

Request for Delegation

FOR OFFICE USE ONLY

MEETING DATE YYYY/MM/DD 2020/12/10	MEETING NAME Regional Council
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Attention: Regional Clerk
Regional Municipality of Peel
10 Peel Centre Drive, Suite A
Brampton, ON L6T 4B9
Phone: 905-791-7800 ext. 4582
E-mail: council@peelregion.ca

DATE SUBMITTED YYYY/MM/DD 2020/11/05
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NAME OF INDIVIDUAL(S) Alice Casselman, B.Sc. (Hons), M.O.Ed. Catherine Sople
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POSITION(S)/TITLE(S) Founder and President; Founder

NAME OF ORGANIZATION(S) ACER (Association for Canadian Educational Resources); Building Up Our Neighbourhoods

E-MAIL alice.casselman@acer-acre.ca; sople@sympatico.ca	TELEPHONE NUMBER (416) 275-9463	EXTENSION
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REASON(S) FOR DELEGATION REQUEST (SUBJECT MATTER TO BE DISCUSSED) A Letter of Support is requested from Peel Regional Council by ACER (Association for Canadian Educational Resources) for its proposal to Environment Canada: Climate Action and Awareness Fund. The proposal targets Peel Region heat islands, and delivers objectives of the Peel Climate Change Plan.

A formal presentation will accompany my delegation <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Presentation format: <input checked="" type="checkbox"/> PowerPoint File (.ppt) <input checked="" type="checkbox"/> Adobe File or Equivalent (.pdf)		
<input type="checkbox"/> Picture File (.jpg)	<input type="checkbox"/> Video File (.avi,.mpg)	<input type="checkbox"/> Other <input type="text"/>
Additional printed information/materials will be distributed with my delegation : <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Attached		

<p>Note: Delegates are requested to provide an electronic copy of all background material / presentations to the Clerk's Division at least ten (10) business days prior to the meeting date so that it can be included with the agenda package. In accordance with Procedure By-law 56-2019, as amended, delegates appearing before <u>Regional Council</u> or <u>Committee</u> are requested to limit their remarks to 5 minutes and 10 minutes respectively (approximately 5/10 slides).</p> <p>Delegates should make every effort to ensure their presentation material is prepared in an accessible format.</p> <p>Once the above information is received in the Clerk's Division, you will be contacted by Legislative Services staff to confirm your placement on the appropriate agenda.</p>
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<p align="center">Notice with Respect to the Collection of Personal Information (Municipal Freedom of Information and Protection of Privacy Act)</p> <p>Personal information contained on this form is authorized under Section 5.4 of the Region of Peel Procedure By-law 56-2019, as amended, for the purpose of contacting individuals and/or organizations requesting an opportunity to appear as a delegation before Regional Council or a Committee of Council. The Delegation Request Form will be published in its entirety with the public agenda. The Procedure By-law is a requirement of Section 238(2) of the <i>Municipal Act, 2001</i>, as amended. Please note that all meetings are open to the public except where permitted to be closed to the public under legislated authority. All Regional Council meetings are audio broadcast via the internet and will be posted and available for viewing subsequent to those meetings. Questions about collection may be directed to the Manager of Legislative Services, 10 Peel Centre Drive, Suite A, 5th floor, Brampton, ON L6T 4B9, (905) 791-7800 ext. 4462.</p>

Please save the form to your personal device, then complete and submit via email attachment to council@peelregion.ca



Proposal to Environment Canada: Community Action and Awareness Fund

Project Crossroads:

“Climate justice science, for trees and for people.”

Proof of concept: #AcerPx Project Crossroads in Knightsbridge, October 2020
Results and impacts contributed to Brampton Sustainable Neighbourhood Action Program

Peel Regional Council

Presented: December 10, 2020

Prepared: Catherine Soplet, Building Up Our Neighbourhoods

With: Alice Casselman, B.Sc.(Hons), M.O.Ed., Founder and President

ACER (Association for Canadian Educational Resources)

About this presentation: Requests

REQUESTS:

- Request from Peel Regional Council a Letter of Support for ACER's Proposal to Environment Canada: Climate Action and Awareness Fund.
- Refer to Peel Region staff responsible for Peel Climate Change Plan (PCCP).
 - By sharing information and reports ACER can ensure project alignment with aims and objectives of PCCP.
 - Engagement bridging horizontally across sectors and levels of government
 - Mitigation and emergency preparedness with community most impacted
 - Build green infrastructure according to Peel Region priorities
- Refer to Peel Region – Diversity, Equity and Anti-Racism Committee and staff
 - By sharing information and reports at the Committee, ACER can ensure project alignment with aims and objectives of DEAR.
- Refer to Peel Region staff responsible for Community Safety and Well-Being Plan (CSWBP)
 - By sharing information and reports at the Committee, ACER can ensure project alignment with aims and objectives of CSWBP.



Total Proposal value: \$ 1,472,588
EC-CAAF: \$ 816,712
In-Kind: \$ 655,876

Project Crossroads: *“Climate justice science, for trees and for people”*

ACER’s proposal supports health and wellbeing of communities with significant exposure to climate risk through:

- * action on climate change adaptation
- * risk reduction and
- * Greenhouse Gas (GHG) mitigation.

