

BUILDING THE URBAN CANOPY USING THE MIYAWAKI METHOD

Green 
Communities
CANADA

OVERVIEW

- About us
- What is a mini forest?
- Highlights and summary data from mini forests across Canada
- Seeds of Change research by UBC
- Resources and events



Photo credit: EnviroCentre, 2025

GREEN COMMUNITIES CANADA

THE NEED

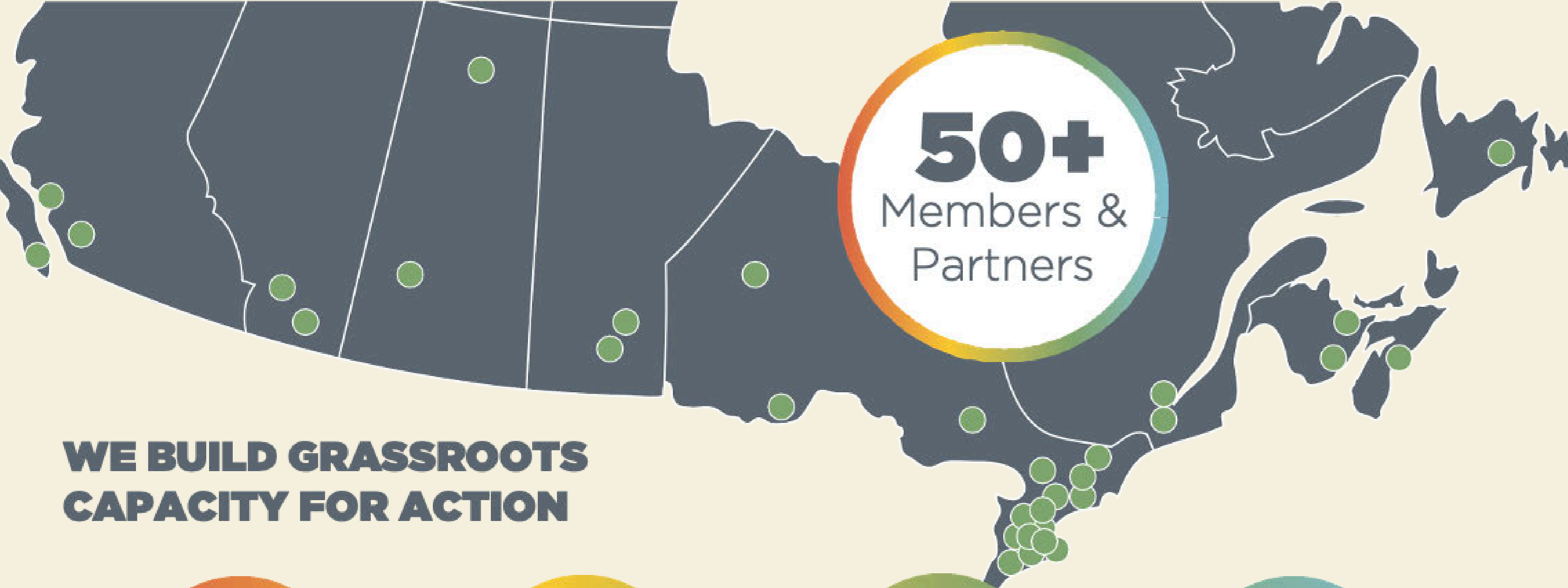
Supporting the people and communities most affected by climate change to prepare and adapt to the current and future impacts.

THE APPROACH

We support grassroots organizations across the country, building the local capacity needed to accelerate ambitious climate solutions.



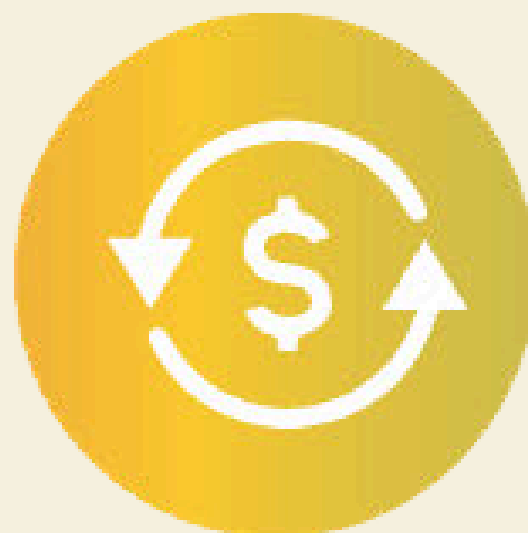
Photo credit: Black Environmental Initiative, 2024



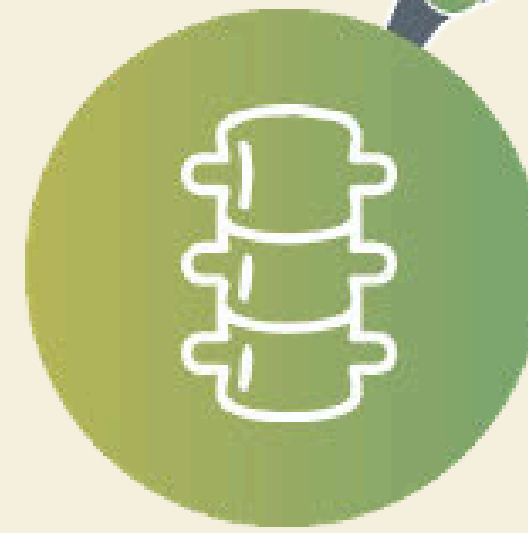
**WE BUILD GRASSROOTS
CAPACITY FOR ACTION**



NETWORK



FUNDER



BACKBONE



ACCELERATOR

FUNDERS & SUPPORTERS



**TD READY
COMMITMENT**



Possibility grows here.



