

GUIDING URBAN FORESTRY INTO THE NEXT DECADE

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For: Clean Air Partnership - Clean Air Council



UNIVERSITY OF
WATERLOO



Image: Tree Canada

PROJECT TEAM



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CASE STUDY BACKGROUND

Private trees comprise more than 50% of the urban tree canopy in many Ontario municipalities

1st iteration: Report to City of St. Catharines

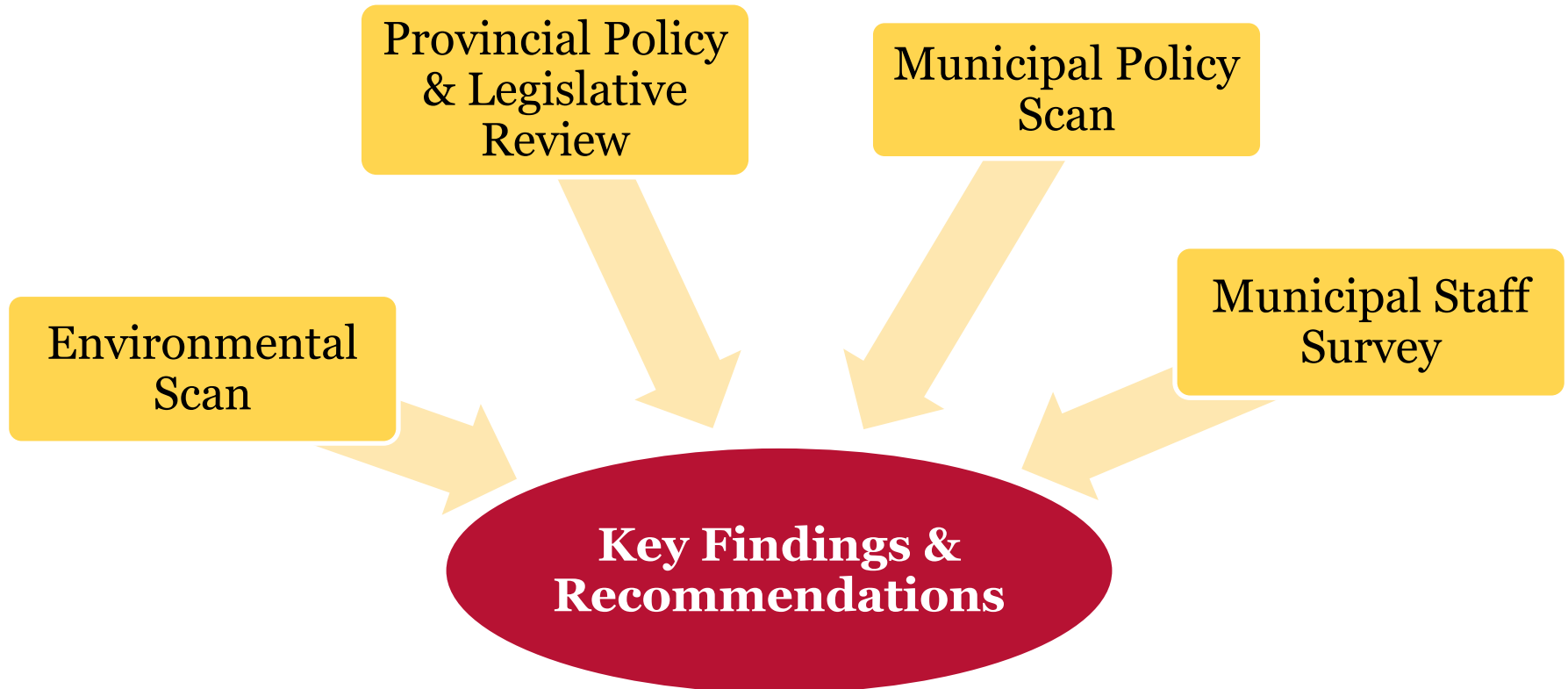
- Explored alternatives to private tree cutting by-law
- Sept. - Nov. 2019

2nd iteration: Practice Guide

- Recommendations for Ontario municipalities
- July 2020



RESEARCH PROCESS



KEY FINDINGS: ENVIRONMENTAL SCAN

Goal: to assess the current state of urban tree protection and management research in Ontario