By 2025, ACER will engage more than 2000 people from all ages and backgrounds, to plant 7,500 native tree indicator species for climate change research.

After Year 4, more than 18 T of Carbon will have been sequestered - where people most need shade. Carbon capture will increase as tree canopies grow.

Using civic engagement and proven “Everyday Scientist” research protocols, ACER will develop high-exposure communities with knowledge, tools, and skills. Residents of all ages and backgrounds will engage in climate action to mitigate heat, by planting cooling indicator species shade trees and recording Smithsonian data for climate change research. 7.1-4

"Proof-in-Concept"

www.acer-acre.ca/project-crossroads

ACER's Project Crossroads



Volunteers
Family "bubbles"

.... and students

Sustainable Neighbourhood Action Program



ACER funded for Bramalea SNAP project by:



Interested in tree planting, measuring, and monitoring?
Get started with Mulch, Measure, and MOR!



RESULTS: October 2020, under COVID

- 5 planting events in 3 Knightsbridge locations
- 71 volunteers, include secondary students
- 153 large trees + native pollinator/bird shrubs (biomass equivalent to 1840 x 1-gallon 18" trees)

Impact:

- Measure-Mulch-MOR units w/ training videos
- Extend Million Trees program with mulch delivery
- Animate non-profit agency ecosystem
- Introduce Carbon Calculation for GHG emission

Project Crossroads is a Proof-in-Concept for proposal to Environment Canada under CAAF:

<https://bit.ly/ACER-Proposal-CAAF-11-2020>

Climate Action and Awareness Fund



Total Proposal value: \$ 1,472,588

EC-CAAF: \$ 816,712

In-Kind: \$ 655,876

Four years:
2021-2025

Project Crossroads – Bramalea (January 2020)

Low canopy, unmet social needs – near industrial areas.



About this presentation: Rationale

- Introduce ACER (Association for Canadian Educational Resources) and Founder - Alice Casselman, B.Sc.(Hons), M.O.Ed.
- Introduce: Project Crossroads: "*Climate justice science, for trees and for people*"
Proposal to Environment Canada under Climate Action and Awareness Fund
Period running four years, from 2021-2025: Total Value \$ 1,477,588
- Proof of Concept:
How ACER targets planting sites to foster equity, in Mississauga and in Peel
 - Presentation slides to Peel Poverty Reduction Strategy Committee – 2021 Priorities Session on November 27. 2020
 - Results and Impacts to deliver Project Crossroads in Knightsbridge, October 2020
 - Report to Funders: Arbor Day Foundation under TD Green Space Grants Program
- Pandemic Protocol to deliver ACER programs in 2020:
 - Planting for Change, November 2020 in Malton
 - Mulch, Measure and MOR to extend municipal One Million Trees programs
- Collecting annual data, for carbon calculation, for use in GHG emissions offset

One Million Trees

Project Crossroads-Bramalea Oct. 2020

Planting for Change adapts for urban reforestation in areas of low tree canopy where residents experience heat vulnerability and higher impact of extreme weather.

Planting for Change (P4C)

We create planting sites in schoolyards and train students to monitor tree growth. The school becomes a part of our climate change monitoring network.

Riparian Rangers (RR)

Plantings along watercourses
Partners choose sites and species
Long term monitoring of 10%

Measuring Our Resources (MOR)

We teach volunteers how to inventory the existing trees on their property for our climate change monitoring network.

Youth Stewardship Project (HYS)

Local youth are trained to restore and monitor natural areas of ecological concern through partnership initiatives.

Go Global (GG)

We train community volunteers to monitor one-hectare forest sites in our international network to track changes in biodiversity over time.

Tracking for Success (T4S)

We measure survival rates of trees to add value to our partners' plantings.



Tree Caching Trails (TCT)

Our mobile application for trails and schoolyards encourages individuals to learn more about their natural surroundings by scanning coded tree tags.

Est.
1987

ACER creates living labs on public school yards with Planting 4 Change program.

ACER is the preferred agency for City of Mississauga – One Million Trees.

Introducing Alice Casselman, B.Sc.(Hons), M.O.Ed.

- Ontario Teacher (Retired)
Founding Director, Outward Bound (ON)
- Science Department Head
Etobicoke School of the Arts
- Published author and ecology scientist
- 1987 - Founded ACER Canada to create
relevant Canadian-based textbooks
- Humber Arboretum demonstrates
five projects for climate change research
- Asset-Based Community Development



September 26, 2020 – Fridays for Future marched to UN for first Youth Summit on Climate Change. ACER launches Project Crossroads in Peel Region.

