Save Our Seine River Environment Urban Green Team 2020 Final Report

Caleb Fenez, with assistance from
Madeline Mitchell and Amandine Kern
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SUMMARY & INTRODUCTION

Due to Covid-19, and its impact on working habits, 2020 was an odd year for Save Our Seine's Green Team. The team worked a later season, beginning June 15th and ending August 21st. Not only did Covid-19 impact the start date of the season, but it also impacted how the team operated throughout the season, whether it be through additional costs, changes to public interaction, or general social distancing practices. Even with the odd nature of the 2020 season the Green Team worked hard and had a substantial impact on the river through planting, removing invasives, and cleaning the river itself.

TEAM COMPOSITION

Stewardship & Education Coordinator = Caleb Fenez
Habitat Technician = Madeline Mitchell
River Keepers:
Full-Time = June Njenga, Walker Giesbrecht, Chris Penner, Amandine Kern
Part-Time = Emily Thoroski

EMPLOYMENT ACTIVITIES

Garbage Removal

The most common undertaking of the Green team, interspersed throughout the team's other endeavours, was the removal of garbage. The team primarily went about removing garbage via two methods; collection from within the boat and collection on foot along the shore. Garbage was a constant along the river, with more being collected nearer to the inner city. The most common forms of refuse, by far, were beverage containers and other simple, common household waste. Along with more common forms of garbage the team came across 7 needles, several construction pylons, and a number of childrens toys.

Log Jams

Another important aspect of the Green Teams work throughout the season was the removal of obstructions, namely, fallen logs, debris, and shopping carts. While log jams and other obstructions were largely case specific in approach, some general tools and tactics were used throughout. The team would survey the area, test the depth of the water, and with the assistance of chest waders, enter the river to clear the obstruction. The team used tools such as bow saws, hatchets, a splitting axe, and loppers.

An emphasis was placed on ensuring the river remained accessible and usable for humans as well as wildlife. That balance meant removing only the necessary trees to remove a natural obstruction, so as to not affect fish habitat and potential sunbathing locations for turtle populations along the river. If the obstruction was composed of unnatural materials, such as shopping carts or construction materials, the entirety of the 'jam' was removed, so as to ensure the Seine remained an entirely green space.

Invasive Species Management: Buckthorn

Throughout the Green Team's daily activities, the team continuously searched for buckthorn in all areas of the Seine. Unfortunately, the invasive species was found in many parks and green spaces along the river banks, including Morrier Park, Kavanagh Park, and Happylands Park. The first step upon identification of the plant would be marking the areas on a map to ensure removal at a later date. When removing the buckthorn, the Green Team would safely use tools including axes, saws, and loppers, to remove the trees as close to the roots as possible, to ensure the tree would not continue to grow or reproduce. Once the trees had been removed, the team would diligently check the branches for berries, to identify Male and female trees. If the trees were female, the branches with berries would then be cut and carefully placed into a yard waste bag for proper disposal. This process ensured no berries were left to germinate in the soil. If the trees were Male, they would be left in the forest, away from the River and walking trails so as to not impede animal and human activities.

Once the trees had been cut down, the green team covered the stumps and shoots with industrial grade garbage bags in order to 'suffocate' the trees to impede further growth. The garbage bags were secured with rope, tape, or zip ties, which would then be removed at a later date once the stumps had completely died.

Invasive Species Management: Canada Thistle

The removal of thistle is a diligent, tedious, and often painful process. As a result the green team would remove thistle on cooler days when long, thick clothing could be worn to reduce the possibility of being pricked by the thistle. Additionally safety measures included wearing thick gardening gloves to pull the plants.
The team actively searched for invasive species, including thistle, throughout everyday activities, and made note of infected areas. Upon the discovery of thistle patches, a decision would be made as to whether the plants needed immediate removal (if they were flowering or soon to be flowering) or if the team could return on a cooler day.