**RBC
Foundation™**



FEDERATION
OF CANADIAN
MUNICIPALITIES

FÉDÉRATION
CANADIENNE DES
MUNICIPALITÉS



Natural Resources
Canada

Ressources naturelles
Canada

WHAT IS A MINI FOREST?

Miyawaki Forest Method of afforestation

- Soil preparation
- Dense planting
- Diverse locally-native species
- Multilayered design (3-4: canopy, subcanopy, understory, shrubs)

Fast growing, dense, rapid naturalization process that accelerates forest growth towards climax forest communities.

Well suited to urban sites.



50 year old Miyawaki forest in Japan
Photo credit: Heather Schibli, 2024

MINI FOREST BENEFITS



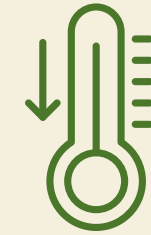
Increase Biodiversity



Fast Growing



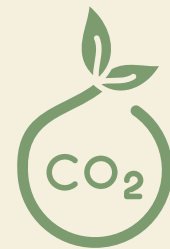
Stormwater Infiltration



Urban Cooling



Low Maintenance



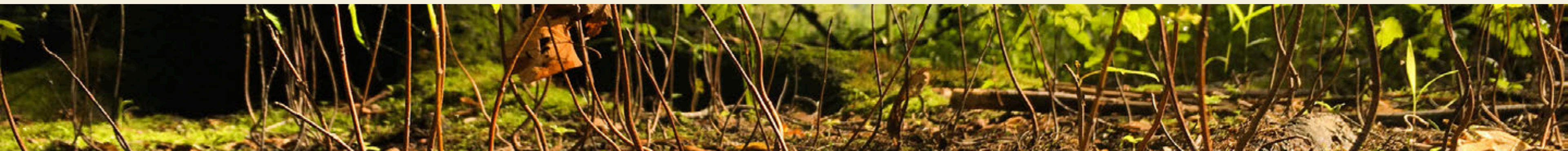
Carbon Sequestration



Increase Green Space



Improved Mental Health



SITE SELECTION

CONSIDERATIONS



OWNERSHIP

- Public OR publicly accessible
- Accessible for maintenance
- Supported by community



SIZE

- At least 100m², to be afforested with at least 300 trees
- Don't need to be “walked through”



SITE HISTORY

- Low risk of contamination



BENEFICIARIES

- In areas of need for greenspace
- Adjacent to underserved communities
- Able to install permanent educational signage



SNUNEYMUXW, BC

- **Locations:** Transitional housing site
- **Years:** 2024
- **Size:** 185 m2
- **Volunteers:** 40
- **Plants:** 1036

RICHMOND, BC

- **Location:** Terra Nova Rural Park, Garden City Lands, Bridgeport Trail
- **Year:** 2023, 2024, 2025
- **Size:** 250m², 100m², 200m²
- **Volunteers:** 180
- **Plants:** 1337, 932, TBD



Photos credit: City of Richmond, 2023





LANGLEY, BC

- **Locations:** Derek Doubleday Arboretum, Gloucester Park
- **Years:** 2023, 2025
- **Size:** 200 m²
- **Volunteers:** 64,
- **Plants:** 448

CALGARY, AB

- **Location:** Calgary Spiritual Living Centre, Rocky Ridge Royal Oak Community Association
- **Year:** 2023, 2025
- **Size:** 425 m2,
- **Volunteers:** 224
- **Plants:** 1545



Photos credit: Calgary Climate Hub, 2023, 2025



ST. THOMAS, ON

- **Location:** Parish Park
- **Year:** 2025
- **Size:** 100m2
- **Volunteers:** 55
- **Plants:** 400

→ 13



FILM NEGATIVE

FILM NEGATIVE

Photos credit: City of St. Thomas, 2025

→ 13 A

→ 14



HAMILTON, ON

- **Location:** Johnson Tew Park, Albion Falls
- **Year:** 2023, 2024
- **Volunteers:** 28, 239
- **Plants:** 5400



Photos credit: City of Hamilton, 2023



Before



After



NEYAASHIINIGMIING, ON

- **Location:** Lakeshore Road
- **Year:** 2024
- **Size:** 100m²
- **Volunteers:** 27
- **Plants:** 300

GUELPH, ON

- **Location:** York Road Park
- **Year:** 2023
- **Size:** 500m²
- **Volunteers:** 237
- **Plants:** 1292 (623 trees, 495 shrubs, 165 flowers and grasses)

→ 13



FILM NEGATIVE

Photos credit: City of Guelph, 2023

FILM NEGATIVE

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→ 14





SHERBROOKE, QC

- **Location:** Conseil Sports Loisirs de l'Estrie, Parc Léonard Cohen
- **Year:** 2023, 2025
- **Size:** 100m², 150m²
- **Volunteers:** 127
- **Plants:** 1020

SAINT JOHN, NB

- **Location:** Glen Falls
- **Year:** 2024
- **Size:** 100m2
- **Volunteers:** 32
- **Plants:** 438



