

Summary Report

# Urban Forestry Municipal Jurisdiction Scan Research

Phase 2: In-Depth Interviews



DATE August 6, 2019

# Leger

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*We know Canadians*

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# CONTEXT AND METHODOLOGY

# CONTEXT AND METHODOLOGY

The City of Edmonton Urban Forestry Division is currently considering developing a Tree Protection Bylaw, an Urban Forestry Asset Management plan and reviewing the Corporate Tree Management Policy. Leger was contracted by the City of Edmonton to conduct research focused on informing the City's decisions about how to implement a Tree Protection Bylaw in Edmonton.

The first stage of this research (completed in July 2019) was focused on developing an inventory of existing bylaws and policies around Urban Forestry in nearby jurisdictions, Alberta, the Prairies, Canada and North America. The research involved compiling an extensive list of municipalities, and conducting secondary research from publicly available data.

The second stage of this research included a series of in-depth interviews with select municipalities in North America to understand their experiences developing and implementing tree protection mechanisms, including:

- 🌳 What is working well and the challenges that exist;
- 🌳 Resources and costs;
- 🌳 Permitting processes, oversight, and enforcement; and
- 🌳 Recommendations for other municipalities.

This report outlines the findings from the second stage of the research.

## METHODOLOGY CAVEAT

**The qualitative findings in this report provide a summary of the opinions expressed by interview participants. Results cannot be generalized or quantified, but rather are to be considered in a qualitative frame of reference.**

The reader should also note that, in some cases, municipalities were not able to respond to all questions, as different municipal departments are often involved in the development and implementation of tree preservation bylaws and processes. Detailed findings (beginning on Page 13) are reported where possible for each municipality.

# EXECUTIVE SUMMARY

# EXECUTIVE SUMMARY

## Establishing Tree Protection Mechanisms

- Municipalities that have established minimum diameters for tree protection have found this to be useful in terms of helping provide parameters for bylaw/policy enforcement. There are a number of different considerations municipalities factor in when determining what diameter merits protection (e.g., significance to the community, age of the tree, location, etc.).
- Determining the value of a tree (e.g., for seeking damages, reparation, etc.) is not always straightforward; some municipalities are relying on the International Society of Arboriculture's (ISA) standards/guidelines and/or the definitions laid out by the American National Standards Institute (ANSI) – and are finding this to be quite helpful, particularly when terms and definitions are clearly stated in bylaws/policies/etc.
- Particularly within Canada, municipalities are working together (e.g., intermunicipal alliances) and referring to one another to develop their tree preservation bylaws; this is considered an invaluable process for adopting best practices and taking note of lessons learned.

## Roles in Urban Forestry

- There is often a lot of overlap between municipal departments, in terms of involvement with tree preservation; those that had more departmental cross-over typically felt this contributed to their success, as a result of larger “corporate buy-in” and more comprehensive processes.
- ISA Certified Arborists are the most widely recognized, and are most often involved in policy development and implementation where they are recognized. It was not as common for municipalities to have foresters embedded in their departments and/or involved in oversight.
- The majority of municipalities allow private contractors to work on public trees, as this can be less expensive and more efficient.

# EXECUTIVE SUMMARY

## Bylaw and Enforcement

- While some municipalities have only one or two relevant bylaws/ordinances/etc., some rely on several bylaws for a comprehensive tree preservation system; this is because trees are considered to be impacted by many different areas of urban development and infrastructure.
- A lack of resources in bylaw enforcement was cited by nearly all municipalities as the biggest challenge. Some municipalities also struggle with how to manage enforcement; it was often suggested that working together with other departments (e.g., legal) will help prevent situations in which it is unclear who is responsible for what, or how bylaws should be enforced. Where terms are unclear, municipalities refer to case law (which may not always exist).
- Another challenge with enforcement is battling perceptions that “it’s just a tree” and “I can do what I want on my property” – reflecting the difficulty of striking a balance between individual property rights and tree preservation for the health of the community and broader environment. While most private property is outside municipal jurisdiction, some municipalities have bylaws impacting private property homeowners, such as where “heritage” or “distinctive” trees are involved, or where trees on private property line city streets.
- Fines/ticketing and stop-work orders are the most common avenues for enforcement, however this can be difficult without solid evidence (e.g., eye witness or video footage of the damage taking place). However, these are considered reactive (i.e., complaint-driven) as opposed to preventative measures. With increased resources and more internal staff, many municipalities would hope to take a more preventative approach.



# EXECUTIVE SUMMARY

## Permitting

- There is no common approach to permitting; the number, types of permits, and issuing department(s) depends on the municipality. Some municipalities distinguish between development and non-development permits for tree removal, and some base it on tree size/diameter.
- Permit costs also vary by municipality (ranging from no cost to \$350 or more). Often, municipalities with no-fee/low-fee permits do not feel this is adequate to cover the value of the tree/value to the community.

## Public Education

- Public education and outreach was perceived as key for building public support for tree preservation programs, which also helps increase bylaw compliance.
- Municipalities often noted that public education shouldn't just focus on the processes/permitting procedures, but also the importance of tree preservation. It was felt that citizens are more likely to be compliant when they understand the importance of it (and are more likely to demand compliance from their contractors or builders). Some municipalities feel that a change in mindset is required, to reduce pushback from citizens who assert individual property rights.
- Education and training for staff is also important; having Certified Arborists in forestry departments is considered particularly helpful for developing strategy/policies and bylaw implementation/enforcement.

# EXECUTIVE SUMMARY

## Policy Changes and Updates

- Many municipalities are constantly reviewing and updating their bylaws and policies in order to streamline processes, although some feel they are lagging behind in this.
- Some of the most common planned changes were to:
  - Assess fee structure (e.g., raising permit costs to more accurately reflect the value of trees, bringing costs in line with other municipalities, etc.). However, it was also noted that keeping fees low (particularly when introduced) can help increase compliance.
  - Strengthen processes for restitution/compensation/enforcement.
  - Reduce legalese and update wording so bylaws are clearer and easier to understand.
  - Municipalities whose tree preservation mechanisms fall under multiple bylaws must refer to and update all applicable bylaws when making changes. Although this is time-consuming, it also helps ensure more comprehensive tree protection.

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*“The biggest thing we need is a culture change at the City – a culture of recognition of the urban forest. We need to empower staff to say no to some tree permit applications.” - City of Ottawa*

*“Public education puts pressure on others to do the right thing; they will demand tree protection. It forces groups who damage trees to think twice.” – City of Toronto*

# EXECUTIVE SUMMARY

## Final Thoughts and Recommendations

- Many municipalities placed an emphasis on ensuring clear, enforceable language in the bylaws; ensuring that they can be easily interpreted (e.g., what defines damage, what trees are protected, etc.) is critical for ensuring efficiency and compliance/enforcement. Working with other departments (e.g., legal) can be particularly important in this regard.
- It was noted that it can be easy to underestimate the amount of staff needed for enforcement, particularly when bylaws are first introduced and when the public is more likely to have questions, concerns, etc. – as well as when infractions are likely to be more common (e.g., until builders and homeowners adapt to the new bylaws).
- The City of Austin – who reported notable success in tree preservation – strongly felt that tree preservation should be looked at through a lens of “managing land development” as opposed to “urban forest management.” This ensures that trees – regardless of whether on public or private property – are considered in all aspects/types of development. Additionally, this system can help increase compliance rates (e.g., the City can deny an occupancy permit to a builder unless inspections are passed).
- Having staff who are properly credentialed and trained (e.g., in value assessments) is considered particularly important for the successful development and execution of policies and bylaws; ISA Certified Arborists are the most commonly-recognized.