ACER targets planting sites to foster equity

In 2019, ACER prioritized equity sites in Peel

In 2020, COVID caseload worsened unmet needs

**Slides below
were presented
to “2021 Priorities”
PPRSC Meeting
November 27, 2020**

2019 Insight:

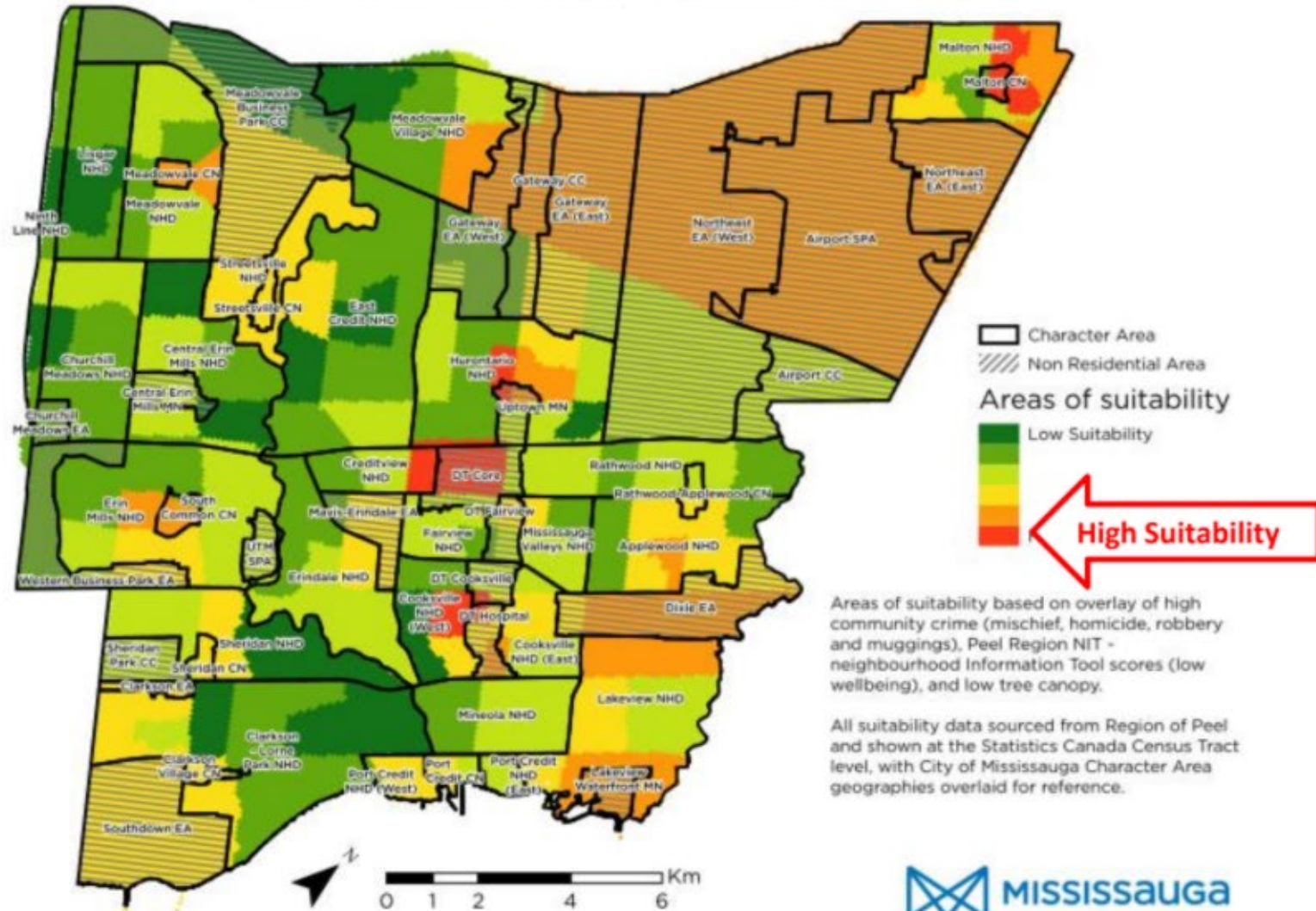
- Low tree canopy overlays with vulnerable social data.
- ACER moved P4C community tree planting for climate research from schoolyards to where students and families live.

2020 Innovation:

- Pandemic Learning: ACER pivots to digital delivery
- NFP Agency embedded ecosystems benefit from outdoor/ on-line/ remote activity to reconnect digitally and in the field with client students and families.

Where to plant for Anti-Racism Action Program: City of Mississauga overlays StatCan vulnerability data

