

BRIEFING NOTE:

ADVANCING EQUITY THROUGH MUNICIPAL TREE PLANTING



Clean Air
Partnership



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COUNCIL

Advancing Equity Through Municipal Tree Planting

Introduction

1. Socioeconomic inequalities are often reflected in urban tree canopy distribution; neighbourhoods that are home to equity-deserving communities typically have lower canopy cover than other neighborhoods.
2. This inequity can be caused by limited funding, the absence of canopy considerations during planning, and poor engagement in low canopy neighborhoods.
3. To address the unequal distribution of urban canopy, municipalities across Ontario are employing a “tree equity approach” which aims to identify and prioritize areas of tree inequity and focus planting efforts where they are needed most.

The Tree Equity Approach

4. Under a tree equity approach, tree planting is tailored to meet the needs of different neighborhoods, particularly those that lack sufficient canopy cover.
5. Areas with the greatest disparity between existing and target canopy cover are selected for planting initiatives, and communities with higher proportions of vulnerable and equity-deserving populations are prioritized.
6. The objective of the tree equity approach is to improve canopy cover across a municipality so that *all* neighborhoods can experience the environmental, health, and economic benefits of the urban forest.

Tree Equity Score Methodology

7. The American Forest Tree Equity Score employs socioeconomic, health, and canopy cover data at the census block level to assess the equitable distribution of tree canopy throughout a municipality.
8. The score ranges from 0 to 100, where a lower score signifies lower tree equity and flags an area as a greater priority for tree planting.

9. The tree equity score is calculated by taking an area’s tree canopy target and subtracting the actual, current tree canopy. Then, this value is multiplied by a priority index comprised of seven equally weighted climate, health, and socioeconomic indicators (such as age, employment-unemployment rate, health, race, and more).
10. A higher priority index indicates a greater proportion of at-risk populations or equity deserving groups within a neighborhood.
11. A *final tree equity score of 100 does not mean that the neighborhood has 100% canopy cover*. It means that the neighborhood has either met or surpassed its local tree canopy target.
12. Existing canopy cover is used to calculate the *tree canopy gap*, which is the proportion of area in the neighbourhood that could be planted to reach the planting goal.
13. Scores are developed at the neighborhood level, however, the scores from each neighborhood can be combined to produce a municipal-wide score.

Tree Equity Score Analyzer (TESA)

14. [The Tree Equity Score Analyzer \(TESA\)](#) is an interactive online platform developed by American Forests that converts data into accessible resources for the public. The tool utilizes urban forestry data and can be used to help residents understand tree distribution.
15. The tool has primarily been used by local governments in the U.S.; however, City of Toronto was the first Canadian municipality to employ the tool.

Case Studies

City of Ottawa

16. City of Ottawa will be undertaking a tree equity analysis and using the results to prioritize tree planting under the City's Tree Planting Strategy.
17. In June 2023, City Council approved the [Urban Forest Management Plan work plan](#), which highlighted the development of a Tree Planting Strategy as a keystone project. Within the Tree Planting Strategy, undertaking a tree equity analysis is earmarked as an early, critical action for ensuring that equity is effectively incorporated into the Strategy's implementation.
18. The City of Ottawa's Tree Planting Strategy aligns with Council's strategic objectives, was approved by Council under the Urban Forest Management Plan and contributes to meeting the Official Plan objective of achieving 40% canopy cover.

Region of Peel

19. Region of Peel has applied a social equity lens to its tree planting strategy and developed a tool to prioritize areas for tree planting.
20. A multi-disciplinary project team identified eight overall benefits of tree cover and categorized them under three sustainability themes – environmental, economic, and social.
21. This information was used to develop an interactive map which became the [Region's Tree Planting Prioritization Tool](#). The tool identifies the areas in Peel that should be prioritized for tree planting by considering a broad range of management goals and social benefits.
22. The tool is GIS-based and can map priority areas based on a combination of factors, including, but not limited to, canopy cover, household income, and urban heat island effects.
23. This tool is being used by the Region, local municipalities, and the conservation authorities to decide where trees get planted and how funds are allocated.

City of Toronto

24. City of Toronto undertook a [Tree Canopy Study](#) in 2018 which revealed that while the canopy cover grew between 2008 and 2018, the distribution of the tree canopy was unequal across the city, with some neighbourhoods enjoying significantly higher canopy cover than others. In 2022, Urban Forestry calculated the tree equity scores for the city's 158 neighbourhoods finding that 32 had low tree equity scores, ranging from 64 to 79.
25. Following this study, the City's Urban Forestry department was directed to explore a tree equity approach for managing the inequitable distribution of urban canopy within the municipality, and to respond at the neighborhood level.
26. Since then, City of Toronto has partnered with American Forests and Local Enhancement and Appreciation of Forests (LEAF) to develop a Toronto-specific TESA.
27. Private property plays a significant role in urban forestry, and with the TESA being public, it can be used by residents and community organizations to explore possible planting strategies.

Improving Tree Equity Within Your Municipality

28. Integrating tree equity goals into broader municipal plans and projects is vital for uptake. Collaboration across municipal departments can help ensure tree equity considerations are included in development and infrastructure plans and projects early on.
29. Trees are often viewed as supplementary, rather than a priority. It is important to engage with various departments to help bring tree planting to the forefront by highlighting tree canopy benefits, such as reducing urban heat island effect, and how increasing canopy cover intersects with additional municipal priorities.

Acknowledgments

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Funding Opportunities

31. [Green Municipal Fund Tree Planting](#). (Available to municipalities and organizations applying in partnership with municipalities).
32. [Tree Canada Community Tree Grants](#). (Available to schools, community groups, Indigenous communities, and municipalities).
33. [Forests Canada Planting Program](#). (Available to eligible landowners).
34. [Government of Canada 2 Billion Trees program](#). (Available to for-profit and non-profit organizations, and Indigenous organizations).

Additional Resources

35. [American Forest's Tree Equity Score](#)
36. [Canada's Urban Forests: Bringing the Canopy to All – Nature Canada](#)
37. [City of Ottawa's Tree Equity Analysis staff report](#)
38. [City of Ottawa's Environment and Climate Change Committee Agenda](#)
39. [City of Toronto's Actions to Reaffirm Toronto's Tree Canopy Target staff report](#)
40. [Factsheet: Advancing tree equity and growing community canopies](#)
41. [Growing Together: A Tree Equity Q&A Session Webinar](#)
42. [Promoting Equity in Urban Forestry: City of Ottawa's Tree Equity Approach Webinar](#)
43. [Private Land Tree Planting Program Research Briefing](#)
44. [Region of Peel's Tree Planting Prioritization Tool](#)
45. [Region of Peel's Urban Forest Best Practices Guide](#)
46. [Tree Equity Score Analyzer, Toronto, ON](#)