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*“A lot of our success has to do with putting the ‘urban’ in urban forestry. It’s not about managing an urban forest, but managing land development. I’ve seen too many cities try to regulate it out of an urban forestry department and with a mindset that doesn’t understand land development as a whole – and they’re just not effective at it. You need to understand land development just as much as you do trees.” - City of Austin*

# EXECUTIVE SUMMARY

## Final Thoughts and Recommendations (cont'd)

- Some municipalities have found their fines too low to cover the actual value/cost of the damage – often the result of having non-subject matter experts (SMEs) involved in determining fines. Therefore, it is important to consider the value of the tree and impact on the community when levying a fine; this further underlies the importance of having staff who are properly trained in value assessments.
- Public education and awareness is considered critical for community buy-in. Communities that value trees are more likely to be compliant with bylaws/policies, and homeowners are more likely to demand compliance from private contractors.
- Many municipalities are working together (e.g., through intermunicipal alliances or committees) and engaging with SMEs to develop and update their bylaws. They have found this to be a valuable process, as they are able to learn from each others' experiences.
- A few municipalities felt strongly that it is important that the process does not get “politicized,” and to keep the “big picture” in mind (i.e., develop bylaws/policies in consideration of the long-term environmental strategy).

# DETAILED FINDINGS

Canadian Cities

# VANCOUVER



British Columbia, Canada

<b>Region</b>	Pacific Northwest, Canada
<b>Population</b>	676,000
<b>Role</b>	Urban Planner
<b>Department</b>	Urban Planning



## Overview of Tree Protection

### Departmental Organization

- Development and non-development permits (e.g., if a resident wants to remove a tree without obtaining a building permit) are handled separately.
- 9 counter staff
- Various roles in municipal forestry:
  - Arborists are responsible for inspections (only ISA-certified arborists are recognized; foresters are *not* recognized).
  - Park Board and City engineers work on trees; outside contractors are *not* permitted to work on trees.

### Tree Preservation Mechanisms

- Homeowners are permitted the removal of one tree per year, without question or exceptions.

# VANCOUVER



British Columbia, Canada

<b>Region</b>	Pacific Northwest, Canada
<b>Population</b>	676,000
<b>Role</b>	Urban Planner
<b>Department</b>	Urban Planning



## Tree Protection Bylaws and Enforcement



## Permitting

### Overview of Enforcement

- Penalties were increased in 2014. There is a maximum \$10,000 fine for contractor damages to a tree; however, this is not enforced, due to a lack of staff.

### Enforcement: What is Working Well?

- ✓ The office is well-resourced in terms of reviewing plans and negotiating permits.
- ✓ The City collaborates with Richmond, BC, who Vancouver recognizes as having “very progressive bylaws.”
- ✓ Metrics to measure progress towards goals (e.g., urban canopy cover) are developed in coordination with the City Manager, to help raise the overall profile of the department.

### Enforcement: What are the Challenges?

- X There is a lack of staff for bylaw enforcement and legal support; infractions need to be physically witnessed otherwise the violation cannot be recognized.
- X There is a general difficulty in keeping up with construction starts and enforcement during construction.

### Overview of Permitting

- Tree Management Plans have to be submitted with building permits; they are submitted upfront with building permit applications.



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## Future Direction and Insights

### Final Thoughts and Recommendations

- Vancouver suggests conducting a public opinion study to determine public “appetite” for tree protection (e.g., internal research determined that 80% of citizens were in favour of regulating trees). They also recommend conducting secondary research (e.g., literature reviews) to understand precedent and what’s been done elsewhere.
- Municipalities should work closely and ensure cooperation with other departments (e.g., legal) to test bylaws and ensure what is achievable for enforcement. It is also important to engage with industry (e.g., arborists, foresters, landscape architects) and other municipalities to share insights and learnings.
- It is recommended that municipalities be proactive in policy development and planning (e.g., don’t neglect big-picture thinking, such as developing policies around climate change and biodiversity), and streamline processes where possible. For example, try to “piggy-back” on other, bigger policies where alignment may exist and/or coordinate with existing bylaws.
- Plan public education campaigns so that the public cares about tree protection and preservation; however, be prepared for some complaints from the public as they adapt to new bylaws. Be prepared to temporarily increase resources, to respond to complaints, as necessary.
- Develop metrics for measuring progress towards goals (e.g., Vancouver uses LiDAR technology to measure the canopy cover per neighbourhood).



# RICHMOND



British Columbia, Canada

<b>Region</b>	Pacific Northwest, Canada
<b>Population</b>	216,000
<b>Role</b>	Tree Protection Bylaws
<b>Department</b>	Urban Forest Management



## Overview of Tree Protection

### Departmental Organization

- There are a total of 3 staff including the program manager and 2 tree preservation officials.
- The department is located in Building Approvals – Planning, Building & Development.

### Tree Preservation Mechanisms

- Tree Protection Bylaw No. 8057 was introduced on May 8, 2006. The bylaw was requested by members of the community who brought forward a motion with Council. Council tasked staff with developing a draft bylaw and an outside consultant (a local landscape architecture firm) was brought in to draft the bylaw.
- Bylaw No. 8057 regulates tree removal in private property.
- Trees covered under this bylaw include trees 8 inches (20 cm) in diameter or greater – a size determined to constitute a “significant” tree. Trees of this size are typically difficult to replace, and are considered to provide a lot of character to established neighbourhoods.
- The Parks department manages all trees on City/public property.
- Only City staff or approved contractors may work on City trees because they are considered public assets.



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## Tree Protection Bylaws and Enforcement

### Overview of Enforcement

- The City of Richmond uses 2 main methods for enforcement: 1) There is a municipal ticketing bylaw system which allows bylaw officers to write tickets on the spot for violations. Tickets range from a minimum \$750 to \$1,000 per offence per tree. 2) Posting stop-work orders, which they have found to be quite effective in terms of ensuring compliance. Maximum fines (e.g., through court orders for repeat offenders) are \$10,000 offence per tree.
- Tolerances for damage are based on the International Society of Arboriculture's (ISA) best practices and standards. The definition of "damage" is adopted from the American National Standards Institute (ANSI).
- In the case of contractor damage to a public tree while working on private property, the same process applies – the City would issue a stop-work order.
- All stop-work orders entail investigations, fines as applicable, and meetings between the parties involved (e.g., contractor, property owner, etc.). Stop-work orders are kept in place until enforcement/the issue is resolved and mitigation steps are underway.
- The current property owner is always responsible for the damage – even if the damage was noticed years after it happened (and while the property may have been under different ownership).

