



IMPACT REPORT

2020/2021

With the generous support of our donors, *From the Ground Up* engaged over 350 students to inspire learning and local environmental stewardship.

Over the past two years, students from more than a dozen classrooms participated in our *From the Ground Up* program. The COVID-19 pandemic presented us with unique challenges in 2020, but we quickly adapted. Several learning modules moved online, including our new “Riparian Rescue” offering that teaches students about the importance of protecting local waterways with buffers of native shrubs.

In 2021, we relaunched many of our in-field activities. Classes made their way to program sites across our watershed to help plant **675 trees and shrubs** and remove **400+ invasive plants**, promoting the health and resiliency of local natural areas.



Thank you for supporting outdoor learning and stewardship!



Program Highlights

In 2020 and 2021, we hosted five programs, including:

- Two “Enhancing the Urban Forest” program with Anne J. MacArthur P.S. and Milton District High School
- Three native seed collection events with Conservation Halton’s Volunteer Core

In total, we engaged 354 students in Grades 6-9 who worked with Conservation Halton staff and volunteers to establish healthy forested parkland in the heart of Milton and a shaded riparian buffer along Sixteen Mile Creek. Specifically:

- 675 trees and shrubs planted
- 2,980m² area along Gellert Park and McCraney Creek Trails cleared of invasive shrubs

As newly planted trees and shrubs continue to grow, they absorb carbon, provide wildlife habitat, and offer shaded areas that help to moderate local temperatures. Trees and shrubs also play an important role in water and air quality, filtering contaminants and pollutants.

Overall, the greenspaces enhanced through this project are contributing to the health and wellbeing of local communities and wildlife—and these spaces have helped hundreds of students learn about forest ecosystems and the benefits of local stewardship.

Volunteer Engagement

Our program logged 52 volunteer hours from 16 community volunteers who participated in native seed collection events as well as field preparation days that readied our program sites for invasive species removals and tree and shrub plantings.

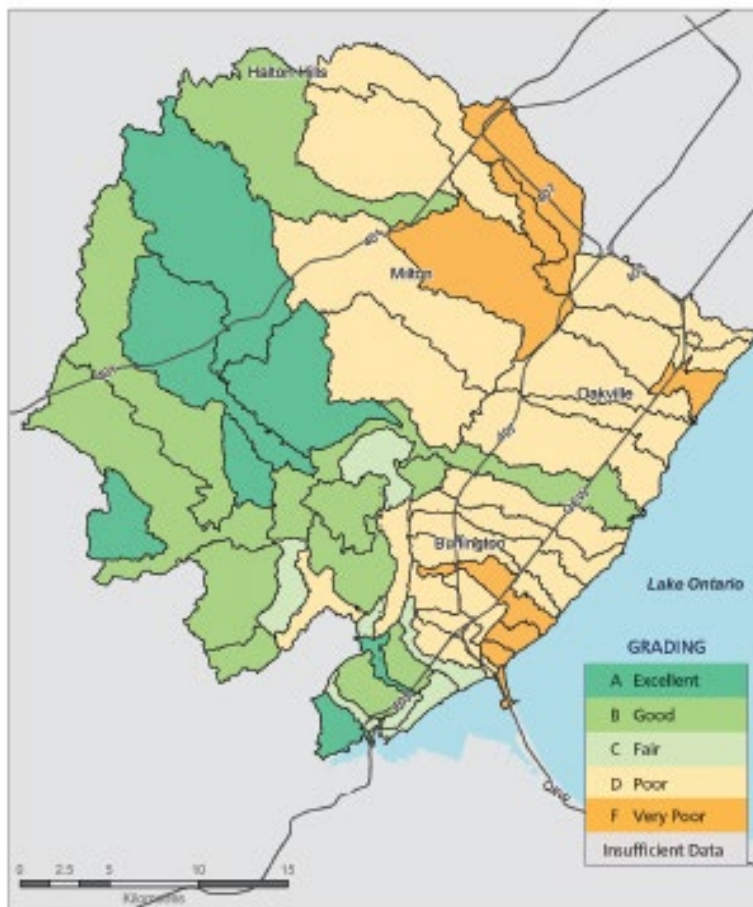


From the Ground Up Background

Conservation Authorities across the province produce report cards that provide a snapshot of the health of their watersheds every five years. They report on the quality of four environmental factors: groundwater, surface water, forest conditions, and impervious cover.

Forest Condition is a key factor as the amount of forest cover can have a significant effect on other environmental measures.

