



The Corporation of the City of Courtenay

Staff Report

To: Council

File No.: 6120-01

From: Director of Operational Services

Date: April 23, 2025

Subject: Urban Forestry Strategy – Operational Services Update

PURPOSE:

The purpose of this report is to provide Council with an overview of the ongoing contributions from the Operational Services Department, including operational programs, both current and future, related to the implementation of the City of Courtenay's Urban Forest Strategy and to seek Council's support for the proposed 5-year Tree Planting Program.

BACKGROUND:

Courtenay's 2019 Urban Forest Strategy (the Strategy) is underpinned by the City's Official Community Plan and provides a vision for Courtenay to lead in environmental protection, to expand parks, natural areas, and the greenway system in the pursuit of a community exhibiting a high-quality of life. The Strategy was developed with community input, following a comprehensive review of Courtenay's urban forest resources. While some of the implementation actions are scaled across a 10-year planning horizon, the planning horizon for the entire Strategy is 30 years, out to 2050. This horizon depicts a reasonable timeline for which meaningful implementation actions can be realized and an urban forest can successfully reach the state described in the vision.

The Strategy includes recommended actions across both private and public land. The Operational Services Department aims to implement actionable items from within the Strategy by both developing and enhancing the City's natural and planted tree canopy on public lands. The current programs aim to maintain, manage, and care for the health and well-being of approximately 8,600 documented trees, including street trees, park trees, and restoration plantings, across our parks, trails & open spaces.

The following Vision Statement guides the Courtenay Urban Forest Strategy:

"Courtenay residents envision a future urban forest that is more extensive than today, is connected and accessible, maintains mature trees and ecosystem services, is comprised of a sustainable mix of ages and locally adapted species, and is used as a design treatment to reduce the prevalence of pavement in commercial areas, create neighbourhood distinction and canopy streets on key routes.

A canopy cover target of 34-40% distributed throughout Courtenay will inform the refinement of policies and actions to achieve this Vision, as the urban forest changes to accommodate development, climate change, and through the natural life span of trees."

The Vision Statement together with the following five goals set a framework for supportive actions, actions that will require ongoing civic leadership, resident and business engagement, and partnership power:

1. Plan strategically to inform and monitor land use patterns and integrate the urban forest into civic asset management;
2. Manage pro-actively to enhance urban forest health, safety and resilience;
3. Protect prudently to maintain the quality and connectedness of the urban forest;
4. Grow intentionally to provide urban forest benefits when and where they are needed; and
5. Partner effectively to share stewardship and promote appreciation of the urban forest.

In 2019, the Urban Forest and Natural Areas (UFNA) Section was established as a fourth section within the Parks Maintenance Division both to better reflect the demands of the City's growing tree care operations but also to further the established goals of the Strategy. Today, this operational section continues to expand in its responsibilities, beyond that of arboriculture; responsibilities include trails and natural areas management resulting in a more comprehensive approach to our overall management of the City's open spaces and natural areas. Program development is ongoing, and as the demands in this area continue to increase, so do demands on our staff resources. As the City's commitment towards the development and expansion of the strategy's goals continues to grow so will the resource demands.

At the December 11, 2024, regular Council meeting, Council received a Staff Report that updated Council on Strategic Priority "Promote and Communicate the Urban Forest Strategy & Tree Protection Bylaw and review Bylaw" and provided Council with a proposed communication plan to promote and communicate the Urban Forest Strategy and Tree Bylaw. At that meeting, Council adopted the following motion:

"THAT Council receive the report "Urban Forest Strategy and Tree Bylaw Update, Communication Strategy and Workplan" and endorse the communication strategy outlined in Attachment 2 in order to guide community and interest-holder communication and engagement."

Additionally, the December 11th Staff Report provided detail on focus areas of review of the UFS, such as the Tree Protection and Management Bylaw and identifies several policy tools and bylaws that will be updated to include UFS goals such as the Subdivision and Development Servicing (SDS) Bylaw.¹ And, while there are topics that overlap private and public land such as the development of a community tree planting voucher program which are discussed in both reports, the remainder of this report focuses on operational opportunities for the City's public tree program.