### Enforcement: What is Working Well?

- ✓ Stop-work orders and the municipal ticketing system have proven quite effective in ensuring compliance.
- ✓ Approximately \$80,000 is brought in per year in fines without going to court.
- ✓ Stop-work orders are kept in place until enforcement/the issue is resolved and mitigation steps are underway.

### Enforcement: What are the Challenges?

- X Striking the appropriate balance between individual property rights and tree preservation/community values, and dealing with homeowners who fail to understand the importance of tree preservation.

# RICHMOND



British Columbia, Canada

<b>Region</b>	Pacific Northwest, Canada
<b>Population</b>	216,000
<b>Role</b>	Tree Protection Bylaws
<b>Department</b>	Urban Forest Management



## Permitting

### Overview of Permitting

- There are 4 types of tree permit applications:
  - 1) T1 – If a developer/homeowner has a conflict with a City tree and would like it removed.
  - 2) Non-Development (PL-20) – If a homeowner who is not developing wants to remove a tree.
  - 3) Demolition/New Construction (T2) – For a new construction single family home.
  - 4) Rezoning in Process (T3) – Allows for the removal of trees after a public hearing and reading.
- Permit costs are some of the lowest in the Vancouver region - \$60.75 to remove 2 or more trees (no application fee to remove one tree).
- All trees are physically inspected by staff – permits are never issued “over-the-counter.”

### Public Education

- Various departments have different responsibilities for communication depending on the process.
- As front counter staff accept applications, they are met with regularly via educational workshops and for the City to provide updates on changes.
- Checklists are provided on permit application forms, ensuring homeowners/builders/etc. know the necessary steps for permit application and approval (e.g., steps to take if demolishing, building, etc.).
- Developers are expected to have a degree of familiarity with the process, and contractors are met with as issues arise in order to discuss what went wrong and next steps for remediation.

# RICHMOND



**British Columbia, Canada**

<b>Region</b>	Pacific Northwest, Canada
<b>Population</b>	216,000
<b>Role</b>	Tree Protection Bylaws
<b>Department</b>	Urban Forest Management



## Roles in Forestry

### Urban Forestry Oversight

- Parks operations oversee all maintenance, planting, and removal of trees on public property.

### Tree Preservation Qualifications

- ISA Certified Arborists (accredited by ANSI) complete most work and required to sign off on tree preservation documents. Certified Arborists will also hold a Tree Risk Assessment qualification, in order to complete tree hazard assessments.
- All department staff are Certified Arborists and have related university degrees.



British Columbia, Canada

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<b>Population</b>	216,000
<b>Role</b>	Tree Protection Bylaws
<b>Department</b>	Urban Forest Management



## Future Direction and Insights

### Policy Changes and Updates

- The City of Richmond is constantly striving to make updates and changes in order to streamline processes and procedures.
- The next planned update is to bring fees in line with other municipalities (e.g., Vancouver).

### Final Thoughts and Recommendations

- It is important that restoration is considered in conjunction with enforcement (i.e., the punitive aspect).
- Community outreach and education is considered particularly important for ensuring compliance amongst property owners; this is particularly important when communicating reasons for why permits have been approved or denied.
- Having qualified department staff (e.g., Certified Arborists) with relevant post-secondary training is considered critical for ensuring City staff can make appropriate decisions, complete risk assessments, and challenge arborists' conclusions as they feel is necessary.
- For initial bylaw implementation, the City of Richmond recommends keeping permit fees low – this helps build goodwill with the public and increases likelihood of compliance and minimizing homeowner pushback.
- The City recognizes that more information could have been provided upfront about how trees would be assessed for removal (e.g., based on life cycle, whether they pose a significant hazard, etc.).
- The City of Richmond has found it invaluable to partner with the City of Vancouver and other regions through an intermunicipal tree bylaw committee. This committee works together to develop and update their tree bylaws and regulations.
- Having an appeals process has been particularly helpful in terms of avoiding political interference and supporting decision-making.



Alberta, Canada

<b>Region</b>	Prairies, Canada
<b>Population</b>	1,336,000
<b>Role</b>	Urban Forestry Lead
<b>Department</b>	Urban Forestry



## Overview of Tree Protection

### Departmental Organization

- The department operates within the Parks business unit, within Community Services.
- In 2019, Urban Forestry became its own single line of service.
- Approximately 45 staff work in the department year-round, with 140 staff during summer months.
- The City also uses contractors for planting, pruning, and tree evaluations on big properties.
- The department's annual operating budget is \$14M per fiscal year, and there is a capital budget for replacing dying trees.

### Tree Preservation Mechanisms

- The Tree Protection Bylaw 23M2002 oversees the protection of public trees, entirely public land, or a public portion of land. This oversees multiple aspects, including tree removal, pruning, penetration, damage, and attaching objects (e.g., swings).
- Tree preservation mechanisms are automatically in effect when a development permit is applied for; there is a review (with a queuing process) to determine if a tree protection plan is required.
- In all, there are a number of relevant bylaws for tree preservation, including the Tree Protection Bylaw, Parks and Pathways Bylaw 11M2019, Land Use Bylaw 1P2007, Community Standards Bylaw 5M2004 (includes maintenance of yards/lawns/landscape specifications), and Streets Bylaw 20M88 (components regarding "hoarding"). These bylaws were all developed in consideration of the broader municipal strategy.
- During construction, development permits are required to put hoarding (barriers) around street trees for protection.



Alberta, Canada

<b>Region</b>	Prairies, Canada
<b>Population</b>	1,336,000
<b>Role</b>	Urban Forestry Lead
<b>Department</b>	Urban Forestry



## Tree Protection Bylaws and Enforcement

### Overview of Enforcement

- Fines go up to \$10,000 for public trees, but vary depending on the infraction and the value of the tree. If only a portion of the tree is on public property, the fine is based on the portion of the trunk that is on public property.
- Bylaw officers work with the Community Standards team to enforce tree protection, particularly with regards to attachments (e.g., swings), damage to trees, and/or traffic collisions.
- A list of “bad contractors” is maintained for contractors that are procured through the Supply Management business unit; any issues in completing the contract are documented. As a note, the City feels they could improve their internal processes on this.
- Approximately \$100,000 is collected in damages annually. Some revenue is kept aside in a deferred revenue account, for trees that will require eventual (but not immediate) replacement.

### Enforcement: What is Working Well?

- ✓ Calgary maintains a tree inventory system; all contractors, operating crews, etc. upload changes in real time, which helps with overall tracking and enforcement.
- ✓ Technicians have a lot of technical expertise (there are 7 urban forestry technicians, divided by region).
- ✓ Having more than one bylaw means that there are no “gaping holes”; however, when one bylaw gets updated, others need to be cross-referenced and updated as well, where applicable.

### Enforcement: What are the Challenges?

- ✗ Lack of enforcement officers to handle all bylaw complaints.
- ✗ Traditionally, more effort has been placed on education rather than enforcement.
- ✗ Enforcing hoarding (barrier) requirements has been difficult.
- ✗ Internal compliance with updating the tree inventory system can be hard to enforce.