Once all thistle plants in a particular region had been safely removed from the soil, the team would undertake proper disposal to ensure the plants would not continue to seed into the area in question. Our common practice for this task was lining the truck bed with a large tarp, then piling the plants on top of it. We would then transport the plants to the dump for safe discarding.

Cultivated Region Upkeep
An additional responsibility of the Green Team is the maintenance of Save Our Seine's gardens; The Rain Garden, The Triangle, and The Meadow. While volunteers play an enormous part in the upkeep of each of the respective gardens, the team would participate in some activities aimed at upkeep of the cultivated areas. Such activities include: removing invasive and weedy species, watering the gardens, caging high risk plants, planting native species, garbage collection, mowing/beautification of the surrounding areas, and species identification. The Rain Garden, being Save Our Seine's largest garden, was the main area of focus for the Green Team. The team would water the gardens on a weekly, and eventually twice weekly, schedule.

The Rain Garden was the site of a considerable amount of garbage this year, likely due to its proximity to Superstore and being situated in a particularly high traffic region. A majority of the refuse found in the garden came in the form of plastic shopping bags and single-use sanitizing wipes. While any number of factors might impact levels of garbage found at the Rain Garden, both the increase in sanitizing wipes and plastic bags could have been a result of covid protocols undertaken by Superstore. Included in the Green Team's activities throughout the gardens were several large scale planting, and caging efforts, mentioned in more detail as a major accomplishment of the team.

Trail Maintenance
Ensuring the public can access the Seine River is one of the Green Team's main priorities. Achieving public engagement means making sure that large sections of the river are accessible to all members of the public, primarily through trail maintenance. The team repaired and maintained a number of trails, specifically through the removal of fallen trees and plant species which were encroaching onto the path. This meant the team would use loppers, saws, and several other tools to remove the obstruction and ensure the path was clearly visible. Locations of Trail Maintenance include: Fernwood Ave., Bois Des Esprits, and Whittier Park.

An aspect of trail maintenance which the team was incapable of undertaking this year, but which may be useful for the future is the management of poison ivy in high traffic regions. The irritating plant species could be found encroaching onto makeshift, and city pathways in the Niakwa, Creek Bend, Whittier, and Deschambault regions.

Educational Resource Development
Unfortunately, due to the wide reaching impacts of Covid-19, Save Our Seine's Green Team was not able to participate in any public facing educational events. As a result the Green Team focused on the development of materials for further educational opportunities along the Seine; namely, signage material. The team brainstormed and developed a range of topics pertinent to the Seine River including: buckthorn, local bird species, deer, ticks, beaver, ways to enjoy the Seine, and species found within the Triangle. Development of signage materials was undertaken nearly entirely when conditions made more physical, outdoor labour dangerous or impossible, such as in the case of a thunderstorm warning or extreme heat warning.

Both useful for keeping the Green Team engaged in identification and learning opportunities on the river and for providing the team with a way to remain productive indoors, signage and the development of educational resources was an important activity. It is encouraged that the team continue to have opportunities such as these in the future.

Tree Caging

Another undertaking of the Green Team was the protection of trees along the banks of the river. Such protection came in the form of placing and replacing beaver caging to ensure particularly large trees did not collapse into the riverway, causing the river to swell, become impassable, or become unsafe. The team would walk the many trails along the Seine, marking the location of beaver activity as well as beaver caging in need of replacement. Later the team would return with a large roll of fencing to wrap the tree, making sure to provide the tree itself with plenty of room to continue its growth. The team wrapped 10-15 trees this season, a large majority of those being replacement cages for those that were too tight around the tree, warped, rusted, or unsafe for wildlife. The common occurrence of these cages in need of replacement shows the need for constant observation of the treeline along the river.

Species Identification

Species identification is clearly an important component of the Green Team's skillset, as it makes removal and protection of species much simpler. The team had a diverse set of identification abilities and collaborated to be able to identify a wide variety species along the seine. As follows is a (non-exhaustive) list of species identified by the Green Team throughout their work.

