

# CLEAN AIR CALCULATOR

## Industry Sneak Peek

NOVEMBER 28, 2023

# Business Context > Market Plan

Social engagement - Foundation - customers, non-customers, employees

Residential, commercial and municipal clients want to understand the environmental impact of their urban green space.

Key factor when making a decision to buy landscape products and services.



## Business Context > Profession/trade - Public

The environmental horticulture sector's commitment to the future:

### Connecting Plants and People

“To grow, nurture, and protect urban green spaces for the health and well-being of all”.

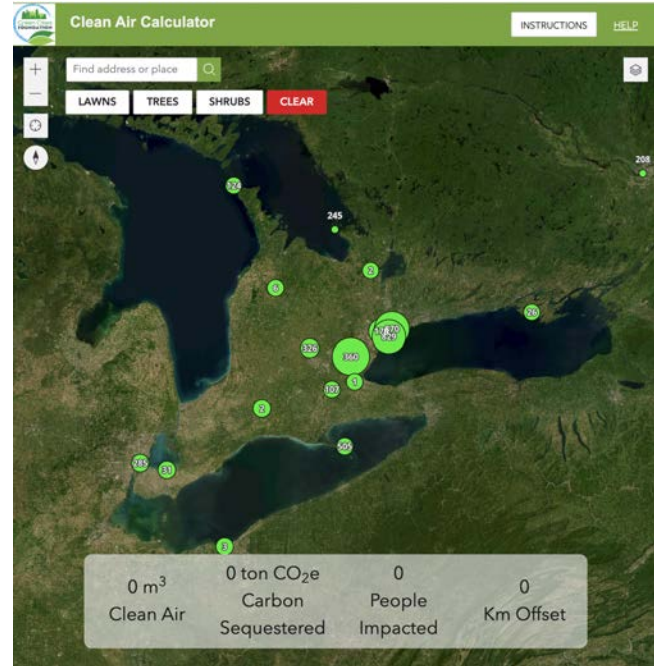


# Clean Air Calculator > Your New Tool

## Easy to use mapping tool

Calculates the positive environmental impact of turf, trees and shrubs in a green space.

Use for both existing green spaces, and new landscape designs.



# Clean Air Calculator > Development Partners

## Representational Data Accuracy and Credibility Ensured:

Climate Adaptation Committee - Canadian Nursery Landscape Association (CNLA)

Dr. Eric Lyons, Director of the Guelph Turfgrass Institute - University of Guelph

Environmental Systems Research Institute (Esri)

Green Cities Foundation



# Clean Air Calculator > Results

## Calculations made:

Metric tonnes of Carbon (CO<sub>2</sub>) sequestered (per year)

Cubic metres of Clean Air (O<sub>2</sub>) produced (per year)

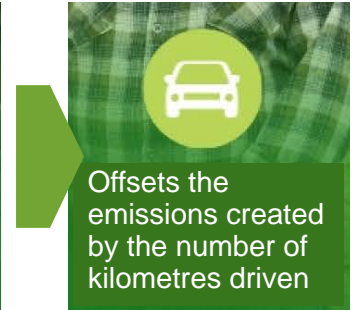


# Clean Air Calculator > The Calculations

Calculations made, **plus values presented**, to make it easy for audiences to understand:

Metric tonnes of Carbon (CO<sub>2</sub>) sequestered (per year)  
**Offsets the CO<sub>2</sub> emissions created by the number of kilometres driven**

Cubic tonnes of Clean Air (O<sub>2</sub>) produced (per year)  
**Number of people who breathe the O<sub>2</sub> produced**



# Clean Air Calculator > Disclaimer

## Representational Data Accuracy and Credibility Disclaimer:

*University of Guelph literature review formulas (see link below) and the values created are representational only and intentionally general.*

[Development of an Urban Turfgrass and Tree Carbon Calculator for Northern Temperate Climates](#)

*Variables such as mapping care, plant types, and weather and growing conditions, will affect the actual results compared to information presented.*