Although grades for Halton's forest cover range from A (Excellent) to F (Very Poor), the majority of Halton's watershed falls in the D (poor range). Conservation Halton is working hard with communities to reverse this trend, such as through local neighbourhood-based programs like *From the Ground Up*.



Forest Conditions – 2018 Halton Watershed Report Card

Our Supporters:



Our Partners:



About From the Ground Up

From the Ground Up is a new hands-on environmental education program offered by Conservation Halton that engages middle school students in effective stewardship of their local natural areas.

Our goal is to provide students with opportunities to learn about Halton's forests and the steps they can take as a school and as individuals to sustain and restore forest cover and habitat through targeted stewardship efforts.

Appendix A – Program Details for the Canadian Tree Fund

From the Ground Up is a new hands-on environmental education program offered by Conservation Halton that engages middle school and high school students in stewardship of their local natural areas. Thanks to the support of the Jack Kimmel grant through the Canadian Tree Fund, students were provided with opportunities to learn about Halton's forests and the steps they can take with their school, and on their own, to sustain and restore forest cover and habitat through targeted stewardship efforts.

The program highlights the results of Conservation Halton's Watershed Report Card, which provides a snapshot of the health of the watershed every five years. The report card illustrates the relationship between forest conditions and the quality of surface and ground water. By focusing on actions that improve forest conditions, students can make positive contributions to forest health and water quality in their communities.

The program began with two educational options:

- 1) **Enhancing our Urban Forests:** *focuses on improving the biodiversity of local forests through native tree and shrub plantings.*
- 2) **Species Invaders:** *concentrates on improving the integrity of our forests through invasive species removal, documentation and underplanting.*

Both programs feature an in-class educational component, customized to their topic, which introduce students to local forest ecosystems, the ecological services they provide and challenges they face. The in-class portion of the program also reviews what the students will encounter in the outdoor portion of the program and how to prepare.

Once outdoors, Conservation Halton staff provide plant identification instruction, planting and invasive removal demonstrations, an introduction to the equipment used, as well as a review of safety measures. Students are soon hard at work, gaining skills and confidence through their efforts.

Program Goals

The long-term goal of **From the Ground Up** is to foster a generation of informed and active youth who are personally engaged in the stewardship of their natural environment. Over the short-term (2020 and 2021) Conservation Halton's goal was to reach students in four watershed communities: Halton Hills, Burlington, Milton, and Oakville, with a total of five **From the Ground Up** programs. The anticipated number of students participating in each program was 125.

Outcomes

The COVID-19 pandemic significantly affected the delivery of the **From the Ground Up**. However, Conservation Halton was able to adapt the program, focusing on program preparations in 2020 and program adaptation and delivery in 2021.

2020 – Program Preparations

Conservation Halton undertook a variety of activities in anticipation of the 2021 season, following COVID-19 Public Health guidelines:

- Preparing planting sites at Gellert Park in Halton Hills with small groups of community and high school student volunteers. Large non-native invasive shrubs, too large for middle school students to tackle, were removed in anticipation of 2021/2022 programs/plantings. Five events were completed.

- Collection of tree, wildflower, and grass seed in preparation for 2021 plantings with the assistance of Community volunteers. Two events were completed.
- Purchasing of equipment/material for 2021 program.

2021 – Program Adaptation and Delivery

Adaptation

To deliver **From the Ground Up** under the pandemic’s constraints, Conservation Halton took several steps to modify the program:

- In-class programs components of the two existing programs were converted to virtual delivery; and
- A new program module was created called **Riparian Rescue: Protecting our local waterways with buffers of native shrubs**. This module can be presented virtually, and the hands-on portion completed entirely in-class without CH staff presence.

Riparian Rescue: Protecting our local waterways with buffers of native shrubs. This module introduces students to the importance of Halton’s riparian habitats – those found adjacent to streams, rivers, wetlands and lakes and the role they play in providing wildlife habitat and protecting water quality.

Students actively contribute to the protection of these areas with the hands-on *Riparian Rescue Kit*. The kit provides everything students need to grow Red Osier Dogwood shrubs from cuttings. During the virtual in-class component staff will review planting techniques and care of cuttings. They highlight features that make this species ideal for restoration. Once established, the plants are picked-up by Conservation Halton staff for use in local plantings to enhance and protect vulnerable areas along Halton waterways.