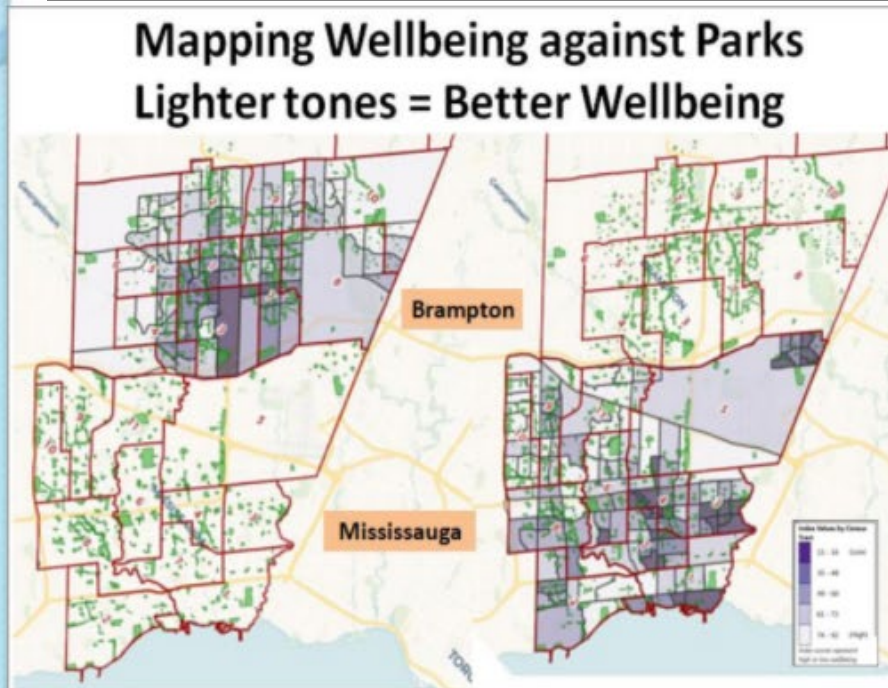
Slides presented
“2021 Priorities”
PPRSC Meeting
November 27, 2020



Climate Justice is at risk in Peel

New Immigrant is less likely to reside with easy access to Tree Canopy

Climate Change is a Crisis



Peel Region
Neighbourhood Information Tool

Racism is a Crisis

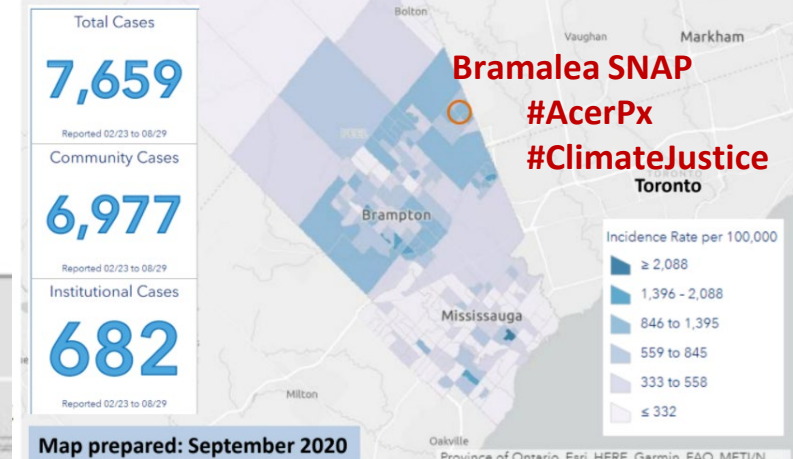


Recent Immigrants in Peel
by Dissemination Area (2016)
Peel Newcomer Strategy Group
Collective Impact Report (2019)

Covid-19 is a Crisis

Where to plant for Project Crossroads:
Region of Peel – Public Health COVID-19 Dashboard

COVID-19 Caseload by Postal Code



Bramalea SNAP
#AcerPx
#ClimateJustice
Toronto

In 2019 Knightsbridge targeted for
urban reforestation via community
tree planting for climate change
research

In 2020, COVID had disproportionate
high impact in same areas.

#AcerPx #Knightsbridge

"Climate justice science, for trees and for people."

Where to plant for Project Crossroads: City of Brampton overlays low trees w/ vulnerability

Bramalea SNAP (Google Maps)

Bramalea SS
Earncliffe Sr. PS
Eastbourne Drive PS
Fallingdale PS
Folkstone PS
Cardinal Newman Catholic Elem.
Georges Vanier Catholic

Bramalea Schools

int PS
ie Senior PS
r SS
ird PS
PS
t-D'arc Catholic ES

Greenbriar MS
Glenora BC

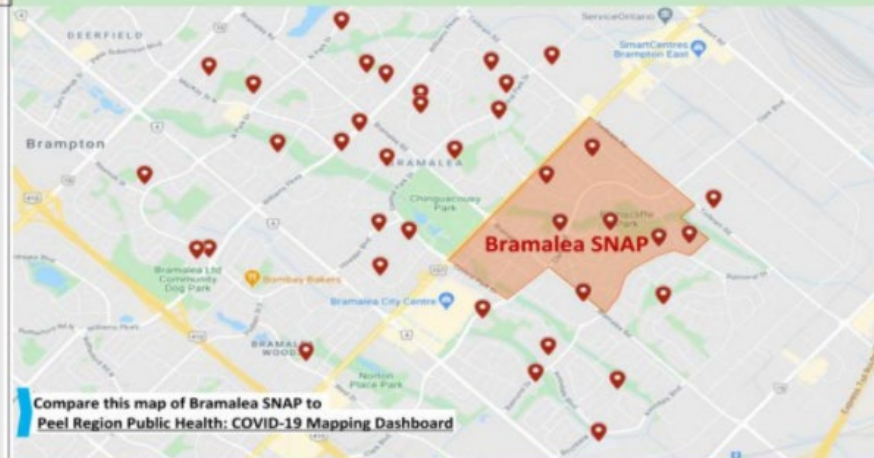
Project Crossroads: Planting for Change

Community Tree Planting in Bramalea SNAP Areas

(Sustainable Development Action Plan - Urban Revitalization)

