TOWN OF COMOX

Urban Forest Management Strategy

2026

TOWN OF COMOX

Executive Summary

The urban forest in the Town of Comox helps shape a healthy, green, and livable community. Made up of trees, forests, and greenspaces across natural and built environments, the urban forest delivers essential benefits—from cooling streets during summer heat and providing diverse habitats for wildlife, to supporting community health and wellbeing. These ecosystem services are vital for adapting to climate change, sustaining biodiversity, and maintaining the Town's identity and quality of life for future generations.

Comox's urban forest faces growing pressures from development, climate change, and competing values for tree protection. The Town has already taken important steps to address these challenges since the preparation of the earlier Urban Forest Management Plan in 2012, including the addition of a dedicated Arborist in the Parks Department and Council's adoption of a Tree Retention Policy. The Urban Forest Management Strategy (UFMS) builds on these foundations to establish a long-term vision and clear targets, guiding the protection, growth, and stewardship of Comox's urban forest.

The UFMS contains a strategic framework for urban forest management in the Town based on four goals for the urban forest program in Comox. The four goals were informed by engagement with the community supporting the project and the consultants' assessment of urban forest program needs to achieve the community's urban forest vision.

Canopy Targets

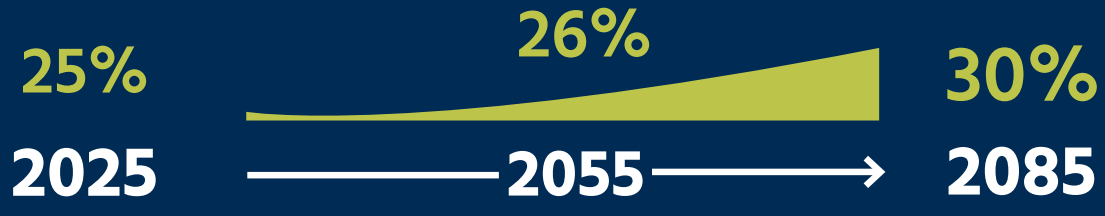
The UFMS proposes a pathway to increase the total extent of tree canopy cover in the Town by 1% to 26% in 30 years, requiring additional measures for tree protection and renewed efforts at tree planting on public and private property.

Achieving 26% canopy cover by 2055 by planting:

- 1,200 street trees
- 2,250 ornamental park trees
- 3,000 forest trees
- 3,000 tree sales

Comox will need to gain the equivalent of two Aspen Parks of tree canopy (60 hectares) to reach its 26% target.

Achieving 26% canopy cover by 2055 will set Comox on a path to reach its long-term target of 30% canopy cover by 2085.



Urban Forest Vision

Comox's urban forest is a connected system of treed yards, natural areas, parks, trails, and open spaces that foster healthy and active living. Our urban forest is diverse, equitable, and resilient to the impacts of climate change. Through strong community stewardship, tree protection, and adaptive management, the urban forest and its benefits are safeguarded for the community, ensuring a green future for generations to come.

Goal 1. Grow Comox's urban forest to meet social and ecological needs.

Goal 2. Protect Comox's urban forest to prevent avoidable loss of ecosystem services.

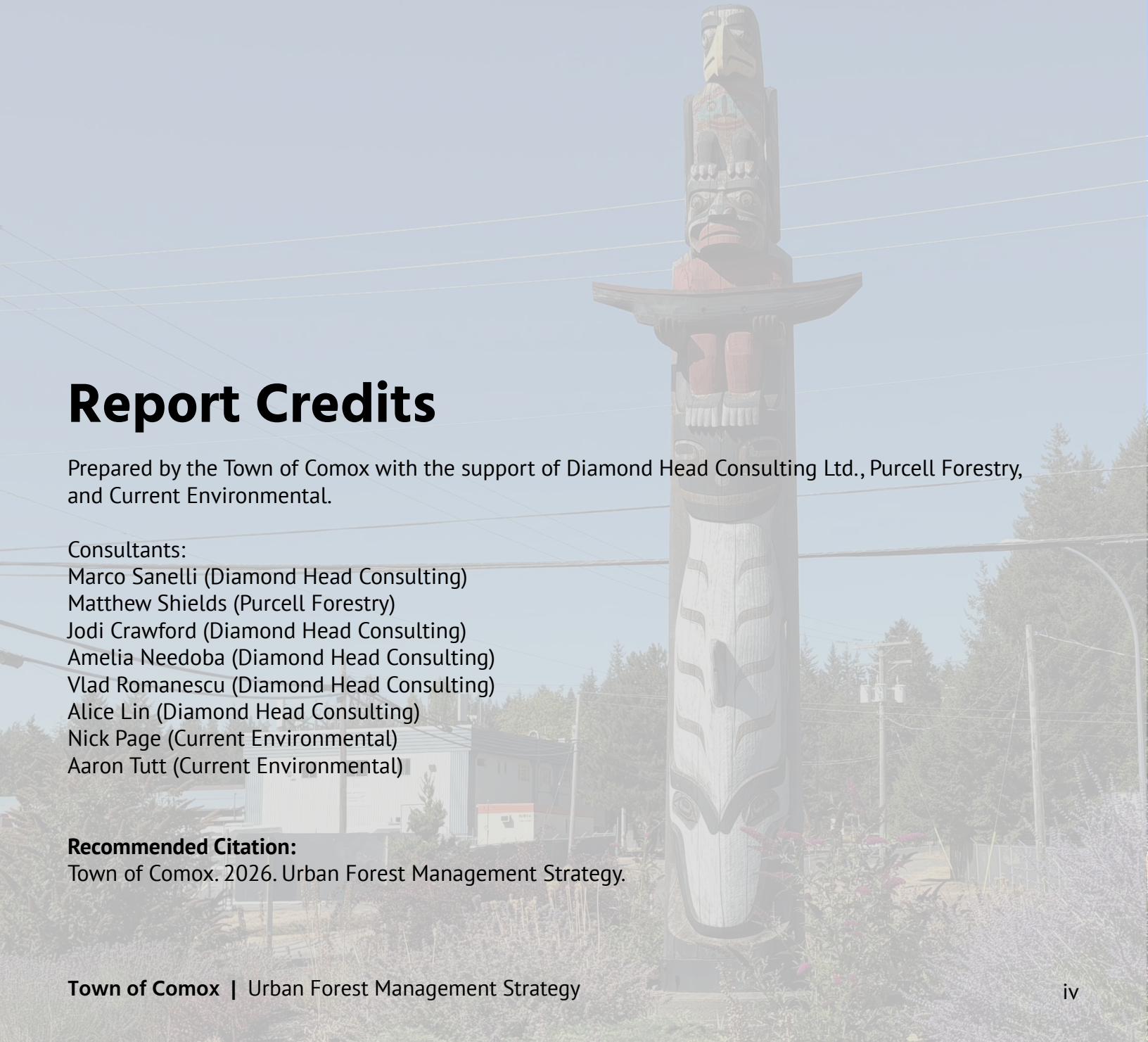
Goal 3. Engage Comox's community to strengthen urban forest stewardship.

Goal 4. Sustain Comox's urban forest as an organizational priority to secure its future.

Section 4 of the UFMS contains a detailed Action Plan which shares actions under each of the four goals and proposes implementation priorities.

Land Acknowledgement

We respectfully acknowledge that the Town of Comox is located on the Unceded Traditional Territory of the K'ómoks First Nation, the traditional keepers of this land.



Report Credits

Prepared by the Town of Comox with the support of Diamond Head Consulting Ltd., Purcell Forestry, and Current Environmental.

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See this icon?

This icon highlights photo submissions from across Comox to the **Trees of the Year** event organized by the Comox Valley Naturalists Society.

1 | INTRODUCTION

1.1 WELCOME

Welcome to the Town of Comox's Urban Forest Management Strategy (UFMS). From the old oaks of Filberg Park to lush coastal forests, the urban forest is part of what makes Comox unique. The urban forest includes each tree within the municipal boundary, regardless of where it grows. Trees do more than enhance the scenery; they provide essential services to the community, such as clean air and water, neighbourhood cooling, shady and pleasant places to recreate, improved mental and physical health, increase property value, and carbon storage to help offset greenhouse gas emissions.