# CALGARY



Alberta, Canada

<b>Region</b>	Prairies, Canada
<b>Population</b>	1,336,000
<b>Role</b>	Urban Forestry Lead
<b>Department</b>	Urban Forestry



## Permitting

### Overview of Permitting

- There is one overarching type of development permit, collected by the Planning & Development team. Subdivision and land use applications are also collected by Planning & Development.

### Public Education

- There is a team in Parks that is dedicated to public education; they work closely with Urban Forestry to create workshops, update website information, create paper materials, develop educational programs for schools, hold private tree giveaways, and provide online learning courses for the public.





Alberta, Canada

<b>Region</b>	Prairies, Canada
<b>Population</b>	1,336,000
<b>Role</b>	Urban Forestry Lead
<b>Department</b>	Urban Forestry



## Future Direction and Insights

### Policy Changes and Updates

- The urban forest strategy was drafted and approved by City Council in 2007; minor updates were made in 2017 and the City of Calgary is currently in the processing of reviewing the strategy again.
- The Parks and Pathways Bylaw was newly updated – this references the Tree Protection Bylaw and covers removal of plant material in parks.
- The Yard Bylaw is updated annually.
- The Land Use Bylaw was recently amended; it identifies where developers are permitted to place trees, subject to the approval of the Forestry department.
- The City of Calgary is currently working with the 9<sup>th</sup> version of the ISA; they are preparing to adapt to the 10<sup>th</sup> version through internal training, although there has been some of the changes have been controversial.
- The City of Calgary is considering implementing a Private Tree Bylaw.

### Final Thoughts and Recommendations

- Ensure bylaw language is enforceable and that there are strong processes in place for permits and enforcement – this was an area the City of Calgary felt they could have improved upon.
- Having a Council-approved urban forestry strategy has been helpful for the City; they are able to refer to these broader strategic documents as necessary when anything arises regarding urban forestry bylaws, amendments, etc. – particularly with regards to handling conflicts and determining operating budgets.

# REGINA



Saskatchewan, Canada

<b>Region</b>	Prairies, Canada
<b>Population</b>	676,000
<b>Role</b>	Senior Program Manager
<b>Department</b>	Forestry, Pest Control & Horticulture



## Overview of Tree Protection



## Tree Protection Bylaws and Enforcement

### Departmental Organization

- The overarching department is Forestry, Pest Control & Horticulture. It was reported that there is a lot of overlap between departments, that that department staff fill a variety of roles.
- There are 6 staff in bylaw; however, they are lacking resources (currently have no staff) in permitting.
- Buildings Standards and Zonings handles all permitting processes.
- The department oversees and manages all City-owned trees.

### Overview of Enforcement

- Currently, fines are up to \$10,000 for tree damage and/or removal.

### Enforcement: What are the Challenges?

- X Enforcing damage is quite difficult, without an eye witness or video footage. The legal team typically does not pursue cases without evidence.
- X There is a lack of enforcement expertise – e.g., police officers are not familiar with the relevant bylaws.

# REGINA



Saskatchewan, Canada

<b>Region</b>	Prairies, Canada
<b>Population</b>	676,000
<b>Role</b>	Senior Program Manager
<b>Department</b>	Forestry, Pest Control & Horticulture



## Permitting



## Roles in Forestry

### Overview of Permitting

- The City of Regina maintains a 1:1 inventory ratio. This is referenced before permits are issued.

### Urban Forestry Oversight

- The City department is responsible for all sign-off on anything planted on public property.
- The zoning department is responsible for sign-off on anything planted on private property.
- The Director of Parks and Recreation is ultimately responsible for all sign-off.
- Landscape architects are involved in planning, but do not have any sign-off authority (this would be possible, however, if landscape architects were internal employees).
- Approximately 50/50 of work on trees is split between internal staff and private contractors.

# REGINA



Saskatchewan, Canada

<b>Region</b>	Prairies, Canada
<b>Population</b>	676,000
<b>Role</b>	Senior Program Manager
<b>Department</b>	Forestry, Pest Control & Horticulture



## Future Direction and Insights

### Policy Changes and Updates

- The City of Regina reviews its tree protection strategy every 2 to 3 years.
- The next review will be focused on tree planting bylaws and cost recovery (e.g., used to recover 20% - looking to increase this to 100%).
- There will also be a focus placed on reducing landscaping issues related to new developments, rewriting zoning bylaws, and tree planting for single family homes.
- The City recognizes a need for a City-wide tree planting program, in addition to a “green committee.”

### Final Thoughts and Recommendations

- It is important that cities are clear on who is responsible for enforcement and how enforcement is to be regulated/followed-through. Working closely with bylaw enforcement and legal branches is one of the ways in which enforcement issues can be better avoided.
- The City of Regina refers to the City of Calgary for tree preservation rules and regulations, citing Calgary’s “clear, strong language.”



## Overview of Tree Protection



Ontario, Canada

<b>Region</b>	Central Canada
<b>Population</b>	2,930,000
<b>Role</b>	Supervisor, Tree Protection
<b>Department</b>	Parks, Forestry & Recreation

### Departmental Organization

- The internal department is responsible for enforcement, permits, and plan review.
- There are a total of 60 staff in the department, including 37 in permits and 10 in enforcement.
- Internal staff and private contractors work on trees; approximately 75% of work on City trees is performed by contractors, as it is less expensive.



Ontario, Canada

<b>Region</b>	Central Canada
<b>Population</b>	2,930,000
<b>Role</b>	Supervisor, Tree Protection
<b>Department</b>	Parks, Forestry & Recreation



## Tree Protection Bylaws and Enforcement

### Overview of Enforcement

- Enforcement officers are required to identify the contractor who has damaged a public tree. Stop-work orders are secured and in place until the developer has responded to the situation.
- The City of Toronto will assess tree damage when it occurs, and seek compensation.
- Trees protected are those 1.4 metres above grade and with a diameter of 30 cm or more.

### Enforcement: What is Working Well?

- ✓ Tree protection zones are maintained at a clear distance away from construction sites, minimizing impact from construction.
- ✓ There are clear guidelines determining how a tree is measured and falls under the bylaw.
- ✓ Developers are required to put down a deposit when obtaining a permit (fully refunded if there is no tree damage). This incentivizes developers to prevent damage to trees.
- ✓ Public education and education for contractors increases compliance through social pressure (i.e., people are encouraged to “do the right thing”).

### Enforcement: What are the Challenges?

- X There is a lack of case law to support the City with regards to enforcement.
- X Eye witnesses are required to substantiate tree damage.
- X Public perception amongst some is that “it’s just a tree,” and that they have the right to do what they want on private property.



