ACER
Association for Canadian Educational Resources

CLIMATE'S SAKE



# 2024 Annual Report

## Association for Canadian Educational Resources



### Our Vision

Healthy, resilient communities working together to enhance, restore and protect biodiversity and build a better, greener world.

### Our Mission

ACER supports communities, government agencies and corporations in taking action to reduce biodiversity loss and improve climate resilience by increasing and monitoring urban and riparian zone forest

ACER 35+ YEARS AND GROWING

# PRESIDENT'S REPORT

*Alice Casselman, B.Sc., M.Sc. Ed.*

What a Year! In 2024, ACER closed out Seniors Measure UP!, kicked off RTOERO (Retired Teachers of Ontario) Measures UP!, and mentored nine Canada Summer Jobs (CSJ) students who worked with us for 8 weeks mapping trees and collecting new tree measurement data to support our P4C program, or assisted with our social media and website content. ACER was also awarded new funding from TD FEF to support an exciting new project being spearheaded by our Program Manager Dr. Sadia Butt to analyze and report on over two decades of tree measurement data collected from the P4C micro-forests. And, we were one of the host organizations for Carolinian Canada Coalition's Great PawPaw Parade in September!

We were also proud to be part of two successful collaborations. In April, we delivered our final training session for the Brampton Environmental Alliance's *Rooted in Hope* project where we taught about tree id, monitoring, community outreach and environmental leadership Then in May, we led a workshop at Humber Arboretum as part of Spruce Labs' *Earth Tending program*, introducing indigenous students to tree id and measurement and guiding them in becoming tree stewards.

In addition, ACER's presentations on mulching and digital twinning to the City of Mississauga Environmental Action Committee were well received. And I was honoured to be a judge at the City of Mississauga's "The Sky's the Limit: Innovative Rooftop Strategies for a Greener Planet" Hackathon, held in collaboration with Open Data with the leadership of Jonathan Brown, a long-time ACER collaborator. And, wow, the 72 student participants did not disappoint, coming up with some exciting, creative and innovative solutions to the challenge at hand!

Building on the success of our demo in Cobourg in late 2024 where we showcased the benefits of drone technology for use in field mapping and site assessment at restoration and greening sites, we hosted two more demos, at Claireville Conservation Area and Gore Meadows Community Centre, in Brampton. Check out our YouTube channel for videos!

Then there was the work behind the scenes! In June we introduced "Latest News from ACER", an email that lets our subscribers know right away whenever there's a new post on our website. Additional enhancements in our digital communications are in the works—for example, the new Spotlight Series we just launched last month—so stay tuned!

The ACER Board has been busy as well, working to strengthen our strategic direction to ensure we stay at the forefront of innovation, expand our impact in the community and keep up the momentum in advancing with our vision and mission.

As we look to the coming year, we look forward to more work with environmental hackathons, expanding our work with drone, and completing the monumental P4C data analysis I spoke of earlier. And, hot off the presses: the opening up of a newly discovered archive of extensive and historic tree data— an invaluable resource that can help inform efforts to ensure thriving urban and riparian forests for generations to come. And, of course, we are always on the lookout for new volunteers, new funders and new opportunities to share our expertise with other organizations and communities! Best wishes as we continue this exciting green journey together!

Dr. Sadia Butt, ACER Program Manager, and Alice Casselman, ACER Founder and President, receiving a ceremonial cheque at RTOERO (Retired Teachers of Ontario) District 22's fall luncheon in November 2024. The cheque symbolizes the funding awarded to ACER by the district as part of RTOERO's annual community grants program. The funding supports ACER's latest Measure UP! initiative launched in October of 2024 in collaboration with RTOERO District 22. ACER was also honoured to be the keynote speaker at the luncheon. See more about this initiative under Program Updates!

# PROGRAM UPDATES

## Seniors Measure UP! Wraps Up!

We are pleased to announce the completion of our Seniors Measure UP! initiative in Mississauga, as of April 2024. This year-long initiative, funded by the Government of Canada's New Horizons for Seniors Program, was designed with the goal of getting seniors out and active in nature amongst others of diverse ages and backgrounds while also learning how to identify, mulch, measure and monitor trees.