Photos credit: ACAP Saint John, 2024



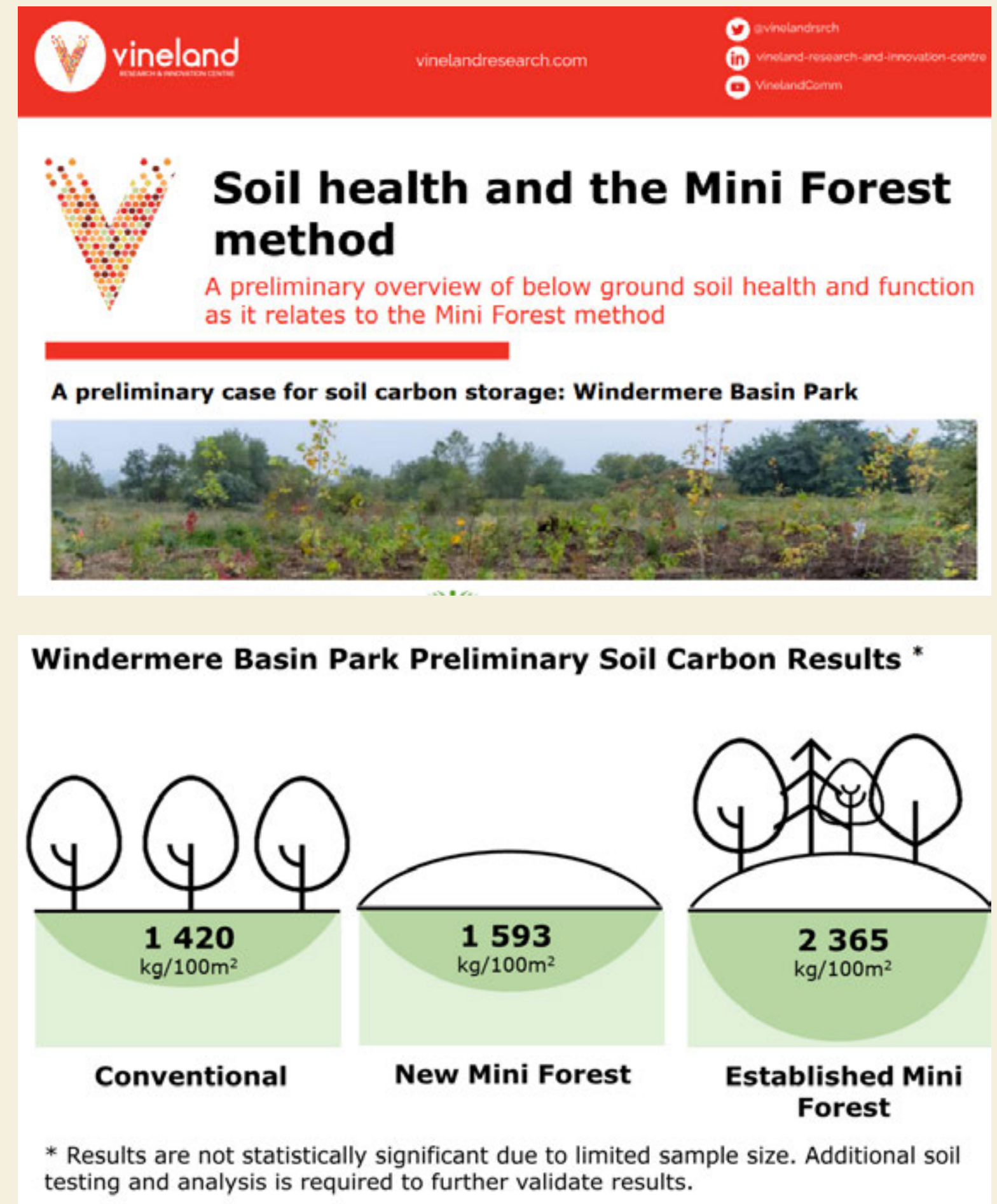
MONCTON, NB

- **Location:** Decommissioned Landfill, Fundy Biosphere Plant Nursery
- **Year:** 2023, 2025
- **Size:** 200m², 250m²
- **Volunteers:** 32
- **Plants:** 1557



MINI FOREST SOIL HEALTH

- Windermere Basin Park in Hamilton, ON
- Two Mini Forests planted by Green Venture & the City of Hamilton
- Vineland Research and Innovation Centre collected soil samples from the mini forests and the conventional planting area
 - Both Mini Forests contained more carbon in topsoil and subsoils than baseline soil samples