Collaboration of ACER Canada (Association of Canadian Educational Resources)

City of Brampton Toronto and Regional Conservation Authority (TRCA)



ACER Canada

Project Crossroads: Planting for Change - "Climate justice science, for trees and for people." [Read more...](#)

Toronto and Region Conservation Authority (TRCA), City of Brampton, Region of Peel and Healthy Communities Initiative are working closely with neighbourhood community leaders, residents and businesses to develop a Sustainable Neighbourhood Action Program (SNAP) for Bramalea. [Read more at TRCA site...](#)

Working Dates for Bramalea SNAP area community tree planting with ACER Canada - Subject to Conditions

Wednesday, October 7, 2020 | 9 a.m. to 2 p.m. | Peel Living (10 Knightsbridge Road, Brampton)

Saturday, October 17, 2020 | 10 a.m. to 12 p.m. | Folkstone Park (830 Clark Boulevard, Brampton)

Saturday, October 24, 2020 | 10 a.m. to 12 p.m. | Capreit Towers (11 Knightsbridge Road, Brampton)

ACER Canada funded by Arbor Day Foundation, under TD Green Space Program



ACER thanks Knightsbridge residents for welcoming Project Crossroads ...
ACER thanks Knightsbridge residents for welcoming Project Crossroads trees, to contribute much-needed cooling shade and sustained climate ...
us4.campaign-archive.com

P4C Planting for Change: Establish New Trees

A schoolyard program to establish outdoor learning and research across the curriculum and grades, teaches many skills to develop tree stewards. A suite of indicator tree species is selected and installed for long term maintenance, to annually measure, report and share data for analysis. A sense of shared ownership reduces vandalism.

Since 2008, P4C planted 60+ schools. Morning Star Middle School planted November 2020, before frost, with ACER-designed with Covid-adapted Planting Protocols meeting Peel Health restrictions that was tested and approved by Mississauga, Brampton, TRCA and CVC on August 6, 2020.



Using Planting 4 Change program, ACER is the preferred agency for City of Mississauga – One Million Trees



Malton - Middle School planting in November 2020

Mulch, Measure and MOR – For 1 Million Trees

Measuring Our Resources 2020 with ACER's Covid-19 protocols

ACER is finding free mulch for school yard trees as first step to help teachers get outdoors. Why?

1. Civic engagement (1 Million Trees)
2. To provide a real and relevant activity outdoors
3. To put Snow Boots on trees to insulate their roots for survival!
4. To provide FOLLOW UP activities with on-line component

FOLLOW UP ACTIVITIES:

OUTSIDE :

- Hands On - add measurement of dbh, silhouettes and bark photos to help identify the species

INSIDE:

- Online – confirm ID, map trees, use carbon calculator for Carbon stored and CO₂ absorbed in Kg. then tons for reporting.

Hands On Measurements: Annual Data





ACER
ASSOCIATION FOR CANADIAN
EDUCATIONAL RESOURCES

Site
Season
Year
Tree Number

[illegible]

HEALTH CHECK
A: Alive/Healthy
D: Dead/Dying
HB: Heavily browsed
I: Sick/Infested
LB: Lightly browsed

INOX TEMP
20 °C

0 1 2 3 4 5 6 7 8

0 1 2 3 4 5 6 7 8 9 0 1/20

2.4 + 0.07 = 2.47 cm



ACER
ASSOCIATION FOR CANADIAN
EDUCATIONAL RESOURCES

Diameter at
Breast Height
(1.3 metres)

DBH



Questions ?

Thank YOU for the opportunity today to share our work!



www.acer-acer.ca

Alice Casselman

Cell 905-601-7685

ACER Canada
Proposal to Environment Canada - Climate Action Awareness Fund
Submitted October 26, 2020

Call for Proposals

Environment Canada – Climate Action and Awareness Fund (CAAF) objective is to support projects that will develop knowledge, tools and/or skills that engage communities in activities to enable climate action.

Community-based climate action projects should help to support Canada's goals for climate action, such as net zero greenhouse gas emissions by 2050

Project Title

Project Crossroads: Climate justice science, for trees and for people.

Total Proposal value: \$1,472,588 for 2021-2025

EC-CAAF: \$816,712

In-Kind \$655,876

Project Goals and Objectives

ACER Canada's proposal "Project Crossroads: Climate justice science, for trees and for people" supports health and wellbeing of communities with significant exposure to climate risk through action on climate change adaptation, risk reduction and Greenhouse Gas (GHG) mitigation.

Peel Region's geospatial maps show these exposed communities also coincide with highest COVID-19 caseload by postal code, and also disproportionately racialized

By 2025, ACER will engage more than 2000 people from all ages and backgrounds, to plant 7,500 native tree indicator species for climate change research. After Year 4, more than 18 T of Carbon will have been sequestered where people most need shade. Carbon capture will increase as tree canopies grow.

Using civic engagement and proven "Citizen Science" research protocols, ACER will develop high-exposure communities with knowledge, tools, and skills that engage them in climate action to mitigate heat by planting cooling indicator species shade trees and reporting Smithsonian data for climate change research.