Spring Delivery 2021

- A group of five Conservation Halton Volunteer Core members took on an area of large common buckthorn along McCraney Creek in Oakville within walking distance of Pilgrim Woods Public School. Over 205 large invasive shrubs were removed to make way for future **Species Invader’s** programs.
- Four classes at Kilbride Public School in Burlington were scheduled to take part in the **Riparian Rescue** module in May. However, due to rising COVID-19 infections, public school students did not return to class following the delayed spring break in April, and unfortunately, the program was cancelled. We hope to engage the school in 2022.
- An **Enhancing the Urban Forest** program at Waterdown High School for a class of 30 Grade 9 students was put on hold when all field trips were cancelled by the school board.

Fall Delivery 2021

- Anne J. MacArthur Public School took part in the **From the Ground Up’s Enhancing the Urban Forest** program the week of October 18th.

Nine classes of grade 6, 7, and 8 students took part in the virtual hour long in-class educational program on October 18. Moving outdoors over Oct 19 -21, the students planted native trees and shrubs in Sunny Mount Park adjacent to the school. They planted in their class cohorts, closely following Public Health Guidelines and CH’s Education Program health protocols. In total, 234 students took part, along with 9

teachers. The planting activities were also observed, from a distance, by several enthusiastic Kindergarten classes, guided by their teachers.

During the program students planted 400 native trees and shrubs of the 2+ gallon size and over 25 red osier dogwood live stakes.

- Milton District High School took part in the **From the Ground Up Enhancing the Urban Forest** program on October 26 and 27. Five classes of Grade 9 students took part in the virtual in-class programming on October 26 and hiked to the Laurier Avenue and Commercial Street lowlands, adjacent to Sixteen Mile Creek on October 27 for the planting. In total, 116 students took part with five teachers. Again, classes closely followed COVID-19 Public Health protocols.

During the program, the classes planted 200, 1-2 gallon sized native trees and shrubs, 25 red osier dogwood live stakes and 25 black walnuts in challenging muddy conditions.

Overall, **From the Ground Up** was able to engage **fourteen classes (354 students)** through in-class (virtual) and hands-on outdoor environmental programs. In all, students **planted 675 trees and shrubs** and **removed over 400 invasive plants**. A summary of the program’s achievements is outlined in the table below:

From the Ground Up – Program Achievements 2020 and 2021

Short-term Goals	Achieved 2020	Achieved 2021	Total (2020 & 2021)
5 From the Ground Up Programs (2020 & 2021)	<ul style="list-style-type: none"> • 5 Site Preparation Events with 2 CH Volunteer Core members and 4 high school students from Christ the King High School (large invasive shrub removal) • 2 Native Seed Collection events with 5 CH Volunteer Core members (black walnut, hickory, native grasses, and wildflowers for use in FTGU programs) 	<ul style="list-style-type: none"> • 1 Site Preparation Event with CH Volunteer Core members (large invasive shrub removal) • 1 Native Seed Collection event with 3 CH Volunteer Core members (black walnut, wildflowers, and grasses for use in FTGU programs) • 2 Enhancing the Urban Forest programs <ul style="list-style-type: none"> ○ Anne J. MacArthur P.S. ○ Milton District High School • Additional From the Ground Up program module created – Riparian Rescue 	<ul style="list-style-type: none"> • 6 Site Preparation Events • 3 Native Seed Collection events • 2 From the Ground Up Programs
625 student participants (grades 6-9)	<ul style="list-style-type: none"> • 4 students (grades 6-9) (Christ the King H.S.) • 25 Kindergarten students from Ethel Gardiner P.S. stopped by the restoration site at Gellert Park to learn about invasive removal 	<ul style="list-style-type: none"> • 350 students (grades 6-9) <ul style="list-style-type: none"> ○ Anne J. MacArthur P.S. - 234 grade 6/7/8 students & 9 teachers ○ Milton District High School - 116 grade 9 students & 5 teachers • Two Kindergarten classes (~50) from Anne J. MacArthur P.S., 	<ul style="list-style-type: none"> • 354 students (grades 6-9) • 14 teachers • 75 Kindergarten students

