

I. Introduction

Daniels Run is a small stream in the City of Fairfax, Virginia. The stream starts behind the Main Street Marketplace Shopping Mall, and is fed water from various springs around the Greenway Hills neighborhood. From there the stream joins the Accotink Creek (a tributary of the Potomac River), south of Fairfax Circle at the intersection of Lee Highway and Arlington Boulevard. Daniels Run is a tributary of the Potomac River and the Chesapeake Bay. Around the stream itself are Daniels Run Elementary School (where a significant amount of work regarding the health of the stream has already been done by an organization called Lands & Waters), as well as Daniels Run Park, which is adjacent to the Farrcroft and Greenway Hills Neighborhoods. Many trails in the park go over or around the stream, and are so popular that more have recently been made. Unfortunately, as in many areas, the presence of invasive plant species, such as Porcelain Berry, Garlic Mustard, Japanese Honeysuckle, English Ivy, and Multiflora Rose, remains a problem at Daniels Run.

The goal for this project was (and is) to collaborate with the City of Fairfax Environmental Sustainability Committee and Daniels Run Elementary School, as well as other organizations and groups that have either worked with them in the past or specialize in removing invasive species, to initiate and maintain a program of removing invasive plant species in and around the Daniels Run Trail. So far there have been 3 invasive plant removal work-days, and they have all been successful. The long-term aim for the project is to continue the work started at Daniels Run, so that hopefully the invasive plant species are kept to a minimum and native species can thrive and be healthy.

II. Collaboration

When research for the project began, it became clear that there were a multitude of groups and organizations that could help contribute to the project. Though it was not feasible to work with every organization that was found, there were still many people and groups who were extremely valuable and helped contribute to the project. These people and groups are listed below:

- **City of Fairfax ESC**
- **Bonnie Mahl** – leader of the YCLI program
- **Philip Latasa, Kris Unger, Beverly Rivera** – Friends of Accotink Creek (FACC)
- **Julie Chang** – my mentor for the project and FACC member

- **Mike McCarthy** – Communications & Marketing Director for Fairfax City
- **Kiki Cowan & Billy Ferguson** – GMU students that shot and made the video for the City's social media pages
- **Elaine Tholen** – Northern Virginia Soil and Water Conservation District (NVSWCD)
- **Lori Huberman-Hayes** – Science Resource Teacher at Daniels Run ES
- **Jeanette Stewart** – Lands and Waters President
- **Anne Nolan** – Fairfax HS Librarian and Green Club volunteer

III. Overview

So far there have been 3 work-days: February 16, March 30, and April 28. The April 28 work-day coincided with the City's Earth Day event, so that work-day was more about having a table set up to inform people of the work that was being done. The first workday, on February 16, consisted of about 10 volunteers and lasted 3 hours, from 11 AM - 2 PM. The day was windy and cold, and most of the work was done on the hillside near the vernal pool. It quickly became clear that in the location that was being focused on, there were three main invasive species that appeared to be particularly prevalent:

- Japanese honeysuckle (both vine and bush)
- Multiflora rose
- English ivy

For both the Feb. 16 and the March 30 work-days, volunteers brought their own supplies. Those who had few or no tools were able to borrow tools from more experienced volunteers who brought many more tools. The method of removal consisted of using hand-held trowels and hand-held clippers/pruners to start the removing process, and then shovels, loppers, and mattocks to remove the roots of the honeysuckle and multiflora rose. The honeysuckle was especially aggressive and was deeply ingrained in the ground. For the English ivy, which had worked its way up many of the trees, we were informed that the best way to remove it was to cut it at the base, and just let it die (in other words, not pull it down the tree, as that would damage the bark). Kris Unger and Philip Latasa were extremely helpful in providing all of the volunteers with information on how to properly remove the plants. Kris also brought a Weed Wrench, which is an orange woody plant-pulling device that is used standing up for very deep plants, and used it in the more densely-populated (in terms of invasive plants) parts of the area. Jeanette Stewart, of Lands and Waters, helped us figure out how to dispose of the plants. Basically, we used a

tarp to put the plant waste on to, and then once the tarp was full we dragged it to a location near the playground of Daniels Run, where the City comes to pick up plant waste. Then we dragged the tarp back to our location and repeated the process.