Finally, this staff report aims to inform and outline the current status of the Operational Services Urban Forestry Program, including an outline of current programs and future opportunities. It further identifies challenges as well as opportunities to advance programs, while highlighting gaps in resources, and providing suggestions for strategic adjustments relative to operational policies, all with the goal of further enhancing and growing Courtenay's urban forests. The update also provides an overview of the 2025-2029 tree planting program and several other broad recommendations for advancing a healthy urban forest.

¹ The Urban Forest Strategy update described in the December 11, 2024 staff report is not scheduled for 2025.

DISCUSSION:

The Urban Forest Strategy has established the community's tree canopy target at 34-40%. The Strategy recognizes that in order to reach this target and the associated establishment goals, the focus and programs themselves cannot lie within one department or with one targeted approach. With only 5% of the City's total tree canopy cover being located on public land, land use planning, zoning and enhancements to the Tree Protection and Management Bylaw and Environmental Development Permit Area guidelines remain the primary tools for protecting, managing and enhancing canopy cover across the City.

Growing urban forests on public lands remains a top priority. However, adequately maintaining the current tree inventory, at the same time as driving the Strategy's established goals forward, remains challenging without an adequate investment in staff resources, program development and capital expenditures.

The UNFA division currently oversees approximately 8,600 public trees, including street trees, park trees, and restoration plantings, as well as over 60 public access areas covering approximately 65 kilometres of treed greenspace edge. Divisional staff handle a vast array of operational tasks, including maintaining a comprehensive tree inventory, risk assessment hierarchy, planting programs, plant health care (maintenance), and reactive requests for service across all-natural area sectors. Additionally, the division relies on a combination of contracted services and additional staff hours annually from other park sections, all in an effort to support key operations like tree risk management, routine maintenance, emergent abatement and effective program deployment.

Operational Overview

The Operational Services Department has developed effective, achievable and sustainable service level standards based on the strategic objectives of Council, all within the current operational capacity of both staffing levels and annual operating funding allotments. These service levels are as follows:

- **Tree Risk Management:** Tree risk management is a critical component of the UFNA, involving tree risk assessments, risk mitigation, storm response, and oversight of contractors for specialized works. The City proactively inspects tree risk on trees within public access parks, trails and around playgrounds on an annual cycle while street and park specimen trees are reviewed on a five-year cycle. Reactive management is driven by public inquiries or storm events, with priority given to the highest risk 2. Since the program's inception in 2019, the number of trees requiring risk abatement by contractors has jumped from 96 in 2019 to 290 in 2024. Further, City staff tree risk abatement efforts have also seen an increasing trend, with approximately 100 trees requiring work in 2019 and 150 trees in 2024, with an annual average in the range of 400 total trees per year requiring tree risk abatement from city staff and contractors. The UFNA Section allocates a significant amount of time towards tree risk management, with approximately 30% of operational efforts dedicated to proactive risk management, storm response and oversight of contractors.

² Tree Risk is measured and ranked based on the likelihood of a future failure, compounded by consequences of impact.

- **Tree Pruning:** Tree pruning is vital for maintaining the health and structural integrity of the public urban forest. The current program follows a five-year pruning service level cycle for street and park specimen trees, while natural state trees are pruned as needed or in response to risk. The pruning program, guided by the International Society of Arboriculture Best Management Practices, focuses solely on tree health, structural integrity, and clearance for roads and sidewalks, excluding aesthetic pruning for views or size management.
- **Tree Inventory Maintenance:** In 2018, the Parks Division deployed a tree management software called TreePlotter. This cloud-based software provides a program similar to that of a GIS system aimed to keep track of the City's tree inventories, including attributes such as: size, condition, risk rating, date of planting, location, vandalism details, public inquiry reference numbers, photos, and work history. It is also used for managing all contractor work and maintaining a comprehensive inventory of the entire scope of trees, including tracking attribute changes and work histories for individual trees.
- **Interdepartmental Support:** The UFNA Section provides specialized expertise to multiple City departments, including Development Services, Corporate Services, and Infrastructure and Environmental Engineering. This collaborative approach supports activities such as development permit reviews, park management planning, and ensuring tree preservation during capital projects.
- **Service Requests (Public Inquiries):** The UFNA section fields approximately 300 calls for service annually. The number of tree-related public inquiries has doubled since 2019, with service calls ranging from concern over public safety to requesting the complete removal of a City Street Tree to simply seeking guidance on the City's tree-cutting permit process.