As a steward of its urban forest, the Town of Comox is responsible for protecting this vital natural asset from growing pressures such as urban development, and climate change. This requires a thoughtful approach for caring for the urban forest, which includes protecting existing trees and planting new ones. The UFMS is designed to help the Town navigate these challenges to preserve and enhance the urban forest canopy over the coming decades. In doing so, the urban forest will continue to deliver the many social and economic benefits that make Comox an exceptional place to live, work, and play.

1.2 WHAT IS AN URBAN FOREST MANAGEMENT STRATEGY?

The UFMS provides a comprehensive and community-supported framework for preserving and expanding the urban forest while aligning with the Town's other strategic priorities.

The UFMS builds upon the foundations for urban forest management prepared by the 2012 Urban Forest Management Plan. The new UFMS aligns with the Official Community Plan (OCP) and other related plans, such as the 2024 Climate Action Plan and the 2025 Parks and Trails Master Plan. The UFMS was developed with two phases of community engagement. The first phase occurred in Winter 2025, seeking to capture the community's vision for the urban forest and to understand how the community values and interacts with trees and parks/open spaces. The second phase of engagement occurred in Fall 2025 and invited public feedback on the draft UFMS.

The UFMS seeks to increase canopy cover through tree protection, planting and replacement, as well as public education, to help achieve and exceed the established policy goal of zero net deforestation. Its recommendations show how the Town's ongoing growth can be balanced with urban forest enhancement.

1.3 ORGANIZATION OF THE URBAN FOREST MANAGEMENT STRATEGY

Executive Summary | provides an overview of the UFMS, summarizing key project context, the urban forest vision, the canopy cover target, and the four goals.

Introduction | illustrates the purpose of the UFMS and why the urban forest is important.

Comox's Urban Forest | reviews the urban forest's current state, extent, and management.

Future of the Urban Forest | describes the challenges and opportunities, vision, and goals that will shape tomorrow's urban forest.

Action Plan | provides strategies and actions for monitoring and taking care of the Town's trees over the first ten years of implementation.

Land of the Plenty

The K'ómoks First Nation are the traditional care takers of the land now called Comox. Their ancestral territory overlapped extensive old-growth forest found from Hornby and Denman Islands in the south to beyond Quadra Island and Kelsey Bay in the North[1]. This forest landscape was not only ecologically rich but also held deep cultural significance, providing abundant food and resources and as a result it was referred to as the "Land of the Plenty".

The arrival of European settlers in the mid-1800s brought dramatic changes to the lives of the Indigenous people in this area and the landscape itself. Drawn by the region's abundant natural resources, settlers engaged in large-scale logging and land clearing to support timber production, agriculture, infrastructure and development. These activities, coupled with natural forest disturbances such as wildfires, resulted in the widespread loss and fragmentation of the once-continuous forest. The process of colonization displaced Indigenous communities, including the K'ómoks, causing hardship and making it difficult to maintain traditional connections to the land.

Today, the forests in Comox are in various stages of "second growth". With careful stewardship and protection, these forests have the potential to mature into true old-growth once again. At the same time, the K'ómoks First Nation is actively working to reclaim their relationship with the Land of the Plenty. Through the implementation of the UFMS, the Town has an opportunity to honour its commitment to reconciliation and engage K'ómoks First Nation and other Indigenous partners in future urban forest management activities.

1.4 WHAT IS THE URBAN FOREST?

The urban forest consists of all the trees in Comox, from riparian forests to trees in rural lands to trees in streets, yards, and parks (**Figure 1-1**). It also includes all the biotic (living) and abiotic (non-living) elements within the ecosystem that contribute to tree growth. To ensure the urban forest reaches its potential, each tree needs soil, water, and air, along with space and time to grow. The urban forest is a living system that provides its greatest value to the community when these needs are met.

The urban forest spans across multiple land uses and ownership types. This means that responsibility for managing the urban forest is shared by the entire community including the Town, private landowners, community groups, tree care workers, and higher-level government agencies. In Comox, the Town is responsible for all street trees, park trees and forest trees on Town-owned property. Trees on private and non-Town-owned properties are cared for by their respective landowners and land managers. Understanding who is responsible for each part of the urban forest is essential for developing an urban forest program that supports the growth and sustainability of the urban forest in Comox.

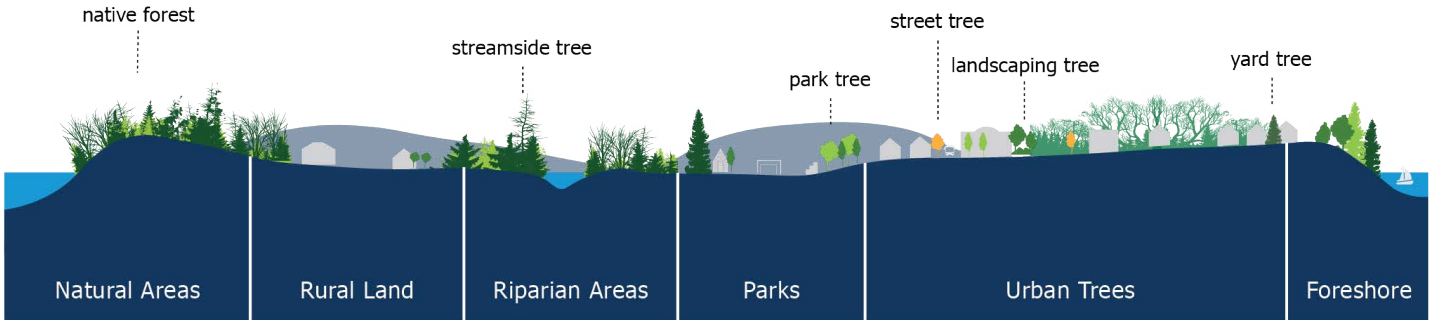


Figure 1-1. Trees are found across a range of urban and natural land uses in the Town of Comox.

Caption: *I have admired this tree for years as I take my daily walks. It is a lonely representative of our disappearing urban forest.*

Description: Owners of the property, Linda and Bob Diamond, approve of the nomination and love this tree and their other maple. Although the copious leaf-drop in the fall is challenging, they love the look of the tree and the cool shade it provides the house in summer. "If someone offered to remove this tree for free, I wouldn't let them do it," says Bob, with feeling. Many people passing by comment on the beauty and presence of the tree. In fact, two other people, unknown to each other, lined up to nominate this tree this year. The tree stands 19 m tall and 135 cm in DBH.

Submitted by: Mel McLachlan with support from Verna Mumby and Bob Hauser, photo by Karen Cummins.

Filberg Park

Filberg Park is a much-loved 3.6 ha (9 acre) waterfront park just south of downtown Comox which contains Filberg Lodge and its surrounding landscaped grounds. It is a pastoral landscape of trees and handcrafted log buildings that look out upon the mouth of Comox Bay and the Beaufort Mountains beyond. The lodge was built in the 1930s by Robert Filberg, a lumber baron who owned Comox Logging. He donated it to the Vancouver Foundation, and it was purchased for park use by the Town of Comox in 1979. It hosts the Filberg Festival every August.

The park contains a stunning collection of mature trees including trees native to BC like Douglas-fir, western redcedar, and ponderosa pine, but also large red oaks, magnolias, flowering cherries, and English walnuts. It is a unique arboretum because of its use of native conifer trees as a key part of the landscape.

The Town of Comox and the Filberg Heritage Lodge and Park Association formed a collaborative partnership to create a vibrant arboretum at Filberg Park. This initiative combines the Town of Comox's commitment to preserving local green spaces with the Association's dedication to enhancing the community's cultural and environmental heritage.