A total of five "mulch and measure" events were held at previous ACER tree planting sites in Southern Mississauga, in collaboration with the City of Mississauga and Active Adult Centre Mississauga. The tree monitoring data from the 50 trees measured will be added to ACER's data repository for further analysis.

The project closed out with three online webinars held in early 2024: "Make Mulch Matter" with Sadia Butt, ACER Program Manager; "Get Tech Savvy" with Pamela Tabak, CEO of Computer Tutor; and "Challenging Conversations" with Laura Tamblyn Watts, President and CEO of CanAge. Due to their success, ACER plans to offer more such webinars in the future, when relevant and beneficial to our programs.


"Make Mulch Matter" webinar with ACER Program manager, Dr. Sadia Butt—February 2024.

## RTOERO Measures UP! Kicks Off!

Hot on the heels of "Seniors Measure UP!, ACER launched a new Measure UP! initiative, funded by RTOERO (Retired Teachers of Ontario) District 22, which runs through spring 2025.

The first "mulch and measure" field event held on October 22 at a newly planted site at Centennial Park, Etobicoke, in collaboration with Vince D'Elia and the Toronto and Region Conservation Authority. During the event—attended by TRCA staff, ACER staff and volunteers and RTOERO District 22 members—ACER taught participants how to identify trees, measure trees to assess planting success, and properly apply mulch.

In total, three "mulch and measure" events will be held along with three "Trees R Us" webinars covering a variety of tree and forest-related topics. More to come in our upcoming newsletter!

ACER thanks RTOERO District 22, and RTOERO's Community Grants Program, for the funding to support this initiative. Since 1968, RTOERO has been a voice for teachers, school and school board administrators, educational support staff, and college and university faculty in their retirement, helping them stay connected and engaged, with each other and the community.


Taking a break at the Centennial Park "Mulch and Measure" event—October 2024.

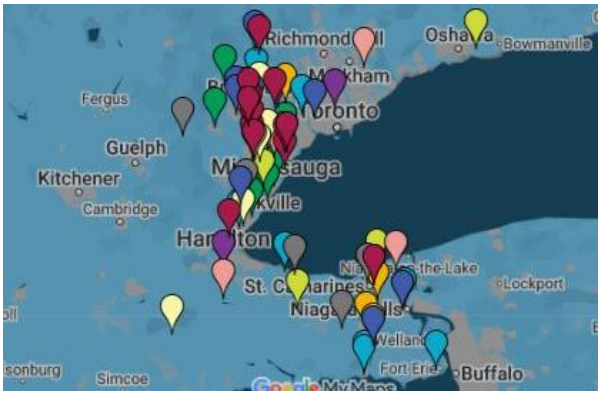
# PROGRAM UPDATES (continued)

## Planting for Change (P4C)

Since 2008, ACER's Planting for Change (P4C) program has engaged schools in establishing micro-forests across Southern Ontario. The goal of the program is to teach students how to plant, care for and monitor trees, while also increasing local biodiversity and building climate awareness. The program also builds data literacy and critical skills in environmental monitoring among students. Long-term data collection at the 70+ micro-forests established so far has also provided us valuable data that can be analyzed to assess the long-term impacts of climate change on urban micro-forests.

No school plantings took place in 2024 but we are full steam ahead in 2025 with one schoolyard planted so far and two more planned to date.

Despite the pause, 2024 marked significant achievements in data collection with 70 existing P4C sites measured by our 2024 CSJ students. Additionally, students from the University of Toronto Mississauga's GIS program used the unique long-term P4C dataset ACER has built since 2008 to carry out spatial analysis and mapping projects, highlighting the value of this data set in supporting real-world learning and research. We also received funding in late 2024 to kick off an epic project to update and analyze the full P4C dataset. Check out our update under "Other Highlights"!




ACER's P4C reach (plus a plot in Thunder Bay!)