I. Identified Species: Plants

American Black Currant	American Bugleweed	American Elm
Amur Maple	Anemone Canadensis	Bull Thistle
Canadian Bluejoint	Chokecherry	Common Dandelion
Common Lambs Quarter	Common Milkweed	Common Motherwort
Common Yarrow	Creeping Bellflower	Creeping Bellflower
Creeping Thistle	Curled Dock	Early Meadow Rue
Eastern Cottonwood	Field Bindweed	Field Pennycress
Fringed Willow Herb	Giant Ragweed	Greater Burdock
Greater Plantain	Heart Leaf Golden Alex.	Hemp Dogbane
Horseweed	Lesser Burdock	Manitoba Maple
Maximilian Sunflower	Northern Bedstraw	Obedient Plant

Oxeye Daisy	Perennial Sow Thistle	Philadelphia Fleabane
Prickly Wild Rose	Red Osier Dogwood	Reed Canary Grass
Siberian Elm	Silver Wormwood	Smooth Brome
Spotted Joe Pye Weed	Spotted Lady's Thumb	Squirrel Tail
Lily of the Valley	Stickseed	Stinging Nettle
Stinking Iris	Swamp Milkweed	Tatarian Honeysuckle
Thicket Creeper	Timothy Grass	Tufted Vetch
Western Poison Ivy	Western Snowberry	White Sweet Clover
Wild Cucumber	Wild Horsetail	Wild Licorice
Witches Grass	Wood Nettle	Wormwood
Yellow Avens	Yellow Sweet Clover	

II. Identified Species: Insects

Asian Lady Beetle	Black Blister Beetle	Black Swallowtail
Brown Stink Bug	Colorado Potato Beetle	Dark Paper Wasp
Dogbane Leaf Beetle	Large Spotted Ladybird	Monarch
Peck's Skipper	Seven Spotted Lady Beetle	Yellow Head Cutworm Moth

III. Identified Species: Fungi

Artist's Bracket	Black Knot	Pale Brittlestem
Pleated Inkcap	Scaly Inkcap	

IV. Identified Species: Birds

American Robin	Baltimore Oriole	Canadian Goose
Great Horned Owl	Mallard Duck	Northern Harrier Hawk
Pileated Woodpecker	Wood Duck	

V. Identified Species: Mammals

Beaver	Eastern Cottontail	Fox
Muskrat	Otter	Skunk
American Red Squirrel	White Tail Deer	

VI. Identified Species: Others

Blue Gilled Catfish	Common Carp	Common Striped Woodlouse
Garter Snake	Grove Snail	Northern Leopard Frog
Painted Turtle	Snapping Turtle	Southern Cricket Frog
Wood Frog		

MAJOR ACCOMPLISHMENTS

Kavanagh Park

Kavanagh Park was a large project for the Green Team this year. The canopy, as well as the understory of this park, located near Marion St. and Archibald Ave., consisted overwhelmingly of buckthorn.

The team worked many long days at Kavanagh park, often returning numerous times in one week, to try to control the spread of invasive buckthorn. The team followed the procedures outlined in the 'Buckthorn management' section, to cut and safely remove all invasive plants, with the only discrepancy being in the removal of female trees from this area. Because of the mass amount and size of the buckthorn in the park, the team was unable to place all female branches and berries in yard waste bags for removal. Instead,the female trees were piled in an area away from pedestrian paths, and the city was contacted for collection.

Although the Green Team worked tirelessly to try to remove all trees and young buckthorn plants, some areas were so heavily infested that we simply could not remove all saplings.For this reason, Kavanagh park is an area that should be visited frequently in future years by the team to further reduce the buckthorn population. It may also be worthwhile to formulate a more comprehensive buckthorn strategy, as the prevalence of buckthorn makes it one of the Seine's largest possible challenges.