MINI FORESTS



2023 - 2025 Mini Forests/ Miyawaki Forest Plantings

ACAP Saint John | Saint John, NB
Bagida'waad Alliance | Bruce County, ON
Calgary Climate Hub | Calgary, AB
Carlton University | Ottawa, ON
City of Hamilton | Hamilton, ON
City of Guelph | Guelph, ON
City of Markham | Markham, ON
City of Richmond / Garden City Conservation Society | Richmond, BC
City of St. Thomas | St. Thomas, ON
City of Welland | Welland, ON
Craig Kielburger Secondary School | Milton, ON
Credit Valley Conservation | Mississauga, ON
Eastview Public School | Toronto, ON
EnviroCentre | Ottawa, ON
Fundy Biosphere Reserve | Moncton, NB
Grandmother's Voice | Oakville, ON
Gorge Waterway Action Society | Victoria, BC
GreenUp | Peterborough, ON
Green Venture | Hamilton, ON
Halton District School Board | Halton, ON
Langley Environmental Partners | Langley, BC
Little Forests Durham | Uxbridge, ON
Little Forests Kingston | Kingston, ON
London Environment Network | London, ON
Oakville Green | Oakville, ON
Ontariogreen / Town of Lincoln | Lincoln, ON
Toronto Green Community / Rainscape TO | Toronto, ON
ReForest London | London, ON
REVE Nourricier | Sherbrooke, QC
Seedlings Forest Education | Victoria, BC
Snuneymuxw Hulit Lelum First Nation | Snuneymuxw First Nation, BC



45 mini forests across

23 communities in

5 different provinces



MINI FORESTS

2023-2025 IMPACTS



10,000m²

combined
site size

3,500

total volunteers

53%

estimate of
youth volunteers

12,500

trees planted

26,000

total plants

Professionally produced mini forest coordinator training videos and curriculum, planting guidance, project management tools, and a monitoring and maintenance program were shared with program participants.

Calvin Park Community Little Forest

Why here? Why now?

At the invitation of Kingston Frontenac Housing Corporation (KFHC), Little Forests Kingston, beginning in 2023, met with eager and interested residents to plan and plant these forests. The residents and KFHC embraced the opportunity to welcome back a diverse forest and all the beings it supports. They know that the trees will improve their lives. Students and teachers from local schools were crucial in the preparation and planting of these forests.

It's all about community!

Based on the Miyawaki method and Indigenous concepts of personhood, our plantings bring people together to imagine a multispecies city, where all beings can find what they need to thrive. We help Kingstonians learn about the rich, biodiverse world they are welcoming back into their lives when they plant a Little Forest or a Pocket Forest.



Scan the QR code to visit the Little Forests Kingston website!

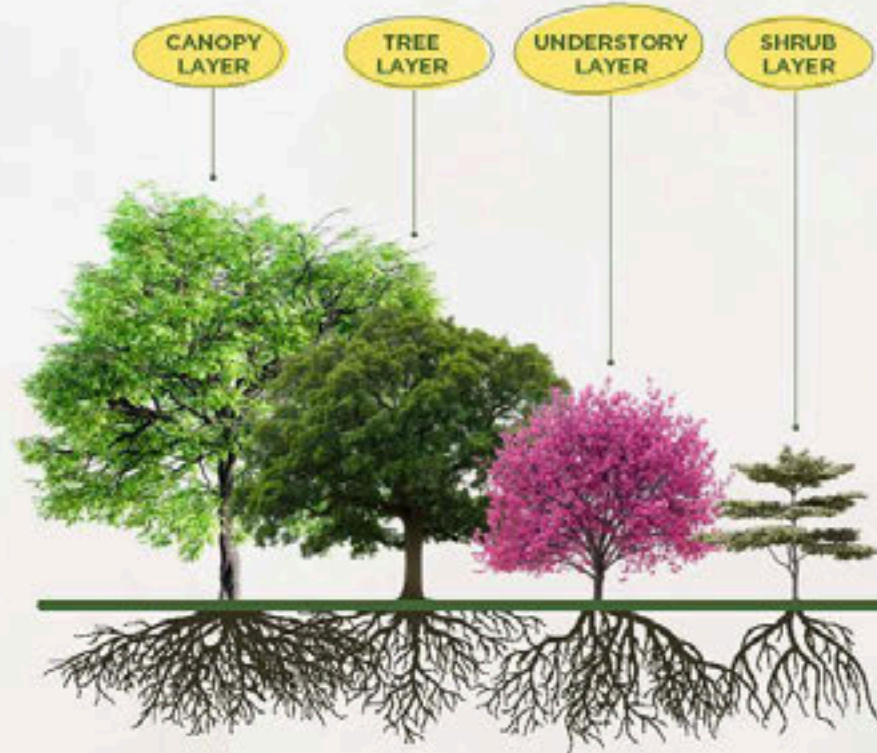
Little Forests Kingston plants on the traditional territories of the Anishinaabeg, the Haudenosaunee and the Huron-Wendat.

What is a Little Forest?

A Little Forest, using the Miyawaki method, is a complete ecosystem consisting of 30-35 species planted in a space at least 100m² and no less than 5m wide.



It consists of densely planted areas, with three trees per square metre representing different layers.



Dense planting results in a stable and resilient root system!



Works with local conditions and support biodiversity.



10x faster growth than a traditional forest due to competition.



Scan the QR code to learn more about this Little Forest.

Alvar Forest

Alvars are unique ecosystems with shallow soil over limestone bedrock. Trees who grow in these challenging conditions are those that can cope with spring flooding and intense summer droughts. While this area is not a naturally occurring alvar, subdivision development often creates these conditions here in Kingston.

Can you find each of these species within this Little Alvar Forest?



LATIN NAME:

Quercus Macrocarpa

COMMON NAME:

Bur Oak

FREQUENCY:

Dominant species



LATIN NAME:

Carya Ovata

COMMON NAME:

Shagbark Hickory

FREQUENCY:

Dominant species



LATIN NAME:

Prunus Serotina

COMMON NAME:

Wild Black Cherry

FREQUENCY:

Supporting species



Little Forests Kingston aims to transform Kingston into a nature-positive, equitable City-in-a-Forest.