Current Tree Planting Program

Since 2018, the City planted ~1,200 trees, including: restoration plantings, park specimen plantings, and street trees, averaging around 200 trees per year. Notable increases occurred in 2023, with 425 trees planted, of which 397 were restoration trees. This growth reflects the City's commitment to enhancing its urban forests.

The Parks Maintenance Division conducts tree planting in three distinct ways:

- **Park and Public Space Specimen Planting:** Parks staff have planted an average of 50 trees annually in parks and public spaces, enhancing the urban forest and improving ecological and aesthetic value. However, planting opportunities are now more limited as many parks have reached capacity. City staff carefully select sites based on space availability, infrastructure proximity, park usage, species suitability, and long-term maintenance needs, ensuring trees are strategically placed to maximize environmental and community benefits. Parkland or specimen tree plantings remain relatively midline in terms of upfront cost, with annual maintenance commitments being higher than averaging in the first five years and then tapering off fairly rapidly thereafter.
- **Restoration Planting:** Parks staff pursue restoration style plantings in Parks, Greenways, Trail edges, Environmentally sensitive areas, along disturbed greenway corridors and through greenspace buffers with the goal of re-established native habitat. This practice is closely tied to invasive species removal activities as it enhances the success of removal efforts. Notably, this style of tree planting

is the most cost-effective of all the City tree planting efforts, with an average upfront cost of only \$80 per tree and a very minimal annual maintenance impact. This cost has been supported by annual grant money from BC Hydro of \$7500 per year. There is less aftercare with restoration-style plantings, but to ensure high viability outcomes staff will regularly tend to these plants during the early establishment years.

- **Street Tree Planting:** Street tree planting is currently tied to new development, and as a result is focussed on growing areas of the City. Current residential street design standards direct trees to be located in a sidewalk-separated boulevard on one side of the street. Installation work is carried out by contractors at the direction of City staff. The future growth of this program would benefit from the development and expansion of several planting programs including allowing future developments to plant on both sides of residential streets, a street tree request program and the development of a tree voucher program for private land. Street Tree planting is the most expensive of the three planting styles with an average upfront cost of \$800-\$1200 per tree and also has the highest annual maintenance impact per tree (\$100), averaging out to an annual maintenance impact of ~\$9000 per year. The Downtown Core is the most expensive due to the locations, risk and ongoing maintenance activities required to maintain overall tree health for the life of the asset.

Future Opportunities

Tree planting remains a strategic priority for Operational Services with the current focus on parks with low canopy cover, areas with aging trees, and locations where tree mortality has occurred. Planting efforts also support ecological health and align with other City initiatives, such as capital improvement projects. Going forward staff recommend the introduction of a broader, more inclusive program, including a defined operational 5-year tree planting program. The proposed planting program can assist in delivering tree planting targets for both public and private land as stated in the Strategy (300 and 850 per year respectively).

The 5-year planting program could include the development of a **Street Tree Request Program**. A tree request program would increase street tree plantings on public land in areas of the City that did not have the opportunity for developers to plant trees as part of earlier developments. This type of program would have an impact on current labour and maintenance costs. However, it will bring more trees into the City's overall inventory allowing the City to gain canopy cover in deficient areas in order to align with the goals of the Strategy.