Tree Management Policies:

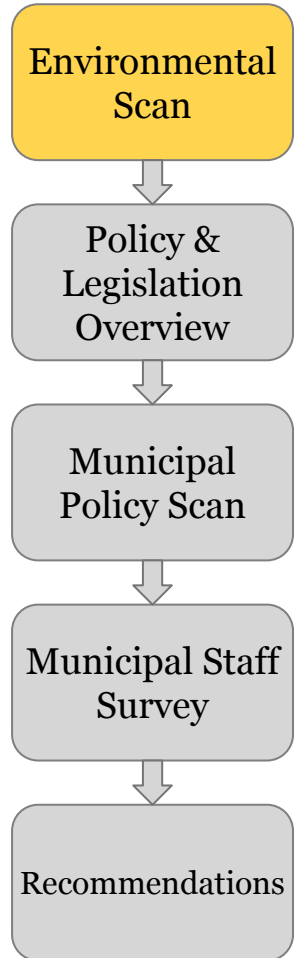
- Lack of universal standard for canopy coverage targets

Urban Forestry Methods:

- Municipalities adopting unique practices - e.g. assisted migration
- “Botanical sexism” (90% of urban trees are male)
- Effectiveness of protection strategies is difficult to evaluate

Resident Perspectives:

- Neighbourhood demographics influence resident perspectives
- Municipalities with UFMPs have higher levels of resident knowledge & participation



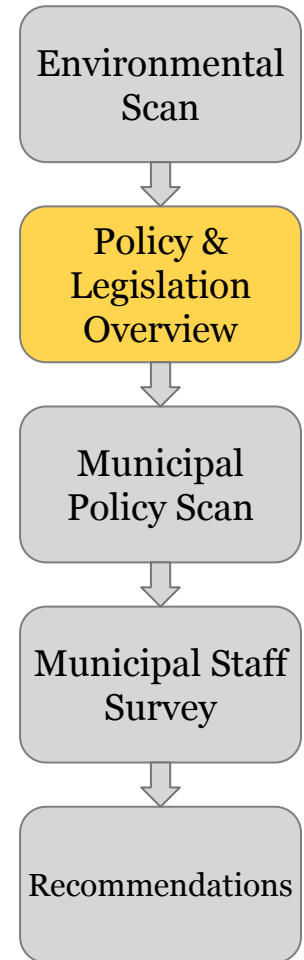
KEY FINDINGS: POLICY & LEGISLATION OVERVIEW

Goal: to establish the policy and legislative framework under which private urban tree protection measures are undertaken in Ontario

Relevant plans: Municipal Act, Planning Act, PPS, Forestry Act, Ontario Heritage Act, Endangered Species Act, Environmental Protection Act, Building Code Act *

Findings:

- Ontario framework is hierarchical and denotes authority
- Provincial plans and legislation are broad and lack specific relevant tools municipalities
- Few mechanisms for enforcement exist at the provincial level, instead pushing this to the development planning process



KEY FINDINGS: MUNICIPAL POLICY SCAN

Goal: to determine how Ontario municipalities approach private tree protection through policy

Official Plans & Urban Design Guidelines:

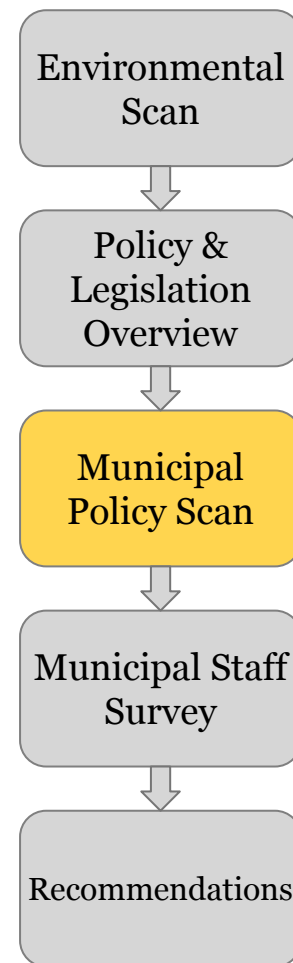
- Themes identified:
 - Protection & Preservation
 - Design Element & Function
 - Ecosystem Management - Systems Approach
 - Enforcement