WANT TO GET INVOLVED?

Email us at acorn@littleforests.org



Thank you to The Beacon Design Collective Inc. (through Living Cities Canada Fund of Green Communities Canada) for their financial and graphic design support, demonstrating their commitment to biodiversity and environmental justice.



Welcome to Our Mini Forest



Serviceberry



Black Cherry



Sugar Maple



Smooth Rose



Choke Cherry

What are Mini Forests?

Popularized by Japanese botanist, Akira Miyawaki, mini forests are small, dense plantings of many different native tree and shrub species. The technique mimics natural forest conditions and encourages faster growth. Mini forests can reach maturity in as little as 20 years. The best part is they only need a small space, like this 100 square metre forest.

Planting Communities

The mini forest method of planting tightly encourages the fast upward growth of trees towards the sun, while shrubs add diversity and healthy habitat.

The Benefits of Mini Forests

Fast growth means mini forests capture carbon quicker. They also generate shade which helps to cool our cities and provide food and shelter for wildlife. Mini forests can also help to reduce flood risk by diverting and absorbing rainwater.

St Georges Anglican Church is a proud participant of Credit Valley Conservation's Greening Corporate Grounds program. This project was made possible by Green Communities Canada's Living Cities Canada Fund with support from CVC's Hungry Hollow SNAP community.



White Oak

Eastern Bluebird

Cedar Waxwing

White Cedar

Cecropia Moth

Elderberry



St Georges
Anglican Church



Parish Park MIYAWAKI MINI FOREST



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Planting Communities

The multilayered and tightly planted mini forest method creates a dense canopy of different heights. This competition for resources helps the trees grow faster and creates an immediate habitat for native pollinators!

Thank you to
our sponsors



Foundation



Soil Preparation

Establishment of a functional soil ecosystem is key to the Mini Forest's success. Based on a soil analysis, 8cm of manure and 15cm of woodchips have been added to the site to increase the soil's organic matter content. The soil analysis also determined which plants would be best suited to the site's nutrient availability.

Green Communities Canada: Communities
of Practice Webinar Series
September 18, 2025

Seeds of Change: Cultivating Mini Forests Across Canada

UBC team: Tahia Devisscher (PI), Kylie Clark, Jennie Zhou
GCC team: Emily Amon, Tianna Mighty



RISE lab
Resilient and Innovative
Societies and Ecosystems



PART I									
	Name of mini forest	Province	Context	Previous land use	Site size (m^2)	Total # of plants	Planting density (trees/m^2)	# of species planted	# of volunteers
	Austin Drive Park	ON	Urban	Park / Forested Area	100	300	3.0	13	25
	Calgary Centre for Spiritual Living	AB	Urban	Under-utilized urban space	200	870	2.2	32	72
	Conseil Sport Loisir de L'Estrie	QC	Suburban	Parking lot	100	690	1.1	NA	127
	Derek Doubleday Arboretum	BC	Suburban	Arboretum	100	260	0.8	26	55
	Humber River Lodge	ON	Urban	Park / Forested Area	300	488	0.1	43	35
	Johnson Tew Park	ON	Suburban	Arboretum	300	903	2.4	38	28
	Kingston Seniors Centre	ON	Urban	Senior Centre	560	1571	2.2	85	375
	Milne Dam Conservation Park	ON	Suburban	Park / Forested Area	100	300	3.0	13	20
	Mohawk College	ON	Suburban	School / College	100	300	2.1	30	70
	Riverfront Trail	NB	Urban	Former landfill	200	707	3.1	12	12
	Sisters of the Previous Blood Monastery	ON	Urban	Church / Monastery	100	300	2.4	14	15
	St. George Anglican Church	ON	Suburban	Church / Monastery	100	396	2.0	32	50
	Terra Nova Rural Park	BC	Suburban	Park / Forested Area	130	740	0.8	36	100
	The Pocket Tiny Forest	ON	Urban	Under-utilized urban space	100	300	1.8	18	60
	York Road Park Mini Forest	ON	Urban	Park / Forested Area	500	1292	2.58	55	237