Short-term Goals	Achieved 2020	Achieved 2021	Total (2020 & 2021)
		stopped by to observe the planting Cancellations: <ul style="list-style-type: none"> Riparian Rescue program at Kilbride Public School for 90 students was cancelled when students transitioned to at-home learning in May Enhancing the Urban Forest program at Waterdown High School for a class of 30 grade 9 students was put on hold when all field trips were cancelled by school board 	
670 tree and shrubs planted	<ul style="list-style-type: none"> No plantings 	<ul style="list-style-type: none"> Anne J. MacArthur P.S. <ul style="list-style-type: none"> 400 trees and shrubs 25 red osier dogwood live stakes Milton District High School <ul style="list-style-type: none"> 200 trees and shrubs 25 red osier dogwood live stakes 25 black walnut seeds 	<ul style="list-style-type: none"> 675
Invasive shrub removal (no specific goal set)	<ul style="list-style-type: none"> 210 multi-stemmed Common Buckthorn shrubs removed 	<ul style="list-style-type: none"> 205 common buckthorn & non-native honeysuckle shrubs removed 	<ul style="list-style-type: none"> 415
Area cleared (m ²)	<ul style="list-style-type: none"> 1,250m² of area cleared along Gellert Park Trail 	<ul style="list-style-type: none"> 1,730m² of area cleared of invasive shrubs along McCraney Creek Trail 	<ul style="list-style-type: none"> 2,980m²
CH Volunteer Core hours	<ul style="list-style-type: none"> 20 hours (7 volunteers) 	<ul style="list-style-type: none"> 32 hours (9 volunteers) 	<ul style="list-style-type: none"> 52 hours

Program Impacts

Through the **From the Ground Up** program, students helped establish forested parkland in the heart of Milton and a shaded buffer along Sixteen Mile Creek. While learning about the importance of forests and the many benefits they provide, students gained the skills and confidence needed to make a positive difference in their communities.

Their plantings will benefit the environment in a variety of ways, including absorbing carbon and contributing to lower local temperatures. As they grow, the trees and shrubs will filter rainwater and pollutants resulting in improved water and air quality. The enhanced greenspace will improve to the health and wellbeing of the community and local wildlife.

Relationship to Arboriculture

From the Ground Up teaches students about the importance of our native forests, to identify native trees and shrubs and to actively take part in their cultivation and management. Over time, the students will have the

opportunity to observe how their plantings grow and interact with the environment. **From the Ground Up** provides an active and memorable first introduction to the practice of arboriculture.

Follow-Up Work

In 2022, Conservation Halton will continue to develop the **From the Ground Up** program. We will work with municipal partners to identify sites for future programs. A dedicated FTGU equipment trailer will be introduced, and the purchase of class sets of equipment (e.g., shovels, saws, tree wrenches, etc.) will be completed. With these additions, **From the Ground Up's** outdoors stewardship events will be more efficient. We will be able to avoid juggling shared resources with other Conservation Halton departments; and with a simple hitch, bypass time consuming equipment loading.

Recognition

The support of the Canadian Tree Fund is highlighted in the **From the Ground Up's** Teacher Information Packages circulated through contacts at the Halton District School Board and the Halton Catholic District School Board as well as with private schools in the Halton watershed. The Canadian Tree Fund's support is also featured in the virtual in-class presentations to students and teachers.



Anne J. MacArthur P.S. @AnneJMacArthur1 · Oct 20, 2021
 Class 8-1 FI works with @ConservHalton to plant 13 species of trees and 2 species of shrubs at Sunny Mount Park! Some of these trees will last for 250 years, leaving our "roots" here at AJM for many years to come!
[#takemeoutsideday](#) [#plantatree](#) [#makeadifference](#)



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Anne J. MacArthur P.S.
 @AnneJMacArthur1

We're super excited to have participated in AJM's Tree Planting Project with @ConservHalton and @TownOfMiltonON. We learned about tree planting safety, the importance of planting trees in our community & the different types of trees/shrubs that the Grade 7's & 8's are planting.



Anne J. MacArthur P.S. Retweeted
Town of Milton @TownOfMiltonON · Oct 28, 2021
 We recently partnered with @ConservHalton & @AnneJMacArthur1 to plant 400 trees in Sunny Mount Park!

Students also participated in a presentation highlighting tree planting safety & the importance of planting trees in our community.

Trees in #MiltonON: [milton.ca/en/living-in-m...](https://milton.ca/en/living-in-milton)



8 26

Anne J. MacArthur Public School Sunny Mount Park, Milton

2021

From the Ground Up Program -
 Enhancing the Urban Forest



Milton District High School Sixteen Mile Creek Valley, Milton

2021

From the Ground Up Program
Enhancing the Urban Forest



**CH Volunteer Core
McCraney Creek - Pilgrim Woods, Oakville**

2021

From the Ground Up Program
Preparations for Species Invaders



**CH Volunteer Core & High School Volunteers
Sixteen Mile Creek - Gellert Park, Halton Hills**

Nov - Dec 2020

From the Ground Up Program
Preparations for Species Invaders