In April 2025, Filberg Park was awarded Level 1 arboretum accreditation by the ArbNet Arboretum Accreditation Program and The Morton Arboretum. This accreditation recognizes Filberg Park for achieving professional standards essential to the development of and management of tree-focused parks worldwide. It is one of only two accredited arboretums on Vancouver Island (the other is the Parksville Community Park Arboretum and Gardens). The arboretum initiative included completing an up-to-date plant inventory by Town of Comox operations staff detailing species, plant family, origin, and, where possible, age. Many are now almost 100 years old. Visit the new mapping inventory here.

1.5 WHY DOES THE URBAN FOREST MATTER?

Benefits (ecosystem services)

The benefits that trees provide people and communities are called ecosystem services (**Figure 1-2**). Ecosystem services improve the individual, social and economic well-being of those living, working, and visiting Comox. An urban forest provides shade to streets and buildings, cools the air through evapotranspiration[2], offers beauty and recreational opportunities[3], filters pollution from air and water[4], and reduces erosion and flooding[5]. Trees and forests provide essential habitat for a wide range of wildlife, including birds, mammals, reptiles and pollinators. The urban forest is a buffer between homes and businesses, reducing noise pollution and slowing down car speeds[6]. The cooling benefits of trees reduce the urban heat island effect and can save lives during heat waves[7,8]. Leaves and branches intercept heavy rainfall while roots and healthy soils divert stormwater from basements and drainage pipes[9]. Each tree also plays a role in holding back future climate change by sequestering carbon from the atmosphere[10]. **Figure 1-3** illustrates the growing list of ways trees are understood to improve human health and well-being in a community.

There are four types of ecosystem services:

1. **Cultural services:** These are the non-material benefits that people gain from ecosystems. They encompass the relationships that people, communities, and cultures form with the urban forest and are experienced through activities such as ceremonies, spiritual connections, educational opportunities, recreational activities, and appreciation for the beauty of the urban forest.
2. **Regulating services:** These are benefits that result from the balancing effect that the healthy ecosystems have on nature and its processes. For instance, the urban forest can ease flooding, provide shade and cooling, improve air quality, and remove carbon from the atmosphere.
3. **Provisioning services:** These are the goods that people can take from the urban forest and use in their everyday lives. This includes foods such as fruit and nuts, medicinal plants, and fibres for clothes and lumber for furniture and firewood.
4. **Supporting services:** These are the services that support the healthy functioning of the urban forest and the organisms within it. They make all the other services possible. Examples of supporting services are photosynthesis, nutrient cycling, habitat for wildlife, and soil formation and retention.

Caption: *There is a collection of stately oaks that are a significantly attractive aspect of Filberg Park. The ruling majesty of the woods, the wise old English oak holds a special place in the culture, history and hearts of my homeland – the UK. It supports more life than any other native species in the UK. It grows 20-40 m tall. The personal significance to me is threefold. First, are the childhood memories of lying under the canopy of a spreading oak tree reading for hours in the summer. Second, are several enjoyable days parking bikes at the Filberg Festival with the Cycling Coalition in the heat of the summer all the while protected by the canopy of this particular tree. Third, is my enjoyment of weekly meetings with my French conversation group sitting on the grass in the dappled light and shade of this magnificent tree.*

Description: This oak is about 28 m tall with a DBH of 132 cm.

Submitted by: Margaret Harris.

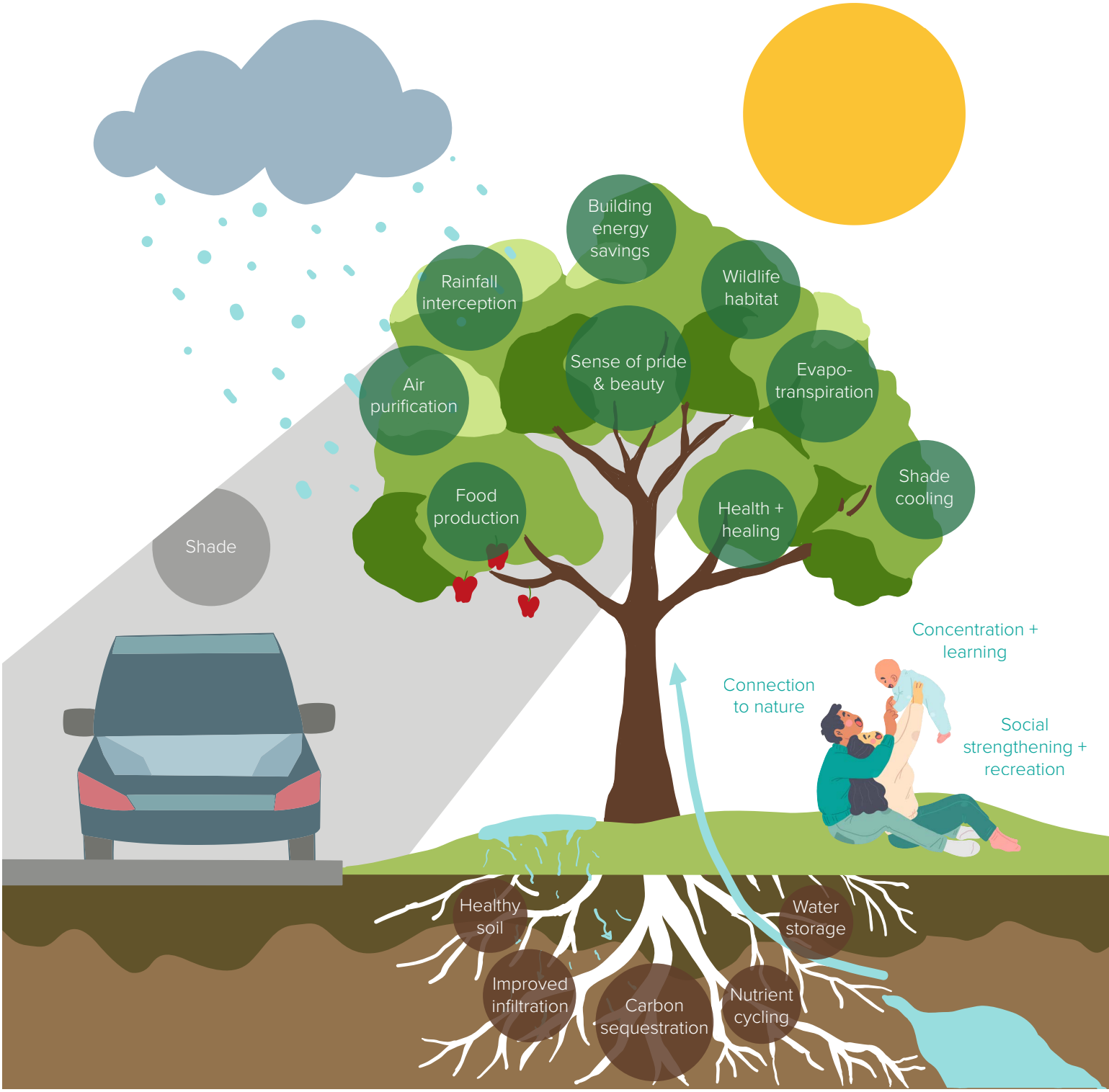


Figure 1-2. The urban forest provides many benefits to the Town of Comox.

