

Clarington Trees for Rural Roads

Natural Environment Climate Change Summit

March 7, 2019

Faye Langmaid, Municipality of Clarington

Pam Lancaster, Ganaraska Region Conservation Authority



What is Trees for Rural Roads?



How was Trees for Rural Roads Created?

- Rural and agricultural community acknowledge the importance of roadside trees and the historical context.
- The Municipality of Clarington, Central Lake Ontario Conservation Authority and Ganaraska Region Conservation Authority saw an opportunity to collaborate.
- Municipal support – financial and administrative; Conservation Authority support in delivery of program.



How does Trees for Rural Roads Work Financially?

- Beginning in 2002, Clarington Council has provided annual funding for an ongoing environmental stewardship program.
 - Since this time \$140,00 has been allocated to projects, one of which is Trees for Rural Roads
- The program does cover administrative and material costs but also relies on leveraging in-kind and outside grants
 - Municipal administration and communication
 - Conservation Authority administration and communication
 - Maple Leaves Forever grant
 - New for 2019 Highway of Heroes Living Tribute partnership



Trees for Rural Roads Process

Clarington
Trees for Rural Roads Application Form
Deadline: March 31, 2018
Approved by: [Signature] & Submitted to: [Signature] - Conservation Authority

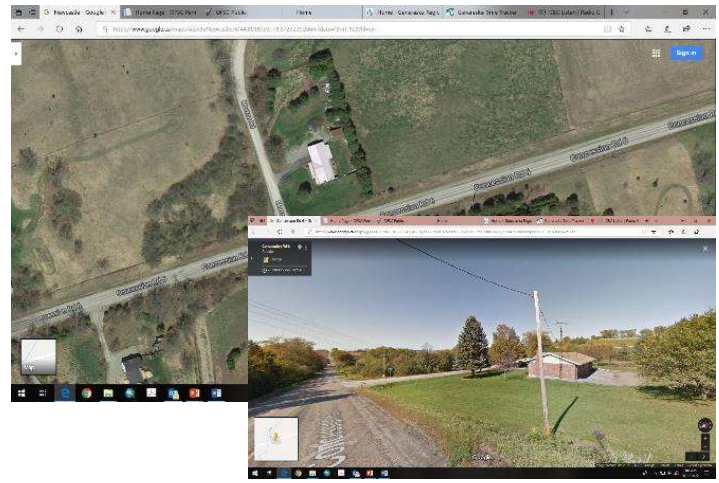
Client: [Blank]
 Name: [Blank] P.O. Name: [Blank]
 Billing Address: [Blank] Tax: [Blank]
 Phone: [Blank] Email: [Blank]
 Day / Night Phone No.: [Blank] Evening Phone No.: [Blank]

Native Tree Species	Soil Conditions
*Sugar Maple 3-4' bare root	Prefers well drained sites
White Birch 3-4' bare root	Prefers moist to well drained sites
Red Oak 3-4' bare root	Prefers dry well drained sites
White Oak 3-4' bare root	Prefers well drained sites
White Pine 12-18" Potted	Prefers well drained sites
*Silver Maple 3-4' bare root	Prefers moist
*Red Maple 3-4' bare root	Prefers moist
White Spruce 12-18" Potted	Prefers well c
Total number of trees (Maximum 30 trees)	Property)

Soil Conditions:
 Dry
 Wet Clay
 Sand
 Loam
 Other _____

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 100 Wilsey Avenue, Ontario, Canada L1R 1G1

Southwest Region Conservation Authority, Pam Lander
 Phone: (905) 885-8173
 2274 County Road 28, Port Hope, ON L1A 3G2



Tree Planting Tips

Careful planning, along with appropriate stock handling and follow up care of your newly planted tree will help ensure they survive and thrive. Before you plan your planting project, consider the tree planting location; the proximity to existing structures, roads and utility lines. All plantings should be on private land, and outside of the Municipal Road Right of Way (ROW).

Tree whip spacing should be approximately 20 meters apart to ensure that the canopy of the trees will be appropriately spaced when the tree is mature.

- Handling and Storing Whips**
- Moisture is the key factor in seedling survival. Remember, "if they dry, they die!" Do not allow the whips to dry out.
 - Transport whips carefully. Rough handling can damage root systems and predispose the seedlings to stress. Placing them in wet shredded newspaper or sawdust is ideal.
 - Avoid temperature extremes. Fluctuations in temperature, especially excessive heat, during storage and transport can result in seedling damage.
 - Plant promptly. Once the whips are planted, keep the bags moist until you are done.

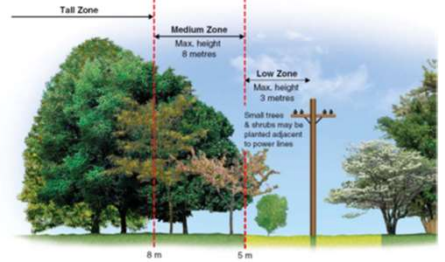
Preparing the Site

- Tree whips require four basic: deer, worms, and brush growing on the requirements. Heavy vegetation and seedlings, rodent protectors will be.
- Good site preparation helps to make planting locations for seedlings. Sit.
- If possible remove or reduce existing. Continual removal of competing vegetation.