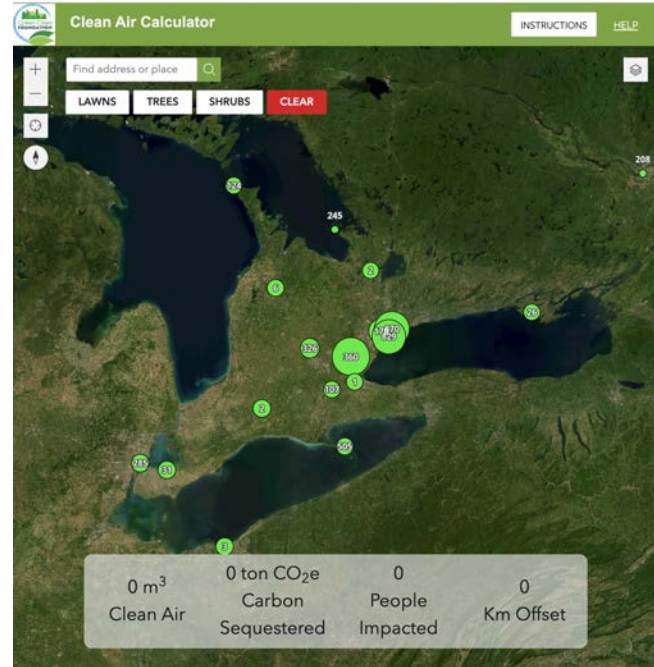


# Clean Air Calculator > When to Use

Effective communications tool for:

Residential, Commercial, Municipal projects

Concept designs or existing green spaces



# Clean Air Calculator > Residential Example (West Vancouver)

NATIONAL AWARDS OF LANDSCAPE EXCELLENCE  
RESIDENTIAL CONSTRUCTION WINNER:

FOSSIL LANDSCAPE  
CONSTRUCTION LTD

**CATERPILLAR®**



Clean Air Calculator

5050 Happy Valley L...

LAWNS TREES SHRUBS CLEAR

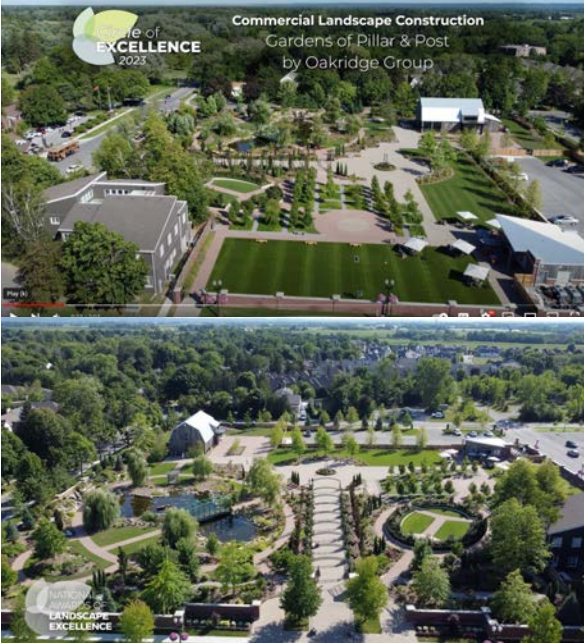
0 m<sup>3</sup> Clean Air

0 ton CO<sub>2</sub>e Carbon Sequestered

0 People Impacted

0 Km Offset

# Clean Air Calculator > Commercial Example (Pillar and Post, NOTL)



Clean Air Calculator

526 Regent St. Niaga... X Q

LAWNS TREES SHRUBS CLEAR

0 m<sup>3</sup> Clean Air    0 ton CO<sub>2</sub>e Carbon Sequestered    0 People Impacted    0 Km Offset

Powered by Esri

# Clean Air Calculator > Municipal Example (Commissioners Park, Ottawa)

NATIONAL AWARDS OF LANDSCAPE EXCELLENCE  
COMMERCIAL MAINTENANCE WINNER:  
STRATHMORE LANDSCAPE CONTRACTORS



Draft

Category	Value
Clean Air	0 m <sup>3</sup>
Carbon Sequestered	0 ton CO <sub>2</sub> e
People Impacted	0
Km Offset	0

# Clean Air Calculator > How to Use

**Residential backyard project** recently completed example

(West Vancouver, BC)



# Clean Air Calculator > Easy to Use!

## Step 1: Find the location

Use the search bar to look up the project address.