Additionally, the introduction of a **Tree Voucher Program** would have a projected increase of an additional ~200 trees planted annually by 2029. This type of program would see Trees being planted on private land, with no increase to the annual maintenance cost and only a minor investment in annual funding. The Program would require that the City include a portion of the costs associated with the purchase of a tree which could be funded from the Tree Planting and Reserve Fund. This fund is currently primarily funded by cash-in-lieu tree replacement contributions when required as part of a Tree Cutting Permit.

Achieving the ambitious goals set out in the Urban Forest Strategy will also require updates to corporate policies, continued interdepartmental cooperation, increased capacity, master planning and program

development, which all present opportunities to be explored alongside when the community-wide Strategy review will take place. A number of these key opportunities include:

- **Interdepartmental cooperation:** Several departments provide support to the Urban Forestry Program and continue to work together to align responsibilities and improve the implementation of the UFS and Tree Bylaw. This includes ensuring Green Infrastructure priorities are being implemented through capital and operational projects.
- **Capacity limitations:** Achieving the Strategies goals requires more than just increased staffing and resources for the Urban Forestry Program which are both required; active participation from private property owners is critical to reaching these targets.
- **Master planning:** The City has committed to the development of four individual Park Master Plans including Woodcote Park, Harmston Park, Bill Moore Park and Lewis Park. As part of these plans, there is an opportunity to apply for tree planting grants to ensure park plans contribute to the community's canopy cover.
- **Tree Voucher Program:** The development of a tree voucher program could be considered to encourage planting on private property. These types of programs have shown to be successful in other communities. e.g. The City of Nanaimo³ operates a program that provides registered property owners with up to two trees at a subsidized cost of \$25 each. Caps on the number of vouchers available per year have been removed, with the 5-year-old program approaching nearly 4,000 vouchers claimed.
- **Street Tree Request Program:** While not a voucher program, a tree request program, similar to that of the City of Hamilton⁴ can be structured to further support the City's street tree program by including opportunities for all residential property owners to benefit from a street tree, not just in more recent or greenfield developed areas. Property owners could make a request to the City for a tree to be planted on public land fronting their property. Upon request and within funding allotment, the property is then reviewed by City staff, and if the location meets a predetermined criterion, planting by City staff is scheduled at a future date. These trees are planted on the road allowance, and future maintenance is by the City, except for watering which is the responsibility of the homeowner similar to any new street tree that is planted. These areas identified for street tree and private planting priority are in areas targeted for community growth as shown in the December 18, 2024 Staff Report on Complete Communities Growth Assessment. This represents an opportunity to target tree planting with new development in a coordinated way.

POLICY ANALYSIS:

A number of City policy documents and Bylaws reference urban forest values:

Official Community Plan Bylaw No. 3070, 2022

Includes the objective of "The urban forest is healthy and growing towards a 34-40% canopy cover target". This objective is supported by four specific actions to strategically support the UFS through OCP Bylaw:

³ <https://www.nanaimo.ca/city-services/home-property/animals-trees-gardens/tree-voucher-program>

⁴ <https://www.hamilton.ca/home-neighbourhood/house-home/gardens-trees/street-tree-planting-program>

NE 21 - Continue annual planting targets of 300 new trees on public land and work towards 850 new trees on private land until 2040.

NE 22 Continue to regulate tree removal and ensure replacement, through the use of the Tree Protection and Management Bylaw.

NE 23 Continue to integrate City trees, forests, and green infrastructure into asset management planning, including budgeting, policy development, and staff resourcing.

NE 24 Implement the Urban Forest Strategy plan, manage, protect, grow, and partner actions.

Integrated Rainwater Management Plan (2024)

Identifies two of the three key outcomes of that Plan that directly relate to urban forest health:

- Protecting watershed health through preserving natural drainage routes as much as possible, limiting impervious areas, retaining trees and forest cover, and directing rainwater to absorptive soil; and
- Engaging the community to restore and monitor waterways given much of the land within local watersheds is privately owned.

These efforts to engage the public in pursuit of watershed health can be co-developed to include messaging on restoring and stewarding urban forest values as well.

