

Weed Warriors 2021

The South Burlington Weed Warriors were back in action in 2021. After a program pause in 2020 due to COVID, the City was able to organize a year of trainings and events to re-start this volunteer-driven effort. The goal this year was to re-engage volunteers and re-educate the community on the invasive plant problem. It was an incredibly successful season, and staff are encouraged by the high number of volunteers that continue to return to the program and contribute their own time to help the City improve the quality of our natural areas.

Invasive plant removal efforts continue to be focused on all of our natural area parks, including Red Rocks, Wheeler, Hubbard, and City Center Park. As noted above, volunteers are making significant contributions in the parks, both in independent and group outings. All receive guidance from our training and removal consultant. Some volunteers are adopting parks as their site, while others choose to focus on one plant species.

Staff were able to plan events this year, and in doing so, there was an attempt to diversify the type of event being offered. All still included training on the identification and proper removal techniques, but some were tailored to offer a different perspective. For example, one event was a photo challenge event aimed at training volunteers on the importance of photo documentation in the long-term monitoring of invasive plant removal. There was also a late fall training that shared tips and tricks for managing invasive plants at the end of the growing season. There were six invasive plant removal events for volunteers to participate in, and at least one was held at one of the focus parks. Each event ranged from two to three hours.

Oriental bittersweet is a major issue in Red Rocks and Wheeler, impacting public safety by affecting the tree canopy and native species regeneration. Also noteworthy are the herbaceous invasive species that are becoming well-established in open spaces at Wheeler and Hubbard. These are very much affecting biodiversity in these areas, and staff may need to consider more focused management to battle these plants (i.e.: increased brush-hogging where appropriate). Wild parsnip was found for the first time in City Center Park (122 plants), and a plant was pulled at Hubbard. Removal of parsnip continues at Wheeler (213) in an attempt to make these sites safe for users. Monitoring is going to continue to be important as the removal of invasive species often results in an increase in opportunity for the growth of new invasive species. This has been observed in our parks, and the areas being most impacted are being noted for focus next season.

Overall, 7,984 invasive plants were pulled and 3,385 invasive plants were cut/stripped/girdled at all four parks. It should be noted that volunteers tend not to count pulls and cuts, so this data is very conservative. Wheeler is seeing an increase in the number of invasive plants found there, as the meadow areas are seeing an increase in invasive plants versus native. This was the first season of volunteer effort at Hubbard, and there is a lot of future work that can be done at this park. Overall, the plants most commonly seen across all parks, include: common buckthorn, glossy buckthorn, burning bush, oriental bittersweet, garlic mustard, multi-flora rose, amur maple, autumn olive, burdock, wild parsnip, and goutweed.

Financially, the consultant and volunteer-led invasive plant management tactic has been very cost-effective for the City. There continues to be a lot of work to do, but it is paying off. In 2021, our consultant spent 168 hours over 21 days removing invasive plants from our parks. This led to a total

cost of \$7,550 for the growing season. When looking at the numbers for our volunteers, the data this year was very impressive. This year, the City had about 34 volunteers that spent approximately 74.5 hours removing invasive plants across our parks. When doing an analysis of how much this time and energy was worth, it comes out to about \$3,353, which is about 45% of our total consultant cost. It is amazing to see that our volunteers are equaling almost half of what we are spending on consultant time, and underscores the value that this program has for our long-term management work. It is clear that maintaining the passion and energy these volunteers have is the focus for 2022, especially if we intend to build on this volunteer growth and expand the program in other ways.

There are many management needs across all of our parks. The Weed Warrior program was formed to focus only on invasive plant management, but it is easy to see how a program like this could positively impact our other management needs (i.e.: trail maintenance and overall park monitoring). Staff should consider how to expand the Weed Warrior program in 2022, and how to utilize volunteers to continue building staff and financial capacity.

To wrap up this year's summary, staff would like to thank Mike Bald, owner of *Got Weeds?*, and all of those volunteers that made a huge impact this year. Our invasive plant management efforts would not be as successful without our Weed Warrior program, and all of us thank you.

If you have questions about the City's Weed Warrior program or our invasive plant removal efforts, please contact Ashley Parker, City Project Manager at: aparker@sburl.com.