Rain Garden Planting/General Maintenance & Improvements

Save Our Seine's Rain Garden was a considerable undertaking for this year's Green Team. The team spent a substantial amount of time working on improving and maintaining the team through planting, caging, watering, and other beautification endeavours. Initially, the team planted a number of native species in the south-eastern corner of the garden. The corner had previously been damaged by construction equipment, and the new plants were intended to repair the scarred region. As a means to protect the newly planted corner from bunnies and vandalism the team then constructed a fence. Later in the year the team continued planting, this time placing a considerable number of plants all throughout the garden. Finally, as a means to mark the barrier of the garden, the team placed wood chips along its length, and protected the initial plantings with shade cloth, so as to reduce the need for watering.

All considered the team planted nearly 300 plants at the garden, and hauled several cubic metres worth of wood chips. That, along with bi-weekly watering, fence construction, and garbage removal meant the team spent a considerable portion of the summer working at the garden. All to make the Rain Garden one of the team's largest accomplishments.

IMPACTS OF COVID-19

Cleaning & General Practices

Covid-19 had several impacts on the ways in which the Green Team operated this year. Primarily, the pandemic resulted in an increase in cleaning procedures. The team would wipe the truck down thoroughly at the beginning and ending of work days, using disinfectant spray on high contact areas such as seat belts, handles, and the shared console. The team would also frequently disinfect shared tools and waders. While in the shared vehicle, the team was required to wear face masks and shields, all to prevent the potential spread of covid-19 amongst the team.

Sick Days

Covid-19 made taking sick days imperative for the health and safety of the team. To encourage the team to stay home while sick, home work was provided and the team was paid for sick days.

Access to Lunch & Restroom Facilities

Our daily tasks took us to many places throughout the city, from St boniface to south St Vital, and everywhere in between. The team would stop for restroom breaks wherever, whenever needed, although access to facilities proved challenging in some areas of the city. This difficulty was intensified as a result of heightened safety measures due to the covid pandemic, and many shops and restaurants choosing to restrict access to public washrooms. Consequently, we found ourselves driving around, searching for public restrooms for longer than usual in the first few weeks of the SOS green teams summer season.

As stated earlier, the green teams daily responsibilities led us to be in various areas of the city throughout the day, and during the lunch break. We often found ourselves at a loss of where to break for lunch, due to various challenges. One of these difficulties this summer was the abundance of bugs and mosquitos in parks along the Seine River Green way, where the team would occasionally rest to eat. Sitting outdoors in these parks for lunch became unbearable as a result of the bugs, who seemed impervious to any bug repellent. A solution to eating outdoors without being assailed by swarms of mosquitoes might be to dress in loose-fitting layers, which was not possible because of our other major challenges; the heat. Temperatures this summer with the humidex were frequently upwards of 30 degrees, which put the health and safety of the team at risk of sunburn and heat stroke, no matter the task. We then had the difficult task of attempting to find a place to eat that was out of the direct sun-light, was without bugs, that did not have limited access as a result of covid, and that was not terribly far out of our general working area for that day.

RECOMMENDATIONS

Shared Digital Map

Sharing information from year to year would be very useful, as locations of buckthorn and other invasives would be useful information for future teams to have. It is suggested the Save Our Seine develop an online, shared map which could be used by the team.

Heavy Duty Garbage Picker Uppers

The team's garbage picker uppers often broke, and due to the often physically demanding nature of removing garbage from the river it is recommended that Save Our Seine invest in durable and strong garbage picker uppers.

Lead River Keeper Full Time Position

It is suggested that the Lead River Keeper position is filled as a full-time position. Having a secondary supervisor present a majority of the time would allow for more efficient use of time by permitting the team to undertake multiple tasks when necessary.

Seek (iNaturalist) Application

Identification of native and invasive species is imperative for the proper functioning of the Green Team. The team attempted several different applications to help identify uncommon or difficult to identify plants. "Seek", an application by iNaturalist, is incredibly useful, and very efficient at determining plant species. It is recommended that the team use this app in the future for effective species identification.