Community risk reduction to both climate change and COVID-19 recovery, was demonstrated in October 2020 in Bramalea Sustainable Neighbourhood Action Plan areas, when community non-profits and public school councils reconnected to residents in COVID-compliant community tree planting.

Residents' tree growth data supports plans for future urban forest plantings and meets objectives of Peel Region Climate Change Action Plan for building community resilience with green infrastructure.

Carbon sequestration and carbon dioxide are easily computed by residents, using ACER's on-line Treepedia and Carbon Calculator, thus generating local climate solutions to meet federal Climate Change targets and offset GHG emissions.

Project Description

In delivering Project Crossroads, ACER will impart the knowledge, tools and skills to communities with significant exposure to climate risk to empower capacity to take action on climate change.

Key Performance indicators will be met. Residents of all ages and backgrounds are inclusively engaged, invited through their community ecosystem comprised of schools, faith and service groups, settlement and non-profit agencies.

Using proven "Citizen Science" research protocols, ACER will establish community indicator tree species sites to restore urban tree canopy.

Restoring tree canopy is needed to reduce heat vulnerability in areas where Peel health data show up to 500% higher emergency response calls during extreme heat events.

In August 2019, ACER targeted "heat islands" in collaboration with Peel Health, using Geographic Information System (GIS) data maps from Neighbourhoods Information Tool (NIT) <https://www.peelregion.ca/planning-maps/nit/>. Diverse and cross-sectoral stakeholders joined with conservation authorities and urban foresters to add further GIS layers for high crime, recent immigration and lowest-decile income.

In 2020, the heat island targets coincide with highest COVID-19 caseload by postal code, and are disproportionately racialized

Through meetings and digital/on-line resources, ACER prepares and resources residents to plant, monitor, measure, collect and report Smithsonian data for open-data sharing with international research and mitigate/iterate/innovate processes. ACER will support community's sustained collection and annual data reporting with celebrations.

ACER's Project Crossroads "proof in concept" demonstration in October 2020 delivered four community treeplanting events. ACER's outreach through community non profit ecosystem led to oversubscription of volunteers, especially students. Post-event mood perception surveys were vibrant.

ACER Canada (www.acer-acre.ca) was founded in 1987 by Alice Casselman B.Sc., M.O.Ed., retired Science Department Head and Founder of Council of Outdoor Educators of Ontario.

Project Team Experience

Since 1987, without exception, ACER has delivered all projects on time and within budget. (See ACER History of Accomplishments 1997-2020)

ACER's active Board is supported by a Science Advisory Committee, comprised of industry experts. (Refer to ACER's organization chart.)

ACER's core program coordinator and admin staff support each project with on site experts and "Citizen Science" volunteers.

Commencing in 1990, Eco-Action funded ACER's pioneer "Citizen Science" projects with Environment Canada - Ecological Monitoring and Assessment Network (EMAN) and Smithsonian Institution (SI)..

Citizen Science" prepares and trains on-site volunteers in international protocols to plant, monitor, mitigate, annually measure, record and freely share data to contribute to climate change research. All ACER program protocols sustain annual results supported with digital training modules.

ACER research produced academic papers and notable citations in both urban and rural settings. Data analysis identifies critical links between forest biodiversity changes and climate change. Conservation authorities have evolved practices for optimal species survival.

Following 1997 establishment of many Niagara Escarpment Biosphere Reserve Studies (NEBRs) GO Global 1-hectare plots, ACER and partners used SI's international monitoring protocols to collect data on forest growth and biodiversity.

ACER's best practices were demonstrated featured by Environment Canada: Climate Impacts and Adaptation Division, at SIs 2008 conference to field-train SI staff and university students in Panama, and assist Laurentian University establish their coastal plot in Costa Rica.

Project delivery experience

Financial Capacity

Since 1997, when ACER received its first major grant, all project undertaken have been delivered on time and on budget. EcoAction, our first funder, supported installation and inventory of 3 sets of one-hectare lots along the Niagara Escarpment for Environment Canada. Our key donors have supported us over the years funding continuing projects and new programs as ACER developed them i.e. Planting for Change with 60 schools by TD Friends of the Environment since 2008, Ontario Trillium Fund for larger grants as we built capacity, and Ontario Great Lakes Guardian Community Fund for 13 Conservation Authorities as partners in our Riparian Rangers program, planting and monitoring along watercourses.

Program Management Capacity

ACER's programs, once initiated, are contiguous and ongoing. On-site experts are developed and sustained.

- Despite 2020 pandemic and loss of spring planting season, ACER's completed its 2020 research across its programs. See maps <https://www.acer-acre.ca/programs>.
- See "ACER History of Accomplishments 1997-2020"

ACER constantly adapts programs to meet needs and address data gaps.

Project Crossroads following 2019 municipal Declarations: Climate Change is a Crisis. In October 2020 ACER demonstrated four pandemic-compliant community tree plantings for climate change research to Bramalea SNAP urban revitalization areas. Surplus volunteers were engaged in a new community delittering collaboration. Student volunteers logged 40 service hours.