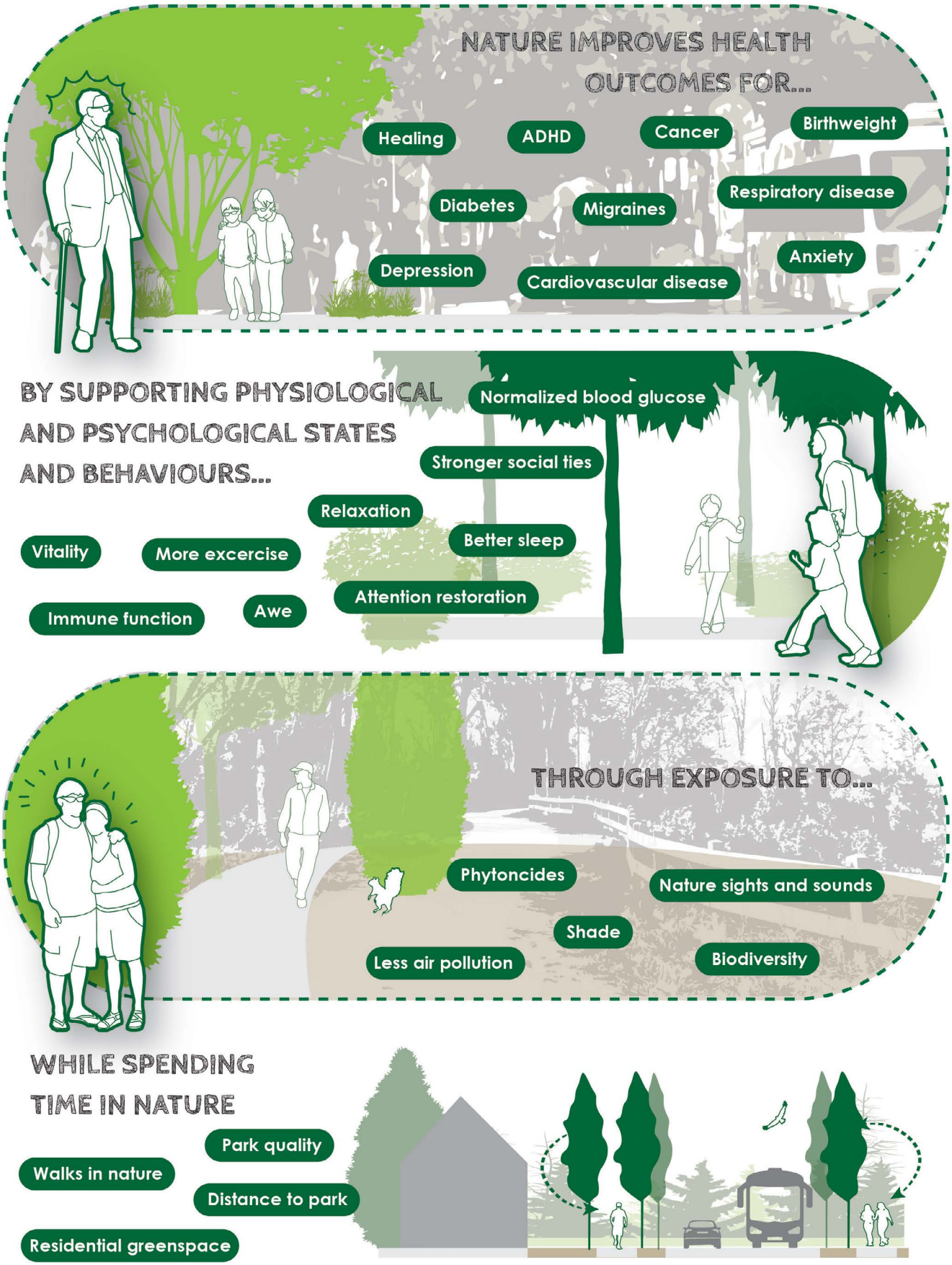


Figure 1-3. The nature-human health link (illustration based on Kuo, 2015[11]).

Climate mitigation and adaptation

Climate change definitions

Climate mitigation: strategies addressing the **causes** of climate change.
Climate adaptation: strategies addressing the **impacts** of climate change.

The protection and enhancement of the urban forest is both a mitigation and adaptation strategy to climate change (**Figure 1-4**). As a mitigation measure, trees absorb and store carbon, reduce energy use by shading buildings, and encourage active transportation by creating comfortable, shaded streets. However, these contributions are modest compared to large-scale emissions reductions from clean energy or building retrofits. Where the urban forest is most powerful is in helping communities adapt to climate change. Trees cool neighbourhoods moderating the urban heat island effect, intercept rainfall to reduce flooding, reduce stormwater runoff after heavy rainfalls, and create healthy habitats that support biodiversity and human health. In this way, the urban forest directly protects people, infrastructure, and ecosystems from the immediate and growing impacts of a changing climate.

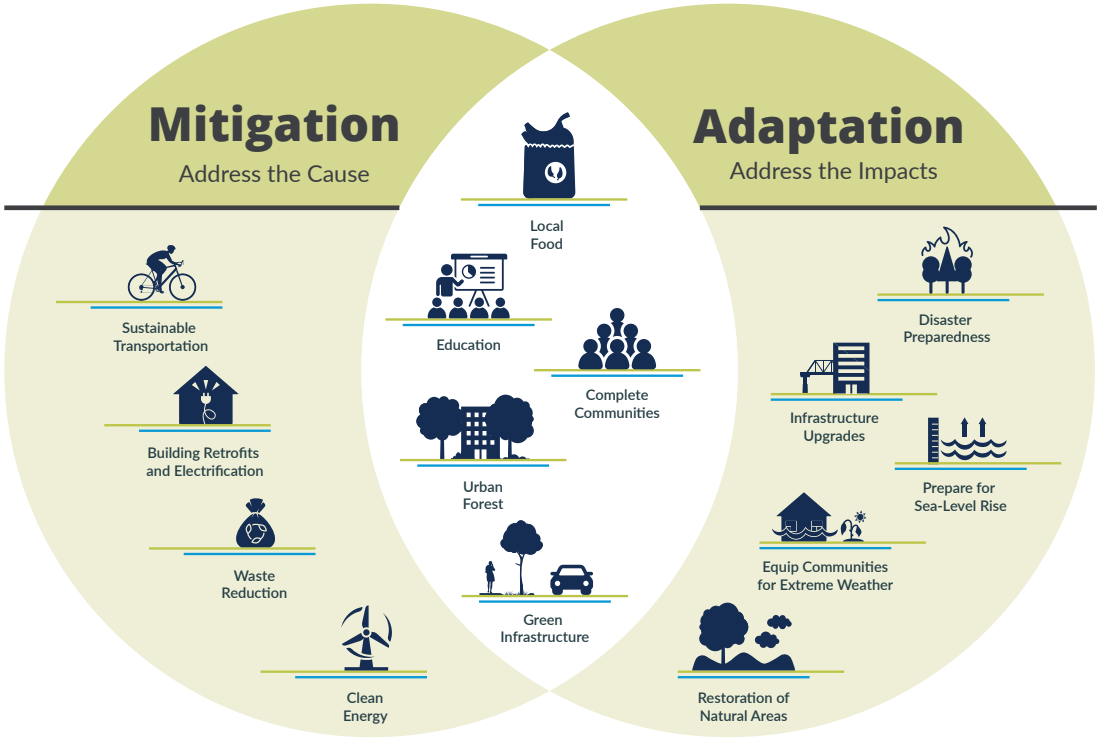


Figure 1-4. Examples of climate mitigation and adaptation actions, with the urban forest and green infrastructure at the intersection of both (Climate Action Plan and Risk Assessment, 2023[25]).

Climate change is predicted to bring more extreme weather to Comox. The Climate Action Plan & Risk Assessment (2023) summarizes the expected impacts that climate change will have on the Town by 2100 and applies this lens to the Town's future projects, procurements and decisions. Summers will likely see more very hot days (>30°C) that last for many days in a row, bringing more droughts and an increased risk of wildfires. Annual precipitation will increase, mostly in the fall and winter months. This could be accompanied by increased flooding and sea level rise.

Comox's tree canopy stores an estimated 34,000 tonnes of carbon, with an estimated value of $33 million. Each year Comox's trees provide more than $2.1 million annually of which (**Table 1-1**):

- $1.2 million/year in sequestered carbon, equivalent to 1,200 tonnes each year.
- $0.6 million/year in filtered air pollutants, equivalent to 38,600 kilograms.
- $0.4 million/year in avoided stormwater runoff, equivalent to 122 million litres.