Methodologies

Review



- Multi-scale policy
- Narrative and impact reports



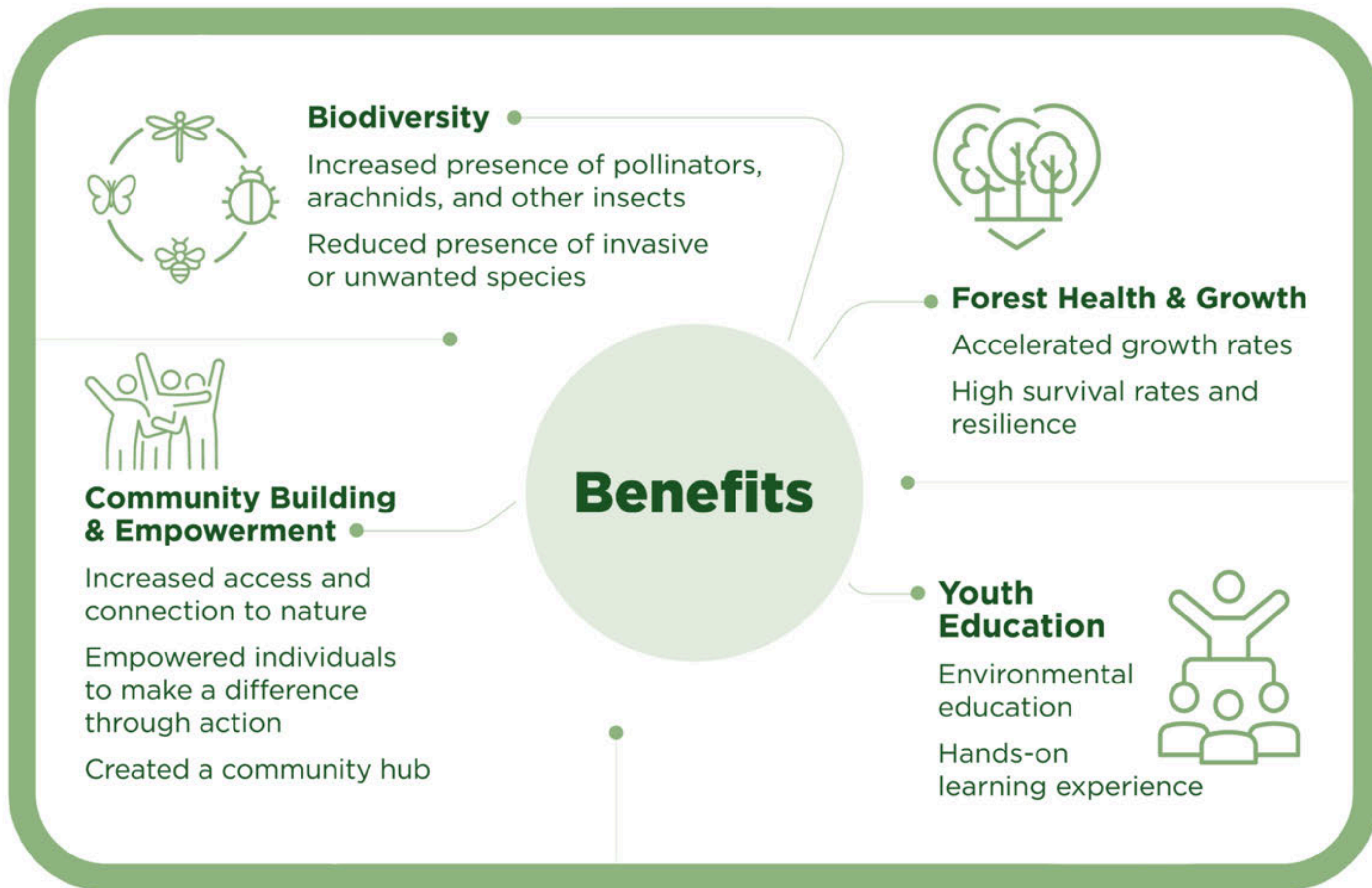
Surveys

- 15 mini forests
- Quantitative and qualitative analysis (13 complete)

Interviews



- 6 case studies
- Thematic review





“People have such a good feeling when they're actually planting the forest, like there is a sense of joyousness as people plant”.



“I would suggest that this 1st season is probably equivalent to about 3 seasons compared to our more traditional approach”.

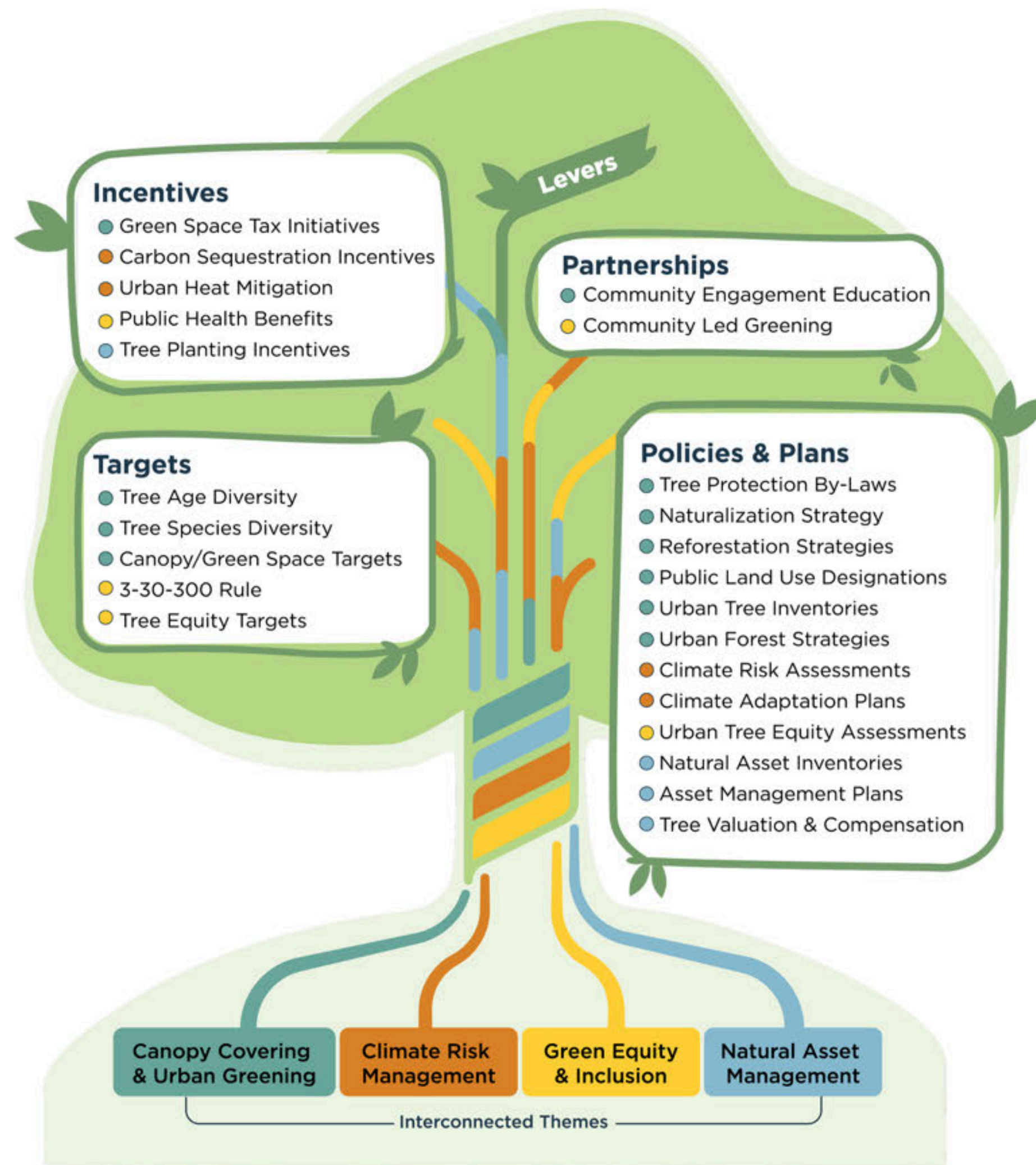
Challenges and lessons learned:

