTAL COMMISSION

Our purpose to advise the township committee and the land use board on environmental issues within the township. We advocate for open space planning and preservation at the local level, investigate environmental and natural resource issues for the governing body and recommend solutions, and help to educate residents on environmental issues. We are a volunteer commission. We would love to have residents involved in what we do. We welcome you to come to our meetings on the first Wednesday of each month @7 PM. If you have questions or concerns, please ask us. If you have an interest in the environment and would like to help on a project let us know.