For the March 30 work-day, volunteers again brought their own supplies. It was much warmer, which helped, and it was a pleasant surprise to see that the hillside from before was still a lot clearer than it had been originally. Of course, that also meant that – even though we tried to leave any native plants possible on the first work-day – there were not many and so the hill was pretty barren. However, we continued our work, because there was still many areas that had not even been touched. 3 hours of the same process as before ensued, and once again, we made good progress.

On April 28, as previously mentioned, it was more of an event, and less of a work-day. Of course, after the table had been set up and we had talked to various people (such as Miss Earth DC, who was at the event, and other parents and kids), we enlisted the help of some Girl Scouts to plant the 4 native species that Jeanette bought, and they were planted on the hillside near the vernal pool (see section V for more information). We also met a concerned citizen, Daniel Wu, who wanted to help out with the project, so we got his email and added him to the email list for future work-days.

IV. Timeline

The timeline for the project can be seen below. It includes all of the major activities that led to the execution of the project, excluding the time spent applying for the program and the time spent making this report.

Date	Time	Activity
12/5/2018	7 - 9 PM	City of Fairfax Environmental Sustainability Committee meeting; initial proposal
1/3/2019	2:30 - 5 PM	Time spent making budget
1/4/2019	9:30 - 11 PM	Time spent doing project update
1/8/2019	1:45 - 4:15 PM	Meeting with Daniels Run contacts (Jeanette, Lori, and Julie); planted native species
2/6/2019	7 - 9 PM	City of Fairfax Environmental Sustainability Committee meeting; budget proposal
2/16/2019	11 AM - 2 PM	Invasive plant species removal event @ Daniels Run ES
3/6/2019	7 - 9 PM	City of Fairfax Environmental Sustainability Committee meeting; update
March 2019	About 3 hrs	Time spent making presentation for YCLI event

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Oct. 2018 - present	About 3 hrs	Time spent doing emails, phone calls, making to-do lists, etc.
3/30/2019	11 AM - 2 PM	Invasive plant species removal event @ Daniels Run ES
4/3/2019	7 - 9 PM	City of Fairfax Environmental Sustainability Committee meeting; plans for April
4/22/2019	6 - 9 PM	Time spent preparing for SEAS Event (GMU, 4/23)
4/26/2019	5 - 8 PM	Time spent preparing for Earth Day Event (Daniels Run, 4/28)
4/28/2019	2 - 5 PM	Invasive plant species removal event @ Daniels Run ES; in conjunction with City of Fairfax Earth Day event

V. ESC Grant

The City of Fairfax Environmental Sustainability Committee was kind enough to give \$300 of their annual budget to my project. This money was used to obtain various tools for the April 28/Earth Day event (and future events), as well as to buy materials to put together a display for the Earth Day event. In addition, \$34 was used by Jeanette Stewart (of Lands and Waters) to buy 4 native plants (silky dogwood, arrowwood viburnum, possumhaw viburnum, blackhaw viburnum) for the hill that we cleared on previous invasive plant removal dates. These plants were planted on April 28, in addition to some River Birch saplings that were donated by the City. In total, \$160.47 was spent and the receipts and invoices for all of the supplies and plants were emailed in a PDF to Stefanie Kupka, the Staff Representative for the ESC.

VI. Conclusion

As mentioned in the introduction, invasive plant species are stubborn by nature and persist even with management. There is still a strong need for upkeep and maintenance of the invasive species to take place. Additionally, even with all the effort put in so far, there are still many more invasive plants in the area that need to be maintained. Therefore, workdays will continue to occur, approximately every 1-2 months, and hopefully word will continue to spread about the work-days so that more volunteers can come to help.