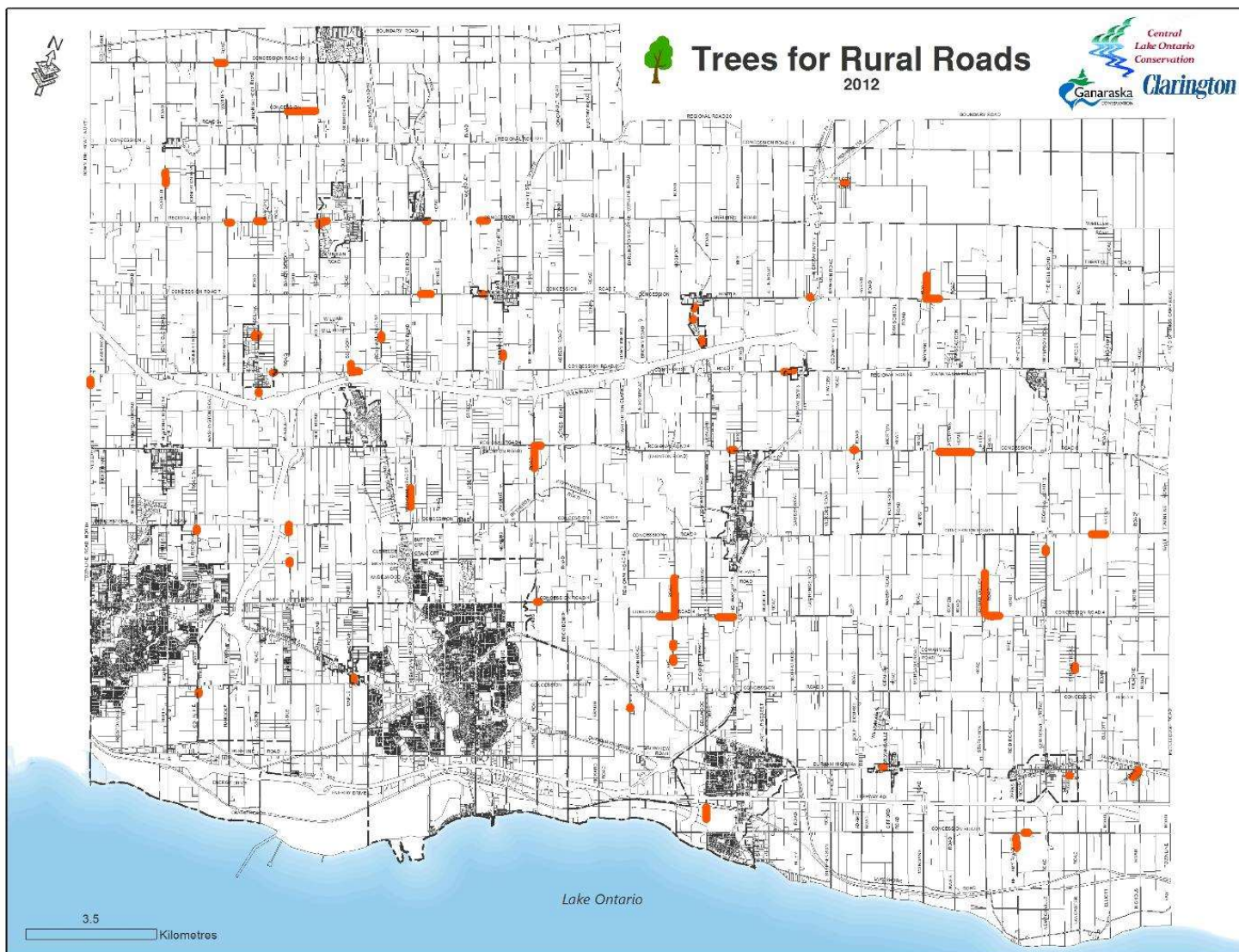
Proper Planting Technique

- Planting must be done by hand using a standard planting popper.
- For bare root stock (plants are dug