Table 1-1. Town of Comox ecosystem services (i-Tree Canopy).

i-Tree Canopy Ecosystem service	Service estimates	Dollar value
Carbon & stormwater		
C sequestered annually in trees (t/yr)	1,200	$1,175,500
C stored in trees (t) (not an annual service)	34,000	$33,474,000
Avoided runoff (L/yr)	122,156,000	$396,000
Air quality		
CO removed annually (kg)	340	$700
NO_2 removed annually (kg)	3,450	$1,400
O_3 removed annually (kg)	24,400	$99,000
PM10 (kg)	7,200	$68,100
PM2.5 (kg)	1,900	$435,000
SO_2 (kg)	1,300	$275
Total air pollution removed (kg)	38,600	$610,000
Total annual service value		**$2,182,000**
Total non-repeating service value		**$35,650,000**

Did you know?

Comox's urban forest sequesters as much CO_2e in one year as is produced by **940 passenger cars.**

The runoff intercepted by Comox's urban forest in one year could fill **50 Olympic swimming pools**.

Thermal satellite imaging can show the difference tree canopy makes to detected surface temperatures in Comox. For example, land surface temperatures in the parts of Comox with the highest canopy cover were more than 12°C cooler than areas with few or no trees during the June 2021 heatwave (**Figure 1-5**, **Figure 1-6**). In **Figure 1-5**, hot spots stand out at CFB Comox 19 Wing/Comox Valley Airport, southwest Comox, and commercial or mixed-use neighbourhoods along Comox Avenue. Each of these locations has lower than average tree canopy (**Figure 1-6**). Cool spots stand out near major natural areas like Northeast Woods and MacDonald Wood Park. Closer review of the figures reveals the cooling effects of neighbourhood green spaces like Condor Park, Comox Golf Club, Salish Park, and Brooklyn Creek Park. Climate impacts like drought also affect tree health and survival. To secure the temperature regulating effects of tree canopy, more watering and pruning, and increased species diversity, can help build resilience in urban settings. In natural areas, restoration planting and forest protection are needed.

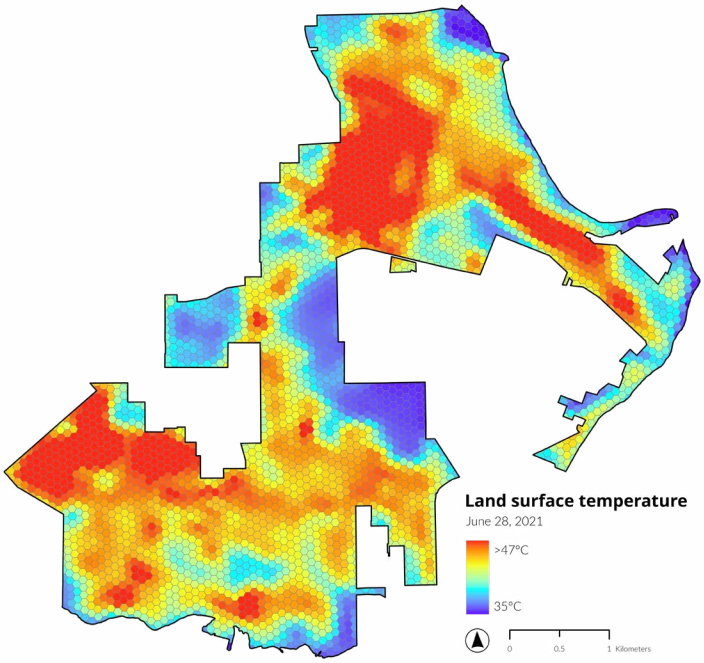


Figure 1-5. Land surface temperature in Comox from Landsat 8 satellite imagery (Assessment, 2021).

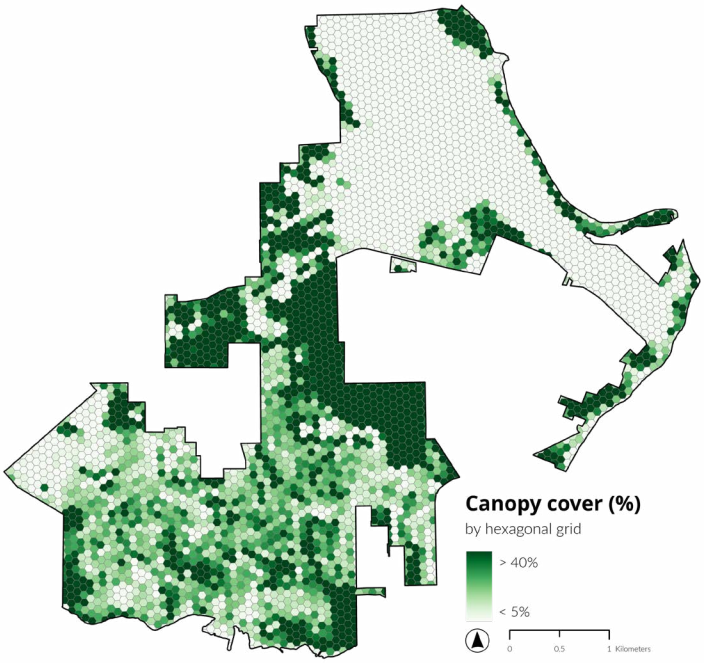


Figure 1-6. Canopy cover in Comox (2023).

Urban forests are also food forests!

Heritage apple trees were retained as part of the new Lazo Greenway to reference the neighbourhood's rural heritage, retain trees for shade, and provide a source of food for greenway users.

Risks and demand for urban forest management

The urban forest exists within a constantly changing landscape, bringing challenges and opportunities for urban forest management. Urban development often meets climate, sustainability, and affordability goals that result in difficult decisions to remove mature trees. As towns expand, green spaces can be lost without effort to protect existing trees or replant new ones. Furthermore, incorrect pruning or root damage during construction can weaken tree health, increasing vulnerability to pests and disease. Trees located near roads, sidewalks, or utility lines may be harmed by vehicles or damaged during infrastructure upgrades.

Climate change is another factor adding pressure on urban forest health in Comox. Increasingly hot and dry summers have led to drought stress among several species, including grand fir and western redcedar. More frequent and severe storms can cause physical damage by breaking branches, uprooting trees, or drowning their roots during extreme flooding. Long-term climate impacts like rising sea levels, projected to rise one metre by 2100, will reduce land area and increase saltwater intrusion, further limiting space for trees to grow. Wildfire is another increasing hazard in Comox's forests because of prolonged heat waves and reduced forest health.

These growing risks highlight the urgent need for active and informed urban forest management. Without proper care and planning, the urban forest will gradually diminish, reducing its ability to provide ecosystem services. Proactive urban forest management helps communities respond to current threats, plan for future ones, and ensure that the urban forest remains a strong, healthy, and resilient part of the landscape.

Can't I just plant a new one?

Planting a new tree cannot replace the value of a mature tree. Trees deliver their greatest benefits when they are mature, while costs are lowest during this period (**Figure 1-7**). Removing a healthy mature tree eliminates decades of accumulated benefits and immediately returns the system to a high-cost, low-benefit stage. Replacement trees require many years of investment before they provide meaningful canopy, cooling, or stormwater benefits, and many do not survive long enough to reach maturity. Retaining healthy mature trees is the most effective and economical way to sustain canopy cover and community benefits.