Urban Forestry Management Plans:

- Range from high-level goals to specific recommendations

Private Tree Cutting By-laws:

- By-law application (e.g. tree size, land use area) and permit requirements vary across municipalities



KEY FINDINGS: MUNICIPAL STAFF SURVEY

Goal: to learn about the effectiveness of private tree policies and programs

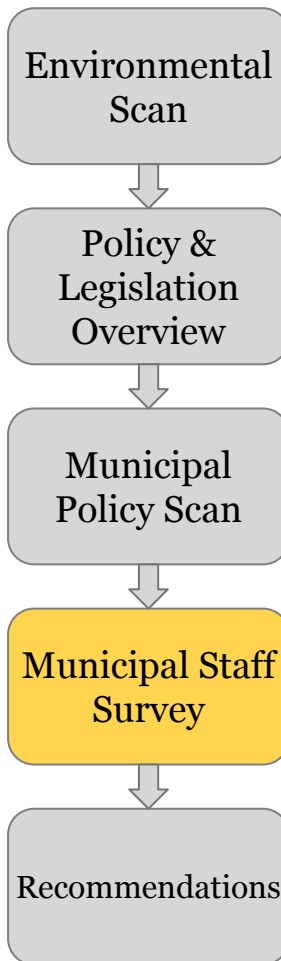
Most effective tool: private tree by-laws

- Heritage preservation

Challenges:

- Issues of opposition, implementation and enforcement
- Balancing tree preservation with other aspects of development

Importance of programs: “trees become an asset to the property, not a liability”