## Canada Summer Jobs Students 2024

In 2024, ACER mentored nine students through the Canada Summer Jobs Program. Most of the students worked in the field, playing a vital role in collecting tree measurement data from our Planting for Change (P4C) micro-forests and our Humber Arboretum Experimental Plot while two students were assigned specifically to support ACER's social media and web content, as well as enter tree measurement data—helping to increase ACER's digital presence and improve data accessibility. Some students also helped with digitally archiving our historical documentation.

The students gained valuable experience in tree monitoring, effective time management and communication, and administration. They also learned how to apply their civics knowledge to reach out to the MP who supported their term, and had the opportunity to meet experts in the field. From a technology standpoint, students were trained how to use the Slack platform for team coordination and how to use QGIS.

Providing this experience continues to be a core part of ACER's commitment to youth development, environmental education, and community science. Thank you to Erika, Maya, Zuneet, Ahmed, Cynthia, Omar, Aysegul, Jalen and George for their hard work and support of ACER's mission and vision!

Five of our 2024 CSJ students out in field—July 2024

# OTHER HIGHLIGHTS

## New funding for analysis of our P4C and Humber Arboretum Biodiversity Plot Data!

ACER is excited to announce new funding received in late 2024 from the TD Friends of the Environment Foundation (TD FEF). The funding will support new analysis by ACER Program Manager Sadia Butt, PhD, and ISA Certified Arborist of the tree monitoring data collected over the last two and a half decades at our 70-plus P4C micro-forests and our two Humber Arboretum experimental biodiversity plots.

The ultimate goal of this truly epic project is to identify which native tree species thrive best in urban and peri-urban environments in Southern Ontario, knowledge that will help shape future tree plantings to ensure thriving green spaces for generations to come. The data will be analyzed through a combination of GIS mapping, spatial analysis, and tree mensuration techniques, to investigate key questions; for example, which species exhibit the highest growth rates? How do trees respond to urban stressors? What are the mortality rates across different species? How much carbon has been sequestered over time?

The findings and insights from this project will help inform urban and peri-urban forestry practices, guiding optimal species selection, planting strategies, and maintenance schedules, helping municipalities and communities make informed decisions on sustainable urban greening, improving carbon sequestration and strengthening overall climate resilience.


## ACER's Collaboration with the BEA

In April 2024, ACER wrapped up our collaboration with the Brampton Environmental Alliance's 2023-2024 Rooted In Hope Initiative, a project designed to help seniors improve their physical and mental health and enhance community connectedness.

ACER's role in this initiative was leading the training sessions on tree monitoring, environmental outreach and educational leadership. Training topics included how to use tree measurement equipment, identify tree species, check for potential tree health issues, evaluate tree management practices, create reports to inform municipalities on their urban forest plans, and ways to implement environmental stewardship events in schools and communities on their own. The trainees were diverse and intergenerational, comprising approximately one-third seniors and two-thirds secondary school students.

In all, three training sessions were held as part of this collaboration, with the final event held on April 21st at Gore Meadows Community Centre.

ACER was also collected data on 50 trees during the tree monitoring training, data that can be used to in developing effective strategies for the restoration, protection and growth of trees and green spaces. ACER thanks the BEA for this opportunity and hopes to collaborate with them again soon!

Trainees in the field at Gore Meadows Community Centre—April 2024

# OTHER HIGHLIGHTS continued

## GLLAF Celebration in Cobourg, Ontario

On October 18th, 2024, ACER celebrated the successful completion of the 2023 Tree Planting and Caring for Trees Initiative in the Ganaraska watershed, alongside partners, organisers, municipal officials, and local volunteers and students. Held at Chris Garrett Park in Cobourg, the initiative's final tree-planting site, the celebration included opening comments by Lucas Cleveland, Mayor of Cobourg, the unveiling of a commemorative sign, and the first-ever ACER "Oxygen" awards. A special thank you to Jonathan Brown, GIS Coordinator for Sustainable Cobourg and long-time ACER collaborator, who not only served as the local liaison throughout the initiative but also kindly took on the task of organising the closing celebration.

