

## **Proposal for Invasive Plant Removal Project in the Nelsonville Nature Preserve**

*Submitted by Heidi Wendell, Nelsonville Resident (May 2020)*

This is a proposal for a three-year project to remove invasive plants from the Nelsonville Nature Preserve. The proposal is for the members of the Nelsonville Trails Committee, and other community volunteers, to cut back and pull out invasive plant species such as burning bush, bindweed, barberry, knotweed, bittersweet, garlic mustard, stilt grass, and other basic and easily-identifiable invasive plants from the Preserve and replace them with native plants. The project would involve the gradual removal of the invasive plants over three years so as not to create bald patches in the Preserve, and the planting of native species to replace them. Engaging and training all interested local residents will make this initiative valuable for the whole community.

The New York-New Jersey Trail Conference (“Trail Conference”) which maintains the trails in the Preserve (along with the Nelsonville Trails Committee) is on-board with the project and has agreed to provide advice and assistance, as needed. This assistance would include supervisory assistance of the Trail Conference staff with expertise in invasive plant removal (Linda Rohleder and Ryan Goolic, and potentially AmeriCorp members working with the Trail Conference), if needed; tools, such as loppers, saws, and shovels, if needed; seedlings obtained by the Trail Conference, as available; and tubes to protect seedlings from deer, if needed. Linda Rohleder suggested that the Village should plan to do the project for three years to best achieve our goals so that we can remove and replace the invasive plants gradually and also because repeated cutting and removal will be required (over multiple seasons), particularly since we do not plan to use herbicide.

### **Cost:**

The cost of the project would be minimal. The Trail Conference will not charge the Village for the cost of the supervisory assistance of its experts on invasive plant removal, which would only be needed occasionally. (Linda Rohleder, who is the head of the invasive plant removal program at the Trail Conference has said that the Trail Conference will not charge us anything to assist us occasionally with this project.) The Trail Conference can also lend us tools for removal of invasive plants, if we need to borrow tools, but members of the Nelsonville Trails

Committee already have these tools so it is highly unlikely we would need to borrow any tools from the Trail Conference. However, if someone on the Trails Committee needs tools, we have that assistance offered by the Trail Conference.

If we want to purchase seedlings through the Trail Conference, there could be a small charge for those<sup>1</sup>. However, again, it is likely that seedlings can be obtained free, including (1) from members of the Nelsonville Trails Committee, (2) from sources accessible to the members of the Nelsonville Trails Committee, including landscaping and gardening companies, clubs and other organizations in the area, such as Figure Ground at 44 Main Street, which has free native flower seeds, and (3) seedlings we can collectively grow during the three years of the project. To the extent that the Village wants to get seedlings from the Trail Conference, the Village could decide, as appropriate, to make small purchases of seedlings from the Trail Conference as necessary, in the future. This is a controllable cost and does not have to be incurred even if the invasives removal project is approved.

The chief cost of the project would be for seedling protection – the tubes that surround growing seedlings to keep them from being eaten by deer – if the Village decides to plant replacement native species that could be eaten by deer or other animals. The blue “tubes” that were provided in April 2019 by the Trail Conference for the invasive plant removal project are not the only option for seedling protection. Discussed below are a number of other seedling protection options.

However, the Village can also opt to plant native species that do not require protection from the deer, including birch and other species. We can experiment with native species that do not require protection and native species that do, and measure the results and progress over the course of the three-year project, and respond accordingly. Also, apart from protection of tree seedlings, other native plants, such as milkweed, ferns, sedges and perennial herbaceous plants that are not trees, may not need protection from deer and other animals.

We do not propose to use any herbicide in the project due to the vulnerability of the wetlands in the Nelsonville Preserve. As a result, we will likely have to do repeated removal and cutting, but over the course of three years, the removal and

<sup>1</sup> As of May 2020, cost is \$80 for 100 seedlings of witch hazel + shipping.  
[https://www.dec.ny.gov/docs/lands\\_forests\\_pdf/treenurserybrochure.pdf](https://www.dec.ny.gov/docs/lands_forests_pdf/treenurserybrochure.pdf)

cutting should accomplish some reduction in the proliferation of invasive plants in the Preserve and replacement with native plants.

### **Invasive Plant Removal:**

As many residents of the Village have recognized, invasive plants now dominate certain parts of the Preserve. This includes burning bush, garlic mustard, barberry, bittersweet and bindweed. Some of these invasive plants, such as garlic mustard, are greatly impacting the fauna of this area. Garlic mustard, for example, has caused a 90+ percent decline in the local population of West Virginia White butterflies, which lay their eggs on garlic mustard thinking it is toothwort, the only plant that West Virginia White caterpillars can eat. The caterpillars hatch out on the garlic mustard, are unable to eat it, and die. If we can restore toothwort and other native plants in the Preserve, it will greatly improve the diversity and successful breeding of our local pollinator populations, and likely the birds that depend upon those pollinators for their diet, in turn.

If we remove the invasive plants thoughtfully and gradually, we can prevent their continued spread through the Preserve into portions of the Preserve that are still relatively pristine. (For example, in the wetlands along the eastern portion of Secor Street, there are large communities of marsh marigold; however, barberry and garlic mustard are making their way into those areas as well, and will likely crowd out our native plant species, as well as the pollinators that thrive on them.)

On the positive side, there is reason to believe that the invasives plant removal project in the Preserve can be a big success. We still have many native plants in the Preserve, including large amounts of trout lilies, marsh marigold, shadbush, oaks, rattlesnake weed, and other lovely native plants. Butterflies can still be seen in significant numbers in the eastern portion of the Preserve, including monarchs, black swallowtails, viceroys, and others, as well as lots of native wasps and bees.

### **Protective Tubes for Certain Types of Native Seedlings:**

At last year's (April 2019) invasive plant removal and native plant replacement event, the Trail Conference supplied blue tubes to protect the seedling trees that we planted from being eaten by deer. The blue tubes have the advantage that they are very tall and therefore can protect the seedlings from the deer for a number of years as the seedlings grow taller. However, the blue tubes, which were being tried out for the first time last year by the Trail Conference, also have a number of

disadvantages, including that they fall over and are very visible and look somewhat messy. There are other options for tree tubes, shown below.





Some of these types of tubes are not as intrusive as the large blue tubes, and therefore might be preferable. According to the Trail Conference, these tubes are about 4 feet tall run about \$2 per cone. In addition, stakes are needed for tubes. The Trail Conference provided the following website that has information about ordering tubes and related equipment: <https://www.forestry-suppliers.com/Search.php?stext=tree%20shelters>.

**However, tubes may not be required for the plant replacement part of this project.** There are many native plants, including trees, that are not eaten by deer, including the very abundant birch trees, that could be used as a replacement. For example, Manitoga now has a huge proliferation of native birch trees and literally hundreds of thousands of baby birch trees on their property, probably because of climate change causing slight alterations in the prevalence of certain native species in this area) that are not eaten by deer. We could focus on those species in repopulating the Preserve with native plants and avoid using cones for most of the project.