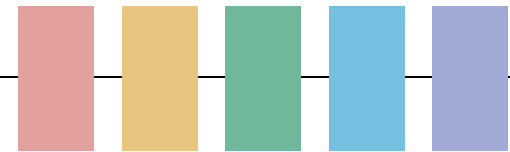


# City of Windsor

## Urban Forest Management Plan (UFMP)

### Strategic Action Plan



Final  
November 2024

Prepared by Urban Forest Innovations Inc.



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## Executive summary

This document is the **Strategic Action Plan** component of the City of Windsor Urban Forest Management Plan (UFMP). It builds on the comprehensive Key Findings and Directions Report to lay out a strategic vision for Windsor's urban forest, set guiding principles for urban forest management, establish urban forestry goals and objectives, and outline sixty-two (62) prioritized action items as a road map to realizing Windsor's vision for its urban forest over the next twenty years.

### Vision

Windsor's urban forest vision is an aspirational statement intended to reflect the community's values and priorities for its urban forest. The UFMP's vision for Windsor's urban forest is:

**A mature canopy of Carolinian and other native tree species covers Windsor. Young and old trees grow side-by-side in parks, forests, and neighbourhoods across the city. Like our community, our trees are healthy, safe, diverse, and beautiful.**

**We recognize, cherish, and protect the many benefits that trees provide to the whole community. We continue to develop our understanding and work to nurture, enhance, and protect the urban forest for the present and future residents of Windsor, whether they be people, animals, or trees themselves.**

### Guiding Principles

The following nine guiding principles have shaped the development of the Windsor UFMP and are intended to guide future decisions, programs, and actions that may affect or influence Windsor's urban forest:

1. The urban forest must be recognized as essential municipal infrastructure that enhances quality of life.
2. Success requires collaboration, engagement, and resources.
3. Urban forestry is more than planting and pruning.
4. Tree protection should be preferred over tree replacement.
5. All residents deserve equitable access to the urban forest.
6. A diverse urban forest is a stronger urban forest.
7. Windsor's urban forest is a Carolinian forest.
8. To support climate resilience, the urban forest must be climate resilient too.
9. Urban forest management should be proactive, responsive, adaptive, and innovative.

## Goals

Windsor's vision for its urban forest will be realized through the pursuit and achievement of the UFMP's five goals. Each goal is related to an urban forest theme identified in the Key Findings and Directions report. The Windsor UFMP goals include:

Urban Forestry Theme		UFMP Goal
	Windsor's urban forest	→ <i>Know more about Windsor's urban forest</i>
	<b>Maintaining</b> Windsor's urban forest	→ <i>Maintain a healthy, safe, and functional urban forest</i>
	<b>Growing</b> Windsor's urban forest	→ <i>Replenish, expand, and enhance Windsor's urban forest</i>
	<b>Protecting</b> Windsor's urban forest	→ <i>Protect Windsor's urban forest</i>
	<b>Partnerships</b> in Windsor's urban forest	→ <i>Engage everyone in Windsor's urban forest</i>

## Action Items

The Windsor Urban Forest Management Plan outlines 62 action items for implementation within the twenty-year planning horizon.

UFMP Goal	Action Items
<i>Know more about Windsor's urban forest</i>	→ 7 Action Items
<i>Maintain a healthy, safe, and functional urban forest</i>	→ 20 Action Items
<i>Replenish, expand, and enhance Windsor's urban forest</i>	→ 14 Action Items
<i>Protect Windsor's urban forest</i>	→ 9 Action Items
<i>Engage everyone in Windsor's urban forest</i>	→ 12 Action Items

## Objectives

Objectives are more detailed statements that describe the specific desired outcomes emerging from a strategic goal. The Windsor UFMP objectives include:

UFMP Goal			Objectives	
	<i>Know more about Windsor's urban forest</i>	→	1.1	<i>Collect and maintain high-quality urban forest data</i>
			1.2	<i>Integrate urban forest data with asset management frameworks</i>
			1.3	<i>Monitor Windsor's urban forest and its management</i>
	<i>Maintain a healthy, safe, and functional urban forest</i>	→	2.1	<i>Enhance and expand urban forest governance structures</i>
			2.2	<i>Strengthen program capacity to delivery key urban forestry services in accordance with best practices</i>
			2.3	<i>Proactively manage tree-related risk</i>
			2.4	<i>Enhance capacity to respond to threats to the urban forest</i>
	<i>Replenish, expand, and enhance Windsor's urban forest</i>	→	3.1	<i>Increase tree canopy cover citywide and at smaller scales</i>
			3.2	<i>Improve tree establishment outcomes</i>
			3.3	<i>Promote urban forest resilience and ecological function</i>
			3.4	<i>Pursue urban forest equity for all community members</i>
	<i>Protect Windsor's urban forest</i>	→	4.1	<i>Improve tree protection outcomes through the planning process</i>
			4.2	<i>Improve tree protection outcomes outside the planning process</i>
	<i>Engage everyone in Windsor's urban forest</i>	→	5.1	<i>Promote community awareness of the urban forest</i>
			5.2	<i>Support community and partner engagement in urban forest stewardship</i>

<b>Introduction .....</b>	<b>7</b>
<b>Windsor’s Urban Forest.....</b>	<b>8</b>
<b>Key Findings and Directions for the UFMP .....</b>	<b>14</b>
Urban forestry themes.....	14
<b>Purpose of the UFMP .....</b>	<b>15</b>
<b>The Planning Horizon .....</b>	<b>15</b>
<b>Scope of the UFMP .....</b>	<b>15</b>
<b>The Strategic Framework.....</b>	<b>16</b>
Vision .....	16
Guiding principles .....	16
Goals.....	16
Objectives .....	16
Targets.....	16
Action Items.....	17
Urban Forest Program Performance Targets.....	19
<b>Strategic Framework.....</b>	<b>21</b>
Vision .....	22
Guiding Principles .....	23
Goals and Objectives .....	26
<b>Action Items .....</b>	<b>33</b>
Goal 1. Know more about Windsor’s urban forest .....	34
Goal 2. Maintain a healthy, safe, and functional urban forest .....	42
Goal 3. Replenish, expand, and enhance Windsor’s urban forest.....	65
Goal 4. Protect Windsor’s urban forest.....	83
Goal 5. Engage everyone in Windsor’s urban forest.....	93
<b>Implementation.....</b>	<b>112</b>
<b>Glossary.....</b>	<b>125</b>

<b>Implementation Table Key .....</b>	<b>113</b>
<b>Implementation Summary Table ..</b>	<b>114</b>
<b>Implementation by MP .....</b>	<b>122</b>

## City of Windsor land acknowledgement

The City of Windsor sits on land that is the traditional territory of the Three Fires Confederacy of First Nations, which includes the Ojibwa, the Odawa, and the Potawatomie. The City of Windsor honours all First Nations, Inuit and Métis peoples and their valuable past and present contributions to this land.

## Project partner acknowledgement

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... and the many City of Windsor staff who participated in the staff engagement sessions and follow-up interviews and took the time to complete the UFMP questionnaires.

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The Friends of Ojibway Prairie

Tourism Windsor Essex Pelee Island

Unifor 444 Environment Committee

Windsor Environment and Climate Change

Advisory Committee

Windsor/Essex County Humane Society

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## Introduction

Windsor's urban forest is a dynamic, human-influenced, ecological system that **includes all trees within the municipal boundary**. Covering nearly 2,800 hectares, Windsor's tree canopy shades about 19%—or nearly one-fifth—of the city. Another 28% of the land area provides plantable area suitable to expand the future urban forest.

Windsor's urban forest provides the entire community with invaluable environmental, economic, and societal benefits. The Forestry division of the Parks and Facilities Department, Community Services, is responsible for maintaining a diverse urban forest of over 86,700 street and park trees of 161 different species and 76 unique genera. Tens of thousands more trees are also found in City-owned natural areas and on private lands; in fact, 58% of the urban forest, or over 1,600 hectares, is owned and managed by private property owners including residents, businesses, and institutions.

Despite the tremendous services and benefits trees provide to the community, Windsor's urban forest faces significant challenges from urban development, pests and diseases, a lack of civic engagement, and many other stressors.

As climate change continues to alter weather patterns and precipitation regimes, trees in Windsor will likely experience stresses from increased heat, longer drought periods, and more frequent or severe wind and ice storms.

To support Windsor's Climate Change Adaptation Plan (2020), address broader urban forest challenges, and ensure that the urban forest is sustainably managed, protected, and enhanced, the City of Windsor has developed this **Urban Forest Management Plan (UFMP)**. This long-term strategy outlines a vision and establishes goals and targets for the city's urban forest. Prioritized action items, to be implemented by the city and its partners over a twenty-year horizon and beyond, will ensure that the urban forest is managed sustainably and continues to provide invaluable services and benefits to the City's residents—both human and non-human—for generations to come.

This document is the **Strategic Action Plan** component of the City of Windsor UFMP. It builds on the comprehensive **Key Findings and Directions Report** to lay out a strategic **vision** for Windsor's urban forest, set **guiding principles** for urban forest management, establish urban forestry **goals and objectives**, and outline sixty-two (62) prioritized **action items** as a road map to realizing Windsor's vision for its urban forest.

## Windsor's Urban Forest

### More than City trees

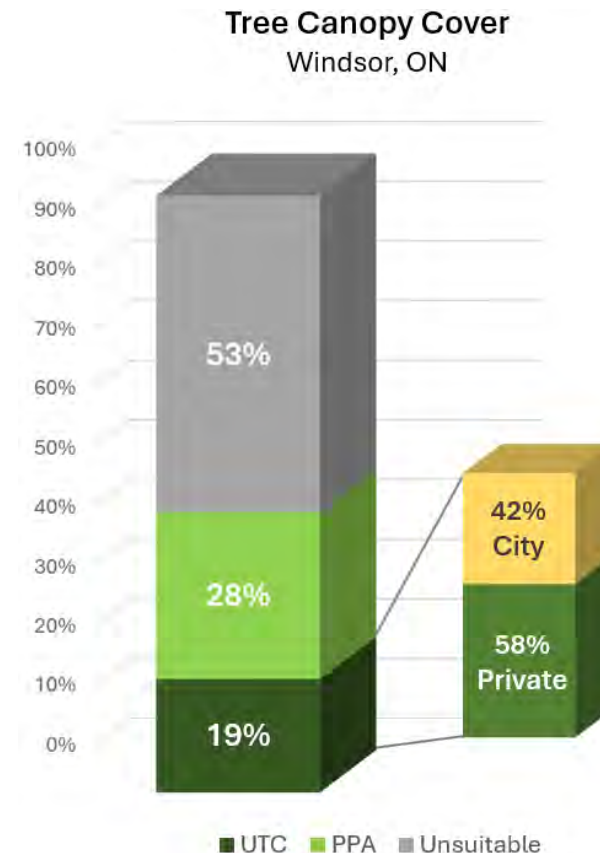
As defined in this plan, **Windsor's urban forest includes all trees growing within the municipal boundary**. Conceptually, this definition extends to include other parts of the urban forest system that support or accompany trees, including soils, growing environment infrastructure, and other woody vegetation.

While the primary focus of the UFMP is on the municipally owned and managed portion of the urban forest, such as street and park trees and trees in City-owned woodlands, the plan also includes goals and strategies for trees on private lands.

### Opportunities to grow the urban forest

In 2019 (the latest available data), Windsor's Urban Tree Canopy (UTC) covered 19%—or about one-fifth—of the city. In addition to these 2,798 hectares of tree canopy, a further 4,010 ha (or 28% of the city) was classified as Potential Plantable Area (PPA), or land that could be suitable for growing and expanding the urban forest. More than two-thirds of the area available to grow Windsor's urban forest can be found on private lands—2,680 hectares of PPA are located on residential, commercial, industrial, and institutional properties. This highlights the importance of engaging and supporting landowners, including businesses, school boards, individual residents, and other community members, in planting and maintaining trees to grow the urban forest.

Although Windsor's tree canopy is slowly growing, canopy cover in the city is slightly lower than among many other southern Ontario municipalities, where cover ranges between 20% and 30%.



**Figure 1:** Urban tree canopy (UTC) cover and Potential Plantable Area (PPA) in Windsor, 2019 data. More than half of Windsor's urban forest can be found on private lands, demonstrating the need to engage landowners in caring for the urban forest. There is also ample opportunity to grow Windsor's tree canopy cover.

### *Windsor's urban forest at a glance*

<b>Urban Tree Cover:</b>	2,790 ha (19%)
<b>UTC ownership:</b>	42% City 58% private
<b>Potential Plantable Area:</b>	4,010 ha (28%)
<b>Top 3 tree species (in tree inventory):</b>	Honey locust, Norway maple, silver maple
<b>Tree health:</b>	57% good
<b>Tree condition:</b>	79% good
<b>Tree risk:</b>	94% low

### **Growing diversity for resilience**

In 2020, the City collected a detailed inventory of 86,718 street and park trees, comprising 161 different tree species and 76 unique genera. Even more species may be found on private properties, but there is currently no inventory or sample assessment of private trees.

This high level of species richness reflects Windsor's climatic suitability for a wide variety of tree species and supports a diverse urban forest. As evidenced by the loss of most of Windsor's ash trees to the emerald ash borer (EAB) infestation beginning in the early 2000s, tree diversity is essential for promoting urban forest resilience against pests, diseases, climate change, and other stressors. In a less diverse urban forest, the death of ash trees could have had a much greater impact on the loss of tree canopy and urban forest benefits.

### **Better management for better trees**

Windsor's trees are the city's most important green infrastructure assets, supporting the health, safety, prosperity, and livability of the entire community. Trees may be the only municipal assets that actually increase in value and function (community benefits) as they age, because larger and older trees have more leaf and canopy area than smaller ones.

It is therefore important to manage the urban forest proactively from the earliest stages of a tree's life. Proactive care, including frequent watering, mulching, pruning, and pest and disease management, can improve tree health and condition and increase longevity, allowing trees to attain larger size and maximise the value of benefits provided, while actually lowering the cost of maintenance by reducing the need for costly emergency response.

### **Supporting climate action and adaptation in Windsor**

*Degrees of Change* - Windsor's 2020 Climate Change Adaptation Plan outlines nine action items under three key objectives that relate to natural areas and the urban forest (see box, page 10).

Many of the UFMP's action items build upon the direction established in the Adaptation Plan by providing more detailed action item implementation guidance, and linkages between the UFMP and the Climate Change Adaptation Plan actions are identified where appropriate. UFMP action item implementation will therefore directly support the Adaptation Plan's vision of creating a more resilient city and minimizing climate risks for the benefit of the community's health, environment, and economy.

## Urban forest-relation actions in the City of Windsor Climate Change Adaptation Plan (2020)

**Action 2.8** - Decrease public and private contributions to air quality contaminants

**Action 3.4** - Continue and enhance tree pruning programs to develop proper tree health and limit future damage

**Action 4.9** - Promote green infrastructure options for drainage issues on public and private property

**Action 5.1** - Protect and enhance the management of natural areas to improve climate change resilience

**Action 5.3** - Enhance linkages between and among natural heritage features

**Action 5.4** - Implement an Invasive Species Program

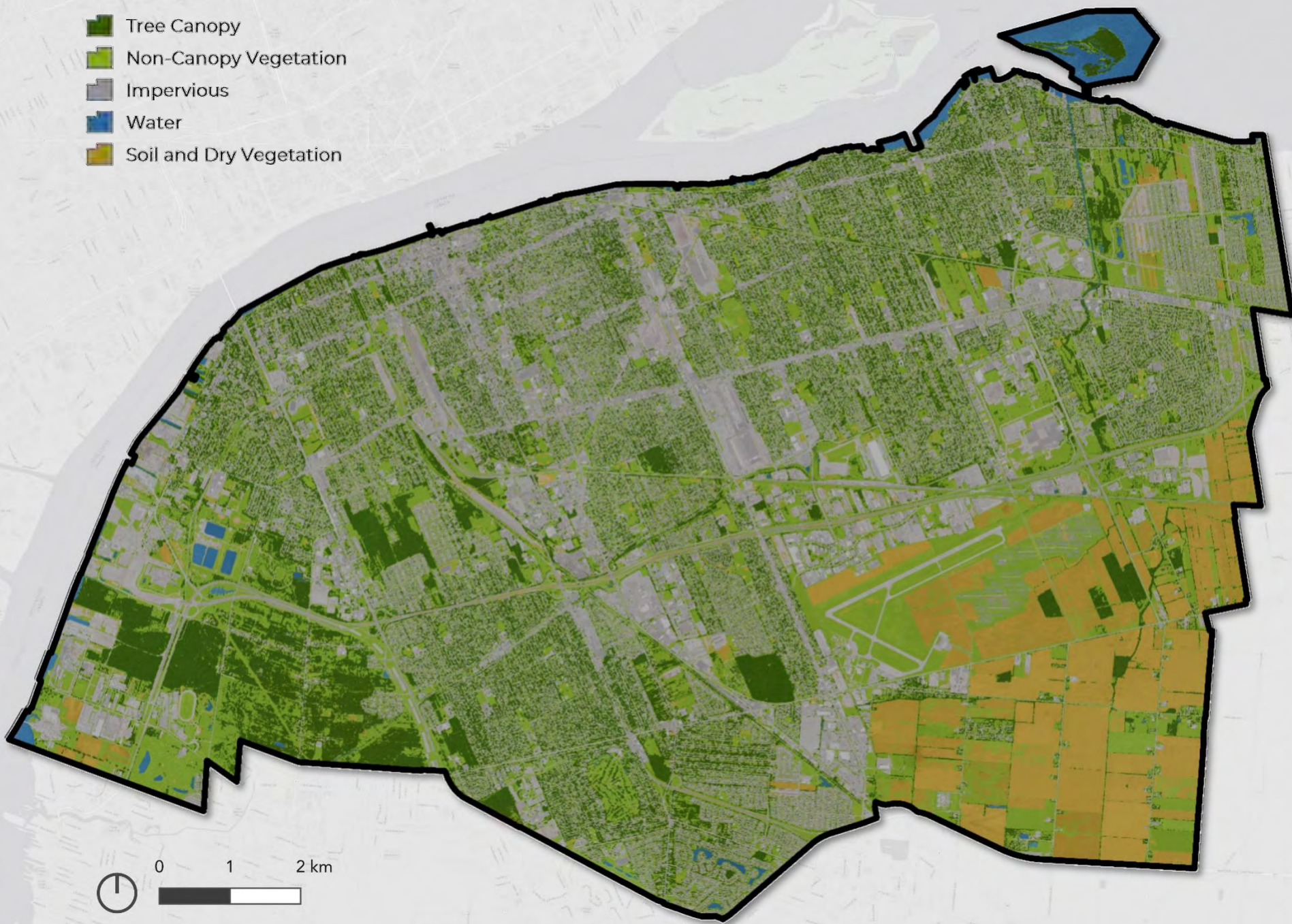
**Action 5.5** - Complete an Urban Forest Management Plan

**Action 5.6** - Improve climate resilience of trees in urban forests, parks and in the public right-of-way

**Action 5.8** - Increase community level of knowledge on the benefits of natural areas



- Tree Canopy
- Non-Canopy Vegetation
- Impervious
- Water
- Soil and Dry Vegetation



### The value of Windsor's urban forest

Windsor's 2020 canopy cover study estimated the value of four key urban forest services: air quality improvement, stormwater reduction, carbon sequestration, and carbon storage.

According to this study, Windsor's urban forest provides the community with some **\$5 million in annual benefits**, or approximately **\$2.50 in services and benefits for every \$1 spent** on the City's urban forest management program. The total benefits value (annual benefits plus the value of stored carbon) **exceeds \$60 million** and increases every day.

These figures do not include other tangible and intangible values, such as tree replacement cost, wildlife habitat, beautification, improved health and wellbeing, and many others, which may be worth many millions more every year and provide immense quality-of-life benefits to Windsor's residents and visitors.

In addition to the tremendous value of these key services and benefits, Windsor's urban forest is remarkable for the great diversity of tree species that can and do flourish in the city. For example, the Devonwood Conservation Area is home to eight species of oak trees—a level of diversity found in few other locations in Ontario.

Across Windsor, parks, streetscapes, natural areas, and private properties are home to Carolinian species rarely found outside of the city and its neighbouring communities, further highlighting Windsor's unique position as hotbed of urban biological diversity and illustrating the importance of protecting and enhancing the community's urban forest.

### Changes to the planning paradigm

Recent amendments to the Provincial *Planning Act*, *Municipal Act*, and *Building Code Act* have significantly changed the land use planning framework in Ontario.

Among other changes, these amendments have curtailed the application review role of Conservation Authorities, excluded some types of development from site plan control, reduced parkland and community benefits dedication requirements, and increased 'as-of-right' densities for some development types. The implications of these changes for urban forest management, particularly in the context of tree protection and tree establishment, remain to be determined.