During the year-long initiative funded by the Great Lakes Local Action Fund, over 1100 trees were planted across six sites in the Ganaraska watershed with the help of over 300 volunteers and students, and our partners, the Ganaraska Conservation Authority, Sustainable Cobourg, the Town of Cobourg and the Municipality of Port Hope.


Alice Casselman awarding Cobourg Mayor Lucas Cleveland one of the first ACER "Oxygen" awards.

## Gore Meadows Drone Demo

On April 21, 2024, ACER hosted a demo of drone video-capture technology for the purpose of site assessment and mapping of trees and shrubs at riparian restoration sites. The event, held in collaboration with the Brampton Environmental Alliance and the Toronto and Region Conservation Authority took place at a recent restoration site at Gore Meadows Community Centre, Brampton. ACER had previously mapped and measured (10%) of the newly-planted trees, and this data can be used to "ground-truth" the accuracy of the drone imagery, to highlight the benefits of using drone technology in community restoration projects aimed at increasing and protecting biodiversity, flood control, reduced heat islands and improved air and water quality.

The experience ACER gained from the drone demos provides new opportunities for ACER's community scientists. For example, improved observation skills in the field; the ability to plant trees in more strategic locations; and better success at raising awareness of the benefits of tree plantings to help mitigate the effects of climate change and our ever-increasing extreme weather events.

Click **here** for our video of the Gore Meadows event, including some of the drone footage!

Drone capture of the Gore Meadows Community Centre restoration site—April 2024.

# OTHER HIGHLIGHTS continued

## ACER's Collaboration with Spruce Labs

On May 16, 2024 ACER conducted a workshop at Humber Arboretum as part of Spruce Labs' six-week Earth Tending training program. Designed for First Nations, Inuit, and Métis individuals exploring careers in the urban forestry and urban nature sectors, this program teaches about green infrastructure and its role in building climate resilience, while providing foundational knowledge and hands-on experience through Indigenous Knowledge, Teachings and Land practices.

The full-day workshop, led by ACER Program Manager Dr. Sadia Butt and ACER President Alice Casselman, focused on building both technical and relational skills with trees, while grounding the experience in community connection and land-based learning. The workshop's core focus was how to identify and monitor tree growth and health, and maintain field data sheets, practical skills that are essential for successful community forestry, restoration, and urban greening projects.


Participants also learned about ACER's five active projects at the Arboretum, which showcase a range of data-driven, community-centered approaches to urban forest stewardship. To foster deeper connections with land-based knowledge and community engagement, the workshop concluded with a reflective walk through the forested section of the Arboretum grounds where students discussed their observations and relationships with trees.

## Mississauga Open Data Hackathon—November 2024

On November 26th, 2024 Alice Casselman, ACER Founder and President, was honoured to be one of the judges for the 2024 Mississauga Open Data Hackathon—"The Sky's the Limit: Innovative Rooftop Strategies for a Greener Planet"—hosted by the City of Mississauga, in partnership with GO Open Data, whose Director of Education is none other than long-time ACER friend and collaborator, Jonathan Brown!

The hackathon drew a total of 72 students from the University of Toronto, Toronto Metropolitan University, Sheridan College, and computer science classes from the Peel and Toronto District School Boards. Students were challenged to come up with creative, green, sustainable solutions for the challenge at hand.

The event was a resounding success with five teams (three post-secondary and two secondary school) coming out on top. And, one secondary school participant was even recommended for a Terry Fox scholarship application!

"Being there to support students focusing on this issue was totally inspirational…the atmosphere was quiet, intense, respectful and electric!"—Alice Casselman, ACER Founder and President and event judge.

## 2024 BY THE NUMBERS

**764** **Trees Measured**

Trees measured at our Humber Arboretum plots and our P4C schoolyards, two field events, and five GLLAF Ganaraska sites.

**23** **Students Mentored**

9 CSJ students, 2 University of Toronto Mississauga interns and 12 Sheridan College interns.

**0** **Trees Planted**

In 2024 ACER's focus was on tree re-measurement.