## Permitting



## Roles in Forestry



Ontario, Canada

<b>Region</b>	Central Canada
<b>Population</b>	2,930,000
<b>Role</b>	Supervisor, Tree Protection
<b>Department</b>	Parks, Forestry & Recreation

### Overview of Permitting

- There are two types of permits: non-construction (\$188.68) and construction (\$355.02).
- Non-construction permits are structured to allow a 1:1 maintenance ratio (i.e., replace the removed tree).
- Construction permits are structured for a 3:1 replacement ratio, to prevent contractors from removing too many trees. This permit is also based on the health of the tree, injury, mitigating damage, removal, and calculated life expectancy.
- Developers are required to pay a deposit for a permit; deposits are returned in full if there is no damage to the tree(s).

### Public Education

- Public education has been focused on keeping Toronto a “liveable city” – by promoting trees as a cooling mechanism, the public better understands the importance of trees for ensuring a liveable climate.

### Urban Forestry Oversight

- Foresters oversee pruning, removals, and major development in the City.
- Forestry staff are not embedded in other departments; however, they have approximately 10 to 15 people who work closely with Planning to review documents.



## Future Direction and Insights

### Policy Changes and Updates

- The City of Toronto is constantly updating processes to “remove irritants” to internal staff and the general public, as well as to streamline and simplify processes/make them more time-efficient.
- The City places a lot of focus on staff training and growth.

### Final Thoughts and Recommendations

- The City of Toronto recognizes that tree preservation mechanisms do not necessarily yield immediate pay-off – it might take 10 years before a city can start reaping the benefits.
- Public education and internal training is important right from the outset.
- Work closely with legal departments to work around amendments and ensure bylaws are enforceable, and be clear on the roles of enforcement vs. permitting.
- Ensure there are appropriate levels of staffing for enforcement before the bylaw is enacted, and recognize that you may need more staff than anticipated – particularly as the public adapts to new bylaws.
- Clearly define and identify which trees (e.g., of a certain diameter or size) fall under the protection of the bylaw. The size of the protected tree should be determined in consideration of significance to the community, size of the tree in relation to privately-owned property, and the impact of the size of tree on enforcement.



Ontario, Canada

<b>Region</b>	Central Canada
<b>Population</b>	2,930,000
<b>Role</b>	Supervisor, Tree Protection
<b>Department</b>	Parks, Forestry & Recreation





## Overview of Tree Protection



Ontario, Canada

<b>Region</b>	Central Canada
<b>Population</b>	995,000
<b>Role</b>	Forester
<b>Department</b>	Planning

### Departmental Organization

- The City of Ottawa has three areas that deal with urban forestry, including Planning, Bylaw, and Public Works. There is overlap because the City holds the view that “almost everyone who works for the City has the potential to have an impact on the urban forest.”
- There are two forestry groups, one of which is the operational group (including approximately 15 inspectors). This group is partially responsible for implementing bylaws and responding to questions.
- The City also includes a number of support staff.
- The non-operational department is dedicated to considerations around City-owned trees, including planning maintenance, tree planting, supporting the Planning department, and handling escalated calls.
- Private contractors (approximately 20 to 25 companies) are used for maintenance and in situations requiring storm clean-up.
- Overall, the City feels they have a lack of resources to meet public expectations.

### Tree Preservation Mechanisms

- Under the Municipal Government Act, the City implemented two tree bylaws – the Municipal Trees and Natural Areas Protection bylaw (By-law No. 2006-279) and the Tree Conservation – Urban bylaw (By-law No. 2009-200).



## Tree Protection Bylaws and Enforcement



Ontario, Canada

<b>Region</b>	Central Canada
<b>Population</b>	995,000
<b>Role</b>	Forester
<b>Department</b>	Planning

### Overview of Enforcement

- Enforcement is generally complaint-driven; the City does not feel they have the adequate number of resources for proactive monitoring.
- Forestry inspectors are assigned to wards; however, it was noted again that this is not a proactive approach, as they are not “actively looking for anything” and typically just provide warnings when tree protection is not properly put up. There is a lot of reliance on engaged communities to report tree damage.
- The City is typically able to seek compensation a few years after damage from construction; the replacement value is determined by the ISA formula and the City has been fairly successful in recouping damages.
- Unlike some other municipalities (e.g., Toronto), the City of Ottawa does not designate heritage trees, so Ottawa is not able to enforce heritage tree protection as well.

### Enforcement: What are the Challenges?

- X The City of Ottawa is struggling with enforcement, in general. This is attributed to a lack of public responsiveness to warnings from foresters (i.e., they do not consider these warnings very serious and it was felt that citizens do not demonstrate much concern for the environment).
- X The City feels they have a lack of internal resources for enforcement.



Ontario, Canada

<b>Region</b>	Central Canada
<b>Population</b>	995,000
<b>Role</b>	Forester
<b>Department</b>	Planning



## Permitting

### Overview of Permitting

- On privately-owned property of one hectare or larger, a permit is required to remove a tree 10 cm or larger in diameter.
- On smaller privately-owned properties, a Distinctive Tree Permit is required to remove a “distinctive tree” – defined as 50 cm or larger in diameter. Smaller trees do not require permits for removal. For 50 cm or larger trees, arborists are required to complete a report documenting the reasons for removal, then inspectors will review the report and make a decision. This process is time-consuming and sometimes considered a “paper-pushing” exercise; however, most applications are approved, even though this has resulted in a “dramatic” tree loss over the past 10 years (particularly in infill developments).

### Public Education

- Public education measures included City-hosted groups/forums and radio advertisements; however, they plan on placing a heavier emphasis on social media going forward.
- The City feels that a culture change is required internally, in order to promote recognition of the urban forest and better empower staff to decline permit applications, where approving a tree permit could have a significant negative impact on the landscape or environment.



Ontario, Canada

<b>Region</b>	Central Canada
<b>Population</b>	995,000
<b>Role</b>	Forester
<b>Department</b>	Planning



## Future Direction and Insights

### Policy Changes and Updates

- The Ottawa Planning team works with the Development team to come up with better ways to maintain trees in development areas; however, getting approvals can be subject to having a forester involved in the process.
- The City is currently seeking to include trees in their municipal building codes, so that this is factored in when a developer is seeking a permit.
- Ottawa is considering reducing the size of distinctive trees from 50 cm or larger to 20 cm or larger, to ensure broader tree protection.
- The City is also discussing the possibility of maintaining a “bad contractor” list – or, conversely, maintaining a list of proven “good” contractors (though it was recognized the latter would not be very likely).

### Final Thoughts and Recommendations

- The City of Ottawa recommends that bylaws and tree preservation mechanisms are written to be easily understood, to help support enforcement.
- Ensuring appropriate resources for enforcement is important.
- It is important to take a longer-term perspective when planning – i.e., take into consideration what the urban forestry canopy should look like over the long run.
- The City felt that they were successful in involving multiple parties and departments in the development review process – ensuring the “urban forestry lens” was undertaken during planning was considered quite useful.



Nova Scotia, Canada

<b>Region</b>	Eastern, Canada
<b>Population</b>	297,000
<b>Role</b>	Superintendent
<b>Department</b>	Urban Forestry



## Overview of Tree Protection

### Departmental Organization

- The Forestry department resides within Forestry and Public Works; the Parks business unit operates separately and throughout different business areas within the City.
- Road Works has oversight responsibilities; however, the maintenance of trees falls within the purview of Parks.
- The department has a senior forester, an operations operator, and 17 arborists.
- Internal staff have right of first refusal to work; if they pass up on the work, contractors may be engaged (work is split approximately 50/50 between internal staff and private contractors).