City of Windsor Forestry and Planning staff will need to continue to evaluate the impacts of these changes in the context of urban forest management and must remain responsive as planning decisions are implemented and tested. These changes may necessitate the deployment of innovative planning tools within the new regulatory paradigm if municipal objectives for tree protection and urban forest enhancement are to be achieved.

## Environmental



Reducing air pollution and improving air quality



Cooling the air and reducing the urban heat island effect



Protecting soils against erosion by wind and rain



Storing and sequestering carbon—the primary driver of global climate change



Reducing flooding and protecting water quality



Providing wildlife habitat and ecosystem connectivity

## Economic



Increasing property values by making landscapes more functional and desirable



Promoting economic activity by making spaces more inviting for shoppers and workers



Reducing energy costs by reducing building heating and cooling demand



Reducing healthcare costs by protecting physical health



Reducing infrastructure maintenance and replacement costs by shading and cooling

## Societal



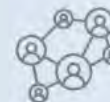
Improving physical health by encouraging outdoor recreation, reducing UV exposure, lowering stress, and improving air quality



Improving mental health and cognitive functioning by reducing stress through nature exposure and connection



Contributing to reduced crime rates, especially when large trees are situated on public property



Increasing social cohesion and strengthening communities by encouraging people to come together in green spaces

## Key Findings and Directions for the UFMP

The Strategic Action Plan component of the Windsor Urban Forest Management Plan is informed by a comprehensive **Key Findings and Directions Report**.

This report—developed in consultation with City staff, external partners, and community members—reviews the current state of Windsor’s urban forest and assesses the strengths and shortcomings of the City’s approaches to urban forest management. It also identifies key challenges facing Windsor’s urban forest and reviews relevant urban forestry best practices for consideration and adoption by the City of Windsor, its urban forest partners, and the broader community. Finally, the report provides 37 strategic directions for the Strategic Action Plan, providing guidance for the UFMP vision, guiding principles, goals, objectives, and action items.

## Urban forestry themes

The Key Findings and Directions Report outlines five urban forestry themes. These themes are carried forward into the Strategic Action Plan, which outlines one strategic goal and multiple objectives per theme (16 total objectives; see page 25). Organizing the UFMP into these themes ensures that all aspects of urban forest management are addressed in the current status review and the plan’s strategic framework and actions. The five urban forestry themes include:

- **Windsor’s urban forest**, which considers the urban forest as a biological system and reviews the City’s urban forest data management systems
- **Maintaining Windsor’s urban forest**, which addresses urban forest program structure and tree maintenance operations
- **Growing Windsor’s urban forest**, which addresses tree establishment and urban forest enhancement programs
- **Protecting Windsor’s urban forest**, which concerns policies and practices in relation to protecting existing trees through the planning process, in capital projects, and on private lands
- **Partnerships in Windsor’s urban forest**, which reviews existing and potential urban forest partnerships and programs to engage the community in urban forest stewardship on both City and private lands

## Purpose of the UFMP

The Windsor Urban Forest Management Plan is intended to guide the urban forest policies, programs, and actions of City of Windsor staff and Council, external agencies and other urban forest partners, and members of the broader community.

Over the next twenty years, the Windsor UFMP will provide a roadmap to guide urban forest policy and program development and implementation, resourcing, and priority-setting. It will help to ensure that decisions about the urban forest reflect the needs and values of the community, are based on technical and scientific knowledge, consider innovative and best practices, and are supported by adequate resources. The UFMP will shape the City's approaches to understanding, maintaining, enhancing, and protecting its urban forest, and will encourage other community members to engage in these efforts on both public and private lands.

The overall purpose of any strategic plan is to realize—make real—its vision. By applying the Windsor Urban Forest Management Plan's guiding principles, pursuing its goals and objectives, and implementing its action items, the City and its urban forest partners will address the challenges facing Windsor's urban forest, promote tree health and diversity, reduce risk, and maximize the services and benefits that trees provide to all of Windsor's residents—human and non-human alike.

## The Planning Horizon

The term *planning horizon* refers to the length of time for which a plan is made. The planning horizon for the Windsor UFMP is **twenty years**. This longer-term planning horizon recognizes that achieving an ambitious vision for the urban forest can take considerable time, effort, and resources, and ensures that the plan's key strategic elements will ultimately be reflected in the urban forest policies, programs, and actions of the City of Windsor and its partners.

The Windsor UFMP is not intended to remain static after it is adopted. The plan includes a monitoring, review, and updating process to ensure that the City remains on-track to achieve its urban forest goals, objectives, and targets.

## Scope of the UFMP

The lead agency responsible for the implementation of most of the Strategic Action Plan will be the City of Windsor. However, strategies outlined in the plan address both the City- and privately-owned portions of the urban forest and the plan aims to engage partners and community members in caring for, enhancing, and protecting the urban forest **across the entire city**. The strategies and actions established in the plan will apply to both established communities and lands planned for future development.

## The Strategic Framework

The Windsor Urban Forest Management Plan (UFMP) – Strategic Action Plan is built upon a framework that includes an overarching vision, guiding principles, goals, and objectives. These strategic elements establish the long-term foundation for managing Windsor’s urban forest and represent what the City and its urban forest partners plan to achieve over the next twenty years and beyond. These strategic planning elements are described below.

### Vision

Windsor’s urban forest vision is an aspirational statement indented to reflect the community’s values and priorities for its urban forest. The purpose of the vision statement is to establish a shared and common understanding about the desired outcomes for the urban forest to be achieved through the implementation of the UFMP. In other words, the UFMP will be considered a success if the vision statement accurately reflects Windsor’s urban forest when read in twenty years’ time.

### Guiding principles

Guiding principles are high-level statements that express the values of the City of Windsor and its urban forest partners in relation to the urban forest. Guiding principles are meant to be enduring irrespective of changes in external circumstances, management approaches, or resource availability. These principles have guided the development of all elements of the UFMP and are also intended to guide implementation by the City and its partners throughout the planning horizon.

### Goals

Strategic goals are broad statements that describe the outcomes to be achieved in support of the urban forest vision. The UFMP’s five strategic goals correspond to the **urban forestry themes** established in the Key Findings and Directions report.

### Objectives

Objectives are more detailed statements that describe the specific desired outcomes emerging from a strategic goal. Each of the five strategic goals for Windsor’s urban forest is supported by multiple related objectives.

### Targets

Multiple action items are supported by quantifiable or qualitative targets. For these action items, success will be measured by tracking progress towards, and ultimately achieving, these specified targets.

### Summary:

#### How the Windsor UFMP Strategic Action Plan is organized

The **vision** sets the big picture for Windsor’s urban forest in 20 years. Achieving the vision is key to the success of the UFMP.

**Guiding principles** express the community’s urban forest values, which informed the development of the plan and are to be reflected in all of the City’s future urban forest management policies, decisions, and actions.

Five strategic **goals** describe the desired outcomes related to each key urban forestry theme, first established in the Key Findings and Directions Report.

Multiple **objectives** per goal (16 total objectives) provide more specificity to guide urban forest management and refine the goals into clear directions for action.

**Action items** under each objective provide detailed implementation guidance for the City and its urban forest partners.

Some action items have associated measurable **targets and/or deliverables**, which define the benchmark for success related to that specific action item.

## Action Items

Sixty-two (62) action items present detailed guidance for implementation of a wide range of actions by the City of Windsor and its urban forest partners. Action item implementation will support the realization of the UFMP vision and guiding principles and achievement of plan goals and objectives. In addition to providing detailed guidance and timing, action items identify implementation leads and partners, estimated resource requirements, and (if applicable) measurable targets.

### Implementation guidance

Each action item presents point-form implementation guidance detailing a recommended course of action to support the related UFMP goal and objective.

### Timeframe and priority

Beginning in 2025, the Strategic Action Plan is divided into four five-year management periods. Action item implementation guidance is organized according to the applicable five-year management period for action items that are to be phased-in or staged within the twenty-year planning horizon. Action Items that require a change in process or procedures, or that establish new programs, are intended to be carried forward throughout the planning horizon.

Priority is reflected by the action item timeframe—higher-priority actions are scheduled for implementation in the earlier phases of the management plan.

Action Items without a specific timeframe identified are intended to be implemented as early in the UFMP as practicable and carry over throughout the UFMP planning horizon.

## Implementation leads and partners

Each action item assigns one or more City of Windsor divisions responsibility for leading action item implementation and providing accountability to the community and the Urban Forest Management Plan. Internal or external implementation support partners may also be identified. A detailed list of leads and partners is found on page 114.

## Resources

The estimated resources required to implement the action item are outlined. Due to the difficulty in accurately forecasting financial resource requirements, these are categorized as follows:

**Existing resources:** Can be accommodated by existing staff/resources, but may require resource support from partnering City of Windsor departments

**New resources:** Multiple action items require the support additional resources as identified in Action Item 2.1.6. or other action items

**\$:** Less than \$50,000

**\$\$:** \$50,000 - \$100,000

**\$\$\$:** \$100,000 - \$150,000

**\$\$\$\$:** \$150,000+

## Targets/outcomes

Targets are performance metrics that can be quantified (measured, ranked, or scored) to track progress and achievement. Where applicable, quantifiable targets are established for the accompanying action items.

Outcomes may include key deliverables, such as new policies, studies, procedures, etc., that will demonstrate success in action item implementation upon delivery, completion, or enactment.

## Related performance criteria

If applicable, the action item identifies the related Criteria and Indicators-based performance assessment criteria used in the urban forest program baseline assessment presented in the Key Findings and Directions Report. This will facilitate subsequent performance assessments as part of the urban forest monitoring and UFMP review and updating process.

Where applicable, related City of Windsor Climate Change Adaptation Plan (2020) actions are also referenced to support climate action, adaptation, and community resilience.

## Urban Forest Program Performance Targets

In addition to targets tied to specific action items, the City of Windsor will pursue **urban forest program performance targets** based on Criteria and Indicators framework presented in Section 3 – ‘Urban Forest Baseline Assessment’ of the Key Findings and Directions Report and derived from *The Sustainable Urban Forest: A Step-by-Step Guide* (2016). The initial baseline assessment awarded Windsor’s urban forest management program a total of 29 of an interim target of 54 points—an overall ‘Fair’ performance rating.

The revised UFMP urban forest program target score, to be achieved through the implementation of the UFMP action items outlined in the Strategic Action Plan over the twenty-year planning horizon, is **71 points**, representing a gap of 42 points between current baseline and target performance. Progress towards this program target will be tracked and reported on through the monitoring, review, and updating process built into the Strategic Action Plan.

Current performance levels and urban forest program performance targets are presented in Table 1.

**Table 1:** City of Windsor urban forest baseline performance assessment and UFMP performance targets.

Urban Forestry Theme / Goal	Baseline		Target (2045)		Gap (target - baseline)
	Performance	Score	Performance	Score	
The Urban Forest / Know more about Windsor’s urban forest					
T1: Relative Canopy Cover	Fair	1	Good	2	1
T2: Age diversity	Good	2	Good	2	0
T3: Species diversity	Fair	1	Good	2	1
T4: Species suitability	Not assessed	-	Fair	2	2
T5: Public owned trees	Optimal	3	Optimal	3	0
T6: Publicly owned natural areas	Optimal	3	Optimal	3	0
T7: Trees on private property	Fair	1	Optimal	3	2
R1: Tree inventory	Fair	1	Optimal	3	2
R2: Canopy cover assessment and goals	Good	2	Optimal	3	1

Urban Forestry Theme / Goal	Baseline		Target (2045)		Gap (target - baseline)
	Performance	Score	Performance	Score	
Maintaining the Urban Forest / Maintain a healthy, safe, and functional urban forest					
C1: Municipal agency cooperation	Low	0	Optimal	3	3
C2: Utilities cooperation	Low	0	Optimal	3	3
R4: Municipality-wide urban forest management plan	Low	0	Optimal	3	3
R5: Municipality-wide urban forestry funding	Good	2	Optimal	3	1
R6: Municipal urban forestry program capacity	Fair	1	Optimal	3	2
R10: Maintenance of publicly owned trees	Good	2	Optimal	3	1
R11: Management of publicly owned natural areas	Low	0	Optimal	3	3
R12: Tree risk management	Fair	1	Optimal	3	2
R13: Urban wood and green waste utilization	Low	0	Fair	1	1
Growing the Urban Forest / Replenish, expand, and enhance Windsor’s urban forest					
R3: Environmental justice and equity	Fair	1	Good	2	1
R7: Tree establishment planning and implementation	Good	2	Optimal	3	1
R8: Growing site suitability	Fair	1	Good	2	1
R14: Native vegetation	Fair	1	Good	2	1
Protecting the Urban Forest / Protect Windsor’s urban forest					
R9: Tree protection policy development and enforcement	Low	0	Optimal	3	3
Partnerships in the Urban Forest / Engage everyone in Windsor’s urban forest					
C3: Green industry cooperation	Fair	1	Good	2	1
C4: Involvement of large private and institutional landholders	Low	0	Good	2	2
C5: Citizen involvement and neighbourhood action	Fair	1	Good	2	1
C6: General appreciation of trees as a community resource	Fair	1	Optimal	3	2
C7: Regional collaboration	Fair	1	Good	2	1

Windsor Urban Forest Management Plan  
Strategic Action Plan

# Strategic Framework

## Vision

The Urban Forest Management Plan's vision for Windsor's urban forest is:

A mature canopy of Carolinian and other native tree species covers Windsor. Young and old trees grow side-by-side in parks, forests, and neighbourhoods across the city. Like our community, our trees are healthy, safe, diverse, and beautiful.

We recognize, cherish, and protect the many benefits that trees provide to the whole community. We continue to develop our understanding and work to nurture, enhance, and protect the urban forest for the present and future residents of Windsor, whether they be people, animals, or trees themselves.

The UFMP will be considered successful if, when read in 2045, the UFMP vision statement accurately describes Windsor's urban forest.

## Guiding Principles

Nine guiding principles have guided the development of the Windsor UFMP. These same guiding principles should also inform the actions and decisions undertaken by the City and its urban forest partners in future decisions, programs, and actions that may affect or influence Windsor's urban forest. These guiding principles are all considered equally important; no principle takes precedence over any other. The nine UFMP guiding principles include:

- **Principle 1: The urban forest must be recognized as essential municipal infrastructure that enhances quality of life**

Trees should be recognized and celebrated for their intrinsic natural value as living beings. However, in an urban context, trees can and should also be managed—planted, maintained, and protected—to promote their functional capacity to provide important services and benefits that enhance quality of life for community residents. Trees are the only municipal infrastructure assets that appreciate in value and provide more services and benefits as they age. The urban forest must therefore be recognized across all municipal departments and throughout City policies, programs, and practices, as a collection of valuable and essential municipal infrastructure assets. Where appropriate, tree species selection, planting and establishment practices, and tree maintenance programs should be geared towards understanding, provisioning, and increasing the amount and value of environmental, economic, and societal services (outlined in Section 1 of the Key Findings and Directions Report) provided by trees at the site level and to the broader community.

- **Principle 2: Success requires collaboration, engagement, and resources**

Realizing Windsor's vision for its urban forest will require the engaged participation of a diverse group of partners, working together in a spirit of transparency and mutual respect to find innovative solutions, achieve shared goals, and support each others' efforts. While the City of Windsor owns and manages some of the highest-profile parts of the urban forest, such as street and park trees, other partners and community members also make decisions that affect the urban forest every day, both on public and private property. In sharing responsibility for Windsor's urban forest, it is incumbent upon all partners to recognize both the positive and adverse implications their actions may have upon trees and commit the resources necessary to achieve shared goals and objectives.

- **Principle 3: Urban forestry is more than planting and pruning**

Effective urban forest management entails much more than just planting, pruning, and removing trees. While these operations represent a significant part of any urban forestry program, urban forest management also intersects with the disciplines of information technology, land use planning, ecology, community engagement and education, social justice, Indigenous relations and

reconciliation, and many others. The success of an urban forestry program must therefore not be judged by singular metrics, such as the number of trees planted or the extent of canopy cover, but rather by the progress made towards realizing the vision, strategic goals and objectives set out in the Urban Forest Management Plan.

- **Principle 4: Tree protection should be preferred over tree replacement**

Land development is an integral part of the economic success of any community and an important part of the solution to providing affordable and available housing. However, it can also pose significant challenges to existing healthy mature trees and the future urban forest. Existing healthy mature trees provide significantly more services and benefits—today—than small replacement trees, and every tree lost moves the community incrementally further from important benchmarks of urban forest sustainability. Moreover, the challenges posed by growing site conditions in many new communities and infill developments mean that significant effort and expense is required to establish new trees, and many planted trees may never reach the stature and functional capacity of the existing mature trees they are intended to replace. As such, protection of existing healthy mature trees in favour of removal and replacement (or compensation) should be the starting position for all public and private projects which may affect trees. The City should collaborate with land developers and other partners to explore feasible alternatives to tree removal on all projects, and should incentivise and otherwise encourage all community members to favour tree protection over removal and replacement.

- **Principle 5: All residents deserve equitable access to the urban forest**

The spatial distribution of Windsor’s urban forest canopy can never be equal across the city due to the many constraints imposed by geography and historic land use and development patterns. However, all of Windsor’s residents and community members deserve equitable opportunities to access and benefit from the services provided by the urban forest and to connect with trees and urban nature. Wherever possible, the City and its urban forest partners should strive to increase or improve tree health and condition, canopy cover, and the provision of urban forest benefits and services in priority areas through urban forest management policies and programs that promote greater tree canopy equity.

- **Principle 6: A diverse and connected urban forest is a stronger urban forest**

Natural system diversity comes in many forms, such as genetic, species, structural, or functional diversity. It also occurs on different spatial scales, ranging from individual parcels or streets to entire regions. Windsor’s urban forest is susceptible to a wide array of threats and stressors, as highlighted by the emerald ash borer (EAB) infestation of the early 2000s or the windstorms of 2023 that damaged thousands of trees across the city. Increasing urban forest diversity will reduce overall risk to the urban forest by reducing the portion of trees susceptible to any given stressor or threat. Increasing urban forest diversity will also enhance the variety and value

of the services provided by the urban forest to the community. Strengthening connectivity between natural areas and other parts of the urban forest will help support native birds, mammals, flora, and other forms biodiversity, strengthening their resilience against climate change and other environmental threats.

- **Principle 7: Windsor's urban forest is a Carolinian forest**

Across the city, parks, streetscapes, natural areas, and private properties are home to Carolinian tree species rarely found outside of Windsor or its neighbouring communities. Urban forest management should recognize the city's unique position as a hotbed of biological diversity in policies, programs, and efforts to maintain, enhance, and protect the urban forest. Carolinian tree species should be considered for planting wherever feasible, and existing Carolinian trees should be given additional consideration in the review of tree protection plans and development applications.

- **Principle 8: To support climate resilience, the urban forest must be climate resilient too**

Windsor's Climate Change Adaption Plan (2020) recognizes that the urban forest plays a crucial role in helping the community adapt to increased temperatures, longer and more frequent heat waves, and other effects. However, to fulfil this role, the urban forest itself must be made more resilient against the impacts of climate change. Urban forest management will need to adopt innovative and enhanced levels of service to ensure climate-resilient tree species selection and promote wind and ice storm resistance, drought resilience, and other adaptations to climate change to promote tree health and longevity and support the urban forest's vital function as a climate change resilience tool.

- **Principle 10: Urban forest management should be proactive, responsive, adaptive, and innovative.**

The urban forest is a complex and dynamic system and is affected by a wide range of influences, stressors, and opportunities. Realizing Windsor's vision for its urban forest will require proactive action, innovation, monitoring and, if necessary, adaptations to management approaches to better meet emerging needs and challenges. Strategies to manage the urban forest that work today may need to be adapted, or new strategies may need to be developed, to meet future urban forest challenges, reflect changing needs or values, or take advantage of new opportunities. Urban forest managers must be willing to design and evaluate new approaches to urban forest management when necessary and to integrate these findings into long-term planning and daily operations.

## Goals and Objectives

Windsor's vision for its urban forest will be realized through the pursuit and achievement of the UFMP's five goals, described in this section. These goals were developed to align with the five major urban forestry themes addressed in the Key Findings and Directions Report. The alignment between the urban forestry themes and goals is shown in Table 2.

**Table 2:** Alignment between Windsor UFMP Key Findings and Directions Report urban forestry themes and Strategic Action Plan goals.

Urban Forestry Theme		UFMP Goal
	Windsor's <b>urban forest</b>	→ <i>Know more about Windsor's urban forest</i>
	<b>Maintaining</b> Windsor's urban forest	→ <i>Maintain a healthy, safe, and functional urban forest</i>
	<b>Growing</b> Windsor's urban forest	→ <i>Replenish, expand, and enhance Windsor's urban forest</i>
	<b>Protecting</b> Windsor's urban forest	→ <i>Protect Windsor's urban forest</i>
	<b>Partnerships</b> in Windsor's urban forest	→ <i>Engage everyone in Windsor's urban forest</i>

## Goal 1: Know more about Windsor's urban forest

Up-to-date knowledge and accurate and timely data are critical to understanding the status of the urban forest resource and the effectiveness of policies, programs, and management practices.