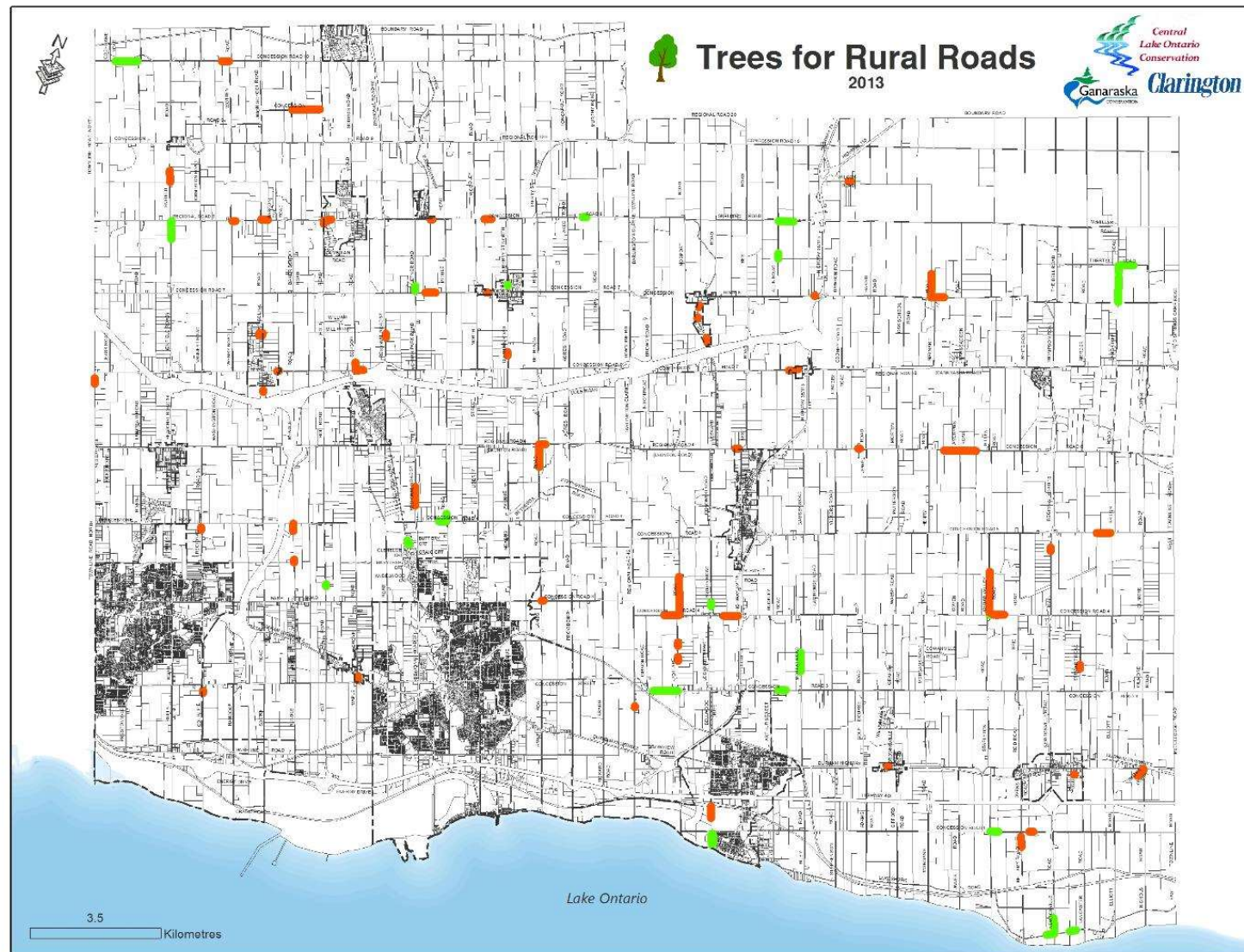
Planting Zones



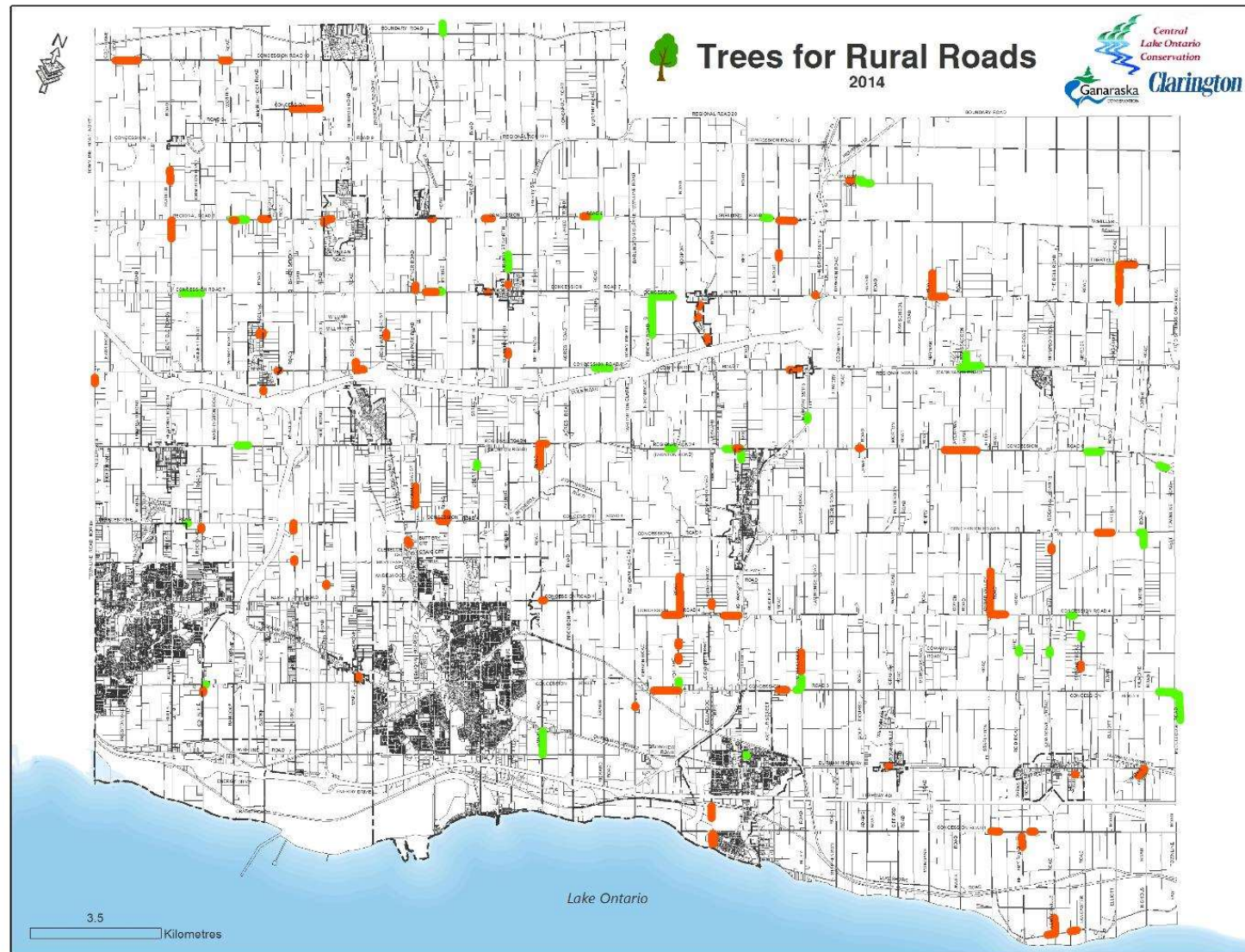
Results – Trees in the Ground