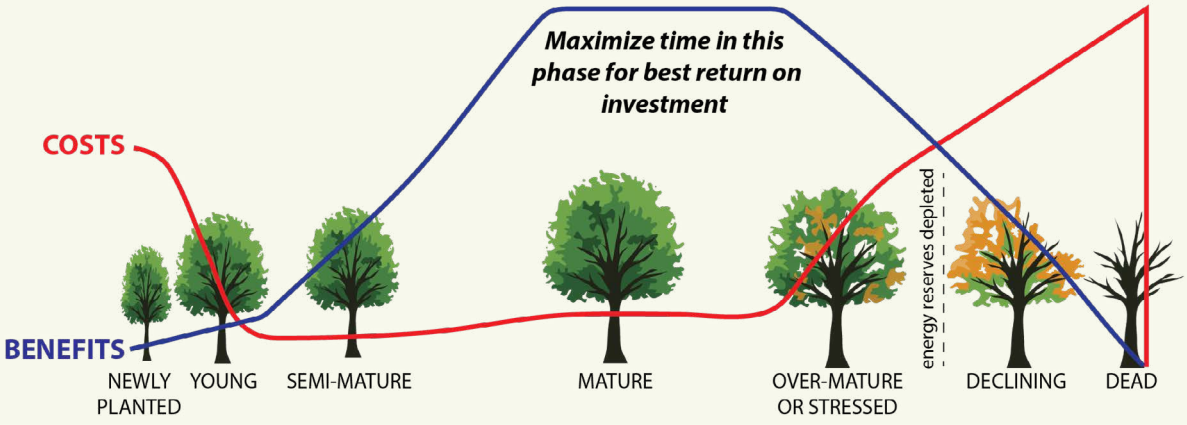


Figure 1-7. Conceptual representation of the magnitude of tree benefits and costs at stages of tree life cycle.

Equity

Equity in urban forest management is essential to creating inclusive communities where all residents can enjoy the benefits of trees and green spaces. This means ensuring that people—regardless of income, ethnicity, or age—have fair access to the benefits and services provided by the urban forest. The June 2021 heatwave showed that some populations, such as the elderly and individuals living alone, are more vulnerable to climate-linked events like extreme heat that can be mitigated by tree canopy[12]. Canopy cover and related benefits are not evenly distributed across the Town of Comox. To better understand where gaps exist that could be consequential for community health and wellbeing, a priority index that combines five indicators and applies them to census dissemination areas was developed (**Table 1-2**).

Table 1-2. The five indicators used to formulate the Priority Index.

Indicator	Metric	Description	Source
Climate	Land surface temperature	Land surface temperature (°C), captured remotely by satellite on June 28, 2021.	Landsat 8, USGS
Income	People in poverty	Percentage of people living on incomes below 200 percent of the federally designated poverty line.	Statistics Canada (2021)
Age	Dependency ratio	Seniors (65+) and children (0-14) as a portion of working age adults (15-64).	Statistics Canada (2021)
Race/ethnicity	People of colour	Percentage of people who belong to visible minority groups as defined by the Employment Equity Act.	Statistics Canada (2021)
Employment	Unemployment rate	Percentage of the labour force that does not have a job and are available and looking for one.	Statistics Canada (2021)

Caption: *It was probably planted by the family of Sydney D'esterre around 1925-40. There is a picture, an aerial view of Comox, from 1947 (Comox museum). The tree back then was between 5 to 9 feet tall and 20 years old. A cross between the Chinese original weeping willow, Salix babylonica, and the hardy European white willow, Salix alba. The hybrid is more vigorous and the young stems are golden. 'Chrysocoma' means golden-haired. Salix possibly from Celtic, sal, near, and lis, water. Introduced to North America in 1906. In 1974 the marina in Comox was filled with soil and sand creating what is now Marina Park. The tree was planted just above the high tide, revealing where the shore line was in the 1947 picture.*

This tree is very significant to our community and hopefully will live for a few more decades. The Town of Comox Parks has made the willow safer by installing a split cedar fence and planting a meadow with bulbs and flowers below the tree.

Description: Find this tree in the Comox Marina Park at the foot of Wilcox St, below the D'esterre centre. This tree is approximately 25 m tall and 100 years old.

Submitted by: Dany Fortin.

The resulting map highlights where populations with characteristics of vulnerability are currently concentrated in Comox (**Figure 1-8**). The census dissemination area containing the former St. Joseph's Hospital site in southwest Comox emerges as the part of the community with the highest priority index score. This area continues to be home to a high number of elderly people, some in hospice care, and includes hot spot areas from the land surface temperature analysis. Other neighbourhoods that emerge as having high priority index scores include parts of Downtown, central and north Comox. The priority index is compared with estimates of canopy cover in **Section 2** to establish the location of the greatest gaps between current canopy cover and social need for urban forest ecosystem services (the Tree Equity Score).

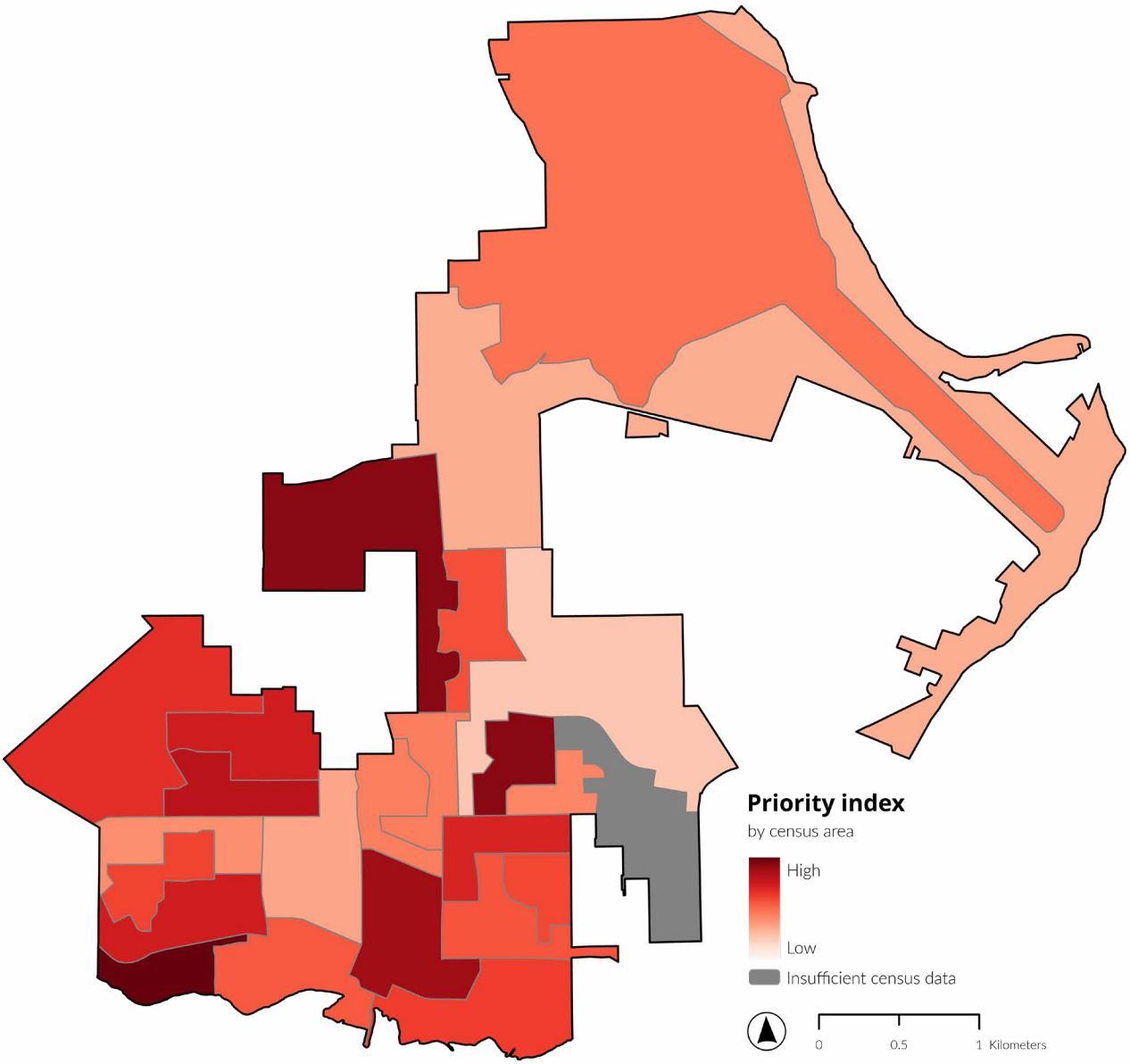


Figure 1-8. The Priority Index combines five indicators correlated with higher need for urban forest ecosystem services.