Through implementation of this Urban Forest Management Plan, the City of Windsor and its urban forest partners will:

**Develop a better understanding of all aspects of Windsor's urban forest, and use this knowledge to make better and more collaborative decisions that help achieve desired outcomes for both the urban forest and the community.**

Implementation of this goal will be supported by three objectives, including:

**1.1. Collect and maintain high-quality urban forest data**

The City and its partners will ensure that information about urban forest condition, structure, function, condition, opportunities, and challenges is regularly collected, updated, used, and shared with others. This information will be used to inform and enhance urban forest management programs, policies, and practices.

**1.2. Integrate urban forest data with asset management frameworks**

The City will integrate urban forest data with its asset management policies, plans, tools, and systems to optimize management efficiency and support program resourcing.

**1.3. Monitor Windsor's urban forest and its management**

The City and its partners will regularly monitor the state of the urban forest and the performance of urban forest management programs to track progress towards established targets and refine policies, programs, practices, targets, and budgets, as necessary.

## Goal 2: Maintain a healthy, safe, and functional urban forest

Windsor's urban forest requires proactive, responsive, and adequately resourced maintenance to protect and improve tree health and condition, manage tree-related risk at a reasonable level, and enhance the functional capacity of trees to provide the community with important environmental, economic, and societal services and benefits.

Through the implementation of this Urban Forest Management Plan, the City of Windsor and its urban forest partners will:

**Apply best management practices to maintain and improve the health, condition, longevity, and safety of trees in Windsor's urban forest, enhancing their capacity to provide a wide range of urban forest services and benefits to the community.**

Implementation of this goal will be supported by four objectives, including:

### **2.1. Enhance and expand urban forest governance structures**

The City will ensure that urban forest management governance is effectively integrated into, supports, and is supported by broader municipal strategic initiatives, plans, and policies. Collaboration among municipal departments with interest and influence in the urban forest will be strengthened.

### **2.2. Strengthen program capacity to delivery key urban forestry services in accordance with best practices**

The City and its partners will ensure that adequate levels of human and financial resources are allocated to urban forest management programs to support UFMP goals and objectives and enable the delivery of core urban forestry services in a sustained and effective manner.

### **2.3. Proactively manage tree-related risk**

Recognizing that, as living and dynamic organisms, all trees pose some inherent level of risk, the City and its partners will work to maintain tree-related risk to persons and property at reasonable and acceptable levels, such that the benefits of maintaining and expanding Windsor's urban forest outweigh potential risks.

### **2.4. Enhance capacity to respond to threats to the urban forest**

The City and its partners will proactive and effectively address a wide range of existing, emerging, and potential threats to trees and natural areas.

### Goal 3: Replenish, expand, and enhance Windsor's urban forest

Replenishing, expanding, and enhancing the urban forest is critical to replacing leaf area and canopy cover—the sources of urban forest services and benefits—that may be lost through natural tree mortality, storm damage, tree removal, and other drivers of tree loss. But growing the urban forest entails much more than just planting trees. Sustaining and enhancing the extent, quality, diversity, resilience, and function of the urban forest will require ongoing and active efforts by the City of Windsor and its partners to ensure that policies and practices are put into place to provide high-quality tree growing environments, that the right trees are planted in the right places, and that young trees are supported until they are fully established. Urban forest expansion and enhancement should be guided by measurable targets and supported by adequate resources and engaged partners.

Through the implementation of this Urban Forest Management Plan, the City of Windsor and its urban forest partners will:

**Grow and expand the City's urban forest canopy cover, strengthen urban forest resilience against climate change and other stressors, and pursue equitable access to urban forest services and benefits for all of Windsor's residents.**

Implementation of this goal will be supported by four objectives, including:

**3.1. Increase tree canopy cover citywide and at smaller scales**

The City and its partners will plant a larger number of trees to achieve a meaningful increase in tree canopy cover across Windsor, in neighbourhoods, and on individual parcels. Where feasible, tree establishment will be strategically oriented to support site-specific targets for urban forest services and benefits in response to localized needs and opportunities.

**3.2. Improve tree establishment outcomes**

The City and its partners will strengthen policies, guidelines, programs, and practices to ensure that all trees are planted in adequate growing environments and are provided the necessary care to survive, become established, and thrive.

**3.3. Promote urban forest resilience and ecological function**

The City and its partners will promote urban forest diversity in various forms and at different scales to develop a more climate-resilient and robust urban forest. They will also promote the ecological integrity and connectivity of natural areas through tree establishment programs and projects.

**3.4. Pursue urban forest equity for all community members**

The City and its partners will work to provide equitable access to urban forest benefits and services for all Windsor residents and community members through tree establishment in priority areas.

## Goal 4: Protect Windsor's urban forest

The land use change, intensification, and site disturbance commonly associated with development may contribute to the loss of trees and urban forest canopy cover, and may compromise growing conditions for the future urban forest. On lands not subject to the development process, landowner decisions to injure or remove trees may further reduce the urban forest canopy. As such, planning, development, and related policies and practices should favour urban forest protection wherever feasible, and tree removal should be considered an option of last resort. Furthermore, a broader culture of tree appreciation should be fostered to ultimately support increased protection of significant trees on private lands across the city. Where tree protection cannot be fully accommodated, appropriate mitigation and compensation measures should be put in place to offset the loss of urban forest benefits and services to the broader community.

Through the implementation of this Urban Forest Management Plan, the City of Windsor and its urban forest partners will:

**Ensure that existing trees and tree growing environments are effectively protected against injury and destruction wherever possible, and that adequate compensation is provided for the loss of urban forest services and community benefits when significant trees must be injured or removed.**

Implementation of this goal will be supported by two objectives, including:

**4.1. Improve tree protection outcomes through the planning process**

The City will ensure that land use and development planning policies, application review procedures, and implementation oversight promote tree protection and, if necessary, adequate replacement and compensation.

**4.2. Improve tree protection outcomes outside the planning process**

The City will promote tree protection on lands not subject to formal planning processes and will work with landowners and other partners to encourage protection of significant trees. Ultimately, this will encourage widespread support for stronger protections for significant trees on both municipal and private lands in Windsor.

## Goal 5: Engage everyone in Windsor's urban forest

While the City of Windsor owns and manages some of the highest-profile parts of the urban forest, such as street and park trees, much of the tree canopy (58%) and opportunities (67%) to expand the urban forest are found on privately-owned lands. These lands, such as commercial and institutional properties and individual private parcels, provide some of the best opportunities to sustain, enhance, and expand Windsor's urban forest. Every day, community members and other partners make decisions that affect trees in the city and exercise tremendous influence that will help to shape Windsor's urban forest well into the future. It is therefore imperative that these partners be engaged in maintaining, growing, and protecting the urban forest, and that the City foster lasting and strong partnerships to realize a shared vision and goals for Windsor's urban forest.

Through the implementation of this Urban Forest Management Plan, the City of Windsor and its urban forest partners will:

**Foster an urban forest culture in Windsor, encouraging all community members to appreciate the value and importance of the urban forest and engage in urban forest stewardship on public and private lands across the city.**

Implementation of this goal will be supported by three objectives, including:

### **5.1. Promote community awareness of the urban forest**

The City and its partners will reach out to and educate community members about all aspects of the urban forest, thereby encouraging appreciation for trees, building awareness of urban forest challenges, and highlighting opportunities to make a positive impact on Windsor's future urban forest.

### **5.2. Support community and partner engagement in urban forest stewardship**

The City will provide technical and resource support to community members and other partners to encourage more and stronger urban forest stewardship on public and private lands across the city.

### **5.3. Advance reconciliation with Indigenous Peoples through urban forestry**

The City will meaningfully engage with local Indigenous Peoples toward identifying opportunities to advance and support reconciliation with Indigenous Peoples through urban forestry programs, activities, and actions.

## Summary of Goals and Objectives

The goals and objectives of the City of Windsor Urban Forest Management Plan are summarized below.

### **Goal 1. Know more about Windsor's urban forest**

- 1.1 Collect and maintain high-quality urban forest data
- 1.2 Integrate urban forest data with asset management frameworks
- 1.3 Monitor Windsor's urban forest and its management

### **Goal 2. Maintain a healthy, safe, and functional urban forest**

- 2.1 Enhance and expand urban forest program governance structures
- 2.2 Strengthen program capacity to delivery key urban forestry services in accordance with best practices
- 2.3 Proactively manage tree-related risk
- 2.4 Enhance capacity to respond to threats to the urban forest

### **Goal 3. Replenish, expand, and enhance Windsor's urban forest**

- 3.1 Increase tree canopy cover citywide and at smaller scales
- 3.2 Improve tree establishment outcomes
- 3.3 Promote urban forest resilience and ecological function
- 3.4 Pursue urban forest equity for all community members

### **Goal 4. Protect Windsor's urban forest**

- 4.1 Improve tree protection outcomes through the planning process
- 4.2 Improve tree protection outcomes outside the planning process

### **Goal 5. Engage everyone in Windsor's urban forest**

- 5.1 Promote community awareness of the urban forest
- 5.2 Support community and partner engagement in urban forest stewardship
- 5.3 Advance reconciliation with Indigenous Peoples through urban forestry

Windsor Urban Forest Management Plan  
Strategic Action Plan

# Action Items

# **Goal 1.**

## **Know more about Windsor's urban forest**

## Objective 1.1 – Collect and maintain high-quality urban forest data

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### Action 1.1.1 – Operationalize and update the tree inventory

#### Implementation guidance:

##### *Management Period 1 (2025-2030)*

- Utilize existing geospatial tree inventory to inform tree maintenance, priority tree risk management, tree removal and replacement, tree establishment planning, etc.
- Implement procedures to integrate all newly planted City-managed trees into inventory within 3 months of installation. Require developers to submit tree installation 'as built' data in inventory-compatible format for integration into City tree inventory at time of tree assumption.
- Implement procedures for real-time or 'end of day' updating of basic tree inventory data for existing City trees (e.g., DBH, condition, maintenance record, etc.) every time an inventoried tree is inspected, maintained, or removed.
- Undertake a complete tree inventory update every 10 years.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Technical Coordinators

**Partners:** N/A

**Resources:** Supported by additional resources in Action Item 2.1.6 (procedures)  
\$\$ (hardware and information technology, one-time funding)

#### Targets/outcomes:

- Tree inventory is routinely updated through tree maintenance operations
- All newly planted trees are added to inventory within 3 months of installation.

**Related performance criteria:** T5: Publicly Owned Trees (trees managed “intensively”)  
R1: Tree Inventory

## Objective 1.2 – Integrate urban forest data with asset management frameworks

### Action 1.2.1 – Integrate the tree inventory with the *PSD.Citywide* enterprise asset management system

#### Implementation guidance:

##### *Management Period 1 (2025-2030)*

- Integrate existing geospatial tree inventory data into the forthcoming *PSD Citywide* enterprise asset management system (EAMS) Asset Manager and Maintenance Manager frameworks. Integrate trees into a separate database from other Parks assets.
- Utilize EAMS for reactive maintenance work order management as well as pruning cycle (contractor) performance tracking.
- Provide appropriate training and hardware to Forestry Supervisors and other staff to facilitate service/work order management and asset inventory updating.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Technical Coordinators

**Partners (int.):** Finance & City Treasurer – Asset Planning

**Resources:** Supported by additional resources in Action Item 2.1.6  
Dependent upon supporting resource availability in partner divisions

#### Targets/outcomes:

- Tree inventory is integrated with *PSD Citywide* Asset Manager and Maintenance Manager frameworks.
- Forestry and other relevant staff are trained and equipped to manage work orders and tree inventory with *PSD Citywide* systems.

**Related performance criteria:**

- R1: Tree Inventory
- T5: Publicly Owned Trees (trees managed “intensively”)
- Climate Change Adaptation Plan Action 3.4

## Action 1.2.2 – Utilize tree inventory data and urban forest assessments in future asset management planning

### Implementation guidance:

#### Management Period 1 (2025-2030)

- Utilize tree inventory data analyses (e.g., tree health and condition, replacement cost, benefits/services values, etc.) in future asset management plans and plan updates in accordance with *O. Reg. 588/17: Asset Management Planning for Municipal Infrastructure*.
- Integrate measurable UFMP targets into AMP as key performance indicators.
- Periodically re-evaluate benefits/cost analysis, and report on 'state of the infrastructure' (urban forest assets); at minimum in alignment with asset management plan review/update cycles (see Action Item 1.3.1).

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Technical Coordinators

**Partners (int.):** Finance & City Treasurer – Asset Planning

**Resources:** Supported by additional resources in Action Item 2.1.6  
Dependent upon supporting resource availability in partner divisions

### Targets/outcomes:

- Tree inventory data analyses and UFMP targets are reflected and integrated in City of Windsor asset management plans for green infrastructure assets.

**Related performance criteria:** T5: Publicly Owned Trees (trees managed “intensively”)  
R1: Tree Inventory  
Climate Change Adaptation Plan Action 3.4

### Action 1.2.3 – Share tree inventory data with internal and external partners

#### Implementation guidance:

##### *Management Period 1 (2025-2030)*

- Ensure that basic tree data (e.g., species, size, location, tree protection zone, etc.) are accessible to other City divisions to facilitate planning and service delivery (e.g., capital project planning, infrastructure maintenance, etc.)
- Integrate urban forest inventory data into the *MappMyCity* online mapping portal and the Open Data Catalogue. Develop a “My Forest” online mapping app (similar to existing My City, My Parks, etc., apps hosted by the City of Windsor). At minimum, provide data including tree species, size (DBH), location, and minimum tree protection zone radius. Consider providing additional information such as next scheduled cyclical pruning and a unique ID number linked to an online service request form.
- Undertake education and outreach to encourage residents to review information for trees abutting their properties.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Technical Coordinators

**Partners (int.):** Engineering – Geomatics Division  
Planning and Development Services

**Resources:** Existing resources in Parks  
Dependent upon supporting resource availability in partner divisions

#### Targets/outcomes:

- Tree inventory data are available to other City divisions.
- Tree inventory data are readily available through the Open Data Catalogue and the *MappMyCity* online mapping portal and apps.

**Related performance criteria:** C1: Municipal Agency Cooperation

## Objective 1.3 – Monitor Windsor's urban forest and its management

### Action 1.3.1 – Undertake a comprehensive urban forest program re-assessment

#### Implementation guidance:

- In conjunction with UFMP review and updating (see Action 1.3.2), undertake a comprehensive urban forest program performance assessment utilizing the Criteria and Indicators-based assessment framework. Score performance and assess change (positive or negative) and gap between baseline, current, and target scores.
- Approximately every five years, develop a comprehensive 'State of the Urban Forest' report on key urban forest management programs and initiatives. The report should outline the following:
  - Trees planted, removed, pruned (cyclical and request-based) through municipal operations
  - Trees removed and planted through development
  - Trees planted through naturalization, stewardship, and other programs
  - Tree removal permits issued and denied; tree compensation required (see Action Item 4.1.5 and 4.2.3)
  - Change in Urban Tree Canopy (UTC) and other land cover metrics, in conjunction with re-assessments (see Action Item 1.3.3)
  - Urban forest outreach and engagement—volunteers engaged, activities undertaken, etc.
  - Progress towards UFMP Action Item implementation and targets

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (int.):** Engineering – Geomatics Division  
Planning and Development Services

**Resources:** \$\$ (every five years)  
Dependent upon supporting resource availability in partner divisions

#### Targets/outcomes:

- Criteria and Indicators-based urban forest performance assessment updated.
- 'State of the Urban Forest' report published approximately every five years.

**Related performance criteria:** R4: Municipality-wide Urban Forest Management Plan

## Action 1.3.2 – Review and update the Urban Forest Management Plan

### Implementation guidance:

- Near the end of Management Period 1 and every five subsequent years (UFMP management periods), review and update the Urban Forest Management Plan, including:
  - Completion or compilation of relevant urban forest assessments or studies (e.g., inventory, UTC, etc.)
  - Undertaking scoped internal, external, public, and Indigenous Peoples engagement to assess changes to existing, or emerging, threats and challenges, values, needs, priorities, opportunities, perceptions, and urban forest management approaches and policies.
  - Re-assessment of criteria-based performance indicators relative to UFMP-established target levels (see Action Item 1.3.1).
  - Establishment of new performance targets, if appropriate.
  - Assessment of changes to policies, regulations, legislation, practices, and programs relevant to Windsor's urban forest.
  - Assessment of successes, shortcomings, and barriers to implementation of UFMP action items, and tracking of progress towards Action Item implementation.
  - If necessary, re-prioritization of existing UFMP actions, reallocation of resources, and development of new Action Item.
  - Development of a UFMP update report and delivery to Council.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners:** Other City divisions and external partners, as required

**Resources:** Supported by additional resources in Action Item 2.1.6 (update)  
\$\$ (supporting studies, as required; every five years)

### Targets/outcomes:

- Urban Forest Management Plan (UFMP) update report and supporting studies and materials completed near the end of every Management Period.

**Related performance criteria:** R4: Municipality-wide Urban Forest Management Plan  
R5: Municipality-wide Urban Forestry Funding  
R6: Municipal Urban Forestry Program Capacity  
Climate Change Adaptation Plan Action 5.5

### Action 1.3.3 – Track change in Urban Tree Cover (UTC) and Potential Plantable Area (PPA)

#### Implementation guidance:

- Every five years, undertake a high-quality geospatial assessment to map existing Urban Tree Cover (UTC), Potential Plantable Area (PPA), and other land cover metrics across the city.
  - Report at various spatial scales (e.g., land use, ward, neighbourhood, IMS district, etc.)
  - Maintain consistency with 2020 UTC assessment methodology to facilitate change analysis
  - Use geospatial analysis to identify locations of significant canopy loss and determine causes
  - Use results to track progress towards UTC targets (see Action Item 3.1.1), prioritize tree establishment, and forecast tree planting and post-planting maintenance resource requirements to remain on-track towards targets
  - Integrate future LiDAR data, if available
- Encourage residents to use online public tree tracker (e.g., iNaturalist) to submit information about the type, size, and location of trees planted on private property.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Engineering – Geomatics Division

**Resources:** \$\$ (geospatial analysis and reporting; every five years)

#### Targets/outcomes:

- Urban Tree Canopy (UTC) and Potential Plantable Area (PPA) geospatial analysis and reporting completed.

#### Related performance criteria:

T1: Relative Canopy Cover  
 R2: Canopy Cover Assessment and Goals  
 R7: Tree Establishment Planning and Implementation

## **Goal 2.**

**Maintain a healthy, safe,  
and functional urban forest**

## Objective 2.1 – Enhance and expand urban forest program governance structures

### Action 2.1.1 – Enhance urban forest cooperation across City departments

#### Implementation guidance:

#### *Management Period 1 (2025-2030)*

- Transition the Urban Forest Management Plan Project Steering Committee (PSC) into an Urban Forest Working Team (or similar) to facilitate interdepartmental information sharing related to policies and projects that may affect or influence the urban forest.
  - Develop a Terms of Reference for Working Team
  - Parks – Forestry & Natural Areas – Forestry Team (City Forester) to host quarterly Working Team meetings to discuss policy, planning, management, and engagement initiatives, among other topics
  - Support *ad hoc* meetings of Working Team members around discrete topics, projects, or issues, with reporting-back to the broader Working Team
  - Engage Working Team on updates to City guidelines, standards, specifications, plans, etc. that may affect existing and planned trees and tree growing environments
  - Working Team to engage with other City divisions, as required

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (int.):** All members of UFMP Project Steering Committee.  
Other City departments to be included as required.

**Resources:** Existing resources

#### Targets/outcomes:

- Terms of Reference completed for Urban Forestry Working Team
- Urban Forestry Working Team quarterly meetings

**Related performance criteria:** C1: Municipal Agency Cooperation

## Action 2.1.2 – Integrate key elements of the UFMP into Official Plan updates and strategic planning and planning application initiatives

### Implementation guidance:

- In future Official Plan review and updates, ensure consistency between Official Plan and the UFMP and update Official Plan urban forest policies, including:
  - Integration of the UFMP definition of the urban forest as “all trees growing within the municipal boundaries of Windsor”
  - Integration of the tree canopy cover target (see Action Item 3.1.1) and other UFMP performance targets, as appropriate
  - Review and update of Tree Inventory and Preservation Study (TIPS) report submission requirements and Environmental Evaluation Report (EER) to conform with best practices and updated City guidelines, standards, and specifications (see Action Item 4.1.4)
  - Integration of tree removal compensation requirements (see Action Item 4.1.5)
  - Ensuring consistency between Official Plan and Secondary Plan urban forest policies
- Pursue and ensure a similar level of integration with updates and implementation of existing City of Windsor strategic plans and future strategic planning initiatives, such as the Climate Action Plan, Climate Change Adaptation Plan, Environmental Master Plan, Community Strategic Plan, 20-year Strategic Vision, and others.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (int.):** Planning and Development Services (Official Plan review and updates)  
Environment and Climate Change Office  
Other City divisions, as appropriate (other strategic initiatives)

**Resources:** \$\$ (one-time funding)  
Dependent upon supporting resource availability in partner divisions

### Targets/outcomes:

- Official Plan review process (e.g., discussion papers, consultation, etc.) review Urban Forest Management Plan.
- Urban Forest Management Plan definitions, targets, and actions integrated into Official Plan.