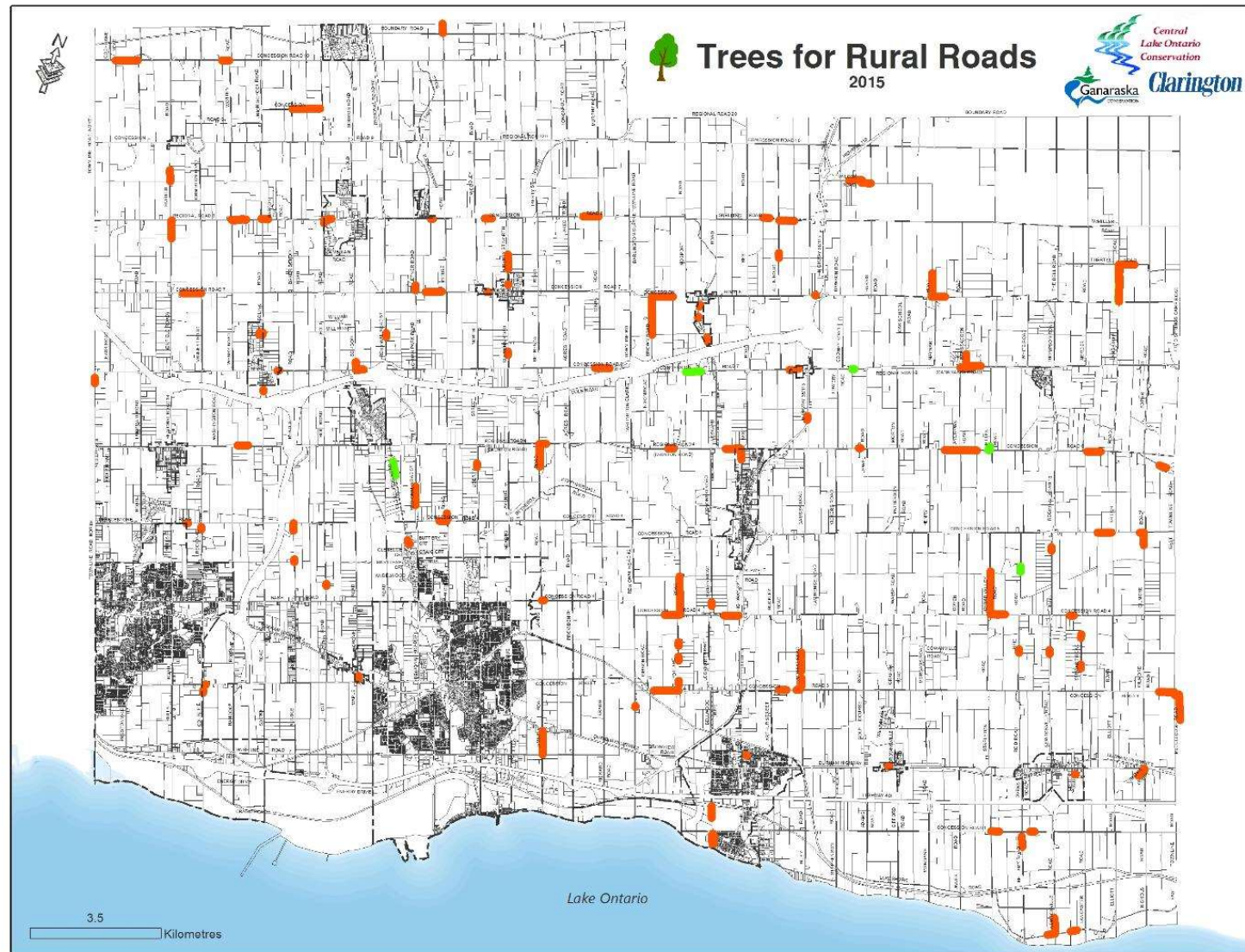
Results – Trees in the Ground



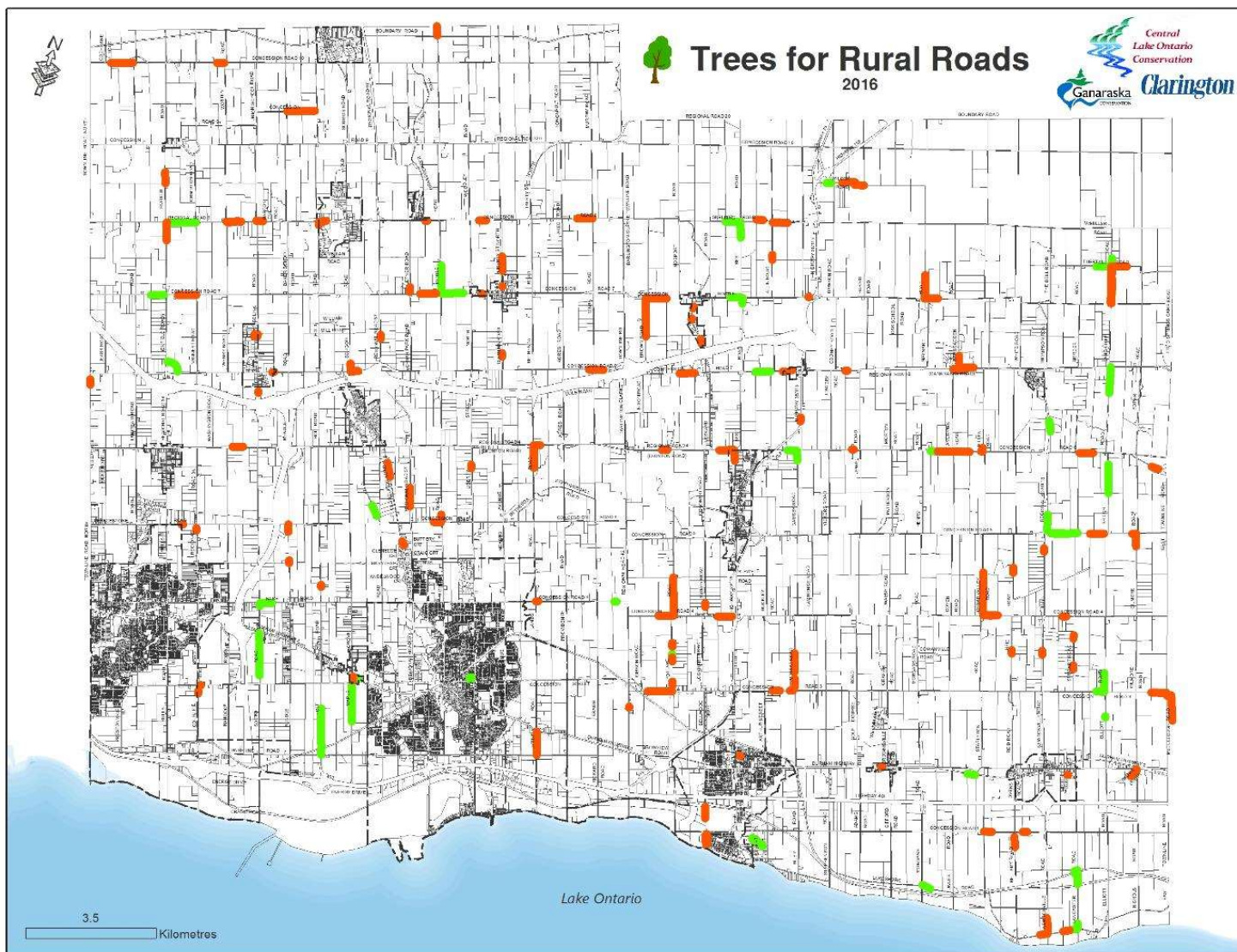