Zoom in and centre to the desired resolution.



# Clean Air Calculator > Easy to Use!

## Step 2: Choose your land cover

There are three choices of land cover: **Lawns, Trees or Shrubs**.

Each one generates differing levels of environmental impact data.



# Clean Air Calculator > Easy to Use!

## Step 3: Define your space

### Step 3A: Define your Shrub space (if applicable)

With just a few clicks, draw a shape on the map by placing points to create a polygon. Be as precise as you can, and when you're satisfied with the shape, simply double-click to finish.

Create multiple shrub spaces as needed.

Cumulative results for each polygon appears in the chart at the bottom.





# Clean Air Calculator > Easy to Use!

## Step 3B: Define your Lawn space (if applicable)

Draw a shape on the map by placing points to create a polygon. Be as precise as you can, and when you're satisfied with your shape, simply double-click to finish. Create multiple lawn spaces if applicable.

Cumulative results for each polygon appears in the chart at the bottom.



# Clean Air Calculator > Easy to Use!

## Step 3C: Define your Tree space (if applicable)

Draw a shape on the map by placing points to create a polygon. Be as precise as you can, and when you're satisfied with your shape, simply double-click to finish. Create multiple tree spaces if applicable. Polygons can overlap.

Cumulative results for each polygon appears in the chart at the bottom.



# Clean Air Calculator > Easy to Use!

## Step 4: Discover your Clean Air Results

Cumulative results appear in the chart at the bottom. See the positive impact plants make on the environment in your defined space:

33,172 m<sup>3</sup> Clean Air Produced / year

31 People Impacted / year

13 tonnes Carbon Sequestered / year

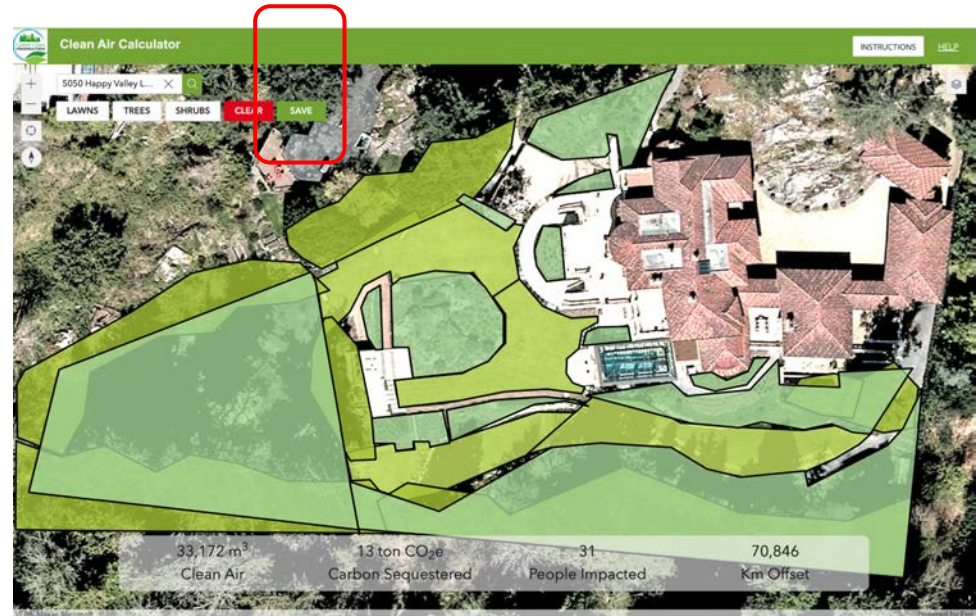
70,846 km Driven Offset / year



# Clean Air Calculator > Easy to Use!

## Step 5: Save Results

Saving your results will add this property's values to the Green Cities Foundation database



# Clean Air Calculator > Share the Results

Share the results with your client - before starting the project or after the project is complete.

Commercial clients may wish to share the results with their stakeholders to demonstrate ESG (Environmental, Social, Corporate Governance).

Municipal clients may wish to communicate the results with residents.