**Related performance criteria:** Not applicable

### Action 2.1.3 – Maintain *Tree.Cities.of.the.World* status

#### Implementation guidance:

- By January 31 of each year, submit the *Tree Cities of the World*™ program application, ensuring that the five core standards of the program continue to be met, including:
  1. Establish Responsibility for community trees
  2. Set the Rules for community trees
  3. Know What You Have as a community forest resource
  4. Allocate the Resources to plant and care for community trees
  5. Celebrate Achievements
- Continue to promote *Tree Cities of the World*™ recognition in urban forestry-related public communications in accordance with program brand guidelines.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners:** Not applicable

**Resources:** Supported by additional resources in Action Item 2.1.6

#### Targets/outcomes:

- *Tree Cities of the World*™ program application submitted on schedule annually.
- *Tree Cities of the World*™ recognition maintained on an annual and ongoing basis.

**Related performance criteria:** C6: General Appreciation of Trees as a Community Resource

### Action 2.1.4 – Pursue Sustainable Forestry Initiative (SFI) Certification

**Implementation guidance:***Management Period 2 (2030-2035)*

- In conjunction with UFMP update process beginning at the end of Management Period 1 (2029 or earlier), engage an independent accredited certification body to undertake a Sustainable Forestry Initiative (SFI) Urban and Community Forest Sustainability Standard (UCFSS) assessment.
- Integrate guidance from UCFSS assessment into future UFMP updates.
- Pursue, obtain, and maintain SFI UCFSS Certification by the end of Management Period 2 or earlier.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners:** Not applicable

**Resources:** \$ (assessment and certification; every five years)

**Targets/outcomes:**

- Sustainable Forestry Initiative (SFI) Urban and Community Forest Sustainability Standard (UCFSS) assessment undertaken as part of Management Period 2 UFMP update
- Sustainable Forestry Initiative (SFI) Urban and Community Forest Sustainability Standard (UCFSS) Certification obtained by end of Management Period 2 or earlier.

**Related performance criteria:** R4: Municipality-wide Urban Forest Management Plan  
R5: Municipality-wide Urban Forestry Funding  
R6: Municipal Urban Forestry Program Capacity

## Action 2.1.5 – Formalize a shared and boundary tree policy

### Implementation guidance:

#### Management Period 1 (2025-2030)

- Develop and publish a departmental policy addressing trees growing on the boundary between City and private lands.
  - Clarify City’s current approach to boundary tree identification and management, whereby the City will no longer take full maintenance responsibility for presumed shared trees and requires property owners to obtain a certified lot survey if tree ownership is unclear or disputed
- Inform Council of the shared and boundary tree policy.
- Publicize shared and boundary tree policy on the urban forestry webpage.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Engineering – Geomatics Division  
 Legal and Real Estate Services  
 Purchasing, Risk Management & Provincial Offences

**Resources:** Existing resources to develop policy for Council direction  
 Dependent upon supporting resource availability in partner divisions

### Targets/outcomes:

- New shared and boundary tree policy adopted.

**Related performance criteria:** Not applicable

## Action 2.1.6 – Reorganize and increase resources for the Forestry division

### Implementation guidance:

#### *Management Period 1 (2025-2030)*

- Begin process of developing an expanded and more specialized organizational structure for Parks – Forestry & Natural Areas.
- Establish Forestry positions for inspecting and prioritizing tree service requests, tree planting inspection, contractor supervision and contract management, by-law enforcement support, tree protection plan (i.e., development and permit application) review and site inspection, urban forest health (pest, disease, and invasive species) inspection and monitoring, tree establishment planning, and enforcement support with focus on encroachment and vandalism in natural areas.
- Contingent upon Council direction for Forestry to conduct private tree inspections for by-law matters, establish a Forestry position to meet this objective.
- Establish one additional Arborist position.

#### *Management Period 2 (2030-2035)*

- Establish additional Forestry inspector/technician positions.
- Establish one additional Administrative/Clerical position to provide administrative and clerical support, including contract management, tree inventory/asset management, plan review, enforcement documentation, and other support.

### Action 2.1.6 – Reorganize and increase resources for the Forestry division (cont’d)

#### Management Period 3 (2035-2040)

- Divide the existing City Forester/Manager, Forestry and Natural Areas position into two positions, including Urban Forest Manager and Manager of Natural Areas. Urban Forest manager position to focus on actively maintained street and park tree policies and programs; Manager of Natural Areas to focus on management of woodlands and other natural areas.
- Establish a Forestry and Natural Areas Outreach Coordinator position for community education and outreach program development and implementation, urban forest partner liaison and coordination, resident liaison, Indigenous Peoples liaison, and other program support.
- Establish an additional Forestry Supervisor position.
- Establish two additional Arborist positions.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team.

**Partners:** Not applicable

**Resources:**

Management Period 1 (2025-2030):	\$\$\$\$
Management Period 2 (2030-2035):	\$\$\$\$
Management Period 3 (2035-2040):	\$\$\$\$

#### Targets/outcomes:

Management Period 1 (2025-2030):	2 Forestry positions and 1 Arborist position established/filled (3 FTEs)
Management Period 2 (2030-2035):	2 Forestry positions and 1 Administrative/Clerical position established/filled (3 FTEs)
Management Period 3 (2035-2040):	City Forester/Manager, Forestry and Natural Areas position divided into Urban Forest Manager and Manager of Natural Areas positions; 1 Forestry and Natural Areas Outreach Coordinator position, 1 Forestry Supervisor, and 2 Arborist positions established/filled (5 FTEs)

**Related performance criteria:** R6: Municipal Urban Forestry Program Capacity

### Action 2.1.7 – Pursue external and innovative urban forest program funding support

#### Implementation guidance:

- Partner with community organizations, external agencies, and other urban forest partners to obtain partnership grants or support other funding opportunities for community or City-led initiatives on public or appropriate private lands for projects and acquisition.
  - Examples of existing opportunities include Tree Canada Community Tree Grants (Greening Canada’s School Grounds, Edible Trees, and Treemendous Communities), Federal 2 Billion Trees Program grants (Tree Canada/Federation of Canadian Municipalities Growing Canada’s Community Canopies “GCCC” grant program), FCM Green Municipal Fund, Forests Ontario 50 Million Tree Program grants, Canadian Tree Fund research grants, and public health grants, among others.
- Maintain ongoing awareness of new and emerging external program funding support opportunities.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (int.):** Finance & City Treasurer – Asset Planning

**Partners (ext.):** External organizations (e.g., Friends of Ojibway Prairie, Essex County Field Naturalists’ Club, WindsorEssex Community Foundation, Little River Enhancement Group, Windsor Environment and Climate Change Advisory Committee, local school boards, etc.)  
Local First Nations, the Métis Nation of Ontario, and Indigenous Peoples’ organizations

**Resources:** Supported by additional resources in Action Item 2.1.6  
Dependent upon supporting resource availability in partner divisions

#### Targets/outcomes:

- By 2026, at least three high-quality grant funding applications submitted per year.
- Established partnerships with relevant external agencies/partners.

**Related performance criteria:** Not applicable

## Action 2.1.8 – Reduce the climate change impacts of urban forest management

### Implementation guidance:

#### Management Period 1 (2025-2030)

- Undertake an urban forest management program greenhouse gas (GHG) audit:
  - Work with contracted tree service providers and tree growers and suppliers to account for carbon emissions associated with service provision and supply of materials. Require contractors to report fuel and energy consumption for provision of tree maintenance and planting services. Require tree growers to provide carbon accounting for nursery stock production and supply.
  - Audit internal (City) fuel and energy consumption for all urban forest management operations and programs.
- Develop a strategy to reduce fuel and energy use by establishing baseline and reduction targets, and considering procurement of electric equipment for tree maintenance operations where feasible.
- Incentivise contracted tree service providers to reduce emissions by including emissions reductions as tender review and award criteria. Ultimately, require use of electrified equipment in contract specifications where feasible.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (int.):** Environmental Sustainability and Climate Change Office  
Purchasing, Risk Management & Provincial Offences

**Partners (Ext):** Other external partners (tree service providers, tree growers and suppliers)

**Resources:** Supported by additional resources in Action Item 2.1.6  
Dependent upon supporting resource availability in partner divisions

### Targets/outcomes:

- An urban forestry greenhouse gas audit and reduction strategy in place by the end of Management Period 1 (2025-2030).
- Revised contract specifications in place by the end of Management Period 1 (2025-2030).

**Related performance criteria:** C3: Green Industry Cooperation  
Climate Change Adaptation Plan Action 2.8

**Objective 2.2 –  
Strengthen program capacity to delivery key urban forestry services in accordance  
with best practices**

**Action 2.2.1 – Support and enhance the street tree maintenance program**

**Implementation guidance:**

*Management Period 1 (2025-2030)*

- Continue to allocate capital funding levels necessary to maintain ongoing implementation of the 7-year street tree pruning cycle, including addition of newly planted trees into the cycle as required.

*Management Period 3 (2035-2040)*

- Allocate capital funding levels necessary to transition to a more frequent (5-year) street tree inspection and pruning cycle.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners:** Not applicable

**Resources:** Management Period 1: No new resources (capital funding allocated)  
Management Period 3: \$\$\$\$

**Targets/outcomes:**

- Existing 7-year street tree pruning cycle maintained through Management Periods 1 and 2
- Five-year street tree pruning cycle in place by end of Management Period 3 (2035-2040)

**Related performance criteria:** R5: Municipality-wide Urban Forestry Funding  
R10: Maintenance of Publicly Owned, “Intensively” Managed Trees  
Climate Change Adaptation Plan Actions 3.4 and 5.6

Action 2.2.2 – Implement a pruning cycle for park trees

Implementation guidance:

Management Period 2 (2030-2035)

- Allocate capital funding levels necessary to implement a 10-year pruning cycle for park trees (estimate approximately 25,000 park trees to be included in cycle).

Management Period 4 (2040-2045)

- Allocate capital funding levels necessary to transition to a more frequent (7-year) park tree inspection and pruning cycle.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners:** Not applicable

**Resources:** Management Period 2: \$\$\$\$  
Management Period 4: \$\$\$\$

Targets/outcomes:

- Ten-year park tree pruning cycle in place by end of Management Period 2 (2030-2035)
- Seven-year park tree pruning cycle in place by end of Management Period 4 (2040-2045)

**Related performance criteria:** R5: Municipality-wide Urban Forestry Funding  
R10: Maintenance of Publicly Owned, “Intensively” Managed Trees  
Climate Change Adaptation Plan Actions 3.4 and 5.6

### Action 2.2.3 – Implement a young tree pruning program

**Implementation guidance:**

*Management Period 1 (2025-2030)*

- Provide one ‘catch-up’ inspection and structural pruning round for all City-managed trees planted between 2020 and 2025 (estimated 16,000 trees assuming annual tree planting quantity is increased per Action Item 3.1.1). Integrate with existing street tree pruning cycle where possible.

*Management Period 2 (2030-2035)*

- Provide one ‘catch-up’ inspection and structural pruning round for all City-managed trees planted between 2020-2027 (estimated 23,000 trees)
- Begin ongoing implementation of a ‘3-in-10’ structural pruning program (3 inspection/pruning rounds in first 10 years following planting) for all City-managed caliper street and park trees planted 2028 and beyond (estimated 3,300 trees increasing to 10,000+ trees per year).

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners:** Not applicable

**Resources:** Management Period 1: \$\$-\$\$\$  
Management Period 2: \$\$\$\$

**Targets/outcomes:**

- ‘3-in-10’ structural pruning program in place for all newly planted City trees by end of Management Period 2.

**Related performance criteria:** R10: Maintenance of Publicly Owned, “Intensively” Managed Trees  
Climate Change Adaptation Plan Actions 3.4 and 5.6

### Action 2.2.4 – Formalize urban forest service standards/Levels of Service

#### Implementation guidance:

##### *Management Period 1 (2025-2030)*

- Develop a divisional procedural manual and Levels of Service (LoS) targets for key tree maintenance operations, including at minimum:
  - Service request response and work order initiation (i.e., tree inspection; regular, after-hours, and emergency)
  - Shared/boundary tree ownership confirmation
  - Tree risk assessment
  - Pruning (cyclical and reactive)
  - Tree risk mitigation (e.g., cabling, bracing, etc.)
  - Tree removal (standard and emergency)
  - Stump removal and site restoration
  - Tree monitoring
  - Pest and disease management
  - Fertilization/site amelioration
- Integrate tree establishment program procedures (e.g., planting, watering, mulching, inspection, etc.) and LoS targets into the procedural manual (see Goal 3).
- Review the procedural manual every 3 years and update as required.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners:** Not applicable

**Resources:** Supported by additional resources in Action Item 2.1.6 (for review)  
\$ (for development; one-time funding)

#### Targets/outcomes:

- A Forestry procedural manual for key urban forest maintenance operations is in effect by the end of Management Period 1 (2025-2030).
- The procedural manual is reviewed every 3 years and updated as required.

**Related performance criteria:** R10: Maintenance of Publicly Owned, “Intensively” Managed Trees  
R12: Tree Risk Management

## Action 2.2.5 – Develop a citywide Natural Areas Management Plan

### Implementation guidance:

#### Management Period 1 (2025-2030)

- Support Environmental Master Plan *Objective C7: Protect, enhance and expand the quality and condition of our natural areas and wetlands* actions to develop natural areas management plans.
- Based on the June 2008 Update to the CNHS Inventory report, update the biological inventory and site assessments of selected priority natural areas, including criteria such as ecological integrity and level of human impact. Other prioritization criteria and areas not included in the CNHS study (including potential natural areas corridors for connectivity enhancement through naturalization/tree establishment) should be considered. Sites subject to Parks Canada national urban park designation process will likely be excluded from management planning, subject to Council direction, consultation with Parks Canada, and outcomes of designation and planning process.

**Lead:** Parks – Forestry & Natural Areas – Natural Areas Team  
Planning and Development Services

**Partners (int.):** Environmental Sustainability and Climate Change Office

**Partners (ext.):** Parks Canada  
Essex Region Conservation Authority (ERCA)  
External environmental organizations (e.g., Friends of Ojibway Prairie, Essex County Field Naturalists' Club, Little River Enhancement Group, Windsor Environment and Climate Change Advisory Committee, etc.)  
Local First Nations, the Métis Nation of Ontario, and Indigenous Peoples' organizations

**Resources:** \$\$\$-\$\$\$\$ (one-time funding)

### Targets/outcomes:

- Citywide Natural Areas Management Plan is developed by the end of Management Period 1 (2025-2030).

**Related performance criteria:** R11: Management of Publicly Owned Natural Areas  
Climate Change Adaptation Plan Actions 5.1 and 5.3

## Action 2.2.6 – Undertake a tree maintenance and tree planting services audit

### Implementation guidance:

#### Management Period 1 (2025-2030)

- Undertake a comprehensive audit of tree maintenance and tree planting services (in-house and external). Audit methodology to include:
  - Informational interviews with City tree maintenance staff and contractors and City 311 (service request intake) operators
  - Document review (e.g., contracts, policies/procedures, standards/specifications, invoices, payment information, etc.)
  - Data review (e.g., work logs, GPS logs, service requests, complaints, etc.)
  - Records review (e.g., tree inspection, inventory/asset management system, etc.)
  - On-site observation of work performance to audit adherence to standards and specifications
  - Other inspections and assessments, as required
- To facilitate future performance verification and auditing, require tree maintenance and tree planting service providers to maintain and furnish for inspection accurate GPS logs of crew vehicle locations from start to finish of contracted work in conjunction with comprehensive work logs and invoices.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (ext.):** External (contracted) tree service providers

**Resources:** \$\$ (every five years)

### Targets/outcomes:

- A tree maintenance and tree planting services audit report is completed by the end of Management Period 1 (2025-2030).

**Related performance criteria:** R6: Municipal Urban Forestry Program Capacity  
R10: Maintenance of Publicly Owned, “Intensively” Managed Trees

## Objective 2.3 – Proactively manage tree-related risk

### Action 2.3.1 – Conduct a priority tree risk assessment of trails and natural areas edges

**Implementation guidance:**

*Management Period 1 (2025-2030)*

- Conduct a limited visual (ANSI/ISA Level 1 – Limited Visual) tree risk assessment of City-owned trees along formal (sanctioned) trails in City-owned natural areas and along the edges of natural areas bordering on the right-of-way and adjacent public and private properties with occasional to frequent occupancy.
  - Identify, inventory, prioritize, and map trees for Level 2 – Basic visual assessment and/or risk mitigation (e.g., pruning, removal)
  - Include trees within at least 1.5x tree height tip-out distance of potential target areas
- Identify trees with risk potential in privately-owned natural areas bordering City property or right-of-way and, if required, initiate ‘unsafe conditions’ Orders to Repair pursuant to Section 8 and Part 2 of Property Standards By-law (No. 9-2019).
- Develop a priority tree risk response plan and implement maintenance/risk mitigation recommendations.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners:** Not applicable

**Resources:** \$\$ (every ten years)

**Targets/outcomes:**

- A priority tree risk assessment inventory and management plan are completed and implemented by the end of Management Period 1.

**Related performance criteria:**

- T5: Publicly Owned Trees (trees managed “intensively”)
- T6: Publicly Owned Natural Areas (trees managed “extensively”)
- R11: Management of Publicly Owned Natural Areas
- R12: Tree Risk Management

### Action 2.3.2 – Develop and implement a Level 1 tree risk assessment program for priority areas

#### Implementation guidance:

*Management Period 2 (2030-2035) and ongoing*

- Develop a priority tree risk assessment zone map for urban areas (i.e., streets and parks) based on factors including estimated occupancy rates; inventoried tree size, condition, and species failure profiles; and others. Obtain road occupancy data from Public Works and/or Engineering – Geomatics Division.
- Conduct annual Level 1 – Limited Visual (i.e., drive-by or walk-by) priority tree risk assessments within priority areas (e.g., areas with high occupancy rates and older trees, etc.) to identify trees for follow-up Level 2 – Basic tree risk assessment.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Engineering – Geomatics Division and/or Public Works

**Resources:** \$ (one-time funding)

#### Targets/outcomes:

- A priority tree risk assessment zone map is developed and an annual Level 1 – Limited Visual inspection procedure is in place by the end of Management Period 2.

**Related performance criteria:** T5: Publicly Owned Trees (trees managed “intensively”)  
R12: Tree Risk Management

### Action 2.3.3 – Develop cabling and bracing standards/procedures for tree risk management

**Implementation guidance:**

*Management Period 1 (2025-2030)*

- Develop standards and procedures for cabling and/or bracing of significant and high-value trees for purposes of tree risk mitigation and management. Integrate into divisional procedural manual and Levels of Service (LoS) targets (see Action Item 2.2.4).
- Where feasible, work to preserve wildlife habitat features on trees (e.g., suitable nesting cavities) through conservation-based tree risk management approaches.
- Obtain staff training and equipment/materials, and/or obtain contractor services, to implement tree cabling and/or bracing standards and procedures as required.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (ext.):** External (contracted) tree service providers

**Resources:** \$ (one-time funding)

**Targets/outcomes:**

- Standards and procedures for tree cabling and/or bracing are developed, integrated into divisional procedural manual and LoS targets, and implemented by the end of Management Period 1 (2025-2030).

**Related performance criteria:** T5: Publicly Owned Trees (trees managed “intensively”)  
R12: Tree Risk Management

## Objective 2.4 – Enhance capacity to respond to threats to the urban forest

### Action 2.4.1 – Conduct a forested natural areas invasive species inventory

#### Implementation guidance:

#### Management Period 2 (2030-2035)

- Support Environmental Master Plan *Objective C5: Develop a coordinated approach to invasive species in parks, natural areas and the public right-of-way* actions to identify and track new invasive species and develop strategies to minimize impacts.
- Conduct a field-based geospatial inventory and mapping of priority invasive plant species in City-managed forested natural areas. Include point locations and polygons as required. Consult Ontario Invasive Plant Council, Invasive Species Centre, Ontario's Invading Species Awareness Program, Essex Region Conservation Authority (ERCA), and other authorities for list of current priority invasive species, location/distribution maps of known populations in Windsor, and prioritization criteria.
- Promote public use of EDDMaps application for community-sourced invasive species location mapping and integrate into City database.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (ext.):** External agencies (listed in implementation guidance, above)  
 External environmental organizations (e.g., Friends of Ojibway Prairie, Essex County Field Naturalists' Club, Little River Enhancement Group, Windsor Environment and Climate Change Advisory Committee, etc.)  
 Local First Nations, the Métis Nation of Ontario, and Indigenous Peoples' organizations  
 Community members

**Resources:** \$\$ (one-time funding)

#### Targets/outcomes:

- A forested natural areas invasive species inventory is completed by the end of Management Period 2 (2030-2035).