RECOMMENDATION THEMES



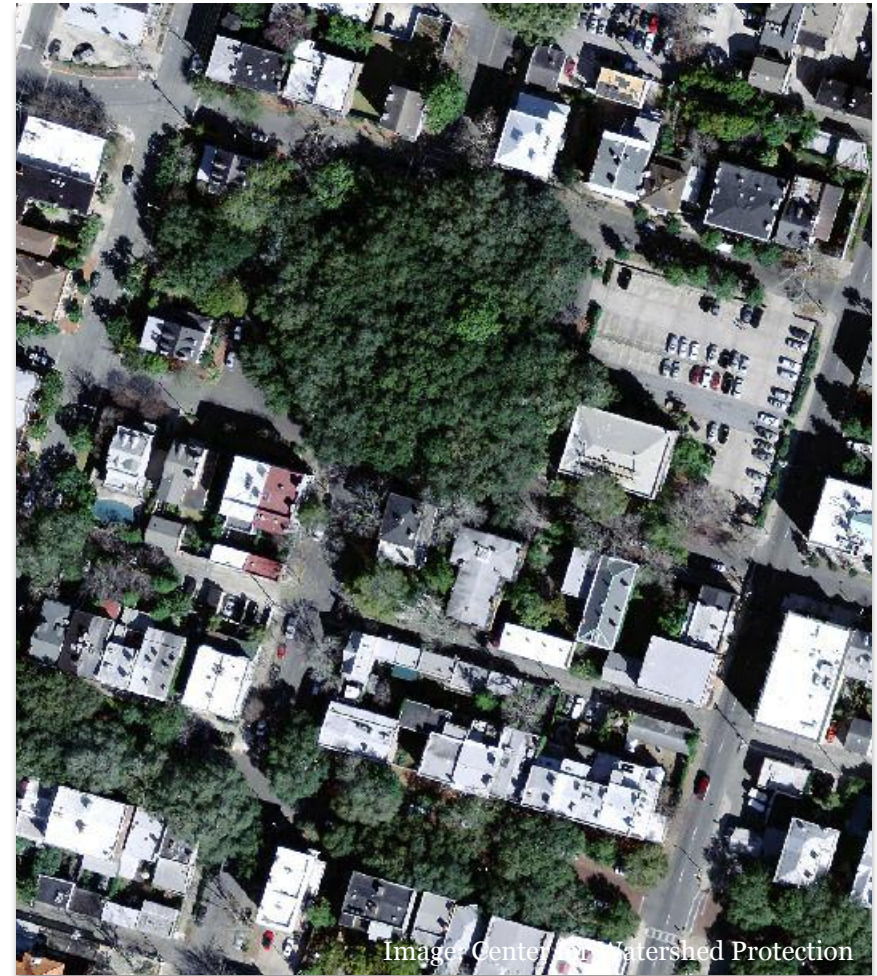
Enforcement Tools



Planning Policies



Programs & Events



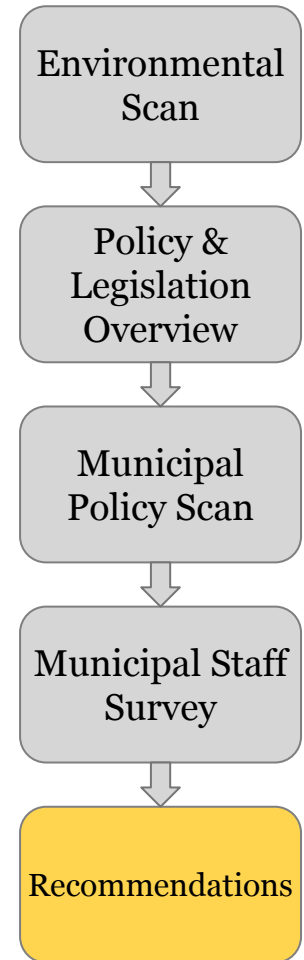
RECOMMENDATIONS

1. Develop and implement a private tree by-law

- Most effective tool to protect/trees on private lands
- Variations in applicability and permitting processes available

2. Increase by-law coverage

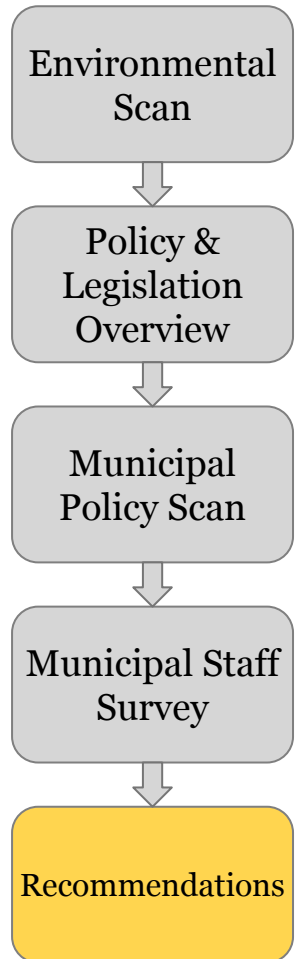
- Through amendments to/use of existing by-laws (i.e. Property Standards), a municipality can regulate the maintenance of trees on private property



RECOMMENDATIONS

3. Designate trees as heritage features

- Process via the Heritage Act
- Adds additional levels of protection to designated trees



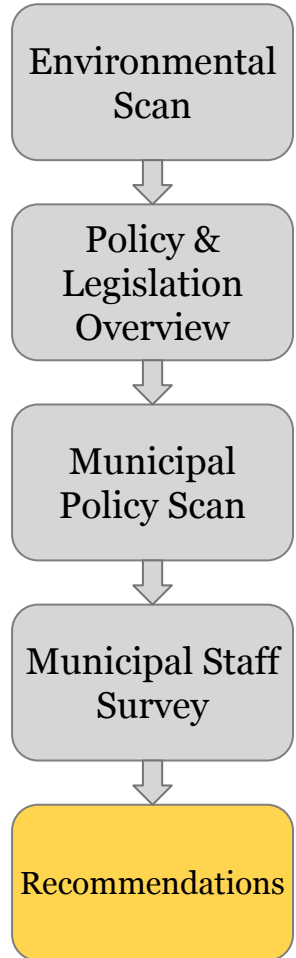
RECOMMENDATIONS

4. Amend Official Plans and Design Guidelines to include tree policies 📜 ⚖️

- Tailored to municipal goals

5. Strengthen development application process 📜 ⚖️

- Barrie, Mississauga - fines for removing vegetation prior to submitting application
- Thunder Bay - cash-in-lieu for tree planting