### Tree Preservation Mechanisms

- While the tree bylaw is considered “a little bit out of date,” it is considered sufficient in that it clearly identifies the responsibilities of anyone whose work involves municipal trees.
- Only trees on public property are regulated by the City; there is no minimum size of tree that is covered by the bylaw.
- Anyone working within certain proximity of a public tree must provide protection fencing and pay a fee for damages.
- The value of a tree is assessed by plant appraisers, who base the value on a trunk formula; internal staff are trained to assess the value of trees. The trunk formula has been considered successful for assessing the value of mature trees that need to be removed and replaced.
- Under the land use bylaw, some protections exist for trees adjacent to a development (however, this is considered a grey area as you can’t explicitly write anything into a development application that pertains to property outside of the private property in question, such as adjacent trees or roots crossing into public property – or vice versa).



Nova Scotia, Canada

<b>Region</b>	Eastern, Canada
<b>Population</b>	297,000
<b>Role</b>	Superintendent
<b>Department</b>	Urban Forestry



## Tree Protection Bylaws and Enforcement

### Overview of Enforcement

- The City of Halifax (as a provincial rule) is only able to enforce tree protection on trees on public property.
- Enforcement is typically reactive and complaint-driven.
- While stop-work orders can be issued during development processes, the preference is typically to send out bylaw officers in the event of a complaint, who will issue a fine (this is usually negotiated with the developer).
- When developers want to continue work where there has been an issue, compensation is required in order to proceed. Additionally, developers can go before Council to submit requests (e.g., improve soil quality for future development); however, this is not a popular or preferred course of action for developers.

### Enforcement: What is Working Well?

- ✓ The trunk formula has been considered successful for the value assessment of mature trees that need to be removed or replaced.
- ✓ As a smaller municipality, Halifax has been able to easily rely on bylaw officers, and development officers are often willing to learn and help with enforcement. This successful partnership was attributed to having a clearly defined bylaw.
- ✓ Having a tree catalogue has been helpful for overall tracking purposes.

### Enforcement: What are the Challenges?

- X While there is a fine structure in place (starting anywhere from \$500 to \$5,000), it is not considered large enough to cover the total value of the tree if damaged. The fine is levied by the bylaw department (not Forestry), and it was felt that this is attributed to bylaw's lack of forestry experience.
- X A lack of resources was considered a challenge in terms of bylaw enforcement and permit management; it was generally felt that foresters need to be more involved in enforcement.
- X There is a lack of clarity on the process for contractor damage to a public tree while working on private property (case law would be helpful in these circumstances).



**Nova Scotia, Canada**

<b>Region</b>	Eastern, Canada
<b>Population</b>	297,000
<b>Role</b>	Superintendent
<b>Department</b>	Urban Forestry



## Permitting

### Overview of Permitting

- A street opening permit (boulevard crossing) can be obtained for trees on public property, however Forestry is not directly involved in this. There is no cost for this permit (this was recognized as being less than ideal).

### Public Education

- In the respondent's experience, most tree damage is often the result of ignorance or lack of education.
- Halifax was generally considered to be lacking in public education around policy.
- Internal training typically consists of training exercises for the Forestry department only, who participate in a regular training program.
- Additionally, it was felt that more education is needed for developers in terms of the impact they can have on trees.



Nova Scotia, Canada

<b>Region</b>	Eastern, Canada
<b>Population</b>	297,000
<b>Role</b>	Superintendent
<b>Department</b>	Urban Forestry



## Future Direction and Insights

### Policy Changes and Updates

- Halifax felt that the bylaw was out-of-date and should be up for renewal, particularly with regards to fines. It was suggested they could implement a fine schedule that identifies the fee based on the extent of damage done to the tree. The bylaw could also better define proper tree valuation to support with this.
- Other relevant information that could use to be updated includes landscape design standards, ensuring there is proper reference made to the tree bylaw.

### Final Thoughts and Recommendations

- Until recently, the tree bylaw in Halifax was not heavily enforced. With increased internal awareness, this has been slowly changing.
- The respondent for Halifax referenced the City of Edmonton’s success with public education, and refers to Edmonton’s materials such as videos, pictorial pamphlets, and home staging.
- Working together with the Development team is considered particularly important for helping ensure both Development and Forestry’s needs are being met. It was felt that it should not be one department’s sole responsibility to oversee tree preservation (“cross-corporate buy-in”).
- With a “grey area” in terms of tree protection when there is cross-over between private and public property, the City of Halifax has felt that having case law would be very helpful. It was also suggested that the bylaw could have been clearer in terms of how to proceed in these circumstances.
- Ideally, Halifax would maintain a list of “good” contractors, or a list of contractors that meet a number of requirements; however it was felt this would require a large number of resources and would be an administrative burden. A tree-specific permitting process for developers was suggested as a more efficient alternative.



# DETAILED FINDINGS

American Cities

# COLOMBUS



Ohio, USA

<b>Region</b>	Midwestern USA
<b>Population</b>	880,000
<b>Role</b>	Administrator
<b>Department</b>	Parks, Forestry, and Building Maintenance



## Overview of Tree Protection



## Tree Protection Bylaws and Enforcement

### Departmental Organization

- Forestry operates under Parks and Recreation; none of the Parks and Recreation staff are foresters (they are all planners).
- While Forestry ensures that developers comply with protocols, they acknowledge that it is impossible to monitor everything, and private property is outside of their jurisdiction.
- There are a total of 35 staff in Forestry, including 3 crews for maintenance, and 4 arborists.
- ISA Certified Arborists complete all work on trees.

### Overview of Enforcement

- Police are responsible for enforcement, with contributions from the City Attorney's office.

### Enforcement: What are the Challenges?

- X Currently, compensation for damages is costed at 3x the value of the tree, however this was not considered to be working well.
- X It was noted that there is a lack of resources for enforcement.

# COLOMBUS



Ohio, USA

<b>Region</b>	Midwestern USA
<b>Population</b>	880,000
<b>Role</b>	Administrator
<b>Department</b>	Parks, Forestry, and Building Maintenance



## Permitting

### Overview of Permitting

- The City forester is responsible for sign-off on permits.
- Permits are available for work on public trees.
- Private homeowners are not charged for permits, for work done on private property.

### Public Education

- Public education has traditionally involved public talks (e.g., health and social benefits of trees). Public education has also included promotional activity, including tree “giveaways”.
- The respondent felt that there needs to be improvement in public and corporate education, in order to “change the mindset.”
- The City is actively trying to partner with City agencies to get more “clout”, however some areas in the city do not want trees (due to upkeep, maintenance, etc.), with some interactions even becoming violent (e.g., residents threatening tree planters with weapons).
- It was suggested that the City could use ambassadors to promote tree preservation.