**Related performance criteria:** C5: Citizen Involvement and Neighborhood Action  
 R11: Management of Publicly Owned Natural Areas  
 R14: Native Vegetation  
 Climate Change Adaptation Plan Actions 5.1 and 5.4

## Action 2.4.2 – Develop an urban forest pest, disease, and invasive species management plan

### Implementation guidance:

#### *Management Period 2 (2030-2035)*

- Support Environmental Master Plan *Objective C5: Develop a coordinated approach to invasive species in parks, natural areas and the public right-of-way* actions to develop strategies to minimize impacts of invasive species.
- Based on invasive species inventory (see Action Item 2.4.1), conduct an invasive species threat assessment based on prioritization and threat criteria developed in conjunction management planning process and in consultation with external partners and the community.
- Develop an actionable, prioritized, and resourced management plan to:
  - Identify and prioritize existing and potential pest, disease, and invasive plant species threats to Windsor’s urban forest,
  - Apply an Integrated Pest Management (IPM) approach to delimit thresholds for acceptable infestation levels and define appropriate management responses for priority species prevention and control,
  - Determine required resources for proactive and enhanced pest, disease, and invasive species management,
  - Identify priority sites and pilot/trial projects for assessment and refinement of invasive species management techniques,
  - Engage external and community partners for development and implementation, and
  - Build upon and align with pest, disease, and invasive species management programs and practices of Essex Region Conservation Authority (ERCA) and other relevant agencies and authorities.
- Refer to City of London and City of Mississauga Invasive Species Management Plans/Strategies as illustrative examples for a Windsor strategy.

### Action 2.4.2 – Develop an urban forest pest, disease, and invasive species management plan (cont'd)

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (ext.):** External agencies (see Action Item 2.4.1)  
 External environmental organizations (e.g., Friends of Ojibway Prairie, Essex County Field Naturalists' Club, Little River Enhancement Group, Windsor Environment and Climate Change Advisory Committee, etc.)  
 Local First Nations, the Métis Nation of Ontario, and Indigenous Peoples' organizations  
 Community members

**Resources:** \$\$ (plan development; one-time funding)

**Targets/outcomes:**

- A forested natural areas invasive species management plan is in place and beginning implementation by the end of Management Period 2 (2030-2035).

**Related performance criteria:**

- C5: Citizen Involvement and Neighborhood Action
- R11: Management of Publicly Owned Natural Areas
- R14: Native Vegetation
- Climate Change Adaptation Plan Action 5.4

### Action 2.4.3 – Develop an oak wilt response plan and awareness campaign

#### Implementation guidance:

##### *Management Period 1 (2025-2030)*

- *On a high priority basis* develop an oak wilt management and rapid response plan identifying program elements including public/private oak tree inventory and monitoring, inspection, quarantine, tree removal/sanitation, wood waste handling and disposal, regulation, tree replacement, public awareness-building, and interagency coordination and cooperation. Work with Canadian Food Inspection Agency (CFIA) on plan development and seek cost-sharing, cost recovery, and other funding supports for program implementation in support of CFIA mandate to manage regulated plant diseases.
- Refresh oak wilt-related public awareness-building and educational materials, including digital information, social media content, and videos. Promote and host materials on the City of Windsor website, social media channels, and other appropriate venues.
- Encourage oak wilt reporting using existing reporting portals (e.g., Invasive Species Centre Reporting Hotline) and undertake visual assessment of suspected oak wilt.
- Investigate feasibility of enacting an emergency oak wilt control by-law to enact an oak tree pruning ban between April 1 and October 31 and to enable issuance of order to remove infested tree(s) on private property.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Legal and Real Estate Services Division

**Partners (ext.):** Canadian Food Inspection Agency (CFIA)

**Resources:** \$ (development; one-time funding)

#### **Targets/outcomes:**

- Oak wilt response plan and awareness campaign are in place early in Management Period 1 (2025-2030).

**Related performance criteria:** Climate Change Adaptation Plan Action 5.4

## **Goal 3.**

**Replenish, expand, and enhance  
Windsor's urban forest**

## Objective 3.1 – Increase tree canopy cover citywide and at smaller scales

### Action 3.1.1 – Pursue a citywide urban tree canopy cover target of 22% by 2045

**Implementation guidance:**

*Management Period 1 (2025-2030)*

- Increase capital funding to support establishment of a combined minimum of 3,500 caliper trees per year through Forestry division operations/programs and development/compensation on an ongoing basis.
- Track and project annual tree planting quantity through the development process to inform Forestry division planting requirements.
- Track change in Urban Tree Canopy (UTC) cover over time to monitor progress towards canopy cover targets (see Action Item 1.3.3).
- To be supported by multiple action items under Goal 3.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Planning and Development Services

**Resources:** Supported by additional resources in Action Item 2.1.6  
 \$\$\$\$ (annual)

**Targets/outcomes:**

- A minimum of 3,500 caliper trees are planted per year through City operations and development by the end of Management Period 1 (2025-2030) and on an ongoing basis.
- Observed increase in tree canopy cover over time.
- Citywide urban tree canopy cover of 22% achieved by 2045.

**Related performance criteria:** T1: Relative Tree Canopy Cover  
 R2: Canopy Cover Assessment and Goals  
 R7: Tree Establishment Planning and Implementation

### Action 3.1.2 – Undertake a plantable spaces inventory

**Implementation guidance:**

*Management Period 2 (2030-2035)*

- Undertake a geospatial inventory of available plantable spaces (point locations and polygons) in rights-of-way and parks.
  - Classify planting sites according to an established methodology (e.g., Rapid Urban Site Index or Windsor-specific attributes) to inform tree species/site matching and establishment planning (i.e., implementation of ‘right tree in the right place’ principles). Important site inventory attributes include soil type, moisture/drainage regime, mature tree size, and targeted functions/benefits.
- Utilize plantable spaces inventory in combination with tree inventory to identify mature trees slated for removal and develop street-level planting succession plans.
- Utilize plantable spaces inventory in conjunction with tree planting prioritization mapping to inform tree establishment planning.
- Ensure plantable spaces inventory is updated following tree removal and stump grinding on suitable replanting sites.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Planning and Development Services

**Partners (ext.):** Business Improvement Associations (BIAs)

**Resources:** \$\$ (one-time funding)

**Targets/outcomes:**

- A citywide plantable spaces inventory is completed by the end of Management Period 2 (2030-2035).
- Procedures are in place to update plantable spaces inventory as trees and stumps are removed and sites become available.

**Related performance criteria:** R7: Tree Establishment Planning and Implementation  
R8: Growing Site Suitability

### Action 3.1.3 – Establish land use-based tree canopy cover targets for new developments

#### Implementation guidance:

##### Management Period 3 (2035-2040)

- Amend the Official Plan, Zoning By-law, Landscaping Requirements for Development manual, Development Manual, Intensification Guidelines, and other applicable policies and guidelines to include land use-based tree canopy cover targets for new and infill developments. Targets to be determined in consultation with internal and external partners and the community. Upper-end targets according to existing land use categories (i.e., zoning districts) are listed below. Targets may be further refined according to specific zoning categories per zoning district.
  - Commercial: 15%
  - Green: No net loss of canopy
  - Industrial: 10-20%
  - Institutional: 15-25%
  - Manufacturing: 10-20%
  - Residential (Med/High Density Housing; optional/aspirational target for Low density): 15-20%
- Develop guidelines for site-based canopy cover assessment and projections based on proposed landscaping/tree establishment and 'grow-out' credits for protection of existing tree canopy. Refer to Town of Oakville *North Oakville Strategic Urban Forest Management Plan (2012)* and *Development Application Guidelines: Canopy cover plan and canopy calculation chart* for reference.
- Where appropriate, require climate change and energy studies for proposed new developments to assess changes to vegetation cover and canopy and resultant impact on heat island effects. Encourage and prioritize shade provision through on-site tree protection and tree establishment.

**Lead:** Planning and Development Services

**Partners (int.):** Parks – Forestry & Natural Areas – Forestry Team

**Resources:** Dependent upon supporting resource availability in partner divisions

#### Targets/outcomes:

- Land use-based tree canopy cover targets are integrated into applicable City planning policies by the end of Management Period 3 (2035-2040).

#### Related performance criteria:

T1: Relative Tree Canopy Cover

R2: Canopy Cover Assessment and Goals

R7: Tree Establishment Planning and Implementation

### Action 3.1.4 – Develop urban forest zoning provisions

#### Implementation guidance:

##### *Management Period 3 (2035-2040)*

- Amend the Official Plan, Zoning By-law, Landscaping Requirements for Development manual, Development Manual, Intensification Guidelines, and other applicable policies and guidelines to include zoning provisions supportive of tree establishment and Urban Tree Canopy (UTC) growth. Examples of zoning provisions that may be supportive of the urban forest include:
  - Requirements for consolidation of pervious/soil areas to provide minimum pervious area and/or soil volume to support tree growing/rooting environments
  - Maximum impervious cover (i.e., minimum pervious cover) limitations that support tree canopy cover
  - Restrictive maximum site/lot coverage allowances
  - Increased setback requirements, including for below-ground structures (e.g., parking garages) that may impact adjacent existing tree rooting environments or future tree rooting environments/soils
  - Screening (buffer) and general landscaping requirements, including 'baseline' tree planting/landscaping quantities
  - Tree canopy cover and/or tree density requirements for parking lots and other impervious surfaces
- Refer to City of Ottawa R4 Zoning By-law Review and adopted amendments and City of Toronto Green Standard as exemplars.

**Lead:** Planning and Development Services

**Partners (int.):** Parks – Forestry & Natural Areas – Forestry Team

**Resources:** Dependent upon supporting resource availability in partner divisions

#### **Targets/outcomes:**

- Official Plan and zoning by-law are amended with appropriate provisions supportive of tree establishment and UTC growth by the end of Management Period 3 (2035-2040).

#### **Related performance criteria:**

T1: Relative Tree Canopy Cover

R2: Canopy Cover Assessment and Goals

R7: Tree Establishment Planning and Implementation

### Action 3.1.5 – Promote and enhance the right-of-way tree establishment program

#### Implementation guidance:

##### *Management Period 2 (2030-2035)*

- Promote the existing right-of-way 'free tree' program, whereby residents can request a tree to be planted in the municipal right-of-way fronting residential properties.
- Develop an awareness/promotion campaign, including social media messaging, bus shelter/bench advertising, and traditional print media advertising.
- Enhance the program by increasing the variety of tree species available for planting, enhancing post-planting maintenance, and expanding to select non-residential private properties (e.g., places of worship, nurseries, residential care facilities, etc.)
- Enable planting on private property adjacent to the right-of-way if there is insufficient space to plant on the municipal property, subject to formalized agreement with the adjacent property owner to accept ownership and maintenance responsibility for the tree in perpetuity. Refer to Oshawa Trees By-law (78-2008) for additional implementation guidance.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners:** Not applicable

**Resources:** Supported by additional resources in Action Item 2.1.6  
\$ (one-time funding)

#### Targets/outcomes:

- Right-of-way 'free tree' program awareness/promotion campaign in effect by the end of Management Period 2 (2030-2035)
- Program expanded to select non-residential private properties
- Initial target program uptake of 200 trees per year by 2035 and 5% year-over-year growth

**Related performance criteria:** C5: Citizen Involvement and Neighborhood Action  
C6: General Appreciation of Trees as a Community Resource  
R7: Tree Establishment Planning and Implementation

## Objective 3.2 – Improve tree establishment outcomes

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### Action 3.2.1 – Develop new, and strengthen and consolidate existing, tree establishment guidelines, standards, and specifications

#### Implementation guidance:

##### *Management Period 2 (2030-2035)*

- In conjunction with other affected City divisions, undertake a complete technical review of relevant tree establishment guidelines, standards, specifications, and policies, including, among others:
  - City Centre Planning District – Streetscaping Standards Manual
  - Engineering standard drawings and specifications
  - Guidelines for Tree Planting on the City Right of Way brochure
  - Landscape Requirements for Development in Windsor Manual
  - Riverside Drive Streetscape Standards Manual
  - Tree planting contract tender specifications and standards
  - Urban design master plans
- Consolidate tree establishment guidance in a single overarching guidelines, standards, and specifications compendium document, to be applicable for all tree establishment scenarios on existing or future public lands in Windsor, including forestry operations, naturalization/stewardship, planning applications (greenfield and infill), and capital projects. Ensure that existing inter-document contradictions and conflicts in guidelines, standards, and specifications are resolved
- Enhance tree planting stock quality requirements, including stringent specifications for tree stock root quality, root ball to caliper ratios, structural condition, and health.

### Action 3.2.1 – Develop new, and strengthen and consolidate existing, tree establishment guidelines, standards, and specifications (cont'd)

- Enhance standards for tree growing environment design elements (e.g., soil volume and quality, drainage, irrigation, etc.), such as:
  - Mature tree size-correlated soil volumes for capital projects and new development.
  - Guidelines for engineered growing environment solutions (e.g., soil cells, suspended pavements, etc.)
  - Siting of utilities below sidewalks, or integrating utility duct banks below tree rooting environments, to maximise available soil volume for tree root growth.
- Upon completion of review and consolidation, undertake cross-departmental and public outreach to increase awareness of updated guidelines and tree establishment best practices, and to ensure consistent application of guidelines to all applicable scenarios.
- Refer to City of Kitchener “Development Manual – Urban Forest Appendix” as example of best practice for integrating soil volume requirements into a variety of development and design scenarios.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Engineering  
 Planning & Development Services  
 Public Works  
 Transit Windsor

**Partners (ext.):** Development community (e.g., Windsor Essex Home Builders' Association)

**Resources:** \$\$ (one-time funding)

**Targets/outcomes:**

- Tree establishment guidelines, standards, and specifications manual is effect by the end of Management Period 2 (2030-2035).

**Related performance criteria:** R7: Tree Establishment Planning and Implementation  
 R8: Growing Site Suitability  
 Climate Change Adaptation Plan Action 5.6

### Action 3.2.2 – Improve tree establishment practices

#### Implementation guidance:

##### ***Planting sites:***

- Integrate engineered tree growing environment solutions (e.g., soil cells) into urban hardscape area retrofits to ensure provision of minimum soil volume requirements in accordance with updated tree establishment guidelines (see Action Item 3.2.1).
- Ensure tree species are appropriately matched to planting sites based on site characteristics, including mature tree size, soil, drainage, compaction, salt exposure, etc. (see Action Item 3.1.2).

##### ***Nursery stock and planting:***

- Strengthen tree planting contract specifications regarding nursery stock quality, pre- and post-planting inspection, and rejection of substandard materials and installations.
- For new developments, establish clear sequencing requirements to ensure that trees are only planted after substantial completion of site works (e.g., building, paving, curb/driveway construction, sodding, etc.)

##### ***Post-planting care:***

- For City operations plantings, require watering contractors to provide documented verification, including GPS track logs and work logs, within the contract period. Monitor and audit contractor performance.
- For capital projects, require landscape contractor reporting of adequate maintenance within the warranty period and explore opportunity to transition new capital project trees to City watering and mulching operation responsibility immediately after planting.
- Increase effectiveness of resident and business engagement efforts in post-planting care (see Action Item 5.2.5)

##### ***Inspection:***

- Increase rigor and frequency of pre-planting inspection of trees supplied under City planting operations contracts and capital project to ensure only high-quality nursery stock is planted.

### Action 3.2.2 – Improve tree establishment practices (cont'd)

- Increase rigor and frequency of post-planting inspections of contractor-planted trees to ensure implementation of best practices. Ensure that a large sample (min. 20%) of contractor-planted caliper street and park trees is inspected by a qualified arborist. Undertake inspection of all new capital project trees by qualified Forestry Team staff and interface with City capital project managers to advise of deficiencies.
- For trees planted in new developments, require documented and comprehensive inspection by a qualified third party of tree planting stock and installation. Ensure that trees to be assumed by the City are comprehensively inspected prior to assumption by a qualified arborist (in-house staff or City contractor).
- Require developers to submit 'as-built' tree inventory data for all new trees in a digital format compatible with the City's geospatial tree inventory, to be integrated with the municipal tree inventory and asset management systems (see Action Item 1.1.1).

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Engineering  
Planning & Development Services  
Public Works  
Transit Windsor

**Partners (ext.):** Development community (e.g., Windsor Essex Home Builders' Association)

**Resources:** Supported by additional resources in Action Item 2.1.6

**Targets/outcomes:**

- Tree procurement and planting contracts are reviewed and strengthened.
- Development guidelines are updated to require tree planting sequencing.
- Watering contractors submit GPS and work logs, and performance audits are undertaken.
- Every contract-planted caliper tree is inspected before installation and a selection is inspected for planting quality.
- All caliper trees planted under capital projects are inspected.
- Tree maintenance for developer-planted trees is documented and trees are inspected prior to assumption.
- Developers submit 'as built' tree inventory prior to City assumption of tree assets.

**Related performance criteria:** R7: Tree Establishment Planning and Implementation  
Climate Change Adaptation Plan Action 5.6

### Action 3.2.3 – Transition to City-led tree establishment delivery for all new developments

#### Implementation guidance:

##### *Management Period 1 (2025-2030)*

- Enhance the existing process currently allowing developers of new communities to exercise the option for City-led tree planting and maintenance, thereby removing developer obligation to plant and maintain trees prior to City acceptance. Developers that exercise the option for City-led planting will be required to remit a full-cost tree planting fee that adequately accounts for the cost of tree procurement, delivery, installation, warranty, and three years of post-planting maintenance (including inspection, watering, mulching, weeding, and one round of structural pruning).

##### *Management Period 2 (2030-2035)*

- Eliminate the option for developers to plant trees in new development and transition sole tree establishment responsibility on existing and future public lands to the City of Windsor.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Planning & Development Services

**Partners (ext.):** Development community (e.g., Windsor Essex Home Builders' Association)

**Resources:** Supported by additional resources in Action Item 2.1.6

#### **Targets/outcomes:**

- Fees for City-led tree planting in new developments are adequate to account for full costs by the end of Management Period 1 (2025-2030).
- The City of Windsor delivers all tree establishment in new communities by the end of Management Period 2 (2030-2035).

**Related performance criteria:** R7: Tree Establishment Planning and Implementation

### Action 3.2.4 – Undertake performance and survival monitoring for all newly planted trees

**Implementation guidance:**

- Undertake post-planting survival inspection of all City-planted street and park caliper trees 1 and 3 years after planting and in conjunction with young tree pruning program. Sample the population to build local tree species performance profiles and inform future tree establishment planning.
- To be supported by action items 2.1.6 (Forestry Technician position) and 2.2.3 (young tree pruning).

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners:** Not applicable

**Resources:** Supported by additional resources in Action Item 2.1.6

**Targets/outcomes:**

- Post-planting survival of all City-planted street and park caliper trees is inspected and documented.

**Related performance criteria:** R7: Tree Establishment Planning and Implementation  
Climate Change Adaptation Plan Action 5.6

## Objective 3.3 – Promote urban forest resilience and ecological function

### Action 3.3.1 – Develop long-term seed sourcing and growing contracts

#### Implementation guidance:

##### *Management Period 2 (2030-2035)*

- Engage with local growers to determine program requirements to establish long-term caliper and small-stock tree growing agreements focusing on locally-sourced seed, locally-grown stock, high-quality root production and root ball management, and structural development, ensuring adequate production volumes to meet the City's long-term caliper tree planting requirements.
- Engage with local environmental organizations to develop a Memorandum of Understanding and capacity funding agreements to engage members in local seed collection for priority species.

##### *Management Period 3 (2035-2040)*

- Begin taking delivery of contract-grown trees to supplement contractor-provided trees for tree establishment programs.

##### *Management Period 4 (2040-2045)*

- Fulfil 75% of City tree planting requirements with contract-grown trees.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (ext.):** External organizations (e.g., Friends of Ojibway Prairie, Essex County Field Naturalists' Club, WindsorEssex Community Foundation, Little River Enhancement Group, Windsor Environment and Climate Change Advisory Committee)  
Local and regional tree growers

**Resources:** Supported by additional resources in Action Item 2.1.6 ; \$ (seed collection; annual)

#### Targets/outcomes:

- Seed collection and long-term tree growing agreements in place by the end of Management Period 2 (2030-2035).
- 75% of City tree planting requirements fulfilled with contract-grown trees by the end of Management Period 4 (2040-2045).