**13** **Events**

Led or co-led by ACER, either in the field, indoor or online. ACER also presented at several conferences.

**290** **Event Participants and Volunteers**

Led or co-led by ACER, either in the field, indoor or online.

**46** **Event Hours**

Led or co-led by ACER, either in the field, indoor or online.

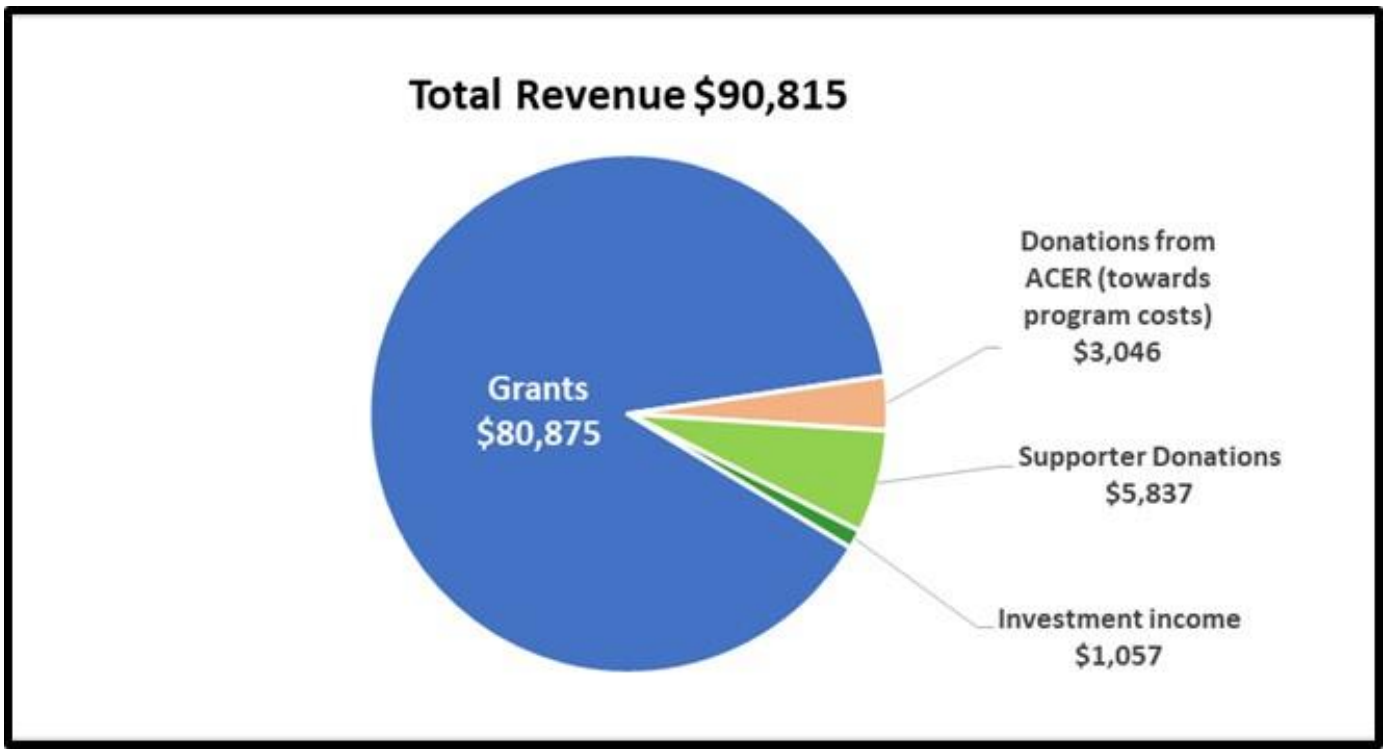
**631** **Subscribers**

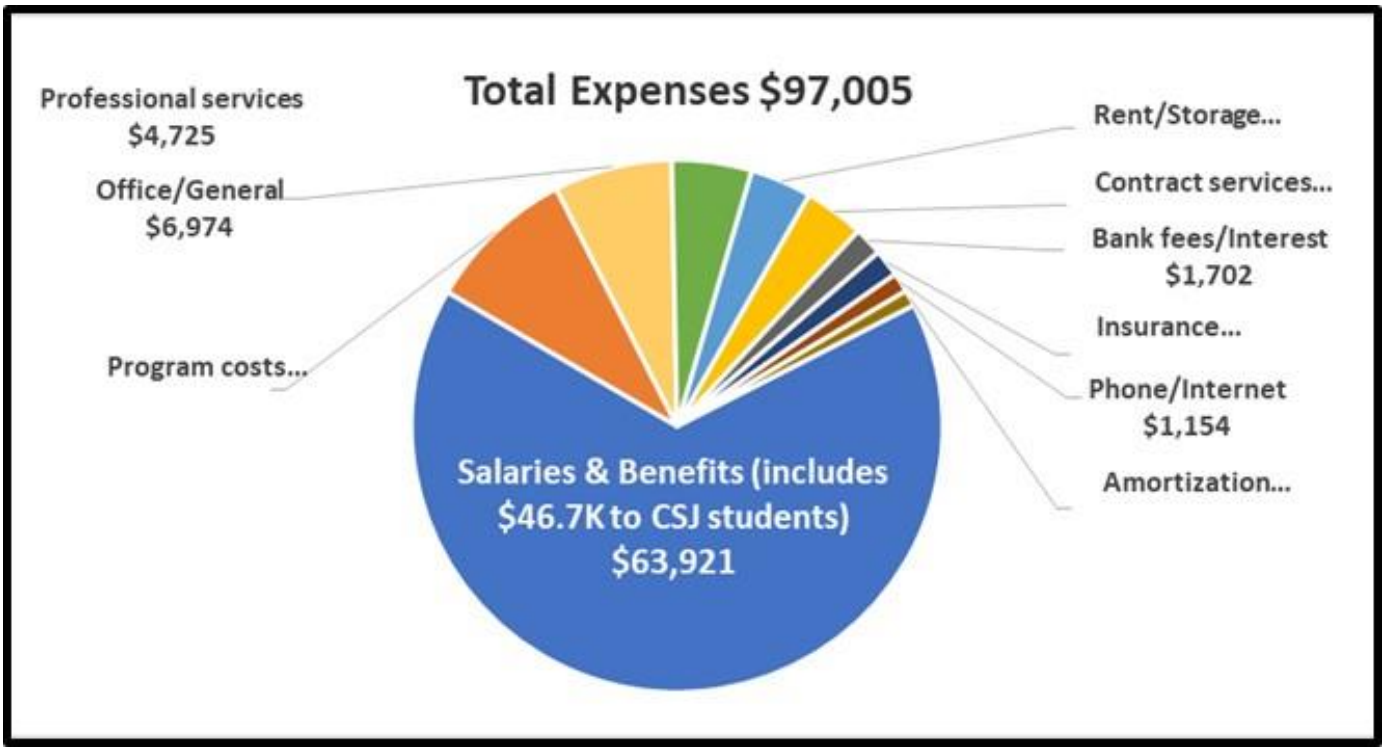
Total subscribers.

**10** **Educational Resources**

Released in 2024, either new or revised.