- Operational: herbivores, weeds and watering
- Mini forests are expensive, but a pilot to learn from
- Funding for planting, but not for stewardship



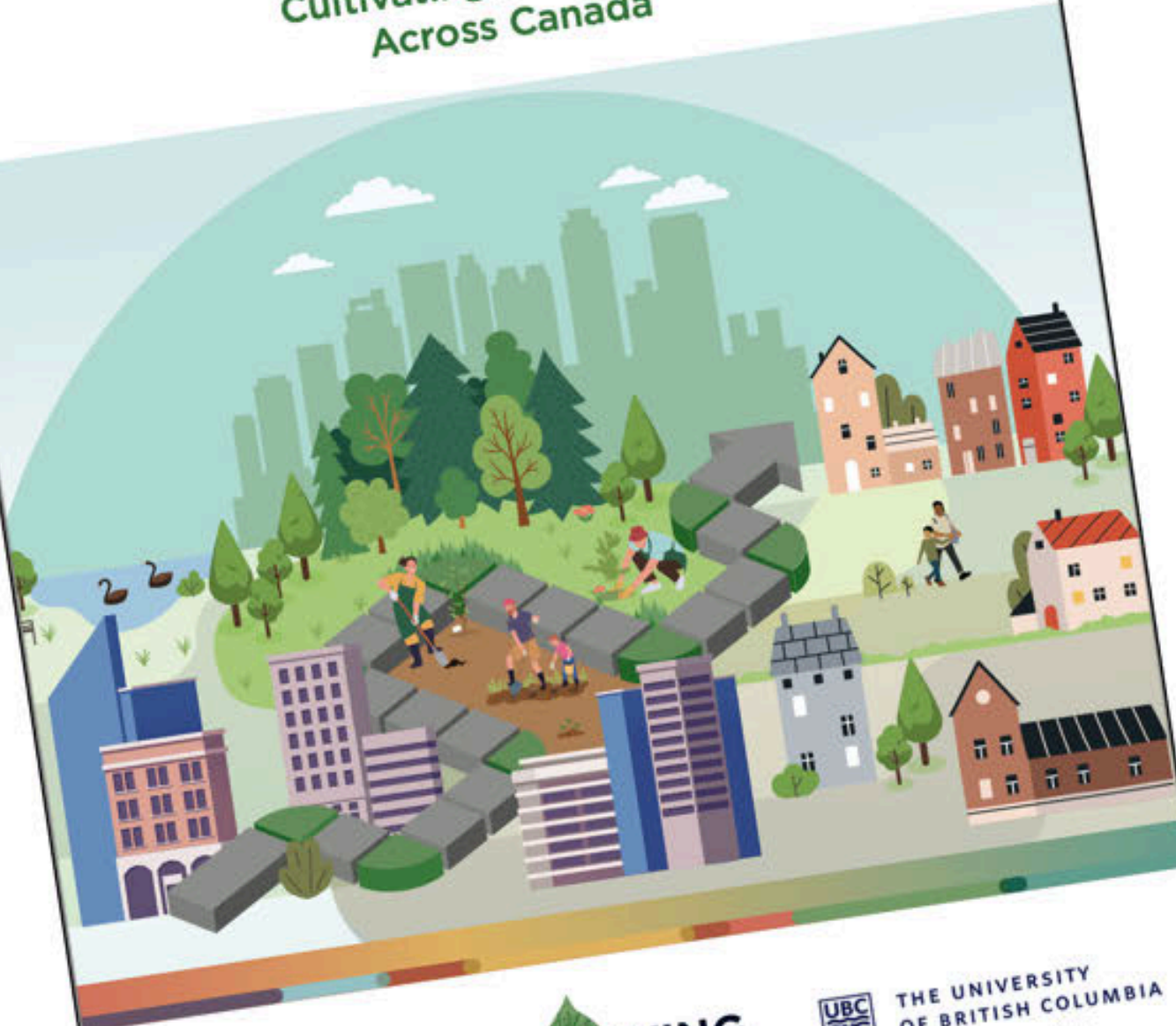
Long-term alliances & protection
Maintenance capacity
Monitoring systems