**Related performance criteria:** R7: Tree Establishment Planning and Implementation  
Climate Change Adaptation Plan Action 5.6

### Action 3.3.2 – Increase tree taxonomic diversity in tree establishment programs

**Implementation guidance:**

*Management Period 1 (2025-2030)*

- Develop a consolidated tree species/cultivar selection matrix tool or regularly updated static tree species list delineating tree species site tolerances and preferences, physical and biological characteristics, functional groups, bioclimatic envelopes, and appropriate planting scenarios and typologies, for use in all tree establishment planning scenarios on public and private lands.
- Develop neighbourhood-based tree taxonomic diversity assessments to inform tree establishment planning. Do not plant tree species exceeding 10% or genera exceeding 15% in any neighbourhood. Aim to increase tree taxonomic and functional diversity through tree establishment programs and operations (i.e., tree replacement, vacant planting site infill, park naturalization, etc.) at the block and neighbourhood level. Cease or significantly reduce planting of overly abundant and inappropriate tree species, including honey locust, Norway maple, silver maple and cultivars including *A. x freemanii*, littleleaf linden, Callery pear, and tree lilac. Increase use of underutilized species.

*Management Period 2 (2030-2035)*

- In conjunction with tree establishment policy update and consolidation (see Action Item 3.2.1), integrate tree taxonomic and functional diversity and resilience guidelines into updated guidelines and standards:
  - Apply ‘5% genus limit rule’ to new planting plans at the block and neighbourhood level, with allowance for site-specific exemptions subject to Forestry approval
  - Require that all species be bioclimatically appropriate for Windsor’s projected climate scenario under an SSP5-8.5 pathway

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

<b>Partners:</b>	Local and regional tree growers	<b>Resources:</b>	\$ (tree species matrix/list development; one-time funding) Supported by additional resources in Action Item 2.1.6
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**Targets/outcomes:**

- An updated and comprehensive tree selection matrix/list is developed by the end of Management Period 1 (2025-2030).
- Urban forest diversity targets are integrated into tree establishment policies by the end of Management Period 2 (2030-2035).

<b>Related performance criteria:</b>	R7: Tree Establishment Planning and Implementation Climate Change Adaptation Plan Action 5.6
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### Action 3.3.3 – Undertake tree species performance trials

#### Implementation guidance:

##### *Management Period 1 (2025-2030)*

- Undertake local tree species/cultivar suitability trials by obtaining and planting at least 40 caliper-sized trees per type. Collaborate with local growers to select appropriate trial species/cultivars (types). Trial at least 15 novel or underutilized types that:
  - Are uncommon, underutilized, or unutilized in Windsor.
  - Are large-growing and known to provide urban forest services and exhibit other desirable characteristics (e.g., species vigor, structural integrity, low allergenicity, aesthetic value, etc.)
  - Are native to warmer (i.e., more southerly) Plant Hardiness Zones and climates, and are likely to be 'climate change ready' in Windsor.
  - Favour selection of North American species or derived cultivars. However, non-native and hybrid trees should also be trialed in settings away from natural areas if known to be non-invasive.
- Plant trial trees across different settings on City-owned lands (e.g., parks, boulevards, hardscapes, softscapes, etc.) according to known site tolerances and preferences.
- Ensure trees are geospatially inventoried and adequately maintained (watered, pruned, mulched) throughout the trial period.
- Undertake detailed assessment at least quarterly for first 3 years and annually thereafter for a minimum trial period of five years. Measure/assess tree growth, health, condition, and maintenance needs.
- Use trial findings to revise tree species/cultivar lists for City operations, capital projects, and other scenarios.
- Seek in-kind support/partnership from local tree suppliers/growers and academic institutions, and integrate trials with capital projects, to reduce set-up and monitoring costs.
- Refer to *Climate ready street tree trials: A best practice guide* (Manea et al., 2021).

### Action 3.3.3 – Undertake tree species performance trials (cont'd)

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (int.):** Engineering

**Partners (ext.):** Local and regional academic institutions

**Resources:** Supported by additional resources in Action Item 2.1.6  
\$ (annual)

**Targets/outcomes:**

- At tree species trial program is in place by the end of Management Period 1 (2025-2030)
- At least 600 trial trees are established and under observation by the end of Management Period 2 (2030-2035).

**Related performance criteria:** R7: Tree Establishment Planning and Implementation  
R14: Native Vegetation  
Climate Change Adaptation Plan Action 5.6

## Objective 3.4 – Pursue urban forest equity for all community members

### Action 3.4.1 – Conduct an urban forest equity assessment

#### Implementation guidance:

#### *Management Period 2 (2030-2035)*

- In conjunction with UTC reassessment (see Action Item 1.3.3), conduct an urban forest equity score analysis using a methodology comparable to the American Forests Tree Equity Score Analysis (TESA) tool (not currently available for widespread use in Canada):
  - Utilize various data including tree canopy, building density, income and employment, race, surface temperature, health, language, age, and others, to inform equity analysis and analyse the impact of different planting scenarios on equity metrics.
  - Monitor the status of TESA availability in Canada and utilize if/when available.
- Use urban forest equity assessment to guide and inform tree establishment planning.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Engineering – Geomatics Division

**Resources:** \$ (every ten years)

#### **Targets/outcomes:**

- An urban forest equity assessment is conducted by the end of Management Period 2 (2030-2035) and used to inform tree establishment planning.

#### **Related performance criteria:**

R2: Canopy Cover Assessment and Goals

R3: Environmental Justice and Equity

R7: Tree Establishment Planning and Implementation

### Action 3.4.2 – Utilize priority assessment mapping to plan and implement tree establishment

#### Implementation guidance:

##### *Management Period 1 (2025-2030)*

- Utilize series of existing prioritization maps developed as part of the 2020 Urban Tree Canopy Assessment study to inform annual tree establishment plans in accordance with targets established below.
- Wherever possible and in accordance with UFMP Phase 1 Engagement community input, prioritize tree establishment in new or recently built communities, areas with low tree canopy, parks and facility grounds, and low-income neighbourhoods. Other priority areas include adjacent to natural areas and near bike lanes and walking paths. Mature established neighbourhoods, main streets and arterial roads, and commercial/industrial areas are identified as lower-priority zones.

##### *Management Period 3 (2035-2040)*

- In conjunction with UTC reassessment (see Action Item 1.3.3) and Urban Forest Equity Assessment (see Action Item 3.4.1), assess existing and projected impact of targeted planting in priority areas on Urban Tree Canopy (UTC) and priority metrics and re-evaluate planting targets and allocations as required.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners:** Not applicable

**Resources:** Supported by additional resources in Action Item 2.1.6

#### **Targets/outcomes:**

- Target minimum 40% of caliper tree planting in IMS districts identified as priority areas for urban heat island mitigation in Management Period 1 (2025-2030).
- Target minimum 60% of total caliper tree planting in IMS districts identified as high priority areas for planting prioritization in Management Period 1 (2025-2030).
- Targets re-evaluated in Management Period 3 (2035-2040).

#### **Related performance criteria:**

R2: Canopy Cover Assessment and Goals

R3: Environmental Justice and Equity

R7: Tree Establishment Planning and Implementation

City of Windsor Urban Forest Management Plan

Strategic Action Plan

# **Goal 4.**

## **Protect Windsor's urban forest**

## Objective 4.1 – Improve tree protection outcomes through the planning process

### Action 4.1.1 – Develop a tree protection policy and create new, and strengthen and consolidate existing, tree protection guidelines, standards, and specifications

#### Implementation guidance:

#### *Management Period 1 (2025-2030)*

- Develop a comprehensive tree protection policy for City-owned and significant private trees, to be applicable both within and outside of the planning process. In addition to standard policy elements (purpose, definitions, scope, etc. – refer to Appendix 3 - Compendium of Best Practices in the Windsor UFMP Key Findings and Directions Report), the policy should include:
  - Procedures/process map for tree protection plan submission and review, tree protection installation and inspection, tree injury mitigation, and other elements.
  - Technical specifications for implementation of tree protection measures, including Tree Protection Zones (TPZ) and barriers, root-sensitive excavation and grading, root pruning, soil compaction protection, trunk protection, and others.
  - Technical detail drawings for standard tree protection measures.
  - Security and compensation requirements for tree injury and removal.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Planning and Development Services

**Resources:** \$\$ (policy development; one-time funding)

#### Targets/outcomes:

- Comprehensive tree protection policy in effect by the end of Management Period 1 (2025-2030).

**Related performance criteria:** R9: Tree Protection Policy Development and Enforcement

## Action 4.1.2 – Increase resources and improve processes for tree protection

### Implementation guidance:

#### *Management Period 1 (2025-2030)*

- Supported by Action Item 2.1.6, dedicate a minimum of 0.5 FTE of new Forestry position to tree protection plan (i.e., development and permit application) review and site inspection.
- To align with changes Provincial planning legislation and regulations, require all planning applicants to provide preliminary tree impact assessments and mitigation plans as part of development application Pre-Consultation to ensure tree protection is adequately considered in the early stages of development planning.
- Continue to ensure that Parks – Forestry & Natural Areas is circulated on all planning applications that may potentially adversely affect existing trees or tree growing environments (i.e., site soils).

#### *Management Period 2 (2030-2035)*

- Allocate an additional minimum of 0.5 FTE of new Forestry Technician position to tree protection plan review and site inspection.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Planning and Development Services

**Resources:** Supported by additional resources in Action Item 2.1.6

### **Targets/outcomes:**

- Minimum of 0.5 FTE of new Forestry Technician position allocated to tree protection by end of Management Period 1 (2025-2030).
- Minimum of 1 FTE (total) of Forestry Technician position allocated to tree protection by end of Management Period 2 (2030-2035).

**Related performance criteria:** R9: Tree Protection Policy Development and Enforcement

### Action 4.1.3 – Strengthen tree-related site inspection and monitoring

**Implementation guidance:**

*Management Period 1 (2025-2030)*

- Through implementation of the tree protection policy (see Action Item 4.1.1) and supported by additional resources for tree protection (see Action Item 4.1.2), increase the frequency of development site monitoring and inspection by City staff to ensure compliance with approved tree protection plans.
- Require applicants with development approval to submit site condition reports on a regularly scheduled basis or in conjunction with significant site disturbance to provide evidence of compliance with approved tree protection plans. Trigger field inspections and, if necessary, other enforcement actions by City staff in the event of failure to submit adequate reports.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Planning and Development Services

**Resources:** Supported by additional resources in Action Item 2.1.6

**Targets/outcomes:**

- Procedures for development site tree protection monitoring in place by the end of Management Period 1 (2025-2030).

**Related performance criteria:** R9: Tree Protection Policy Development and Enforcement

### Action 4.1.4 – Strengthen tree security and compensation requirements

#### Implementation guidance:

##### *Management Period 1 (2025-2030)*

- Through implementation of the tree protection policy (see Action Item 4.1.1), begin the process of retaining tree protection securities and ensure consistent implementation of compensation requirements.

#### **Securities:**

- Establish a process to value, itemize, and retain refundable securities for the protection of, at minimum, publicly-owned street and park trees against unauthorized injury or removal during the course of site development. The value of securities should reflect, at minimum, appraised tree asset value and an additional 20% 'damage holdback' to account for additional costs which may be incurred (administration, removal, etc.).

#### **Compensation:**

- Integrate the City's existing Tree Replacement Protocol (i.e., aggregate/equivalent diameter formula) into the tree protection policy and ensure consistent application for all scenarios requiring removal of City-owned trees.
- Develop compensation formula, and require compensation for, unauthorized tree injury within and outside the development process.

##### *Management Period 2 (2030-2035)*

- Expand tree injury and removal compensation requirements (modified/reduced from City tree requirements) to significant private trees.

**Lead:** Planning and Development Services

**Partners (int.):** Parks – Forestry & Natural Areas – Forestry Team

**Resources:** Dependent upon supporting resource availability in partner divisions

#### **Targets/outcomes:**

- Policies and procedures for tree securities and compensation in place by the end of Management Period 1 (2025-2030).

#### **Related performance criteria:**

R9: Tree Protection Policy Development and Enforcement

## Objective 4.2 – Improve tree protection outcomes outside the planning process

### Action 4.2.1 – Develop a 'Tree Declaration' system for non-planning applications

#### Implementation guidance:

#### *Management Period 1 (2025-2030)*

- Incorporate a Tree Declaration questionnaire as part of all Building Permit application forms and processes to facilitate screening for potential impacts upon City-owned trees.
- Forward applications with 'positive' (i.e., tree is present) Tree Declarations to Forestry in a timely manner for review within legislated application review timelines to ensure compliance with relevant tree protection requirements and by-law(s).
- Establish full cost recovery for review of tree-related components for permit and other applications through appropriate tree injury and removal permit fees and/or other mechanisms (e.g., service fees).

#### *Management Period 2 (2030-2035)*

- Subject to implementation and outcomes of Action Item 4.2.3, expand scope of Tree Declaration to include other regulated/significant trees.

**Lead:** Building Services

**Partners (int.):** Parks – Forestry & Natural Areas – Forestry Team

**Resources:** Dependent upon supporting resource availability in partner divisions

#### **Targets/outcomes:**

- Tree Declaration in place on Building Permit application forms by the end of Management Period 1 (2025-2030).
- Procedures in place to expedite Forestry review of relevant Building Permit applications by the end of Management Period 1 (2025-2030).
- Tree Declaration expanded to include other regulated trees by the end of Management Period 2 (2030-2035).

**Related performance criteria:** R9: Tree Protection Policy Development and Enforcement

## Action 4.2.2 – Manage natural areas/urban forest encroachment

### Implementation guidance:

#### *Management Period 2 (2030-2035)*

- Develop criteria for assessment of the extent, intensity, and impact of encroachment into City-owned natural areas and other lands.
- Undertake a combination of geospatial (aerial imagery) and ground-based assessment of the extent, intensity, and impact of encroachment in City-owned natural areas and other forested lands. Develop an encroachment assessment report and management plan.
- Undertake necessary and prioritized education and enforcement action to mitigate the adverse impacts of encroachment and investigate opportunities to permit acceptable levels of encroachment within existing or revised encroachment permitting frameworks.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Engineering  
Legal and Real Estate Services  
Planning and Development Services  
Purchasing, Risk Management & Provincial Offences

**Resources:** Management Period 2: \$\$-\$\$\$

### Targets/outcomes:

- Natural areas/urban forest encroachment assessment and report completed by the end of Management Period 2 (2030-2035).
- Encroachment enforcement action/permitting underway by the end of Management Period 2 (2030-2035).

**Related performance criteria:** R9: Tree Protection Policy Development and Enforcement  
Climate Change Adaptation Plan Action 5.1

### Action 4.2.3 – Strengthen protection of privately-owned trees

#### Implementation guidance:

##### *Management Period 1 (2025-2030)*

- Begin extensive community and partner consultation for, draft, and enact a private tree by-law.
  - Consider multiple options for regulation, including size-based regulation (e.g., DBH limits), significant species, other significant attributes, allowable annual exemptions, etc.
  - Ensure appropriate exemptions and a streamlined permitting process to enable reasonable tree injury and removal requests, subject to appropriate levels of tree replacement and/or in-lieu compensation.
- Ensure adequate public outreach and education in advance of by-law rollout, including extensive urban forest education campaign to reduce incidence of pre-rollout tree removal.
- To further reduce possibility of pre-emptive tree removal, consider two implementation options, including:
  - A 'soft phase-in' period initially requiring notification, transitioning to permitting and full regulation over time, to build community familiarity with and acceptance of the tree by-law.
  - An interim significant tree regulation by-law (with a permitting process) followed by community consultation to develop a more context-appropriate by-law.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Engineering  
 Legal and Real Estate Services  
 Planning and Development Services  
 Purchasing, Risk Management & Provincial Offences

**Resources:** Additional resources not yet included in Action Item 2.1.6 will be required; \$\$ (annual)

**Targets/outcomes:** Private tree by-law enacted, or phase-in underway, by the end of Management Period 1 (2030-2035).

**Related performance criteria:** R9: Tree Protection Policy Development and Enforcement

## Action 4.2.4 – Improve tree protection on capital projects and utility operations and maintenance

### Implementation guidance:

#### *Management Period 2 (2030-2035)*

- Develop a streamlined 'internal permitting' system for City tree injury and removal on capital projects and utility operations and maintenance (O&M).
  - Require City departments/divisions delivering capital projects that affect trees to adhere to tree protection policy requirements (see Action 4.1.1) including tree protection planning, implementation of tree protection measures, site monitoring, securities and compensation, and liaison with Parks – Forestry & Natural Areas – Forestry Team.
  - Require external utilities to adhere to tree protection requirements and liaise with Parks – Forestry & Natural Areas – Forestry Team to mitigate adverse impacts of O&M works in proximity to trees. Require root-sensitive excavation, root pruning, arborist supervision, and similar tree protection methods for utility works affecting trees in the right-of-way and other City properties.
- Ensure that tree protection is adequately budgeted in all capital projects.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Engineering  
Planning and Development Services  
Public Works

**Partners (ext.):** Third-party utility providers

**Resources:** Additional resources not yet included in Action Item 2.1.6 will be required

**Targets/outcomes:** Enhanced procedures for capital project tree protection in place by end of Management Period 2 (2030-2035).

**Related performance criteria:** C1: Municipal Agency Cooperation  
C2: Utilities Cooperation  
R9: Tree Protection Policy Development and Enforcement

### Action 4.2.5 – Update the City tree by-law

#### Implementation guidance:

##### *Management Period 2 (2030-2035)*

- Repeal existing by-law No. 135-2004 (Trees on Highways) and replace with a new City tree protection by-law that reflects best practices and elements for municipal tree protection by-laws.
- Expand tree protection to all City-owned trees, including trees in and on streets, parks, facilities, natural areas, and other City lands.
- Establish a permitting system for City tree injury and removal, subject to typical permit application, reporting, mitigation, security, and compensation requirements in alignment with the tree protection policy (see Action Item 4.1.1).

**Lead:** Parks – Forestry & Natural Areas – Forestry Team

**Partners (int.):** Engineering  
Legal and Real Estate Services  
Planning and Development Services  
Public Works  
Purchasing, Risk Management & Provincial Offences

**Partners (ext.):** Third-party utility providers

**Resources:** Additional resources not yet included in Action Item 2.1.6 will be required

**Targets/outcomes:** New City tree protection by-law enacted by the end of Management Period 2 (2030-2035).

**Related performance criteria:** C1: Municipal Agency Cooperation  
C2: Utilities Cooperation  
R9: Tree Protection Policy Development and Enforcement

# **Goal 5.**

## **Engage everyone in Windsor's urban forest**

## Objective 5.1 – Promote community awareness of the urban forest

### Action 5.1.1 – Expand and enhance urban forest awareness and educational programming

#### Implementation guidance:

- Expand on successful existing programs, and develop new urban forestry-focused educational programming. Programming should address, promote, and raise awareness of, among other topics and issues:
  - The environmental, economic, and societal services and benefits provided by the urban forest, including the importance of protecting large mature trees and their leaf area and canopy.
  - Windsor's unique Carolinian tree species.
  - Urban forest management programs and policies in Windsor, including tree protection by-laws and requirements.
  - Basic tree care and maintenance, including proper tree planting, watering, mulching, weeding, and basic pruning.
  - Current and emerging threats and challenges to the urban forest (e.g., pests, diseases, invasive species), including opportunities for engagement in monitoring and reporting and effective prevention and control methods.
- Awareness and educational initiatives should be hosted at the Ojibway Nature Centre and other appropriate City venues and delivered in the community by Forestry Team and Natural Areas Team staff. Example initiatives may include:
  - Green industry engagement seminars to help local arborists, environmental consultants, and development proponents understand the City's tree-related by-laws, policies, and guidelines.
  - Tree walks, tree tour, and tree-related educational programming (e.g., 'tree tenders' training).
  - Tree planting and maintenance (e.g., young tree watering and mulching) webinars/seminars for community members.
  - Tree planting and maintenance demonstrations in community parks and schools, particularly in conjunction with other community events or themes (e.g., Earth Day, National Tree Day, National Forest Week, etc.)
  - 'Pop-up' forestry staff attendance with educational materials at community events and festivals.
  - Educational curriculum (K-12) support, including educational materials, field trips, and in-class presentations.

### Action 5.1.1 – Expand and enhance urban forest awareness and educational programming (cont'd)

- Conduct urban forest outreach and ongoing engagement with targeted sectors including, but not limited to:
  - Development and construction industry (e.g., Windsor Essex Home Builders' Association, Windsor Construction Association, etc.)
  - Large institutional, commercial, and industrial landowners
  - Local environmental organizations
  - Business Improvement Areas (BIAs)
  - Neighbourhood and community groups
- To be supported by Forestry and Natural Areas Coordinator position (see Action Item 2.1.6) upon implementation.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (int.):** Communications and Customer Services

**Partners (ext.):** Local school boards  
Windsor Environment and Climate Change Advisory Committee

**Resources:** Supported by additional resources in Action Item 2.1.6

**Targets/outcomes:**

- No specific deliverables or targets identified.