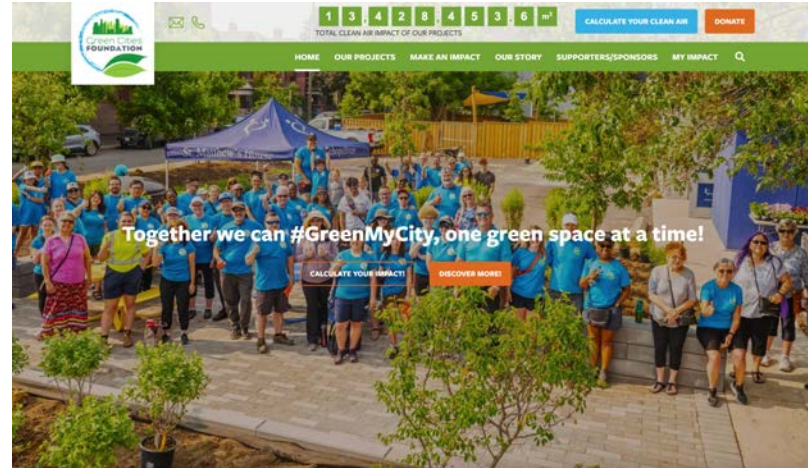


# Clean Air Calculator > Green Cities Foundation > #GreenMyCity

The not-for-profit **Green Cities Foundation** wants to reduce the effects of climate change to improve the quality of life in all Canadian cities.

**Green Cities Foundation's #GreenMyCity** program is a collaboration with the Canadian horticulture sector, donors and community volunteers to create urban green spaces across Canada.

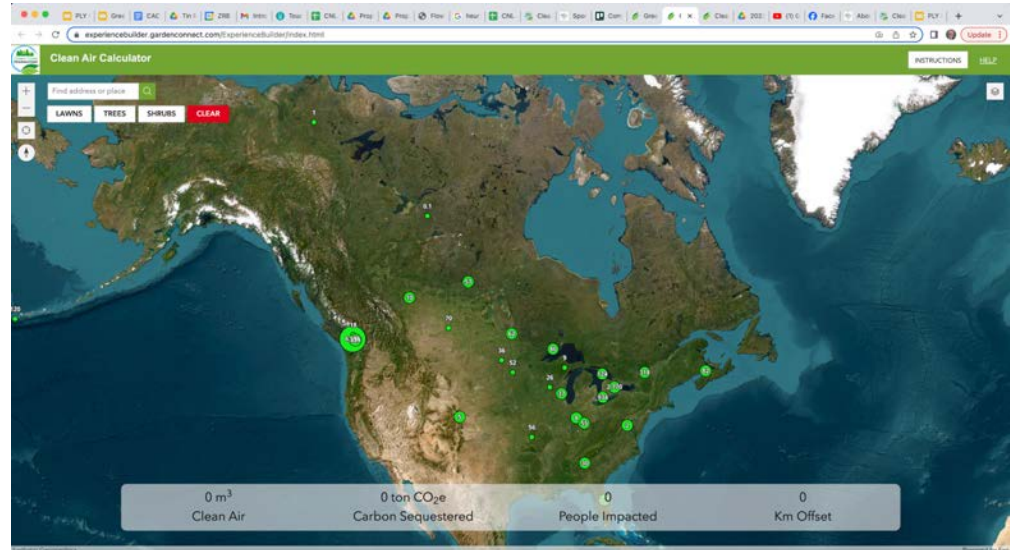
Your projects and results will be highlighted on the Green Cities Foundation website.



# Clean Air Calculator > Share the Results

Measurements from individual projects will collectively produce metrics for CNLA to share with national, provincial and local governments, the media, businesses and public audiences.

Purpose is to demonstrate the environmental impact made by the Canadian horticulture sector.



# Clean Air Calculator

<https://gcfoundation.gardenconnect.com/>

**User: demo**

**Password: demo**



# Clean Air Calculator > Launch

**Trade Launch** during winter 2024

**Public Launch** spring 2024

**Cost to members:** \$0

**Need help?:** Member support at [Projects@GCFoundation.com](mailto:Projects@GCFoundation.com)