Results – Trees in the Ground



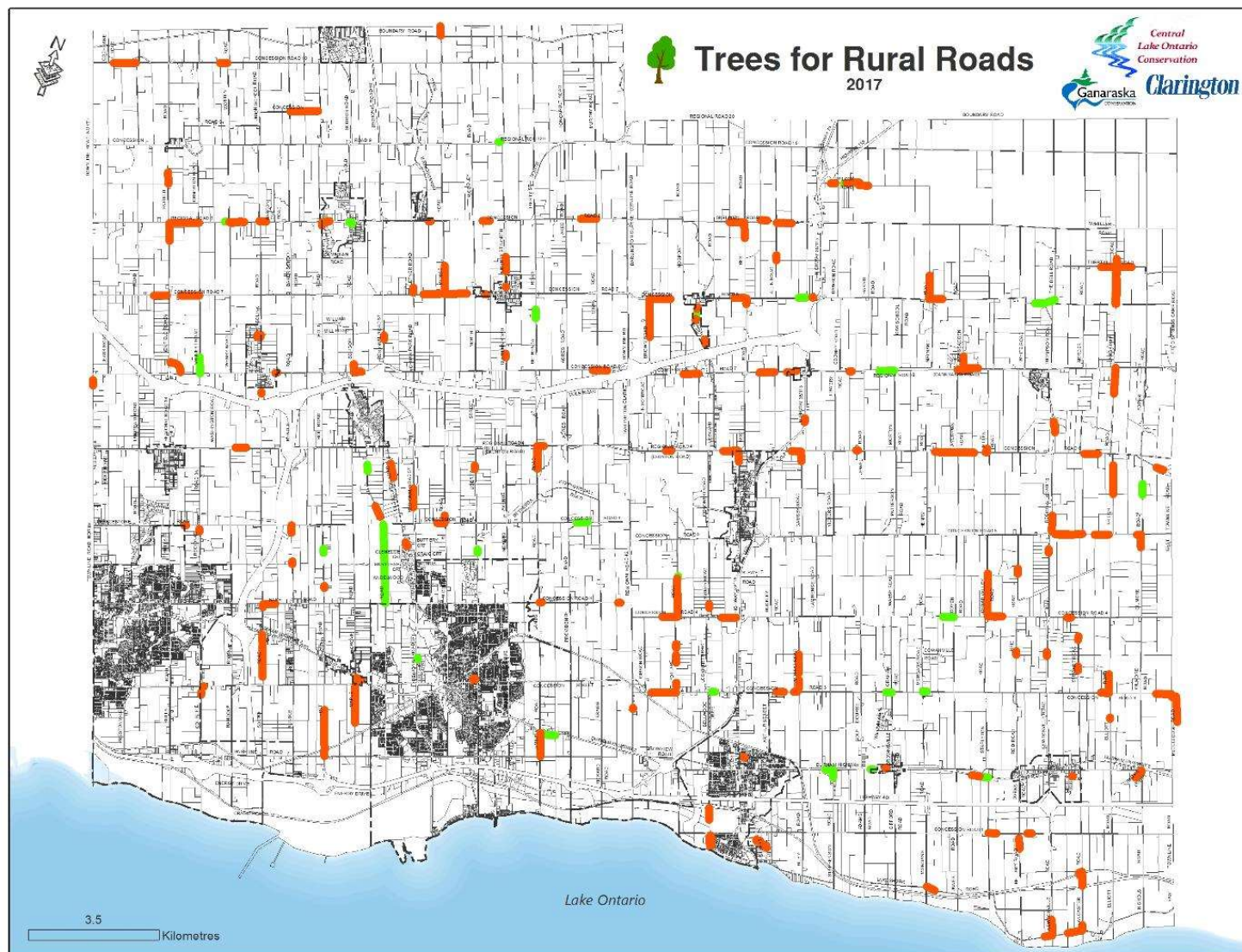
Results – Trees in the Ground



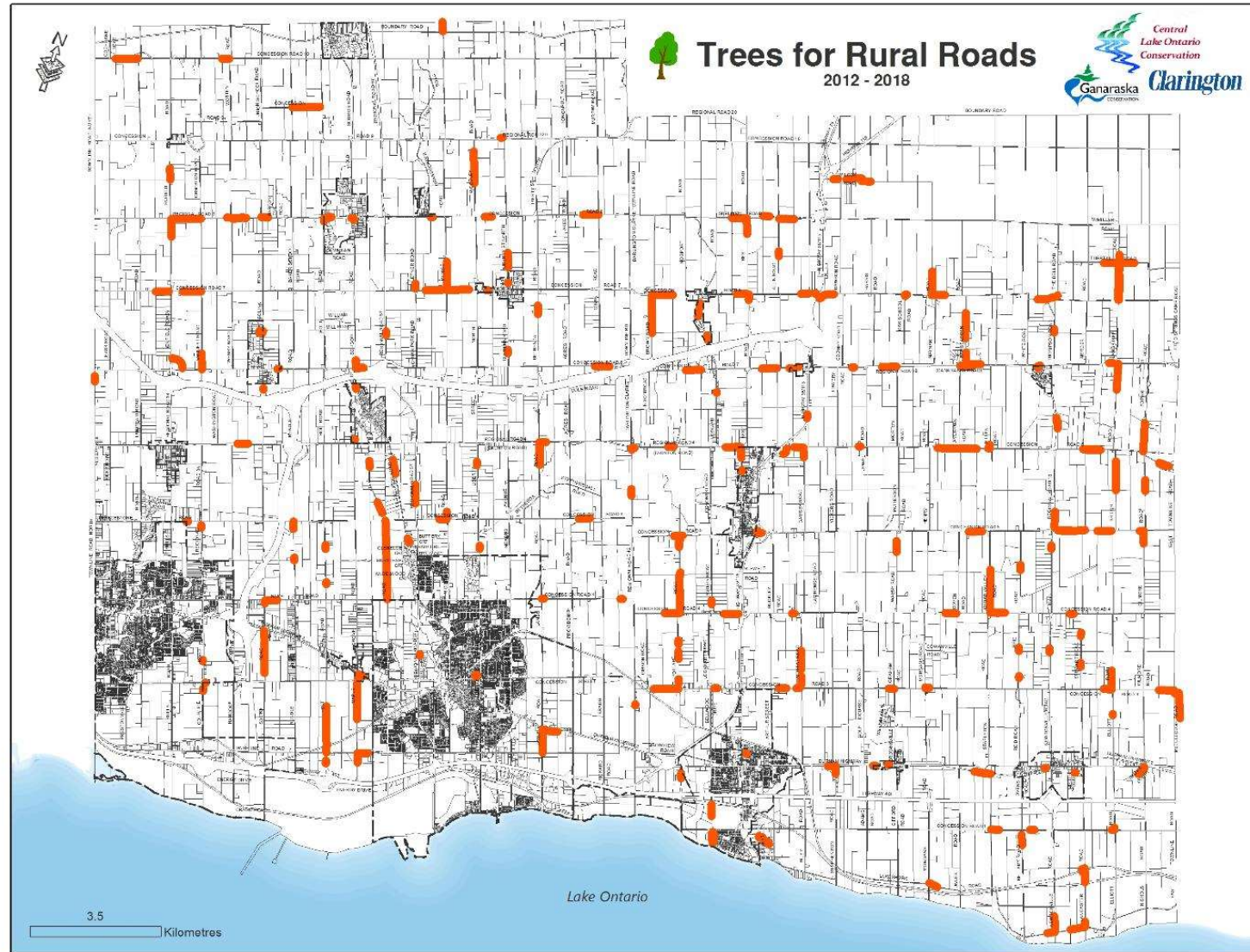