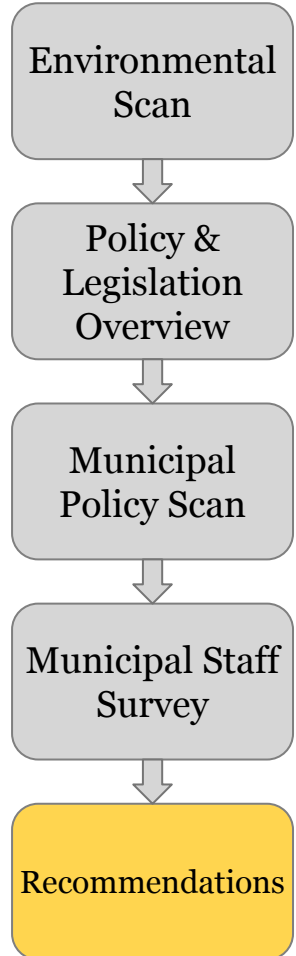
RECOMMENDATIONS

6. Ensure a consistent municipal “tree vision”

- Develop tree vision and ensure messaging remains consistent across all municipal documents and departments



Image: TULI



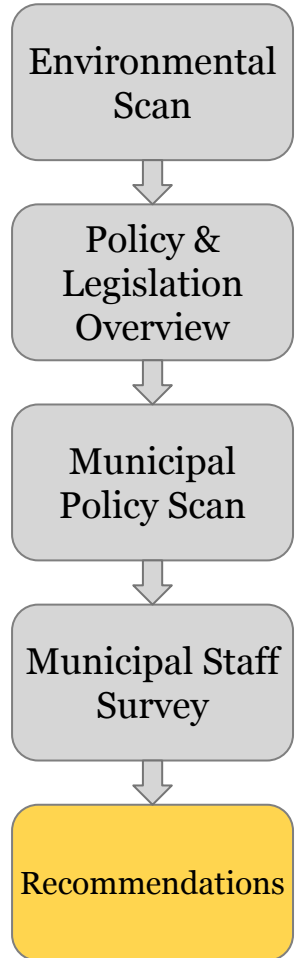
RECOMMENDATIONS

7. Include planting target ratios

- Consider including native-to-non-native and female-to-male tree planting ratios
- Include recommendations of tree species in planting list

8. Leverage perimeter trees

- Explore preserving perimeter  trees during site development
- Focus on minimal disturbance to root system



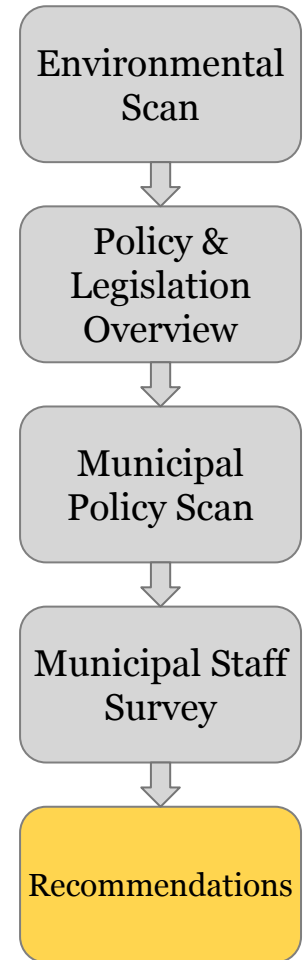
RECOMMENDATIONS

9. Update canopy cover strategy

- Identify and follow current best practices for canopy monitoring and tracking progress
- Help efforts to set canopy cover targets for Ontario/Canada

10. Formalize climate resilience considerations

- Consider implementing “active adaptive management” practices such as assisted migration
- Link ecosystem services to specific land uses to guide tree species selection