# COLOMBUS



Ohio, USA

<b>Region</b>	Midwestern USA
<b>Population</b>	880,000
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<b>Department</b>	Parks, Forestry, and Building Maintenance

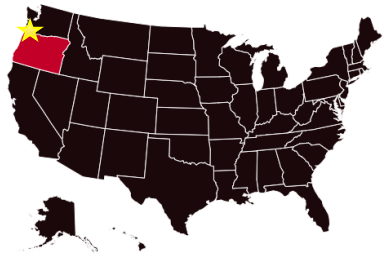


## Future Direction and Insights

### Final Thoughts and Recommendations

- The City of Columbus recommended maintaining a tree inventory in a geographic information system (GIS).
- Like many other municipalities, Columbus highlighted the importance of working with other City departments and functions (including legal/City attorney) to understand what is feasible in terms of enforcement.
- The City would also recommend a tree commission, which could be funded through a “front footage assessment” (e.g., collect 5 cents per foot, approximately \$5 per homeowner).
- It is important that policies and bylaws are written based on science and facts, and are not influenced by the political landscape.
- Take into account long-term goals – e.g., recognize that it will take a number of years to achieve a 40% canopy goal.
- Also recognize that there will be moments where progress hits a roadblock – e.g., deer and pests eating trees.

# PORTLAND



Oregon, USA

<b>Region</b>	Pacific Northwest, USA
<b>Population</b>	648,000
<b>Role</b>	Permitting & Regulation Specialist
<b>Department</b>	Parks & Recreation (Urban Forestry)



## Overview of Tree Protection

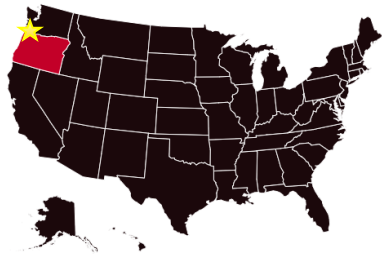
### Departmental Organization

- The department has one director, a City forester, and then 3 working groups:
  - 1) Permit and regulations – 16 staff members;
  - 2) Operations/arborists – 14 staff members (which was recognized as too few); and
  - 3) Education, outreach, policy, and science – 5 staff members.
- There are approximately 35 to 40 staff, total, in the department.

### Tree Preservation Mechanisms

- The City described their approach to tree protection as a “shotgun approach” – they put all the codes together in order to streamline them, with a blanket understanding that everything has review requirements.
- Trees 12 inches or greater in diameter on private property are covered within the bylaw.
- Within recognized environmental zones (e.g., ravines), the threshold for a protected tree is 6 inches or greater in diameter.
- Homeowners are required to maintain trees on private property that line City streets.

# PORTLAND



Oregon, USA

<b>Region</b>	Pacific Northwest, USA
<b>Population</b>	648,000
<b>Role</b>	Permitting & Regulation Specialist
<b>Department</b>	Parks & Recreation (Urban Forestry)



## Tree Protection Bylaws and Enforcement

### Overview of Enforcement

- Overall, Portland described their enforcement processes as “long and detailed.” First, policies are required, which are then followed by code development. The community is involved in the process, as are all bureaus that are involved.

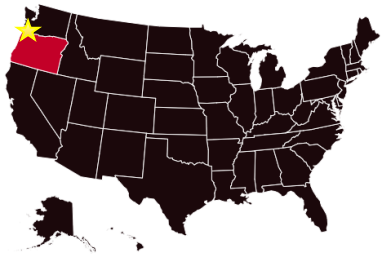
### Enforcement: What is Working Well?

- ✓ Community involvement has been successful – they describe having “strong neighbourhood associations.”
- ✓ The community has also been involved in helping identify where the canopy cover is needed the most (e.g., in poorer neighbourhoods that might need more assistance).
- ✓ The City feels they did a good job in terms of having a blanket standard with established thresholds for when permits are required (i.e., tree diameter minimums).

### Enforcement: What are the Challenges?

- X The City has faced challenges with enforcement, in terms of lack of staff who can ensure the code is being met.
- X Eye witnesses are required for contractor damage to a public tree. Developers can also simply pay a fine, and are not forced to undergo any restorative action.
- X While there are certain rules that are enforced (e.g., trees over 36 inches have to be preserved, otherwise there is a \$12,000 fine), other rules are seemingly contradictory (e.g., it is permissible to remove a tree if it’s within 10 feet of a building).

# PORTLAND



Oregon, USA

<b>Region</b>	Pacific Northwest, USA
<b>Population</b>	648,000
<b>Role</b>	Permitting & Regulation Specialist
<b>Department</b>	Parks & Recreation (Urban Forestry)



## Future Direction and Insights

### Policy Changes and Updates

- Portland’s Tree Code (Title 11) is recognized as still being relatively new – only 4 to 5 years old. The City is still learning, and figuring out what is working well and what isn’t.
- Portland maintains a running list of “things that don’t work” (approximately 100 items); however, there is no strict schedule, and the City Forester would like to take a more strategic approach to establishing policy and processes.

### Final Thoughts and Recommendations

- As their tree preservation code is still relatively new, they described themselves as “building the bus while already driving it” – i.e., they are learning and developing processes as they go.
- The City of Portland emphasized the importance of defining your goal and setting appropriate targets; theirs is to “have a simplified, unified, easy to understand” system in place.
- If they could do one thing differently, Portland may have elected to perform a more robust analysis of steps for implementation. It was felt that a transition team was needed to facilitate the passing off between those who designed the system, and those actually who work on the trees.

# OMAHA



Overview of Tree Protection



Tree Protection Bylaws and Enforcement



Nebraska, USA

<b>Region</b>	Midwestern USA
<b>Population</b>	467,000
<b>Role</b>	City Forester
<b>Department</b>	Code Enforcement & Forestry

## Departmental Organization

- The City of Omaha has 8 full-time forestry staff and 2 crews for City trees. The City is divided into districts; each district is assigned to one of the two crews.
- There is a tree board with 8 participating members who oversee all changes. Public Works is responsible for bigger City projects.
- Staff are not involved in planning or permits.
- Private contractors are permitted to work on City trees.

## Tree Preservation Mechanisms

- The City of Omaha has a tree protection ordinance.
- Homeowners are responsible for street tree maintenance. Fencing is required around trees where work is being completed.



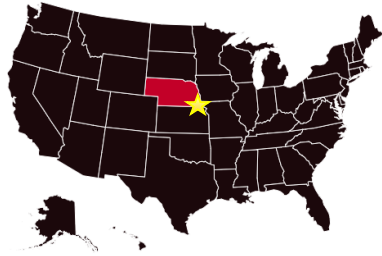
# OMAHA



## Permitting



## Roles in Forestry



Nebraska, USA

<b>Region</b>	Midwestern USA
<b>Population</b>	467,000
<b>Role</b>	City Forester
<b>Department</b>	Code Enforcement & Forestry

### Overview of Permitting

- Permits are available for right-of-way (public) tree removal.
- Nebraska does not have any special rules or regulations regarding tree removal on private property.
- Trees that are 5 inches or less in diameter require 1:1 replacement. Trees that are 10 inches or greater in diameter require 2:1 compensation.
- There is no equitable compensation for trees in Omaha; however, this is something the City is currently working on.