In September 2020, delegations to Toronto and Peel school boards introduced pandemic-adapted Outdoor/On-line/Remote unit to deliver hands-on STEM unit "Shovel, Mulch and MOR" (Measure Our Resources). Data collection will capture carbon sequestration.

Major research ongoing since 2000 at Humber Arboretum, was embodied in papers presented at 2006 UN Convention on Bio Diversity by Environment Canada scientists <https://www.cbd.int/doc/reports/cbd-report-2006-en.pdf>)

Five separate demonstration models encompassing 2167 tree plantings distribute across SI GO Global 1-hectare experimental plots, and four indicator-species tree installations

- 2008 - Planting for Change partners with 60+ schools to install indicator-species tree plots with community planting event
- 2015 - Riparian Rangers partners with 13 Ontario Conservation Authorities in plantings along watercourses

Graduation and Jobs Creation: conduct field research and yield academic papers:

- 1993 - Canada Summer Jobs Students - 21 total
- 1993 - University of Toronto / UT Mississauga/ Sheridan College ~45 student program/Intern placements
-

Primary Activity

Project Crossroads: Climate science justice, for trees and for people proposes to take action on climate change mitigation, including environmental restoration to reduce greenhouse gas emissions.

Communities reached in Primary Activity:

Communities with significant exposure to climate risk

ACER's inclusively engages communities together with their non-profit ecosystem comprised of schools, faith and service groups, settlement and non-profit agencies. Taking the lead from established cultural norms, ACER taps local wisdom as it imparts proven knowledge, tools and skills that empower capacity for collective action on climate change. Key performance indicators are met.

Restoring tree canopy is a lead tenet for green infrastructure in Peel Climate Change Plan, which aligns with the federal Climate Change targets.

ACER identified Communities with significant exposure to climate risk in using Neighbourhoods Information Tool (NIT) <https://www.peelregion.ca/planning-maps/nit/>. EMS calls ranged 500% higher in areas of low tree canopy. ACER's stakeholders GIS layers for higher crime, recent immigration and lowest-decile income.

Ground truth from embedded community - Boys and Girls Club of Peel, settlement agencies, school parents, faiths and service groups confirmed many residents are racialized or newcomer families with unmet needs.

Peel Health COVID-19 caseload maps revealed heat islands were hardest hit. Toggle ACER's map of Bramalea SNAP schools: <https://www.acer-acre.ca/wp-content/uploads/2020/06/Bramalea-SNAP-Map.pdf>

Planting cooling shade brings residents action for relief from heat. Meetings to prepare and train for planting, monitoring, measuring, collect and report data help residents understand how to mitigate impact of climate change.

Increasing trust and community relationships leads to risk reduction, states resilience expert Daniel Aldrich, Director of Security and Resilience Studies Program, Northeastern University. Emergency preparedness is more efficient where relationships pre-exist crisis.

Data collection captures informs on climate change, as well as captures carbon sequestration that helps meet federal Climate Change Targets.

Additional groups to describe the selected community:

- Living with disabilities
- Low-income
- New Canadians
- Small to medium sized businesses (fewer than 500 employees)
- Visible minorities

For its Project Crossroads "proof in concept" demonstration run in October 2020, Knightsbridge community was identified in 2019 by ACER using maps of low tree canopy and Peel Regional health data for high incidence of EMS response during extreme heat as a community with significant exposure to climate risk.

Peel Region's geospatial maps show climate-exposed communities also coincide with highest COVID-19 caseload by postal code, who are also reported to be disproportionately racialized and low income. ACER publicized the connection between climate change and COVID-19 impact in creation of its digital invitation to Knightsbridge residents <http://bit.ly/ACER-invites-Knightsbridge-residents>. On Page 2 of the invitation appears ACER's map of Bramalea SNAP schools embedded with a clickthrough link to Peel Region's COVID-19 caseload by postalcode.

From the embedded community ecosystem of non-profit and settlement agencies, public schools, faith and service groups, local politicians and property owners, ACER knows that both physical and mental health disability are disproportionately prevalent amongst residents. NIT data confirms, with 30-day reporting

In addition to racialized, low-income, eroded mental health and physical disability, Knightsbridge community has other vulnerable populations comprising children and youth, New Canadians and small-medium business enterprise (SME).

Service sector, food, faith groups, settlement and non-profit agencies have been unable to adapt to pandemic protocols to reopen to the residents that they serve.

ACER's four demonstration plantings have brought relief, to all, together -- in outdoor activity that is safe, social and low-barrier to participate. ACER's inclusive approach reduces stigma, and residents feel comfortable to find other familiar members of their community and community ecosystem engaged in the community tree planting.

From ACER demonstration project, perception surveys were vibrant with enthusiasm, in anticipation of spring.

Communications Plan

Refer to Communications Plan document, attached.

ACER adapted its communications to pandemic protocols. New to ACER Board in June 2020 is a Journalist, who established a Communications Committee, and had the website evolved to a mobile-friendly format. ACER's communications are digital, through social media platforms of Twitter (2011) and Facebook (2010), and Instagram (2020). Digital messaging is amplified through resident community leaders, school parents and

non-profit agencies and include digital tags from local politicians. Digital analytics are tracked by ACER's webmaster. ACER creates MailChimp press releases at least once per month, with greater frequency to publicize planting events. As a result, since May 2019, ACER has been covered by Peel Weekly News and Toronto.com digital media eight times.