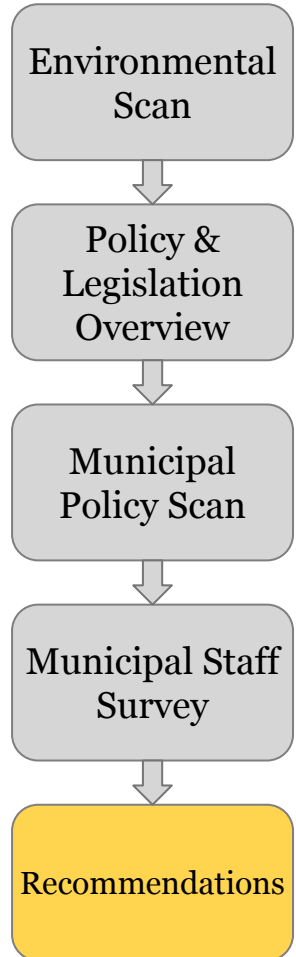
RECOMMENDATIONS

11. Increase tree-related programs 📅

- Private-public partnerships can support year-round programs and fundraising

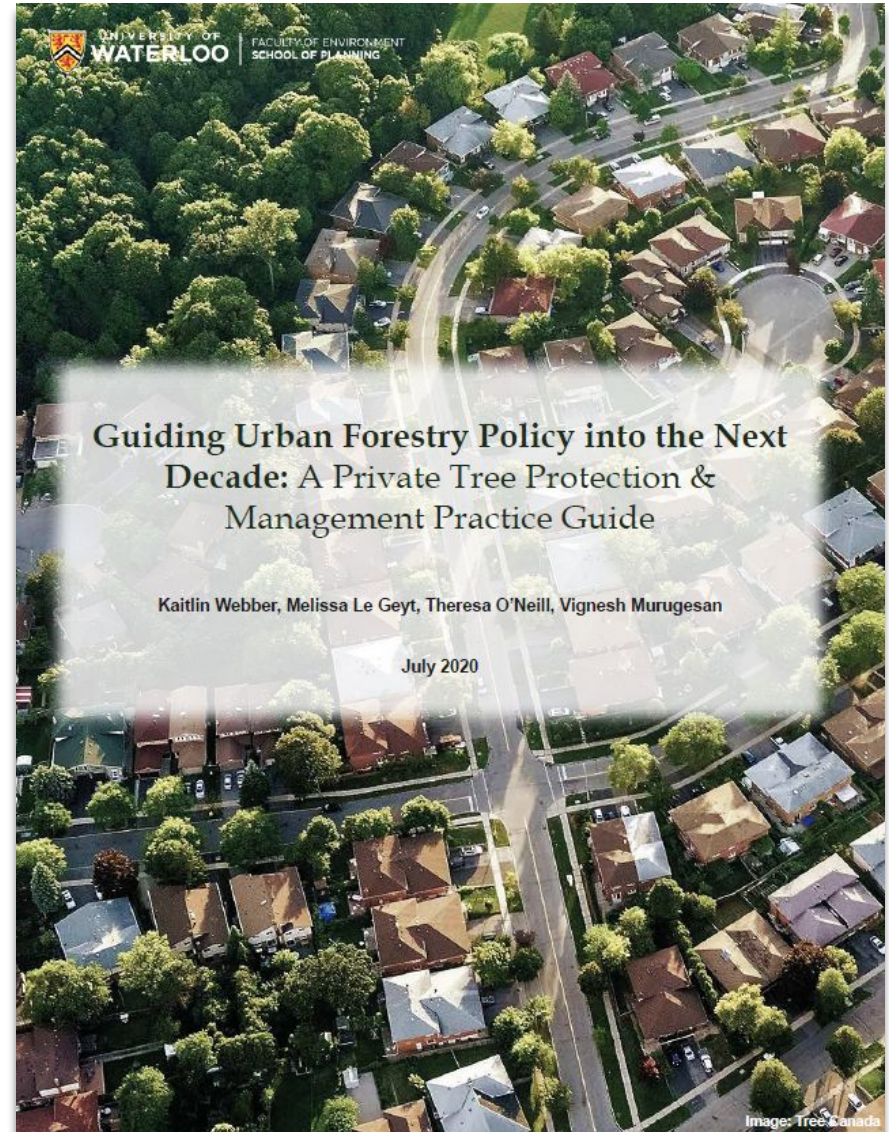
12. Create resident-focused education programs 📅

- Educating residents and city staff about trees can develop a culture of conservation



Practice Guide

<https://uwaterloo.ca/planning/news/grad-students-develop-tree-protection-guide-private-land>



THANK YOU



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