### Tree Preservation Qualifications

- Landscape architects are permitted to sign off on work, in addition to Certified Arborists.



## Future Direction and Insights



Nebraska, USA

<b>Region</b>	Midwestern USA
<b>Population</b>	467,000
<b>Role</b>	City Forester
<b>Department</b>	Code Enforcement & Forestry

### Policy Changes and Updates

- Changes have not been made to the ordinance in 8 years.
- In terms of what they would look at changing next, Omaha discussed a need for being more hands-on with contractors who are not following regulations.
- Omaha also discussed the need to address a concern that specific types of trees may matter (or require attention) more than others.

### Final Thoughts and Recommendations

- The City of Omaha's piece of advice to Edmonton was to ensure that everyone is working together on the same team.

# AUSTIN



**Texas, USA**

<b>Region</b>	Southern USA
<b>Population</b>	951,000
<b>Role</b>	Community Tree Preservation Division Manager
<b>Department</b>	Urban Forestry (Parks & Recreation)



## Overview of Tree Protection

### Departmental Organization

- The City of Austin has an Arborist Program in the Development Services department. Within this department, they are further broken down into a number of divisions and programs.
- Within the Community Tree Preservation Division, there are 2 programs, one of which is the City Arborist Program (it was deliberate that the City Arborist was in the broader Development Services, as opposed to being in Parks and Recreation). This is the regulatory wing and this program issues permits (residential and commercial) to remove or construct within close proximity of protected or heritage trees.
- There are approximately 23 staff in the regulatory wing of the City Arborist Program.
- The City Arborist program, overall, was described as being “very robust” and providing “turnkey” services – from reviewing development plans and conducting inspections to administrative support and research analysis.
- Additionally, there are supervisors and support staff involved in development review, and inspectors who conduct day-to-day inspections.

### Tree Preservation Mechanisms

- A variety of departments are involved in oversight, depending on the department responsible for managing each area of land (e.g., Parks and Recreation, Municipal Energy, etc.).
- There are two tree protection ordinances, both of which have been codified in the land development code:
  - 1) Protected Tree Ordinance (adopted by Council in 1983) – trees 19 inches or larger in diameter.
  - 2) Heritage Tree Ordinance (adopted by Council in 2010) – trees 24 inches or larger in diameter.
- Tree removal is at the discretion of the City Arborist. While heritage trees can be removed, “reasonable use” must be proven.
- Both ordinances apply to all trees, regardless of public or private ownership.



## Tree Protection Bylaws and Enforcement



Texas, USA

<b>Region</b>	Southern USA
<b>Population</b>	951,000
<b>Role</b>	Community Tree Preservation Division Manager
<b>Department</b>	Urban Forestry (Parks & Recreation)

### Overview of Enforcement

- Dedicated inspectors are involved during development; this process is tied to building permits. The builder is required to pass all inspections before the City releases the certificate of occupancy (which is required for loans, transfers of title, etc.) for the building in question.
- In the event a builder does not pass an inspection, remedial action and/or fees would be required.
- If damages are apparent on trees a few years after construction, the City typically does not collect, but it may be possible to require remedial action and payment for services (e.g., from a private arborist) up to 2 to 5 years after construction – provided the damage was observed during construction.
- Activity involving allegations of damage (typically reported through 311) are investigated to determine whether there is validity to the allegation. The City may choose to issue a fine/misdemeanor as they see fit.

### Enforcement: What is Working Well?

- ✓ The City has had a great deal of success in collecting for damages (owing to the requirement to pass inspections before a certificate of occupancy is issued); however, this has been a contentious issue. It was noted, though, that builders quickly learned that they would face fines as well as delays (“time is money”) should they fail to abide by the rules, which has greatly incentivized them to improve their processes.

### Enforcement: What are the Challenges?

- ✗ The state is able to pre-empt local regulations, meaning that if the State of Texas determines that cities should no longer be able to regulate tree protection, the City of Austin would have to remove their ordinances. A few states tried to do this in 2017, however there was municipal pushback and the bills did not pass. It was recognized that this type of political involvement can be a major impediment to tree preservation.



## Permitting



## Roles in Forestry

### Overview of Permitting

- Prior to the current system – which involves the passing of inspections before a certificate of occupancy can be issued – the City was relying on separate standalone tree permits. However, they found this system unsuccessful, as it was difficult to enforce and prove accountability (“why would the builder or homeowner care if there’s no bearing on their certificate of occupancy?”).
- Currently, tree permits only exist for “informational purposes.” Inspections are no longer required on these types of permits; this is merely a procedural issue managed through Development Services.

### Public Education

- The ordinances have been in effect for nearly 40 years, during which time the City of Austin has made tremendous efforts in public education.
- Currently, there is a dedicated community engagement staff. A lot of emphasis has been placed on community engagement, including scheduled neighbourhood talks (e.g., “tree permitting 101,” what to do if building an addition, etc.) and a variety of stakeholder meetings. The City has involved numerous different stakeholder groups in their outreach efforts, including neighbourhoods, builders, real estate council, etc.

### Tree Preservation Qualifications

- Policies state that a Certified Arborist should prepare all related material, however it was recognized that this is only a certification and that there is no licensing/regulatory body.
- Those involved in the policy development must, at minimum, be Qualified Arborists.
- Landscape architects can be involved in commercial projects.



Texas, USA

<b>Region</b>	Southern USA
<b>Population</b>	951,000
<b>Role</b>	Community Tree Preservation Division Manager
<b>Department</b>	Urban Forestry (Parks & Recreation)



## Future Direction and Insights

### Policy Changes and Updates

- The City of Austin is currently doing a comprehensive rewrite of the City's land development code (last undertaken in 2010). As part of this, they are making some changes to the tree protection ordinances.
- Most of the ordinance changes are to the effect of making the language clearer so that it is more enforceable – e.g., reducing legalese, wordiness, etc.
- Some additional changes are being made to help facilitate increased land development density along transportation corridors, which would impact tree protection requirements.

### Final Thoughts and Recommendations

- The City of Austin emphasized the regulatory function of their department. They operate with an understanding that tree preservation is more so about regulating land development than it is “managing an urban forest.”
- With their current focus on rewriting the ordinances for clarification and ease of understanding, emphasis was placed on ensuring that legislation is written clearly the first time around, so that it is easily enforceable and actionable. Clear language helps ensure that there is no question what steps, remedial action, etc. should be undertaken in specific circumstances.
- The City also felt it was important that there is a degree of flexibility to permit discretion in terms of reasonable use and access; this can also allow for updates to development codes, etc. as required, without it becoming a legal hassle.
- The City boasts a greater than 90% preservation rate of heritage trees on private property; they owe this to having “a community that feels strongly about the implementation of tree protection ordinances.” Essentially, public awareness and education was felt to make a big difference.



Texas, USA

<b>Region</b>	Southern USA
<b>Population</b>	951,000
<b>Role</b>	Community Tree Preservation Division Manager
<b>Department</b>	Urban Forestry (Parks & Recreation)

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