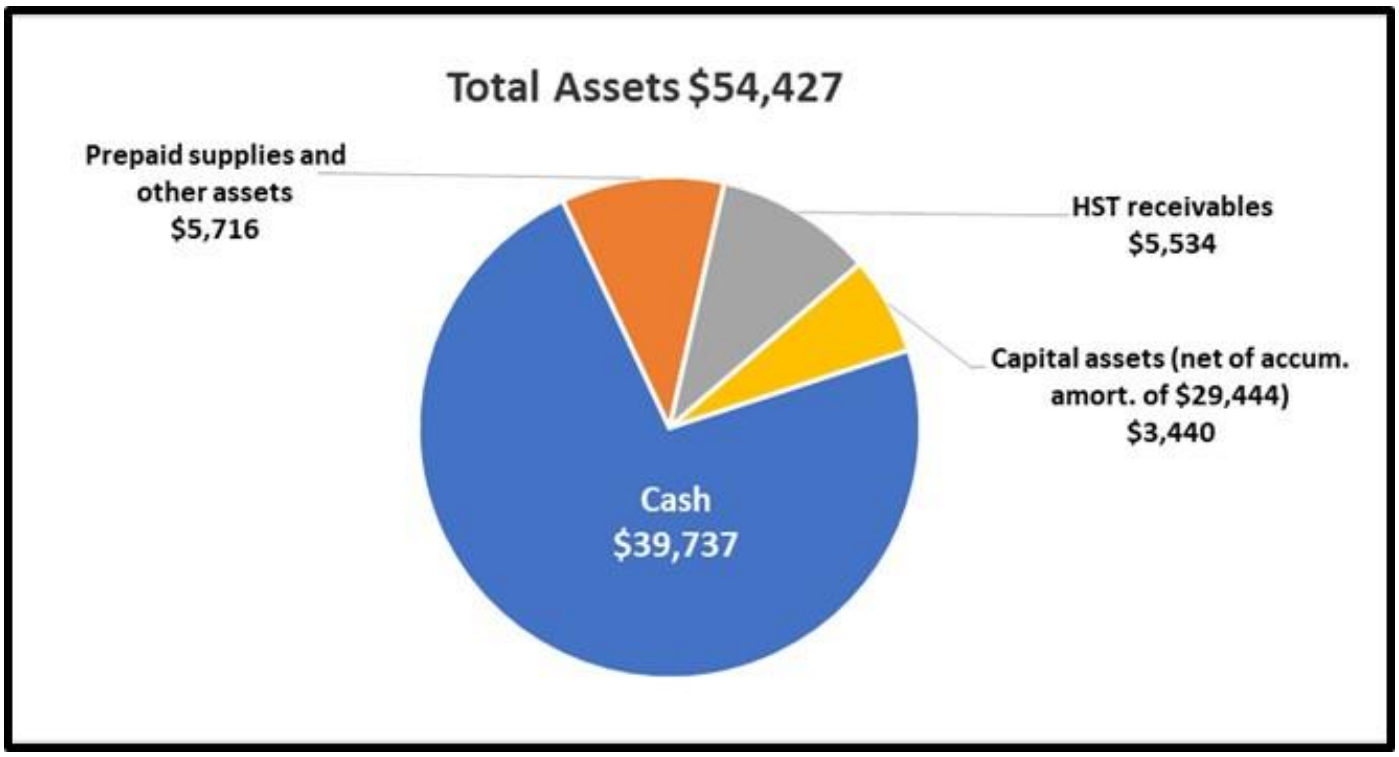
## 2024 FINANCIALS

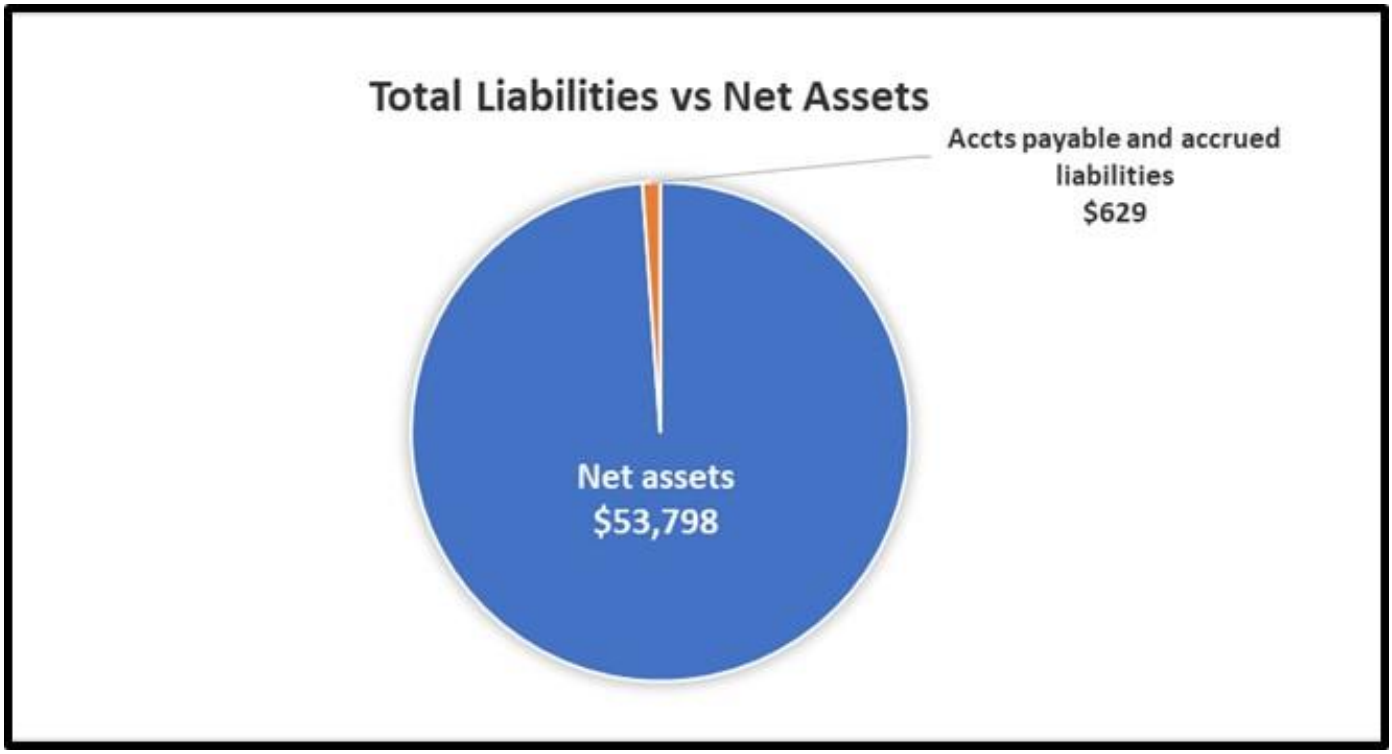



***Financials charts based on the (unaudited) 2024 Financial Statement prepared by SJ CPA Professional Corporation***

## 2024 FINANCIALS continued




***Financials charts based on the (unaudited) 2024 Financial Statement prepared by SJ CPA Professional Corporation.***

# ACKNOWLEDGEMENTS

## Key funders, partners and collaborators:

Friends of the Environment Foundation

Ontario – Great Lakes Local Action Fund

Government of Canada / Gouvernement du Canada – Canada Summer Jobs

Government of Canada / Gouvernement du Canada – New Horizons for Seniors Program

Mississauga

Active Adult Centre Mississauga

Brampton Environmental Alliance

Carolinian Canada

RTO ERO District 22 Etobicoke and York

Toronto and Region Conservation Authority

Ganaraska Conservation

Sustainable Cobourg & Neighbours

Open Data Association

SpruceLab

Humber Arboretum

Humber Polytechnic

University of Guelph-Humber

## Board of Directors

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- Keith Robson (Chair)
- Sonya Wieler (Secretary)
- Margaret Geare (Treasurer)
- Ian Orchard
- Mohammed Ayub Khan
- Wendy Bodnoff
- Linda Casselman

## Scientific Advisory Council

- Alice Casselman
- Sadia Butt
- Don MacIver
- Heather Auld
- Marianne Karsh
- Madelyn Webb
- Steve Columbo

## ACER Staff

- Sadia Butt, Program Manager
- 2024 CSJ students

## SPECIAL THANKS!

ACER extends a special thank you to all of our Canada Summer Jobs students, our UTM and Sheridan College interns, the local MPs who support our CSJ program, ACER's Scientific Advisory Council, and all those individuals and other organizations who continue to support and promote our work in the community, including all of our donors and volunteers!

# THANK YOU!

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