2 | COMOX'S URBAN FOREST

2.1 MEASURING THE URBAN FOREST

Health and extent: why do they matter?

The urban forest must be healthy and extensive to deliver its full range of ecosystem services. A healthy urban forest includes a diverse mix of tree species of varying ages and structures, growing in locations that can provide long-term needs like soil nutrients, moisture, and adequate light[13,14]. Native species are especially important, as they provide essential food and shelter for wildlife. In Comox, native forest plants include trees and shrubs such as Douglas-fir, bigleaf maple, salmonberry, salal, and Oregon-grape. A healthy urban forest also features nutrient-rich soils, clean waterways, and interconnected root systems that support tree growth.

The size and connectivity of the urban forest is key to its overall health. A healthy, large, and well-connected urban forest is also more resilient. It can better withstand pests, disease and extreme weather events. If one area is damaged, surrounding healthy areas provide substitutes for habitat, recreation, and other values while contributing valuable sources for natural tree regeneration. Strong, diverse ecosystems are more stable, can better endure the effects of climate change and continue to provide lasting benefits for both people and biodiversity. The positive impacts of urban forest benefits like shade and cooling are strongest when tree canopy in urban areas covers significant areas of pavement and other heat-absorbing surfaces. Moreover, an extensive urban forest ensures that all residents of Comox can access and benefit from nature no matter where they live or work.

What is canopy cover?

Canopy cover is a key metric used to understand the extent of the urban forest in a community. It refers to the area covered by tree crowns when viewed from above and is expressed as a percentage of a community's total land area (**Figure 2-1**). Comparing differences in canopy cover between multiple points in time can reveal how the urban forest is evolving. Cross-referencing canopy cover with other spatial units such as land use categories and land ownership provides detailed insights into how the urban forest is distributed across the community. This information can help urban forest managers make better plans for planting and caring for trees.

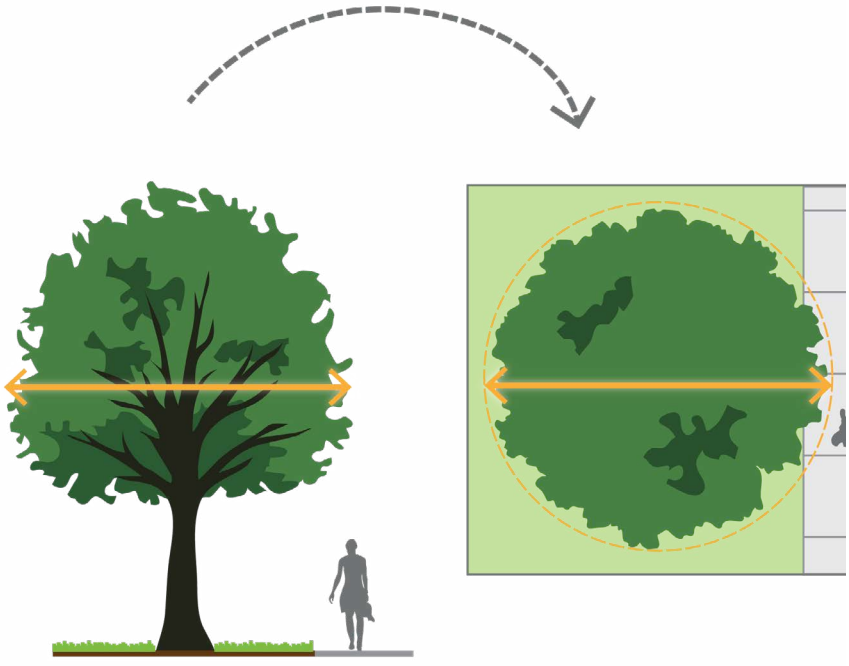


Figure 2-1. Illustration of tree canopy cover.

Canopy cover in Comox

Comox's canopy cover in 2025 was 25% within the Town's boundary (**Figure 2-2**). Trees make up 428 hectares of the Town's total 1,690 hectares of land. In the Town of Comox, canopy cover is concentrated in forested parks like Northeast Woods, Condor Park, and Mack Laing Nature Park, along riparian corridors and greenways like Salish Park and Brooklyn Creek Greenway, as well as in rural undeveloped lands and agricultural areas (**Figure 2-3**). Within the more urbanized areas of the Town, canopy is scattered across landscaped parks, private yards, and streets. Overall, Comox's canopy cover is higher than in more urbanized municipalities such as the City of North Vancouver (20%) and is similar to communities like Nanaimo (28%).

The total number of trees detected by the canopy assessment was 76,000; however this number is likely an underestimate as trees growing underneath other trees are obscured during the tree detection. The canopy assessment used a two-metre height cutoff to classify trees and exclude shrubs. This also contributes to underestimating the true number of trees in Comox by excluding trees shorter than two metres.

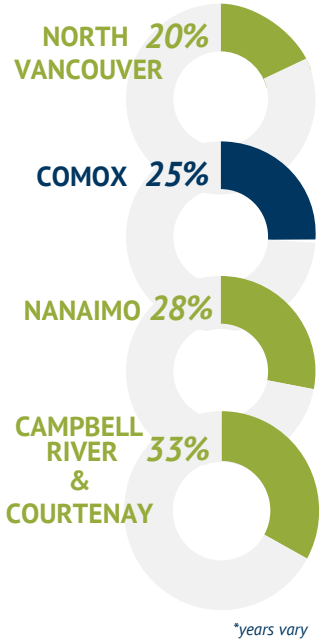


Figure 2-2. Comox's canopy cover with comparison communities.