**Related performance criteria:**

- C4: Involvement of Large Private and Institutional Landholders
- C5: Citizen Involvement and Neighborhood Action
- C6: General Appreciation of Trees as a Community Resource
- Climate Change Adaptation Plan Action 5.8

## Action 5.1.2 – Enhance existing, and develop new, urban forestry educational materials

### Implementation guidance:

- Undertake a significant overhaul of the City of Windsor 'Home – Residents – Parks and Forestry – Urban Forest' webpages to create a comprehensive urban forestry portal.
  - Portal should include pages related to: Windsor's urban forest and City urban forestry programs; community tree event promotion; urban forest guidelines, standards, specifications, regulations; tree planting and maintenance; threats (e.g., pests, diseases, and invasive species); tree inventory mapping; service request submission and tracking; tree planting tracker; and others.
  - Ensure content is regularly updated and integrated with social media content.
- Develop a coherent social media brand/image across major social media platforms (e.g., Instagram, Tik Tok, Facebook, and X), with platform-specific content and cross-platform linkages:
  - Develop "evergreen", "seasonal", and "responsive" social content.
    - Evergreen content can be posted at any time to maintain engagement and interest, and may include facts, tips (e.g., tree maintenance), photos, links to external sources, etc.
    - Seasonal content may include seasonally-specific tree maintenance tips (e.g., watering/mulching, pruning, pest/disease monitoring and management, planting, salt use reduction in winter, etc.) or other periodic content (e.g., Arbor Day, National Tree Day/Forest Week, elm/oak pruning bans/windows, etc.) During the growing season, provide weekly tree updates on tree watering needs in response to weather conditions and provide clear guidance on recommended watering frequency/volume requirements.
    - Responsive content is developed in timely response to specific conditions or situations, and may require rapid development and posting (e.g., drought or emergency response, pest/disease management).
  - Establish a process for rapid review, approval, and posting of high-priority content.
  - Develop and use video-based content when relevant and feasible, due to significantly higher engagement rates.
  - Leverage and interact with existing local environmental and 'green network' partners to share and amplify content.

- Develop new and enhance existing educational materials, such as:
  - Improved informational door hangers, to be distributed to property owners adjacent to newly planted trees or other significant trees (e.g., oak trees – oak wilt awareness, trees to be removed and replaced, etc.)
  - ‘Hands-on’ interactive educational materials for use and display at community events and educational settings, such as visually interesting wood pieces and cross-sections (wood ‘cookies’), preserved insects (tree pests) and fungi, experiment aids, etc.
  - Slideshow presentations for delivery in educational settings.
- To be supported by Forestry and Natural Areas Coordinator position (see Action Item 2.1.6) upon implementation.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (int.):** Communications and Customer Services

**Partners (ext.):** Local school boards  
Windsor Environment and Climate Change Advisory Committee

**Resources:** Supported by additional resources in Action Item 2.1.6

**Targets/outcomes:**

- No specific deliverables or targets identified.

**Related performance criteria:** C5: Citizen Involvement and Neighborhood Action  
C6: General Appreciation of Trees as a Community Resource

### Action 5.1.3 – Develop an ‘outstanding tree’ program

#### Implementation guidance:

#### *Management Period 2 (2030-2035)*

- As an educational and awareness tool, develop a voluntary, nomination-based outstanding tree program recognizing significant public and private trees across the City:
  - Develop an online nomination form, allowing users to submit tree location or pinpoint location using online mapping/Google Streetview, and to upload photographs.
  - Allow community members to nominate trees based on criteria such as size, species, location, age, form, condition, historical value/connections, fruit, etc.
  - To encourage participation and demonstrate that designation does not confer additional regulations, only allow property owners upon which a private tree is situated (i.e., tree owners) to nominate their own private trees.
  - Clarify that nomination and designation does not confer additional regulation. Do not include ‘outstanding tree’ status as a criterion for protection of private trees in future by-law updates or new by-laws.
  - Publicize location of outstanding trees on a dedicated webpage and map. Only publicize location of outstanding private trees with expressed owner permission. Consider installation of recognition plaques for outstanding public trees.
- Encourage an ‘outstanding tree hunt’ in conjunction with other events (e.g., Arbor Day, National Forest Week/Tree Day, Earth Day, etc.)

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (int.):** Communications and Customer Services  
Information Technology

**Partners (ext.):** Community members

**Resources:** Supported by additional resources in Action Item 2.1.6

#### Targets/outcomes:

- ‘Outstanding Tree’ nomination and recognition program in place by the end of Management Period 2 (2030-2035).

**Related performance criteria:** C5: Citizen Involvement and Neighborhood Action  
C6: General Appreciation of Trees as a Community Resource

### Action 5.1.4 – Partner with institutions, agencies, and organizations in urban forest research

#### Implementation guidance:

- Explore potential partnership opportunities with local and regional educational institutions (e.g., universities, colleges), agencies (e.g., Essex Region Conservation Authority), school boards, and other organizations to support and facilitate urban forest research with mutual benefit and management utility. Opportunities for support may include access to study sites, staff time, supervisory and technical oversight, or additional in-kind or other contributions.
- Potential areas of interest and partnership may include:
  - Pest, disease, and invasive species management:
    - Support development of management plans and strategies
    - Support pest, disease, and invasive species monitoring
    - Pilot invasive species (flora) management methods and approaches in City-managed natural areas
  - Urban forest analysis:
    - GIS analysis of urban tree canopy (UTC), potential plantable area (PPA), and other geomatics
    - Inventory analysis and reporting
    - LiDAR and GIS analysis
    - Support for urban forest study and other non-operational data collection and analysis
    - UFMP monitoring metrics—data collection and analysis
  - Urban forest health and climate change adaptation/resilience:
    - Assessment of de-icing salt alternatives
    - Stormwater management in urban forest context
    - Tree performance trial establishment and monitoring (see Action Item 3.3.3)
    - Tree growing environment performance assessment
  - Social dimensions of urban forest management:
    - Urban forest equity assessment
    - Social and health outcomes of urban forest management
  - Other areas of research interest may be identified by partners and should be considered.
- It is generally not advisable to rely on research partners to lead or undertake urban forest data collection with direct bearing on tree maintenance, tree risk management, or other urban forest operations (e.g., tree inventory).

#### Action 5.1.4 – Partner with institutions, agencies, and organizations in urban forest research (cont'd)

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (int.):** Environmental Sustainability and Climate Change Office

**Partners (ext.):** Essex Region Conservation Authority (ERCA)  
Local and regional academic institutions  
Local school boards

**Resources:** Supported by additional resources in Action Item 2.1.6

**Targets/outcomes:**

- No specific deliverables or targets identified.

**Related performance criteria:** Climate Change Adaptation Plan Action 5.8

## Objective 5.2 –

### Support community and partner engagement in urban forest stewardship

#### Action 5.2.1 – Establish urban forest stewardship incentive programs

##### Implementation guidance:

##### *Management Period 1 (2030-2035)*

- Develop a 'tree giveaway' program, whereby residents can sign up to receive one free native tree for establishment on private property in the City of Windsor.
  - Require pre-registration and a scheduled tree pick-up window
  - Distribute a variety of small potted native deciduous trees
  - Provide educational material about proper tree siting, planting, and post-planting maintenance
  - Inform residents of the need to obtain utility locates before planting
  - Request post-planting entry into 'tree tracker' (see Action Item 1.3.3) to track program success
- Seek partnership support from Essex Region Conservation Authority (ERCA) and other external partners for implementation and materials.

##### *Management Period 2 (2030-2035)*

- Conduct feasibility analysis and establish other urban forest stewardship incentive programs, such as:
  - Stormwater fee reduction for tree establishment, stewardship, and protection.
  - Community grant program for small-scale community-led urban forest stewardship projects.
  - Early release of securities or reduction in landscaping or compensation requirements for effective tree protection on development sites.
  - Rebates for obtaining services of a certified arborist for acceptable types of tree maintenance (e.g., maintenance pruning, pest and disease management), with appropriate verification (refer to City of London Tree Canopy Conservation Program for example guidance).
  - Providing recognition for notable contributions to urban forest stewardship (e.g., tree protection, maintenance, or establishment) for individuals, businesses, community groups, and other partners.
  - A tree and plant 'rescue' program

### Action 5.2.1 – Establish urban forest stewardship incentive programs (cont'd)

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (ext.):** Essex Region Conservation Authority (ERCA)

**Resources:** Supported by additional resources in Action Item 2.1.6 (implementation)  
\$\$ (materials – trees; annual)

**Targets/outcomes:**

- Tree giveaway program in place by the end of Management Period 1 (2025-2030).
- Target 1,200 trees given to community members per year.
- Other incentive programs developed and in place by the end of Management Period 2 (2030-2035).

**Related performance criteria:** C5: Citizen Involvement and Neighborhood Action  
C6: General Appreciation of Trees as a Community Resource

## Action 5.2.2 – Support a third-party private tree establishment program

### Implementation guidance:

#### *Management Period 2 (2030-2035)*

- Assess level of interest and request program proposals from interested candidates to develop and deliver (with partial City support) a residential private property tree planting program. Refer to LEAF Backyard Tree Planting Program (Greater Toronto Area and York Region) Reep Green Solutions Backyard Tree Planting Program (Guelph/Kitchener-Waterloo/Cambridge area) for program structure guidance.
- Engage in a Memorandum of Understanding to develop a residential private property tree establishment tree program.

#### *Management Period 3 (2035-2040)*

- Support the third party implementation of a backyard tree planting program. Provide cost and basic logistical support to subsidize program implementation.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (ext.):** To be determined through action item implementation

**Resources:** \$\$-\$\$\$ (annual)

### **Targets/outcomes:**

- Memorandum of Understanding in place with external partner to engage in development of, and provide support for, a residential private property tree establishment program by the end of Management Period 1 (2025-2030).
- Local third party residential private property tree establishment program by in place by the end of Management Period 2 (2030-2035).

**Related performance criteria:** C5: Citizen Involvement and Neighborhood Action  
C6: General Appreciation of Trees as a Community Resource

### Action 5.2.3 – Develop a community-based urban forest monitoring program

#### Implementation guidance:

##### *Management Period 2 (2030-2035)*

- Establish a program for community-based monitoring of naturalization planting areas and project, natural areas, and street and park trees. Integrate monitoring program protocols with naturalization strategy (see Action Item 5.2.4).
  - For naturalization plantings, develop protocols for formalized monitoring and reporting of tree condition and survival rates, weed competition, animal browse, and maintenance/replanting requirements. Refer to Richmond Hill Community Stewardship Program for program guidance.
  - For natural areas and street and park trees, develop protocols and reporting mechanisms for both informal and formalized general urban forest health and condition monitoring, and pest, disease, and invasive species detection and monitoring.
- Enhance online geospatial mapping systems to allow community members to upload basic urban forest data such as potential/available plantable sites, service requests, private tree inventory, nominated outstanding trees, pest/disease reporting, and other tree-specific observations (necessitates data screening, sample-based field verification, and data moderation).
- Encourage general increased public urban forest monitoring and promote public use of EDDMaps Ontario invasive species mapping tool. Use reported data to inform invasive species management planning and response (necessitates field-based verification).
- In general, use reported data for high-level planning; ground-truthing by trained staff or contractors is required for most data if used to inform maintenance operations.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (ext.):** To be determined through action item implementation

**Resources:** Supported by additional resources in Action Item 2.1.6 (implementation)

#### **Targets/outcomes:**

- Community-based urban forest monitoring program in place by the end of Management Period 2 (2030-2035).

**Related performance criteria:** C5: Citizen Involvement and Neighborhood Action

## Action 5.2.4 – Develop a community-engaged naturalization and urban forest stewardship strategy

**Implementation guidance:** *Management Period 2 (2030-2035)*

- Engage with Essex Region Conservation Authority (ERCA), local environmental organizations, neighbourhood groups, and other external partners to develop a community-engaged naturalization strategy that identifies and prioritizes areas of publicly owned land for naturalization and explores potential opportunities for private land naturalization (subject to long-term protection/maintenance agreements).
  - Develop collaborative goals and criteria (including rating/ranking system) for prioritization of sites for naturalization. Example goals may include increasing connectivity, enhancement of targeted ecological functions and habitats, education, beautification, promoting reconciliation with Indigenous Peoples, and others. Example criteria may include proximity to high-quality and degraded natural areas (depending on naturalization goals), habitat patch size, rare/sensitive species, green space connectivity, soil quality/erosion severity, ease/cost of site access, site stability, invasive species presence/absence, public and staff support, visibility, equity, human health, community and Indigenous values, recreational usage patterns, regulatory complexity, and others.
  - Develop a multi-year naturalization plan, including identifying resource requirements, and an implementation and maintenance/monitoring funding strategy. Consider requiring partial matching funding commitments prior to implementation and establishing reserves for maintenance, monitoring, and replacement or top-up planting.
- In the strategy, develop and support other opportunities for community engagement in urban forest stewardship (see Action Item 5.2.5).

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (ext.):** Essex Region Conservation Authority (ERCA)  
 External organizations (e.g., Friends of Ojibway Prairie, Essex County Field Naturalists' Club, WindsorEssex CommunityFoundation, Little River Enhancement Group, Windsor Environment and Climate Change Advisory Committee, local school boards, etc.)  
 Local First Nations, the Métis Nation of Ontario, and Indigenous Peoples' organizations

**Resources:** Supported by additional resources in Action Item 2.1.6 (development)  
 \$\$\$ (implementation; annual)

**Targets/outcomes:**

- Community-engaged naturalization and stewardship strategy developed by the end of Management Period 2 (2030-2035).
- A minimum of three naturalization pilots implemented under the strategy by the end of Management Period 2 (2030-2035).

**Related performance criteria:** C5: Citizen Involvement and Neighborhood Action

## Action 5.2.5 – Increase the frequency, diversity, and impact of community-involved urban forest stewardship opportunities

### Implementation guidance:

#### *Management Period 1 (2025-2030)*

- Provide opportunities for community-involved stewardship, including:
  - Tree planting/naturalization in City-identified and approved priority areas.
  - Basic invasive species control (e.g., weed pulls) in priority areas.
  - More active engagement in right-of-way tree watering, facilitated by face-to-face interaction or telephone conversations between residents and City staff to review tree watering and mulching needs.
  - Free mulch pick-up at City parks and facilities.
- Ensure stewardship opportunities are effectively publicized and coordinated with external partners, as appropriate.

#### *Management Period 2 (2030-2035)*

- Guided by the community-engaged naturalization and urban forest stewardship strategy (see Action Item 5.2.4), develop and implement additional and more impactful opportunities for urban forest stewardship, such as:
  - 'Adopt a Tree' programs for individual or groups of street or park trees, facilitated by online mapping of adopted trees and trees available for adoption, as well as a list of basic maintenance requirements and a request for commitment and reporting.
  - Tree and urban forest monitoring (see Action Item 5.2.3).
  - A neighbourhood 'urban forest ambassador' program to provide guided tree tours and support educational programming.
  - More intensive invasive species management, such as advanced weed pulls (e.g., invasive sapling removal) and pest and disease management (e.g., spongy moth egg mass surveying or removal, oak wilt surveying).

### Action 5.2.5 – Increase the frequency, diversity, and impact of community-involved urban forest stewardship opportunities (cont'd)

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (ext.):** Essex Region Conservation Authority (ERCA)  
External organizations (e.g., Friends of Ojibway Prairie, Essex County Field Naturalists' Club, WindsorEssex Community Foundation, Little River Enhancement Group, Windsor Environment and Climate Change Advisory Committee, local school boards, etc.)  
Local First Nations, the Métis Nation of Ontario, and Indigenous Peoples' organizations

**Resources:** Supported by additional resources in Action Item 2.1.6  
\$\$\$ (implementation; annual)

**Targets/outcomes:**

- No specific deliverables or targets identified.

**Related performance criteria:** C5: Citizen Involvement and Neighborhood Action

## Action 5.2.6 – Facilitate urban forest foods and products utilization

### Implementation guidance:

#### *Management Period 1 (2025-2030)*

- In conjunction with improved urban forest data sharing (see Action Item 1.2.3), identify existing City-owned fruit and nut-bearing trees. Ensure that appropriate disclaimers prohibiting climbing or pruning of any City-owned trees are provided with shared data.
- Pursue collaboration and alignment with City's Community Gardens on Municipal Property program, including potential pilot projects.

#### *Management Period 2 (2030-2035)*

- Guided by the community-engaged naturalization and urban forest stewardship strategy (see Action Item 5.2.4), identify suitable sites for the establishment of urban forest orchards/food forests (i.e., grouped plantings of a variety of fruit- and nut-bearing trees and shrubs), and increase diversity of food-bearing trees in appropriate locations across the City.
- Assess the level of interest and request program proposals from interested candidates concerning group/community maintenance and tending of food-bearing shrubs and monitoring (with reporting to City) of fruit- and nut-bearing City trees.

#### *Management Period 3 (2035-2040)*

- Identify sources of urban wood suitable for higher-value end usage beyond existing disposal methods and programs (e.g., large mature trees nearing end-of-life, burls, etc.)
- Develop a process for pre-registration of interested end-users of urban wood raw materials and identify suitable locations for storage and transfer of wood to end-users as efficiently and cost-effectively as possible.

### Action 5.2.6 – Facilitate urban forest foods and products utilization (cont'd)

**Lead:** Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Team

**Partners (int.):** Environmental Sustainability and Climate Change Office

**Partners (ext.):** To be determined through action item implementation

**Resources:** Supported by additional resources in Action Item 2.1.6

**Targets/outcomes:**

- City-owned fruit and nut-bearing trees identified on *MappMyCity* apps by the end of Management Period 1 (2025-2030).
- At least two urban forest food orchards established by the end of Management Period 2 (2030-2035).
- An urban wood utilization framework is in place by the end of Management Period 3 (2035-2040).

**Related performance criteria:**

C5: Citizen Involvement and Neighborhood Action

C6: General Appreciation of Trees as a Community Resource

R13: Urban Wood and Green Waste Utilization

## Action 5.2.7 – Strengthen intermunicipal cooperation on urban forest management

### Implementation guidance:

#### *Management Period 2 (2030-2035)*

- Engage with Essex Region Conservation Authority (ERCA), Essex County, and area municipalities to coordinate the establishment of an Essex County intermunicipal urban forestry working group.
  - Support the development of a working group Terms of Reference to establish working group goals and meeting protocols. Working group membership to include urban forest managers and/or other staff with responsibility for tree and natural areas management).
  - Working group to engage on topics such as information and cost sharing, pest and disease management, shared resourcing opportunities, urban forest/canopy technical assessments, policy development, best practices, green industry engagement, service and materials procurement, etc.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team  
Essex County

**Partners (ext.):** Essex County area municipalities  
Essex Region Conservation Authority (ERCA)

**Resources:** Supported by additional resources in Action Item 2.1.6

### Targets/outcomes:

- Essex County intermunicipal urban forestry working group established and active by the end of Management Period 2 (2030-2035).

**Related performance criteria:** C7: Regional Collaboration

## Objective 5.3 –

### Advance reconciliation with Indigenous Peoples through urban forestry

#### Action 5.3.1 – Pursue opportunities to integrate Indigenous traditional knowledge, cultural practices, and peoples, into urban forest policies, programs, activities, and practices

##### Implementation guidance:

- Collaborate with Equity, Diversity, Inclusion, Accessibility & Indigenous Affairs to engage and collaborate with local First Nations, the Métis Nation of Ontario, and Indigenous Peoples' organizations in Windsor around questions of urban forest access and incorporation of Indigenous knowledge and perspectives into urban forest management.
- Assess the need for capacity support agreements with local First Nations, the Métis Nation of Ontario, and Indigenous Peoples' organizations in Windsor to support engagement and collaboration.
- Pursue opportunities to support Indigenous-initiated urban forest projects in Windsor through capacity and in-kind support.
- Explore collaborative learning opportunities for City staff about Indigenous issues, especially in relation to the urban forest.
- Encourage non-Indigenous organizations to include and involve local Indigenous communities in their proposed urban forest stewardship activities and projects.

**Lead:** Parks – Forestry & Natural Areas – Forestry Team  
Equity, Diversity, Inclusion, Accessibility & Indigenous Affairs

**Partners (ext.):** Local First Nations, the Métis Nation of Ontario, and Indigenous Peoples' organizations

**Resources:** \$ (capacity support for engagement and consultation; annual)  
Supported by additional resources in Action Item 2.1.6

##### Targets/outcomes:

- No specific deliverables or targets identified.

