

# Bring Back the Maples

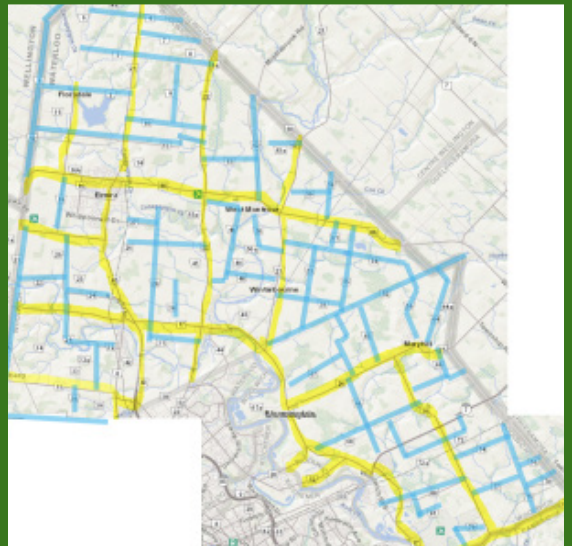
## Township of Woolwich Roadside Tree Planting Project

- Tens of thousands of trees need to be planted to reach the green infrastructure canopy cover goal.
  - Roadsides are the most available planting areas.
  - Most large trees historically on our country roads were planted 140 years ago: many are now gone, leaving roadsides bare.
  - Trees for Woolwich plans to plant 21,570 trees along viable areas of our 335 km of rural roads.
  - Trees will be planted over 3-1/2 years from 2023 to 2026, at a rate of up to 7,000 trees/year.
- Project management and installation, tree watering, and initial pruning will be performed by Trees for Woolwich in partnership with Earthscape's equipment and their trained youth worker crew.
  - Cost per tree is \$15, including watering and pruning at years 3 and 7. Funding requirements average \$110,000/year, provided by corporate donors, Township of Woolwich, Regional Municipality of Waterloo, and several reforestation and greening programs.
  - Project technical support will be provided by Woolwich Township Infrastructure Services, Region of Waterloo Forestry, and Grand River Conservation Area.
  - The entire program can be approved by two authorities only – the Township of Woolwich (Township) and Regional Municipality of Waterloo (Region of Waterloo).
  - To test logistics, plans for installation and maintenance, trial plantings of over 300 trees were planted along Floradale Road, Kramp Road, and Lerch Road in 2022.
  - All phases of the project have been tested including landowner communications, utility locates, viable tree species, watering, and pruning.
  - The majority of trees will be Sugar Maple, Red Maple, Bur Oak, Walnut and Crab apple, with 10 additional species in less abundance to increase ecosystem resilience.

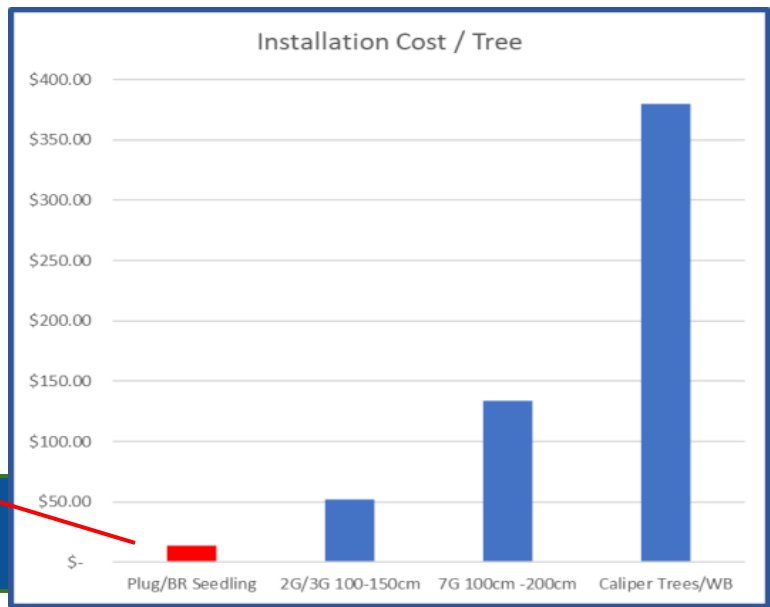
### Roads in Woolwich Township (October 2016)

Regional – 120 km approx. ignoring built up areas

Township – 215 km approx. ignoring built up areas



- Trees will be planted as plugs or bare root seedlings, 30 cm to 100 cm in height, with shelters & a supporting stake to protect from winter snow damage, weeds, & mechanical damage.
- The plug tree size is the least expensive size that will withstand the roadside stresses on trees. See cost comparison chart.



## Benefits

- Tremendous boost to Woolwich's environmental credentials.
- Carbon capture from these open growth broad canopy trees over the next 80 years is 68,000 tonnes of carbon dioxide. Township of Woolwich 2017 CO2 emissions were 1864 tonnes annually. The 80 year CO2 capture by the roadside tree project is the equivalent of 36 years of township emissions, or the equivalent of taking 170 cars off the road each year for 80 years. (See chart below.)
- Stormwater in the amount of 680,000 cubic meters will be diverted from runoff into soil absorption as trees act as water reservoirs and reduce erosion over the next 80 years.
- Airborne pollution will reduce as the roadside trees absorb 283,000 kg of airborne pollutants over 80 years, such as ozone, carbon monoxide, nitrogen dioxide and sulfur dioxide and intercept micron level particulate matter such as smoke, dust and ash, as well as lowering temperatures.
- Mature roadside trees will form a township wide network of vegetation connecting our forest areas. Roadside vegetation are important wildlife habitats for birds, insects, reptiles, and mammals that support migration and permit outbreeding with broader animal populations.
- Reduced traffic speed, as shown by research on tree-lined rural roads.
- Highly visible "park" will be enjoyed by residents daily, boosting the aesthetic and cultural impact for our township and supporting the Maple Syrup Festival brand.