Parks and Recreation Master Plan (2019)

Identifies as a goal to protect and enhance the environment which includes protecting significant ecological assets, as well as incorporating tree values into park design to fulfill a wider range of community services such as shade and beauty.

Subdivision and Development Servicing (SDS) Bylaw

Is a key land development regulation tool that can support future tree values in new developments, such as by regulating soil volume requirements, above-ground, and below-ground space requirements, functional tree standards, streetscape cross-section amendments and utility clearances. These specifications will be reviewed as part of the 2025/26 SDS Bylaw review.

FINANCIAL IMPLICATIONS:

The Operational Services Department's current service levels ⁵ afford the Parks Services Division adequate funding to effectively deploy a tree planting program that equates to an inventory expansion of roughly ~190 new trees annually. This service level accounts for initial planting costs, watering, mulching, and formative pruning while adding an estimated \$10,500 to the total park maintenance budget each year; Table 1.

⁵ Municipal service levels, or Levels of Service (LoS), define the standards and expectations for the performance, quality, and efficiency of municipal services and infrastructure, ensuring alignment with community needs and strategic goals.

Table 1 – Current Annual Tree Planting Program:

Categories	Total trees Per Annum	Annual Capital Investment	Annual Capital Funding Grant + Development Contributions to Street Tree program	Annual Maintenance Budget	Annual Capital Budget
Parks Specimen	10	\$8,000	0	\$1,000	\$9,000
Restoration	90	\$7,500	(\$7,500)	\$500	\$500
Street Tree	90	\$72,000	*(\$72,000)	\$9,000	\$9000
Totals	190	\$87,500	(\$79,500)	\$10,500	\$18,500

*Actual value based on 2024 greenfield development contributions

The proposed 5-year Tree planting plan is estimated to require increased annual investment from the current \$18,500 per year to a range from \$37,400 – \$120,975 in future Capital expenditures with the corresponding increase to annual maintenance costs ranging from \$11,200 - \$35,100. In return, a total of up to 334 additional trees could be planted in the City’s public urban forest over the next 5 years. The annual increase in maintenance cost coincides with the increase in inventoried trees as seen in Table 3.

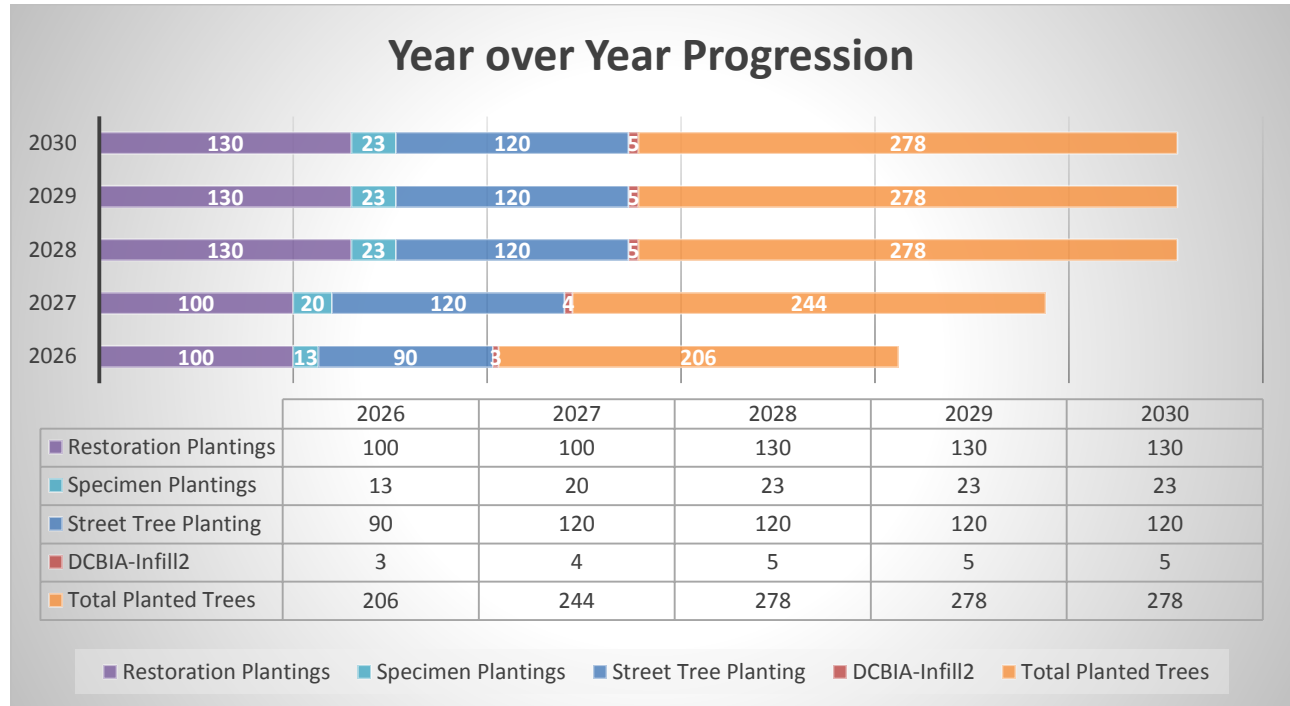
Table 2 – Proposed Five-Year Capital and Maintenance Costs:

