



Hydro Corridor Summer Report Summer 2020
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Table of Contents

<i>Introduction</i>	<i>3</i>
<i>How the corridor was divided for the summer</i>	<i>3</i>
<i>Maintenance on top of wild parsnip removal.....</i>	<i>8</i>
<i>How to corridor is used.....</i>	<i>14</i>
<i>Recommendations moving forward.....</i>	<i>15</i>
<i>Conclusion</i>	<i>15</i>

Introduction

The goal of this report is to summarize how the Hydro Corridor was maintained throughout the summer 2020 term and to expand on last year's report in terms of noxious plant removal, observations of its use, and engaging the community. The main focus, once again this year, was to remove any wild parsnip (*Pastinaca sativa*) in goal of keeping the designated areas pristine. However, due to the vigorous plant removal work done last year, time spent removing wild parsnip was shorter in length in comparison to the amount done the previous summer. This allowed for other types of maintenance to be done and gave the opportunity to expand into other areas such as researching, removing other invasive plants, and expanding our outreach.

How the corridor was divided for the summer

Throughout the course of the summer, the goal was to maintain the same area as maintained the previous summer. This was to demonstrate the results of two years of invasive plant removal. A strong emphasis was put on only maintaining the designated areas to show contrast of what a maintained area looks like as opposed to one that isn't. Following is a map showing these areas.

Red section (From Brady to the large metal tower): Maintained Section. Indicates the area which now has had to years of maintenance.

White section (From Terry Fox Dr to the large metal tower): Unmaintained section. Indicates the area where no parsnip was removed throughout the course of the summer.

Black section (From Brady to Klondike Rd): Unmaintained section. This differs from the white section as it was completely mowed about halfway through the summer. It was kept unmaintained to observe the effects the mowing would have on the parsnip in that section.

Figure 1.1 Divisions of the Hydro Corridor



The highlighted areas encompass the complete area of the Hydro Corridor of which the community association was observing and documenting throughout the course of the summer.

Closer look upon the highlighted areas

Red section (maintained):

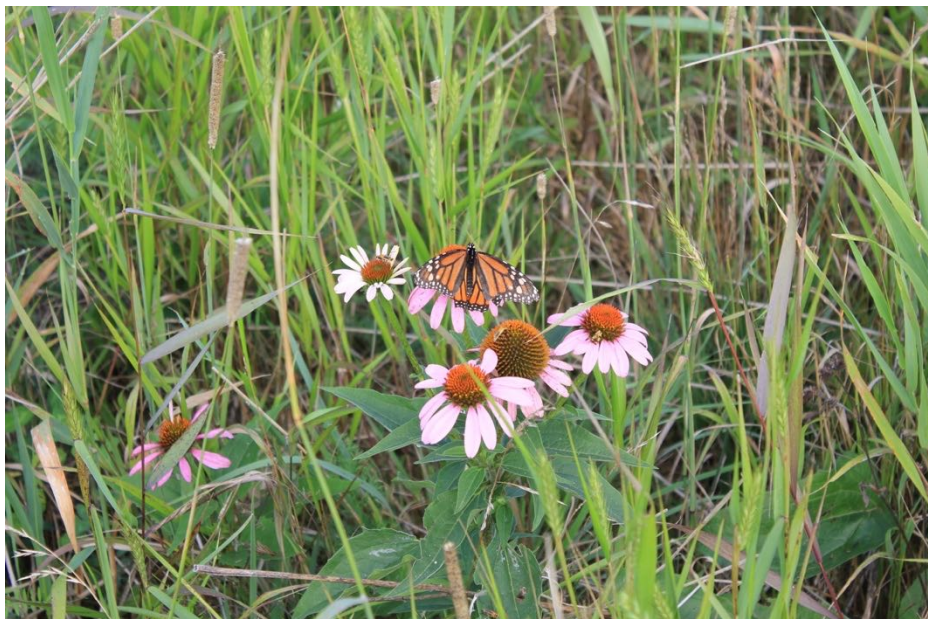
Here is what the maintained version looked like at the beginning of August after it had received a few months of maintenance over the summer.

Figure 2.1 Red section overview



The main maintained section was dominated by long grasses, native plants and flowers that support a healthy urban greenspace and pollinator meadow.

Figure 2.2 Monarchs in the maintained meadow



In the maintained meadow, monarch butterflies (such as this one), pollinator bees as well small birds, bugs and other organisms that indicate a healthy meadow were spotted throughout the course of the summer.

Finally, a large amount of the maintenance in the red section was needed to be done on the areas in behind properties of the Hydro Corridor. With the large established meadow in the middle, in tandem with the maintenance last year, it was difficult for the parsnip to outcompete the other plants and only a fraction of the total amount of parsnip removed came from within the thick brush of the meadow.

Figure 2.3 Example of area needing maintenance



The areas such as this along the sides of the meadow where the grass is short and not many other plants around were the ones that possessed the most amount of parsnip that was removed.

White section (unmaintained):

As mentioned before, this area was left unmaintained to demonstrate the contrast of two years of maintenance versus none.

Figure 3.1 Storm drainage clearing near Terry Fox Dr



In this area, the parsnip has been able to establish itself and spread throughout. It represents a large majority of the tall plants in that area.