Since August 2020, community partner Brampton Focus /Brampton Neighbourhood Watch is training students in digital media to record video and publish content about ACER's community tree planting events. ACER creates printed materials only when budgeted, or as an in-kind with project partners. ACER's e-mail and telephone communications with community non-profit ecosystem are the most productive way to communicate information out to residents. Calls for volunteers are often oversubscribed, and ACER is adept to ensure that volunteers are kept engaged. ACER presents regularly in municipal Environmental Action Committees, school board curriculum activities, at Environment & Sustainability committees of local boards of trade, and at the Peel Region-Poverty Reduction Strategy Committee. ACER is very engaged with environment association ecosystem, such as Green Drinks of Mississauga and Mississauga Climate Action Network.

Reporting Plan

Key Performance Indicators are provided.

These include: mapping and tracking planting installations, as well as individual specimens; numbers of volunteers; new and updates to manuals; videos - produced and posted; Intake and post-event surveys of participants and residents at planting events;

Plantings data is collected annually. Planting teams have four-year follow-up. In 2020, Project Crossroads has a new KPI satisfaction survey for municipal and private land owners and residents. Photographic images will track changes to the landscape..

Social data collected on Peel NIT will be monitored for change. It is anticipated that over time as tree canopy improves that EMS calls during severe heat episodes can be mitigated. ACER will watch for reported rates of crime, and residents' perception for community safety and well-being through the embedded non-profit ecosystem partners.

As funding becomes available, more Project Crossroads sites can be installed. The ones that are established will continue to yield data to contribute to carbon sequestration, tree canopy, and hands-on STEM curriculum for students.

ACER believes there is costs savings and value-add when more residents participate. New ways to value carbon capture as offsets under Environmental Damages Fund can be a new revenue stream for municipalities and school boards to fund social and human infrastructure, as well as green infrastructure.

It is critical to avoid any data gaps in longterm measurements to calibrate/mitigate/iterate/innovate for future plantings aiming to increase health and wellbeing of the residents, whose exposure to impacts of climate change have been worsened and expose under COVID-19 pandemic.

Project externalities: risks, permits and environmental stability

Ahead of planting events, all participants from novice to experienced are apprised of the process. At planting events, everyone together is guided through safety and other protocols to guide the planting event, and the measuring to collect data.

Permits required for the project are "locates" from property owners, which are certificates obtained from utility

companies and facility management to avoid planting areas which would be contra-indicated for tree and vegetation roots.

Since 1987, ACER has coordinated with property owners for any required permits, and routinized the locates process into its tree planting program.

COVID-19 adaptation:and risk reduction

ACER's outdoor activities are scheduled in 2-hour increments. Participants are forewarned and understand there is no biobreak amenities for washrooms, or for food. Bottled water is available upon request. Participants are further advised to bring their own masks and gloves. Work gloves are provided if requested. Site visits will be conducted by masked and distanced stakeholders on projected planting sites, including a professional landscaper and city forestry staff. COVID planting protocols, ACER designed and field tested several times, modified by stakeholder organizations to fit local needs, will be used in these plantings.

Data analysis will be managed remotely. Google meet and other platforms will be used for planning and operations virtual meetings. Planting groups will not exceed 3 people working together in an outdoor setting. All people will be masked and follow social distancing. Equipment will be sanitized between groups. COVID precautions have been vetted by 4 organizations in planting events. Safety training and pandemic protection training will be provided ahead of time and checked for adherence during any event, in accordance with public health restrictions. A copy of ACER's COVID planting protocol can be found at www.acer-acre.ca/covidplantings

Project Evaluation

By 2025, ACER will engage more than 2000 people from all ages and backgrounds, to plant 7,500 native tree indicator species for climate change research. After Year 4, more than 18 T of Carbon will have been sequestered where people most need shade. Capture will increase as tree canopies grow.

ACER can predict how data will contribute to climate change research - by increasing canopy, capturing carbon sequestering, reducing risk to communities with installation of green infrastructure that help to meet Environment Canada goals.

ACER has been keeping Smithsonian data continuously and contiguously for decades. Its research contribution has helped to evolve investments in conservation areas which inform species thriving, for better return on investment.

There can be no gaps in the data. The time is now to ensure the future, and scale up recovery.

ACER requires adequate funding to scale up its community tree planting for climate change research so that it can make an even more meaningful impact. The Project Crossroads "proof in concept" demonstrates an appetite for communities to enthusiastically engage and play a role in climate mitigation, together.

ACER further want to get data on narrative that people do better from this activity. Resilience is bottom up, so long as decision makers can reach down to help.

Capturing carbon is a way to create revenue for municipalities and school boards, to continue virtuous investment in social and human care infrastructure.

Canada is at the Crossroads. Let us pick the best path, together, for our future, together.

Project Crossroads

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★ Proposed planting locations



Prepared January 2020 City of Brampton

Potential Areas of Focus for Anti Racism Action Program

Prepared December 2019 City of Mississauga