Year	Total trees Per Annum	Annual Capital Investment	Annual Capital Funding Grant + Development Contributions to Street Tree program	Annual Maintenance Budget Increase	Total Annual Budget Maintenance + Capital increase over current expenditure
2026	206	\$141,700	*(\$115,500)	\$11,200	\$37,400
2027	244	\$190,700	*(\$151,500)	\$17,600	\$56,800
2028	278	\$192,775	*(\$151,500)	\$35,100	\$120,975
2029	278	\$192,775	*(\$151,500)	\$35,100	\$120,975
2030	278	\$192,775	*(\$151,500)	\$35,100	\$120,975

*Estimate value based on forecasted greenfield development year-over-year

In summary, expanding the City’s annual tree planting program by up to 46% over the next five years could have a net impact of 334 additional trees being planted across the community. This impact would have a corresponding operational budget impact on annual maintenance costs of ~\$25,600 while requiring a corresponding increase in total annual capital investments of just over \$100,000 by 2028.

Table 3 – Proposed Five-Year progression of trees planted



ADMINISTRATIVE IMPLICATIONS:

The proposed 5-year Tree Planting Program will require careful alignment with existing operational priorities and resources to ensure its success. Implementation of the program will necessitate increased collaboration across City departments to identify suitable planting sites, prioritize areas with low canopy cover, and integrate planting efforts with other capital and operational projects. Operational Services will need to focus on strategic planning to optimize the use of public spaces for planting, balancing ecological benefits with long-term maintenance requirements. Regular monitoring and adjustments to planting methods, site selection, and species suitability will be critical to achieve high survival rates and maintain alignment with the Urban Forest Strategy’s canopy cover targets.

The program also underscores the importance of continued public engagement and education to foster community support and participation, particularly in areas with existing gaps in canopy cover. Clear communication of program goals and progress will be essential to maintaining transparency and building momentum for the City’s broader urban forest initiatives. Achieving the planting targets within this program timeline will require sustained Council support, interdepartmental cooperation, and strategic investments to expand the urban canopy.