**Related performance criteria:** R3: Environment Justice and Equity

Windsor Urban Forest Management Plan  
Strategic Action Plan

# Implementation

## Implementation Table Key

The Windsor UFMP Strategic Action Plan is summarized in the implementation summary table below. The summary table includes the action item, timeframe, leads and partners, and anticipated resource requirements. The summary table key is presented below:

### Timeframe

MP 1:	Management Period 1 (2025-2030)
MP 2:	Management Period 2 (2030-2035)
MP 3:	Management Period 3 (2035-2040)
MP 4:	Management Period 4 (2040-2045)

### Leads and Partners (internal)

ASSET:	Finance & City Treasurer – Asset Planning
BDLG:	Building Services
CCS:	Communications and Customer Services
ESCCO:	Environmental Sustainability and Climate Change Office
ENG:	Engineering
EDIA&IA:	Equity, Diversity, Inclusion, Accessibility & Indigenous Affairs
FOR/NAT	Parks – Forestry & Natural Areas – Forestry Team and Natural Areas Teams
FOR:	Parks – Forestry & Natural Areas – Forestry
GEO:	Engineering – Geomatics Division
IT:	Information Technology
LRES:	Legal and Real Estate Services Division
NAT:	Parks – Forestry & Natural Areas – Natural Areas
PDS:	Planning and Development Services
PRMP:	Purchasing, Risk Management, & Provincial Offences
PW:	Public Works
TE:	Traffic Engineering
TW:	Transit Windsor

### Partners (external)

BIAs:	Business Improvement Associations
CFIA:	Canadian Food Inspection Agency
Comm.	Community members
ERCA:	Essex Region Conservation Authority
ESSEX:	Essex County
Ext.	Other external partners (see Action Item)
Ind.	Local First Nations, the Métis Nation of Ontario, and Indigenous Peoples' organizations
PC:	Parks Canada
WEHBA	Windsor Essex Home Builders' Association
WECCAC:	Windsor Environment and Climate Change Advisory Committee

### Resources

EXIST:	Can be accommodated by existing staff work plan and resources, or will be supported by prerequisite action items. May also require additional support from partner City departments/divisions.
NEW:	Supported by additional resources outlined in Action Item 2.1.6 or others
\$:	Less than \$50,000
\$\$:	\$50,000 - \$100,000
\$\$\$:	\$100,000 - \$250,000
\$\$\$\$:	\$150,000+

## Implementation Summary Table

This table summarizes the City of Windsor UFMP's 62 action items to guide implementation over the plan's 20-year horizon, review and updating of the plan every five years, and ongoing urban forest monitoring.

Goal 1. Know more about Windsor’s urban forest						
#	Objective / Action Item	Timeframe	Leads	Partners	Resources	
Objective 1.1 – Collect and maintain high-quality urban forest data						
1.1.1	Operationalize and update the tree inventory	MP 1	FOR	-	NEW, \$\$	One-time
Objective 1.2 – Integrate urban forest data with asset management frameworks						
1.2.1	Integrate the tree inventory with the <i>PSD Citywide</i> enterprise asset management system	MP 1	FOR	ASSET	NEW	
1.2.2	Utilize tree inventory data and urban forest assessments in future asset management planning	MP 1	FOR	ASSET	NEW	
1.2.3	Share tree inventory data with internal and external partners	MP 1	FOR	GEO, PDS	EXIST	
Objective 1.3 – Monitor Windsor’s urban forest and its management						
1.3.1	Undertake a comprehensive urban forest program re-assessment	-	FOR	GEO, PDS	\$\$	Every 5 years
1.3.2	Review and update the Urban Forest Management Plan	MP 1 and every 5 years	FOR/NAT	As required	NEW, \$\$	Every 5 years
1.3.3	Track change in Urban Tree Cover (UTC) and Potential Plantable Area (PPA)	Every 5 years	FOR	GEO	\$\$	Every 5 years

## Goal 2. Maintain a healthy, safe, and functional urban forest

#	Objective / Action Item	Timeframe	Leads	Partners	Resources	
Objective 2.1 – Enhance and expand urban forest program governance structures						
2.1.1	Enhance urban forest cooperation across City departments	MP 1	FOR/NAT	As required	EXIST	
2.1.2	Integrate key elements of the UFMP into Official Plan updates and strategic planning and planning application initiatives	-	PDS; Others	FOR/NAT	\$\$	One-time
2.1.3	Maintain <i>Tree Cities of the World™</i> status	-	FOR	-	NEW	
2.1.4	Pursue Sustainable Forestry Initiative (SFI) Certification	MP 2	FOR	-	\$	Every 5 years
2.1.5	Formalize a shared and boundary tree policy	MP 1	FOR	GEO, LRES, PRMP	EXIST	
2.1.6	Reorganize and increase resources for the Forestry division	MP 1, MP 2, MP 3	FOR/NAT	-	MP 1-MP3: \$\$\$\$	
2.1.7	Pursue external and innovative urban forest program funding support	-	FOR/NAT	ASSET, Ext., Ind.	NEW	
2.1.8	Reduce the climate change impacts of urban forest management	MP 1	FOR/NAT	ESCCO, PRMPO, Ext.	NEW	
Objective 2.2 – Strengthen program capacity to delivery key urban forestry services in accordance with best practices						
2.2.1	Support and enhance the street tree maintenance program	MP 1, MP 3	FOR	-	MP 1: EXIST MP 3: \$\$\$\$	
2.2.2	Implement a pruning cycle for park trees	MP 2, MP 4	FOR	-	MP 2, MP4: \$\$\$\$	
2.2.3	Implement a young tree pruning program	MP 1, MP 2	FOR	-	MP 1: \$\$-\$\$\$ MP 2: \$\$\$\$	
2.2.4	Formalize urban forest service standards/ Levels of Service	MP 1	FOR	-	NEW, \$	One-time
2.2.5	Develop a citywide Natural Areas Management Plan	MP 1	FOR/NAT, PDS	ESCCO, PC, ERCA, Ext., Ind.	\$\$\$-\$\$\$\$	One-time
2.2.6	Undertake a tree maintenance and tree planting services audit	MP 1	FOR	Ext.	\$\$	Every 5 years

#	Objective / Action Item	Timeframe	Leads	Partners	Resources	
Objective 2.3 – Proactively manage tree-related risk						
2.3.1	Conduct a priority tree risk assessment of trails and natural areas edges	MP 1	FOR/NAT	-	\$\$	Every 10 years
2.3.2	Develop and implement a Level 1 tree risk assessment program for priority areas	MP 2	FOR	GEO, PW	\$	One-time
2.3.3	Develop cabling and bracing standards/procedures for tree risk management	MP 1	FOR	Ext.	\$	One-time
Objective 2.4 – Enhance capacity to respond to threats to the urban forest						
2.4.1	Conduct a forested natural areas invasive species inventory	MP 2	FOR/NAT	Ext., Ind. Comm.	\$\$	One-time
2.4.2	Develop an invasive species threat assessment and management plan	MP 2	FOR/NAT	Ext., Ind., Comm.	\$\$	One-time
2.4.3	Develop an oak wilt response plan and awareness campaign	MP 1	FOR	LRES, CFIA	\$	One-time

### Goal 3. Replenish, expand, and enhance Windsor's urban forest

#	Objective / Action Item	Timeframe	Leads	Partners	Resources	
Objective 3.1 – Increase tree canopy cover citywide and at smaller scales						
3.1.1	Pursue a citywide urban tree canopy cover target of 22% by 2045	MP 1	FOR	PDS	NEW, \$\$\$\$	Annual
3.1.2	Undertake a plantable spaces inventory	MP 2	FOR	PDS, BIAs	\$\$	One-time
3.1.3	Establish land use-based tree canopy cover targets for new developments	MP 3	PDS	FOR	EXIST	
3.1.4	Develop urban forest zoning provisions	MP 3	PDS	FOR	EXIST	
3.1.5	Promote and enhance the right-of-way tree establishment program	MP 2	FOR	-	NEW, \$	One-time
Objective 3.2 – Improve tree establishment outcomes						
3.2.1	Develop new, and strengthen and consolidate existing, tree establishment guidelines, standards, and specifications	MP 2	FOR	ENG, PDS, PW, TE, TW, WEHBA	\$\$	One-time
3.2.2	Improve tree establishment practices	–	FOR	ENG, PDS, PW, TE, TW, WEHBA	NEW	
3.2.3	Transition to City-led tree establishment delivery for all new developments	MP 1, MP 2	FOR	PDS, WEHBA	NEW	
3.2.4	Undertake performance and survival monitoring for all newly planted trees	–	FOR	-	NEW	

#	Objective / Action Item	Timeframe	Leads	Partners	Resources	
Objective 3.3 – Promote urban forest resilience and ecological function						
3.3.1	Develop long-term seed sourcing and growing contracts	MP 2, MP 3, MP 4	FOR/NAT	Ext.	NEW, \$	Annual
3.3.2	Increase tree taxonomic diversity in tree establishment programs	MP 1, MP 2	FOR/NAT	Ext.	NEW, \$	One-time
3.3.3	Undertake tree species performance trials	MP 1	FOR/NAT	ENG, Ext.	NEW, \$	Annual
Objective 3.4 – Pursue urban forest equity for all community members						
3.4.1	Conduct an urban forest equity assessment	MP 2	FOR	GEO	\$	Every 10 years
3.4.2	Utilize priority assessment mapping to plan and implement tree establishment	MP 1, MP 3	FOR	-	NEW	

Goal 4. Protect Windsor’s urban forest						
#	Objective / Action Item	Timeframe	Leads	Partners	Resources	
Objective 4.1 – Improve tree protection outcomes through the planning process						
4.1.1	Develop a tree protection policy and create new, and strengthen and consolidate existing, tree protection guidelines, standards, and specifications	MP 1	FOR	PDS	\$\$	One-time
4.1.2	Increase resources and improve processes for tree protection	MP 1, MP 2	FOR	PDS	NEW	
4.1.3	Strengthen tree-related site inspection and monitoring	MP 1	FOR	PDS	NEW	
4.1.4	Strengthen tree security and compensation requirements	MP 1, MP 2	PDS	FOR	EXIST	
Objective 4.2 – Improve tree protection outcomes outside the planning process						
4.2.1	Develop a 'Tree Declaration' system for non-planning permit applications	MP 1, MP 2	BLDG	FOR	EXIST	
4.2.2	Manage natural areas/urban forest encroachment	MP 2	FOR	ENG, LRES, PDS, PRMPO	\$\$-\$\$\$	
4.2.3	Strengthen protection of privately-owned trees	MP 1	FOR	ENG, LRES, PDS, PRMPO	\$\$	Annual
4.2.4	Improve tree protection on capital projects and utility operations and maintenance	MP 2	FOR	ENG, PDS, PW, Ext.	NEW	
4.2.5	Update the City tree by-law	MP 2	FOR	ENG, LRES, PDS, PW, PRMPO, Ext.	NEW	

## Goal 5. Engage everyone in Windsor's urban forest

#	Objective / Action Item	Timeframe	Leads	Partners	Resources	
Objective 5.1 – Promote community awareness of the urban forest						
5.1.1	Expand and enhance urban forest awareness and educational programming	-	FOR/NAT	CCS, Ext., WECCAC	NEW	
5.1.2	Enhance existing, and develop new, urban forestry educational materials	-	FOR/NAT	CCS, Ext., WECCAC	NEW	
5.1.3	Develop an ‘outstanding tree’ program	MP 2	FOR/NAT	CCS, IT, Comm.	NEW	
5.1.4	Partner with institutions, agencies, and organizations in urban forest research	-	FOR/NAT	ESCCO, ERCA, Ext.	NEW	
Objective 5.2 – Support community and partner engagement in urban forest stewardship						
5.2.1	Establish urban forest stewardship incentive programs	MP 1, MP 2	FOR/NAT	ERCA	NEW, \$\$	Annual
5.2.2	Support a third-party private tree establishment program	MP2, MP 3	FOR/NAT	Ext.	\$\$-\$\$\$	Annual
5.2.3	Develop a community-based urban forest monitoring program	MP 2	FOR/NAT	Ext.	NEW	
5.2.4	Develop a community-engaged naturalization and urban forest stewardship strategy	MP 2	FOR/NAT	ERCA, Ext., Ind.	NEW, \$\$\$	Annual
5.2.5	Increase the frequency, diversity, and impact of community-involved urban forest stewardship opportunities	MP 1, MP 2	FOR/NAT	ERCA, Ext., Ind.	NEW, \$\$\$	Annual

#	Objective / Action Item	Timeframe	Leads	Partners	Resources	
5.2.6	Facilitate urban forest foods and products utilization	MP1, MP2, MP 3	FOR/NAT	ESCCO, Ext.	NEW	
5.2.7	Strengthen intermunicipal cooperation on urban forest management	MP 2	FOR, ESSEX	ERCA, Ext.	NEW	
Objective 5.3 – Advance reconciliation with Indigenous Peoples through urban forestry						
5.3.1	Pursue opportunities to integrate Indigenous traditional knowledge, cultural practices, and peoples, into urban forest policies, programs, activities, and practices	-	FOR, EDIA&IA	Ind.	NEW, \$	Annual

**Notes:**

*a* - Additional resources not yet included in Action Item 2.1.6 will be required.

## Implementation by Management Period

Beginning in 2025, the Strategic Action Plan is divided into four five-year management periods. Action item implementation guidance is organized according to the applicable five-year management period for action items that are to be phased-in or staged within the twenty-year planning horizon. Action Items that require a change in process or procedures, or that establish new programs, are intended to be carried forward throughout the planning horizon.

Priority is reflected by the action item timeframe—higher-priority actions are scheduled for implementation in the earlier phases of the management plan. Action Items without a specific timeframe identified are intended to be implemented as early in the UFMP as practicable and carry over throughout the UFMP planning horizon.

Note: No action items are scheduled to begin implementation in Management Period 4 (2040-2045). Any action items for implementation in MP 4 are scheduled to begin implementation in an earlier Management Period.

No Management Period assigned	
#	Action Item
1.3.1	Undertake a comprehensive urban forest program re-assessment
1.3.3	Track change in Urban Tree Cover (UTC) and Potential Plantable Area (PPA)
2.1.2	Integrate key elements of the UFMP into Official Plan updates and strategic planning and planning application initiatives
2.1.3	Maintain Tree Cities of the World™ status
2.1.7	Pursue external and innovative urban forest program funding support
3.2.2	Improve tree establishment practices
3.2.4	Undertake performance and survival monitoring for all newly planted trees
5.1.1	Expand and enhance urban forest awareness and educational programming
5.1.2	Enhance existing, and develop new, urban forestry educational materials
5.1.4	Partner with institutions, agencies, and organizations in urban forest research
5.3.1	Pursue opportunities to integrate Indigenous traditional knowledge, cultural practices, and peoples, into urban forest policies, programs, activities, and practices

Management Period 1 (2025-2030)		
#	Action Item	Additional MPs
1.1.1	Operationalize and update the tree inventory	
1.2.1	Integrate the tree inventory with the <i>PSD Citywide</i> enterprise asset management system	
1.2.2	Utilize tree inventory data and urban forest assessments in future asset management planning	
1.2.3	Share tree inventory data with internal and external partners	
1.3.2	Review and update the Urban Forest Management Plan	and every 5 years
2.1.1	Enhance urban forest cooperation across City departments	
2.1.5	Formalize a shared and boundary tree policy	
2.1.6	Reorganize and increase resources for the Forestry division	MP 2, MP 3
2.1.8	Reduce the climate change impacts of urban forest management	
2.2.1	Support and enhance the street tree maintenance program	MP 3
2.2.3	Implement a young tree pruning program	MP 2
2.2.4	Formalize urban forest service standards/Levels of Service	
2.2.6	Undertake a tree maintenance and tree planting services audit	
2.2.5	Develop a citywide Natural Areas Management Plan	
2.3.1	Conduct a priority tree risk assessment of trails and natural areas edges	
2.3.3	Develop cabling and bracing standards/procedures for tree risk management	

Management Period 1 (2025-2030), cont'd		
#	Action Item	Additional MPs
2.4.3	Develop an oak wilt response plan and awareness campaign	
3.1.1	Pursue a citywide urban tree canopy cover target of 22% by 2045	
3.2.3	Transition to City-led tree establishment delivery for all new developments	MP 2
3.3.2	Increase tree taxonomic diversity in tree establishment programs	MP 2
3.3.3	Undertake tree species performance trials	
3.4.2	Utilize priority assessment mapping to plan and implement tree establishment	MP 3
4.1.1	Develop a tree protection policy and create new, and strengthen and consolidate existing, tree protection guidelines, standards, and specifications	
4.1.2	Increase resources and improve processes for tree protection	MP 2
4.1.3	Strengthen tree-related site inspection and monitoring	
4.1.4	Strengthen tree security and compensation requirements	MP 2
4.2.1	Develop a 'Tree Declaration' system for non-planning permit applications	MP 2
4.2.3	Strengthen protection of privately-owned trees	
5.2.1	Establish urban forest stewardship incentive programs	MP 2
5.2.5	Increase the frequency, diversity, and impact of community-involved urban forest stewardship opportunities	MP 2
5.2.6	Facilitate urban forest foods and products utilization	MP 2, MP 3

Management Period 2 (2030-2035)		
#	Action Item	Additional MPs
2.1.4	Pursue Sustainable Forestry Initiative (SFI) Certification	
2.2.2	Implement a pruning cycle for park trees	MP 4
2.3.2	Develop and implement a Level 1 tree risk assessment program for priority areas	
2.4.1	Conduct a forested natural areas invasive species inventory	
2.4.2	Develop an invasive species threat assessment and management plan	
3.1.2	Undertake a plantable spaces inventory	
3.1.5	Promote and enhance the right-of-way tree establishment program	
3.2.1	Develop new, and strengthen and consolidate existing, tree establishment guidelines, standards, and specifications	
3.3.1	Develop long-term seed sourcing and growing contracts	MP 3, MP 4
3.4.1	Conduct an urban forest equity assessment	
4.2.2	Manage natural areas/urban forest encroachment	
4.2.4	Improve tree protection on capital projects and utility operations and maintenance	
4.2.5	Update the City tree by-law	
5.1.3	Develop an 'outstanding tree' program	
5.2.2	Support a third-party private tree establishment program	
5.2.3	Develop a community-based urban forest monitoring program	
5.2.4	Develop a community-engaged naturalization and urban forest stewardship strategy	
5.2.7	Strengthen intermunicipal cooperation on urban forest management	

Management Period 3 (2035-2040)		
#	Action Item	Additional MPs
3.1.3	Establish land use-based tree canopy cover targets for new developments	
3.1.4	Develop urban forest zoning provisions	

## Glossary

This glossary includes key words and phrases included in this Strategic Action Plan document. A more in-depth glossary can be found in the Key Findings and Directions Report.

### **Asset management (asset management planning)**

An ongoing and long-term process that allows municipalities to make the best possible investment decisions for their infrastructure assets.

### **Climate change adaptation**

Actions taken by communities to adjust to the impacts of a changing climate.

### **Equity**

In an environmental context – protection from environmental risks as well as access to environmental benefits and services, irrespective of income, race, and other characteristics.

### **Function**

The capacity of trees in the urban forest to provide a diverse range of environmental, economic, and societal and health benefits and services to community members.

### **Green infrastructure**

The natural vegetative systems and green technologies that provide society with a multitude of economic, environmental and social benefits.

### **Invasive species**

A plant, animal or pathogen that has been introduced to an environment where it is not native and where it may become a nuisance through rapid spread and/or population growth, often to the detriment of indigenous species or ecosystem functions.

### **Inventory (tree)**

A tabular and/or geospatial database containing attributes pertaining to the entirety or a subset of the tree population in a defined area. A tree inventory is typically used to inform urban forest maintenance operations and long-term planning.

### **Potential Plantable Area (PPA)**

Land that is suitable for indefinite use as tree habitat and not constrained by competing existing or projected site uses or land use values.

### **Stewardship**

The careful and responsible management of something entrusted to one's care.

### **Structural pruning**

Tree pruning with a primary objective of developing good tree structure, typically characterized by a dominant central leader, adequately spaced and well-attached branches, and appropriate stem taper.

### **Tree**

A woody perennial plant, typically having one dominant trunk and capable of attaining a considerable mature height.

### **Tree condition (in City of Windsor tree inventory)**

A subjective and qualitative assessment of the structural integrity of a tree's stem base, main stem (trunk), and canopy. Rated on an ascending scale of poor-fair-good and based on factors such as decay, cracks, bark condition, branch unions and distribution, and other visible indicators of structural condition.

### **Tree health (in the City of Windsor tree inventory)**

A subjective and qualitative assessment of a tree's biological health and vitality. Rated on an ascending scale of dead-poor-fair-good and based on factors such as leaf size, colour, density, and distribution; deadwood; bud density; growth rate; pest and disease infestation/infection; decay; and others visible indicators of biological health and vitality.

**Tree risk (in the City of Windsor tree inventory)**

A subjective and qualitative assessment of the level of risk posed by a tree. Rated on an ascending scale of low-moderate-high-extreme and based on the likelihood of whole tree or component part failure, likelihood of target impact, combined likelihood of failure and impact, and the consequences of failure and impact. Assessed and rated in accordance with International Society of Arboriculture (ISA) Best Management Practices for Tree Risk Assessment.

**Urban forest**

The mix of the remnants of native forest cover and planted trees and vegetation on all private and public lands in and around the built-up areas. The urban forest includes municipally-owned street, park and facility trees, trees in valleys and woodlands, and privately-owned trees on residential properties or on commercial, industrial, and institutional lands, among others.

**Urban forest (or tree) canopy cover (UTC)**

The spatial extent or coverage of vegetation (generally trees), commonly expressed as a simple area or as a percentage of total land area.