Results – Trees in the Ground



Results – Trees in the Ground



Results – Trees in the Ground

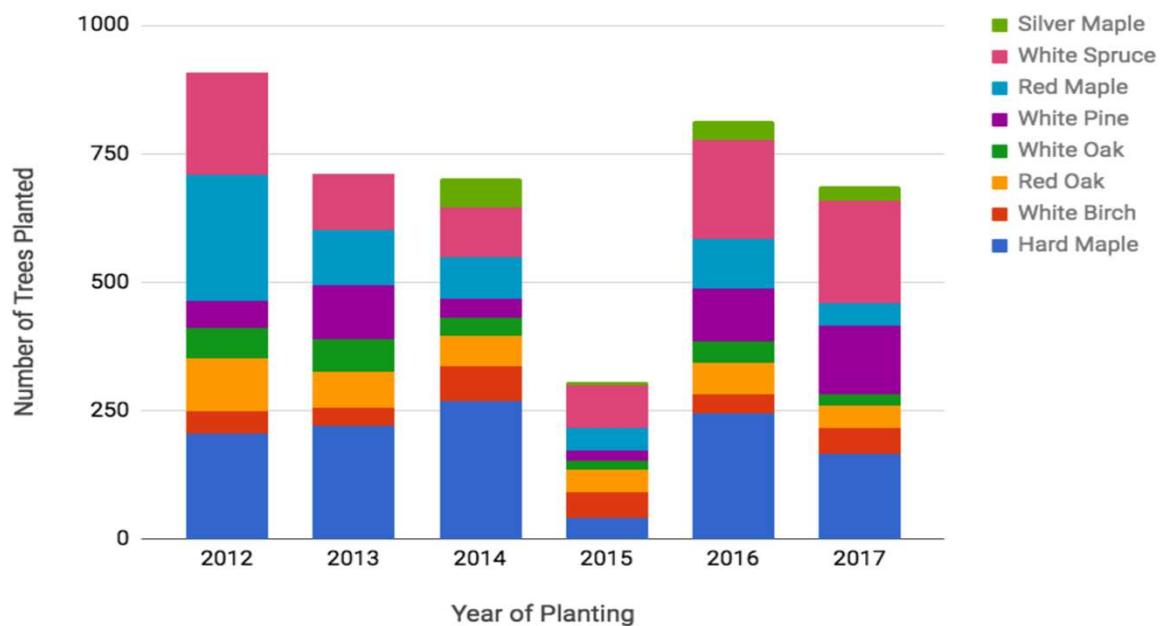


An Impact Evaluation of the Trees for Rural Roads Program in the Municipality of Clarington