RECOMMENDATIONS:

The recommendations are focused on activities to be led by the UFNA operations team with support from other departments, as required, and are in addition to recommendations provided in the December 11, 2024, Staff Report “Urban Forest Strategy and Tree Bylaw Update, Communication Strategy and Workplan” which

focus on reviewing the overall UFS strategy and Tree Bylaw. To effectively harness these opportunities and further support the growth of the Urban Forestry Program, the following actions are recommended:

5-year Tree Planting Program:

1. Continue to invest in the City's Urban Forests by committing to an annual implementation plan aimed at improving the City's tree inventory in the following areas;
 - i. Restoration Planting
 - ii. Park and Public Space Specimen Planting
 - iii. Street Tree Planting
2. Operational Policy Updates + Interdepartmental Cooperation: continue to work inter-departmentally to align responsibilities and improve the implementation of the UFS and Tree Bylaw, ensuring Green Infrastructure priorities are being implemented through capital and operational projects;
3. Capacity Limitations: Develop a measured strategy to increase staffing to align with the 5-year tree planting program, both to achieve established UFS goals and support the ongoing contributions required to successfully maintain the Urban Forestry Program.
4. Public Tree Management Guidelines: Develop a comprehensive guideline for the management, preservation, and planting of trees on public property to ensure alignment with the UFS.

Public-Private Partnerships:

1. Create a voucher program: one that would allow registered property owners to purchase a tree from local nurseries at a reduced cost to plant on their property. Consultation with the local nursery and arborist industry could occur as part of a follow-up to the UFS review depending on the timing of the Strategy review and development of the voucher program;
2. Create a tree request program: one that would allow registered property owners to request a tree for the City to plant in the City road allowance in specific areas of the city identified as having low canopy cover;
3. Continue to work with BC Hydro's Community Re-Greening Program which supports the planting of trees and other vegetation; and
4. Continue to seek opportunities within Capital Works Projects for tree planting and Tree Planting Grant opportunities.

STRATEGIC PRIORITIES REFERENCE:

The recommendations align with the goals and principles of key City documents, including the Courtenay Urban Forest Strategy, the Official Community Plan, Council Strategic Priorities, and the Tree Protection and Management Bylaw. The overarching vision is to create an urban forest that is extensive, connected, and accessible, with a sustainable mix of tree ages and species that contribute to ecosystem services and community distinction.

This initiative addresses the following strategic priorities:

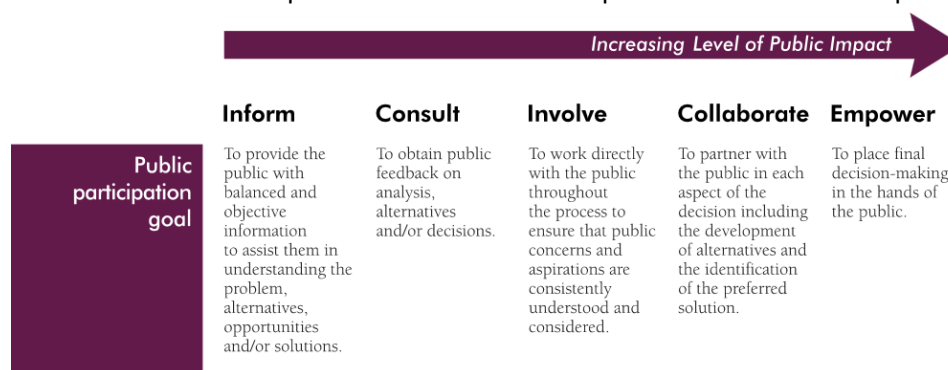
- Parks and Recreation - Optimize active public spaces to respond to density increases and increased park use

- Natural Environment - Promote and communicate the Urban Forest Strategy & Tree Protection Bylaw and review Bylaw

PUBLIC ENGAGEMENT:

The UNFA team will work closely with development services to coordinate engagement efforts so that community input is strategically included for both the overall UFS review and the development of specific implementation programs.

Staff would inform the public based on the IAP2 Spectrum of Public Participation:



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OPTIONS

1. THAT Council receive the “Urban Forestry Strategy - Operational Services Update” report for information and direct staff to implement the **5-year Tree Planting Program** by supporting the annual financial components of the plan, and;

THAT staff be directed to prepare an additional report providing information, including costs associated with the creation and deployment of both a **Tree Voucher Program** and an **Infill Tree Request Program**.

2. THAT Council receive the “Urban Forestry Strategy - Operational Services Update” report for information only.
3. THAT Council provide alternate direction.

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