Black section (unmaintained and mowed):

This area was also unmaintained; however, it received a cut about halfway through the summer term. Not much parsnip was in the area prior to the cutting, so it was left unmaintained to observe the effects of mowing on the spread of wild parsnip.

Figure 4.1



This photo was taken weeks after the large-scale mowing had taken place. The grasses have started to grow back, however, its unlikely they will reach the height they were before the cutting before the end of the summer. The parsnip in this section is growing back quicker than the native grass species and could pose a risk of spreading and could require maintenance next summer.

For more information on the parsnip growing in this section, a report has been made on mowing and its effects on the parsnip. Additionally, reference last year's report on other species that were being removed such as buckthorn, etc.

Overall, each divided area on this section of the Hydro Corridor is unique and demonstrates how different factors such as maintenance, cutting, and no maintenance has on the native plant species and wild parsnip in that area.

Maintenance on top of wild parsnip removal

As previously mentioned, due to the lower number of parsnips needing to be removed in the designated area, this allowed for more projects and opportunities to take place. This includes things like maintaining under the electrical towers, garbage/waste removal and non-native plant species removal.

Tower maintenance:

This project was taken up with the goal of keeping underneath the electrical towers maintained to improve the overall quality of the urban meadow. This is because they were often crowded with dense brush that would house plants that didn't qualify as being beneficial to the pollinator meadow. Clearing under the towers not only allowed ease of access to the community association to remove any harmful plant material, but also to Hydro One should they need to perform maintenance on their structures and power lines.

Here are some examples of underneath the towers before and after maintenance.

Figure 5.1 Metal tower dominated by sumac

Before maintenance:



After maintenance:



Figure 5.2 Wooden tower example

Before maintenance:



After maintenance:



After this cutting was done, a seed mix that contained the seeds of native grasses and flowers were spread underneath the tower in the areas that were cut. This was done in goal of finding a more long-term solution than cutting every couple of weeks. If native grasses can establish themselves under the towers, cutting won't need to be done as often because the native grasses will keep most of the invasives from establishing themselves there instead.

Other maintenance and projects:

Some other projects that were taken up were ones that started to expand our outreach. For example, a member of the community asked us to start to take a look at the forest only a few hundred meters away from the corridor. There is threat of some dog strangling vine starting to begin in the forest. This is relevant to the health of the Hydro Corridor as it is also an invasive species that propagates wherever there is opportunity. Given the chance, it could begin to establish itself in the corridor posing a threat to the native species and pollinator plants.

6.1 Dog Strangling Vine in the forest



Stump removal:

Through the removal of buckthorn throughout the summer, root systems stemming from stumps leftover in the ground were found to be the source. A small project involving drilling the stump and covering it attempting to dry it out in hopes of rotting it for easy removal was taken

up. Although stump grinder would be the best course of action, this is a fairly non-invasive method and doesn't require large machinery.

Garbage and waste removal:

There is waste laying around certain sections of the corridor that are unmaintained. These waste items such as mowed grass, concrete, metal, and other materials can create a shelter for the wild parsnip to grow in between. Getting rid of some of this waste was a goal however there is still more dotted around the corridor. For a long-term healthy meadow, keeping waste to a minimum on the corridor would prove beneficial.

7.1 Tree sheltering parsnip



This photo shows a dead shrub like tree sheltering wild parsnip plants that are growing up from under its branches.

How the Hydro Corridor is used

This section of the report will highlight how some property owners that back up onto the Hydro Corridor use the area behind their homes. Property owners that had structures such as sheds, play structures, and gardens have all continued to place them in behind their property once again. There is a large amount of mowing that is also done in behind properties in general. Mowing of the Hydro Corridor in behind properties in excessive amounts can cause harm to the pollinator meadow reducing the surface area in which the native plants and flowers can grow decreasing the positive environmental impact of the bees and other wildlife inhabiting the urban meadows.

8.1 Mowing of the corridor



Here we see a mow that clears from one end of the Hydro Corridor to the other. On both sides of the mowing, there is an example of what this area would like uncut which would support more grasses and native plants. This area could be remedied with a native grass seed mix and letting it grow.

8.2 Placement of structures on the corridor



In these two photos, we can see that the Hydro Corridor has been mowed in dozens of square footage in behind properties.

Recommendations moving forward

Continuing maintenance on the designated section is advised to uphold a good example of what Hydro Corridors can look like if they are taken care of. Furthermore, employing students over the summer to take care of maintenance and other tasks would prove beneficial for both the community association and stakeholders invested in the Hydro Corridor. Developing a relationship with Algonquin College could provide a steady flow of employees should projects expand in the future. Also, beginning to think about how to apply the things learnt over the two years spent doing maintenance on the corridor. The experience could be used to expand these ideas to other potential corridors. This could prove beneficial to increasing green infrastructure around other community associations finding themselves in similar circumstances as the BMGCA.

Conclusion

In conclusion, this being the first official co-op placement opportunity through Algonquin College, it was an overall success. The goals that were set at the beginning were able to be achieved through the combined efforts of everyone involved in the development of this project.

The Hydro Corridor was documented, observed and maintained throughout the summer. The continuation of a relationship between Algonquin College and the BMGCA could prove mutually beneficial for future opportunities.