Prepared by EcoBusiness Network for the Municipality of Clarington

March 16th, 2018

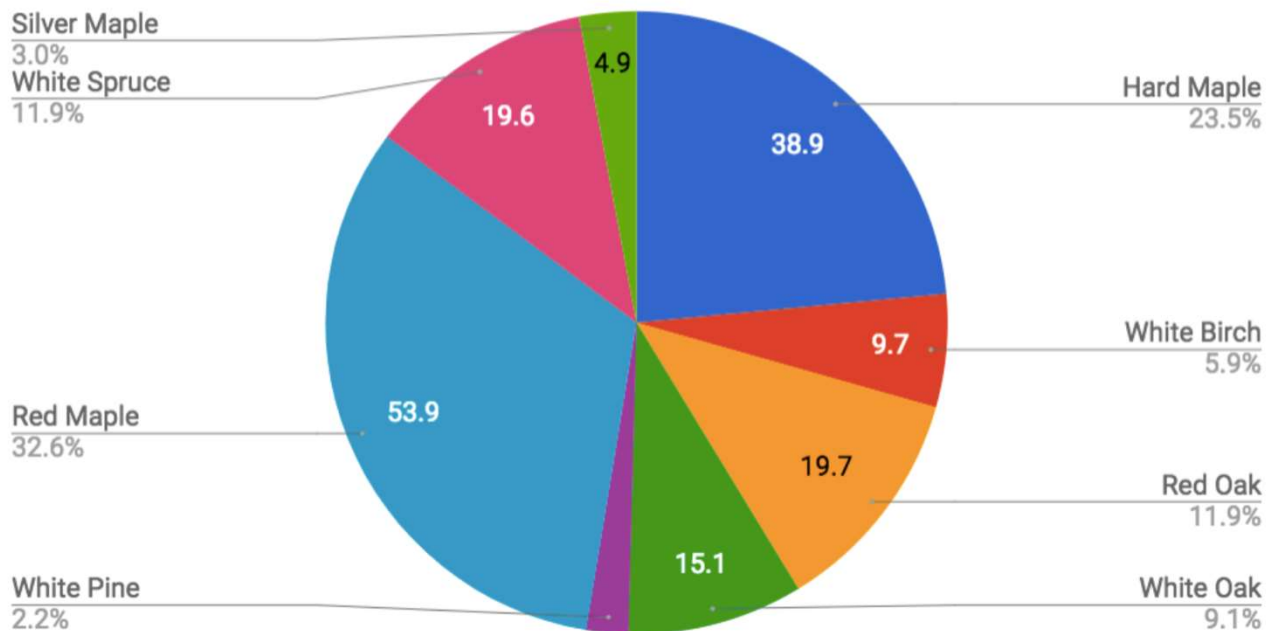
Trees for Rural Roads Planting History



Climate Change Mitigation and Adaptation

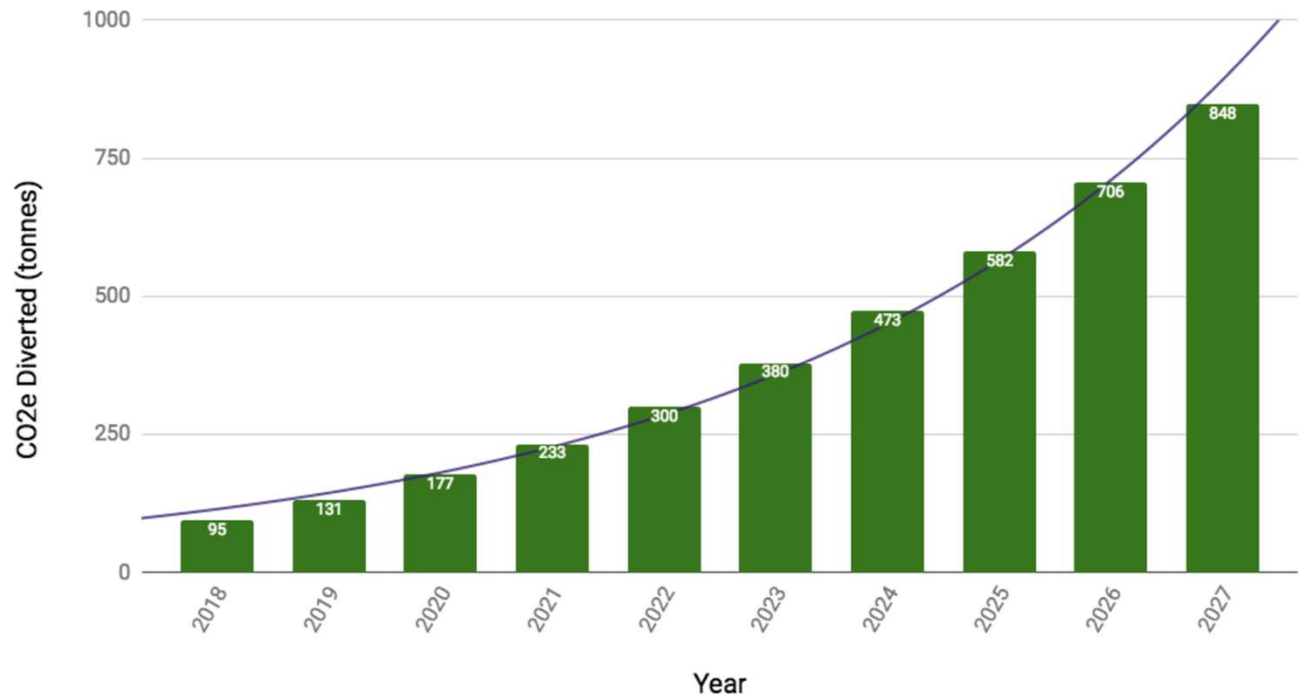
Mass of CO₂e Diverted Per Species Since 2012

Total CO₂e Diverted: 165 tonnes



Climate Change Mitigation and Adaptation

Projected Annual Diversion of CO2e



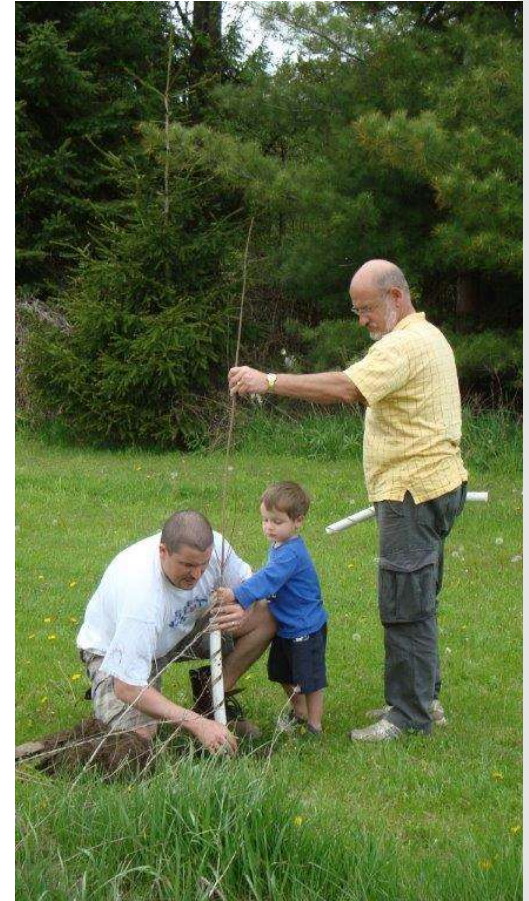
Climate Change Mitigation and Adaptation

Mitigation:

- From 2012 to 2017 approximately 165 tCO₂e have been diverted.
- By 2027 these same trees will divert 4090 tCO₂e,
- Equivalent to the annual emissions from 340 individuals in Ontario.

Adaptation:

- A combined win for natural heritage, infrastructure and the property owner.
- Consideration to assisted migration.



How can you implement the Trees for Rural Roads Model?

- Similar models have been implemented by other local municipalities.
- Easily transferable methods of delivery.
- Start with a small budget and build partnerships to further leverage.
- Sell the multiple benefits of the program to your decision makers.



For More Information

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Durham Region Natural Environment Climate Change Summit

Brought to you by: the Natural Environment
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thank you

thank you