Policy levers



SEEDS OF CHANGE:

Cultivating Mini Forests
Across Canada



Green Communities
CANADA

LIVING
CITIES
Canada



THE UNIVERSITY
OF BRITISH COLUMBIA
Faculty of Forestry

LES GRAINES DU CHANGEMENT :

cultiver des mini-forêts à travers le Canada



Green Communities
CANADA

LIVING
CITIES
Canada



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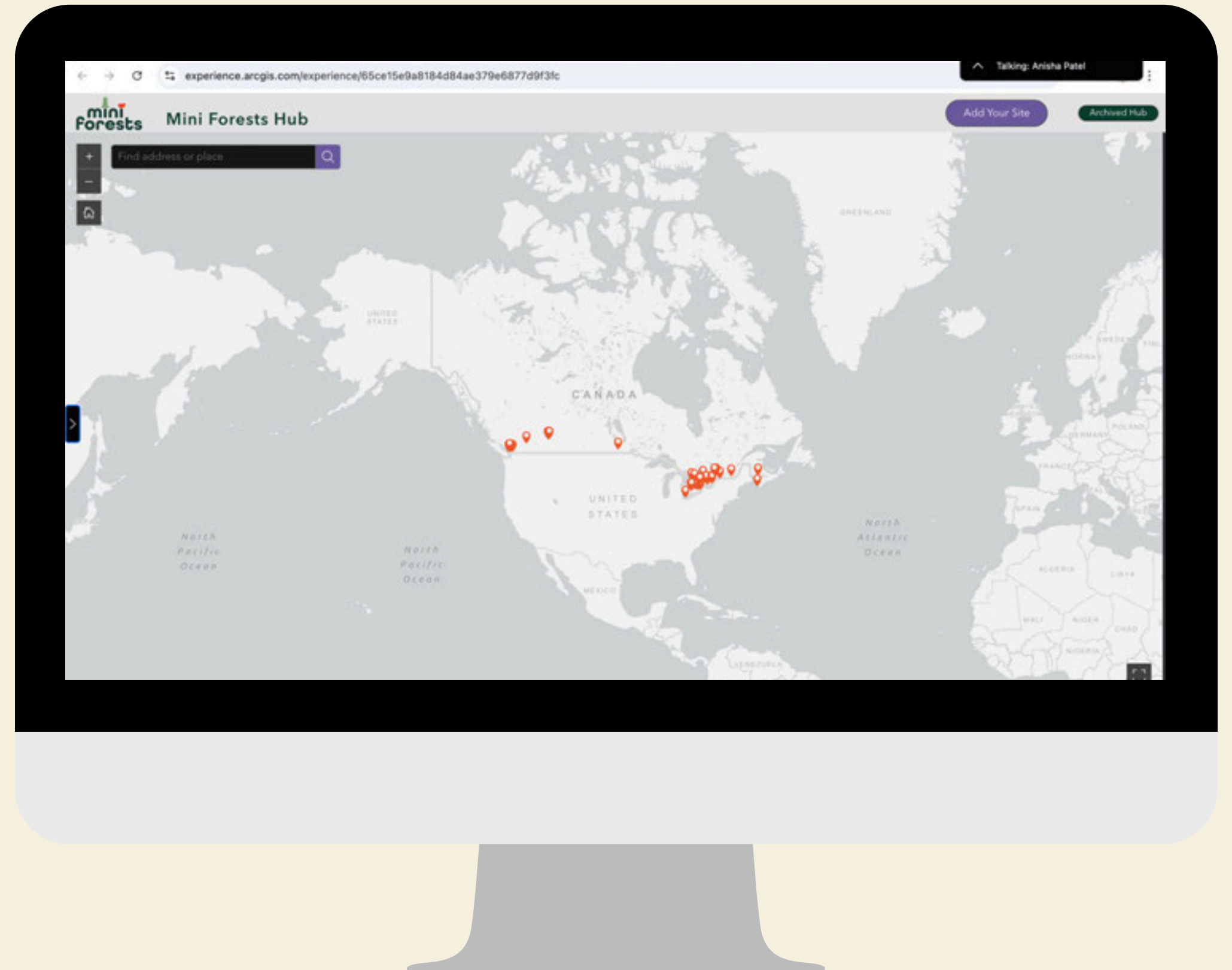
RESOURCES & EVENTS

- Grants: Living Cities Canada Fund Demonstrate and Thriving Microgrant programs
- Join our Mini Forest Community of Practice!
 - Third Thursday of the month
 - Next meeting: January 15, 2026 at 2:00 pm Eastern
- Free online mini forest course
 - <https://green-communities-canada.thinkific.com/>



RESOURCES & EVENTS

- Mini forest hub
- Network of Nature
 - Native species database
 - Find a nursery



An aerial photograph of a dense, lush green forest with many trees, serving as the background for the text.

THANK YOU!
QUESTIONS?

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