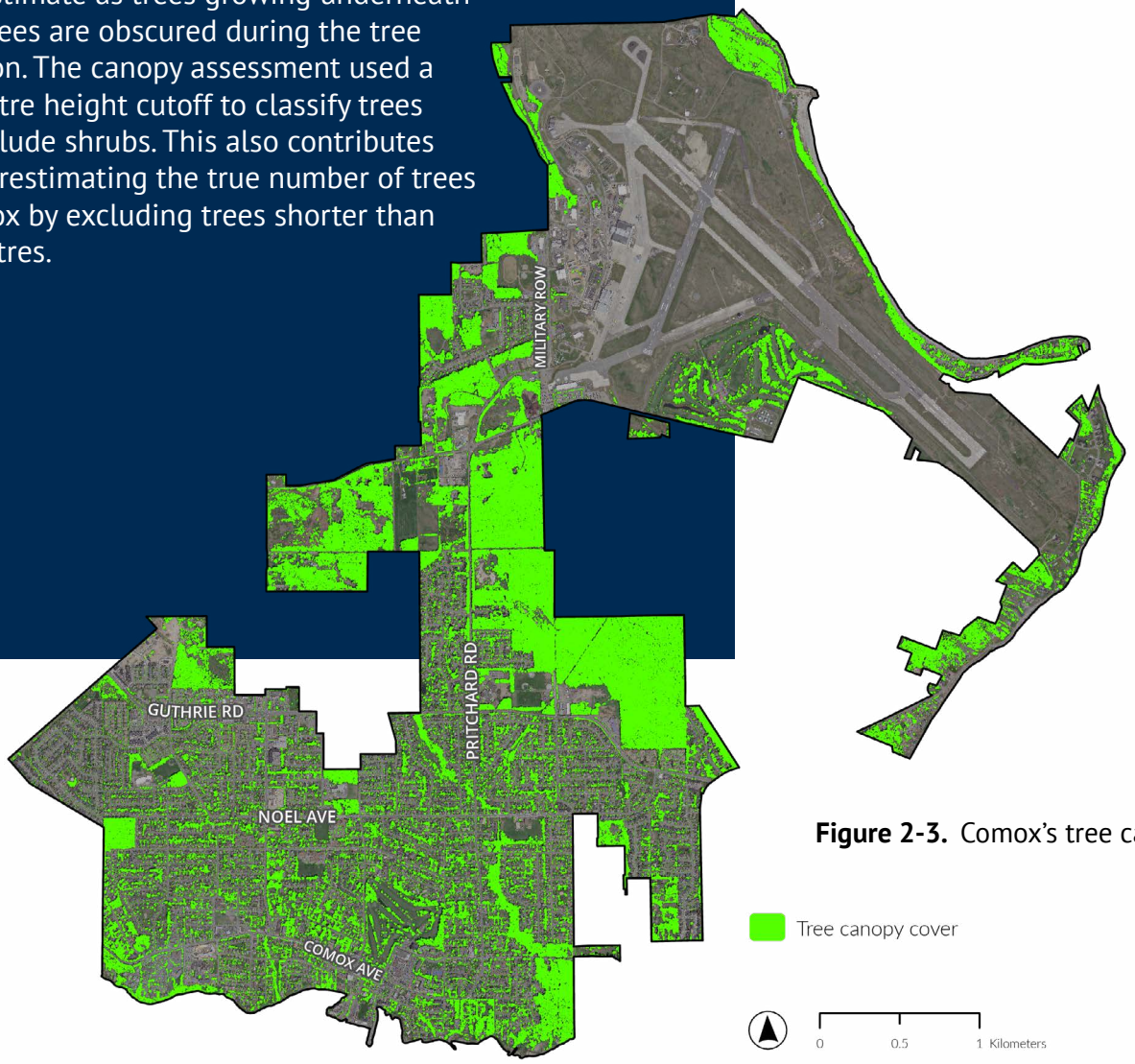


Figure 2-3. Comox's tree canopy cover.

Canopy loss in the last six years

Comox's canopy cover in 2019 was estimated using a combination of LiDAR data and ortho-imagery. This analysis benchmarked Comox's canopy cover in 2019 at 27% (456 hectares). To derive more recent canopy cover, the project team assessed the change between the 2019 result and 2023 using 2023 aerial imagery. The change analysis found 18 hectares of canopy loss between 2019 and 2023, mapping canopy cover to 26% in 2023 (439 hectares). While this change analysis did not account for growth on live trees, the 2023 estimate was validated using i-Tree Canopy—an industry-standard software used to produce statistically valid estimates of canopy cover within a community. An additional 10 hectares of canopy is estimated by Town of Comox staff to have been lost between 2023 and 2025, mainly as the result of recent greenfield development, bringing canopy cover down to 25% in 2025 (429 hectares). **Figure 2-4** compares recent trends in canopy cover with projected population growth from BC Statistics and the Town's Housing Needs Report[15]. Adding people requires building more units of housing, which makes integrating tree protection and tree planting with development regulations even more important for turning around the trend in Comox's canopy cover.

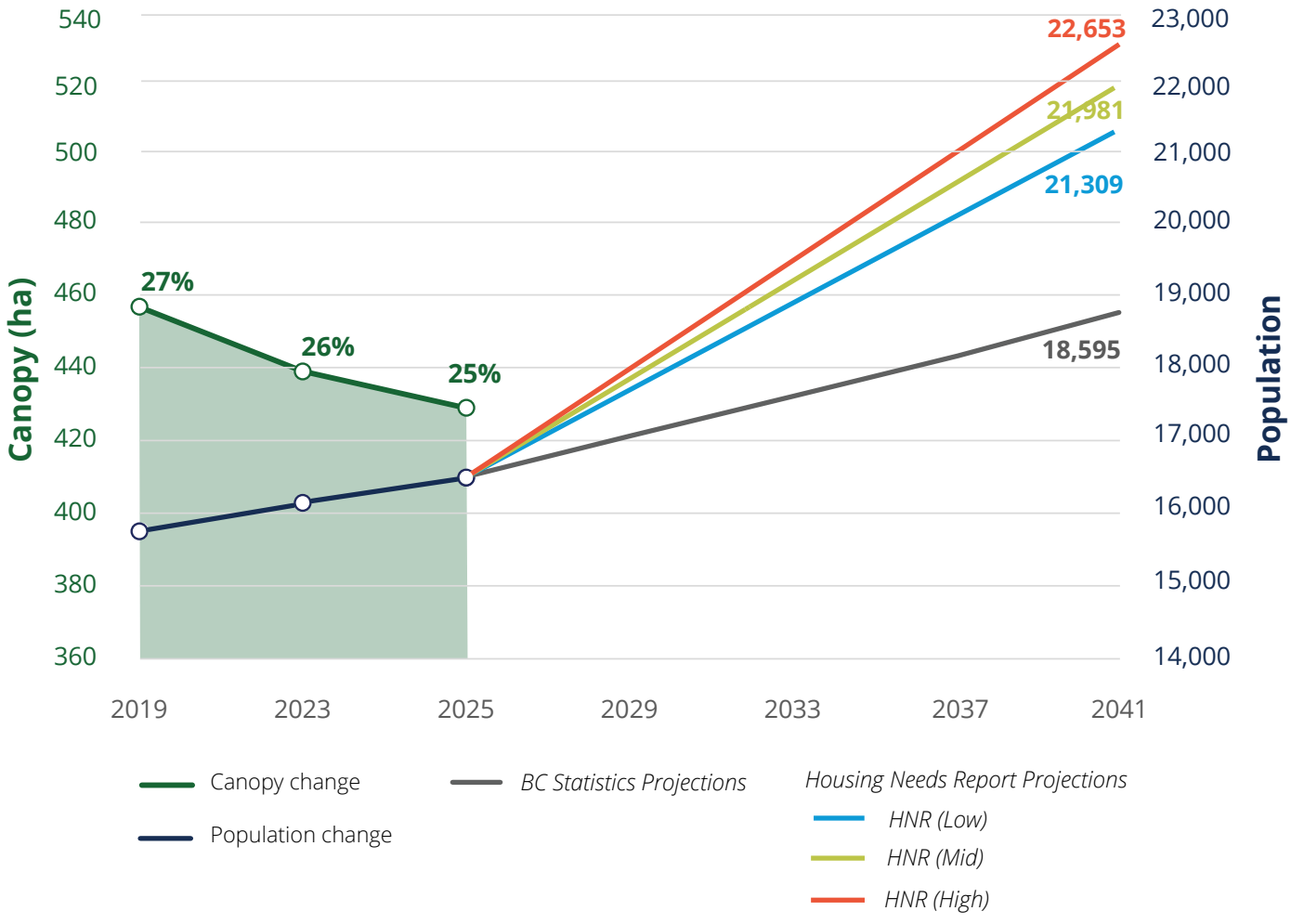


Figure 2-4. Comox's canopy cover and population change from 2019 to 2025, with population projections to 2041.

The most significant driver of canopy loss in the Town of Comox is believed to be urban development, but climate change, pests, disease, and invasive species are also contributing factors. Review of imagery for the change analysis (2019-2023) showed many trees were lost from established residential neighbourhoods, as well as canopy losses through greenfield development (land clearing for new neighbourhoods). Public misconceptions about the level of risk that trees pose on private property—such as fears that large trees are likely to fall or cause damage—combined with concerns that insurers may deny coverage for tree-related incidents, are also contributing to tree removals and overall canopy loss. To sustain the urban forest, trees need to grow faster than the rate of loss in the community or more trees need to be planted. Preventing canopy loss is crucial for preserving the many urban forest benefits trees provide in Comox.

Comox's tree inventory and calls for service

The Comox tree inventory is a tool that keeps track of some Town-owned trees and helps inform urban forest management practices, policy, planning, and landscape design. Trees are added to the tree inventory when they are planted or maintained by the Town. The Town has a digital record of 4,856 individual trees, including details such as tree location, species, height, and diameter at breast height (DBH) (**Figure 2-5**). The current inventory has some data gaps for tree species and DBH (9% and 29% missing information respectively). The inventory also does not record a standardized assessment of recent tree condition. Of the total number of inventoried trees, 2,901 have been identified as park trees and 1,955 as street trees.

The street tree inventory is dominated by young trees, with 75% of measured trees below 20 cm in DBH (**Figure 2-6**). Size can be used as an approximate indicator of tree age and structural diversity, because it takes time for trees to grow to larger sizes.

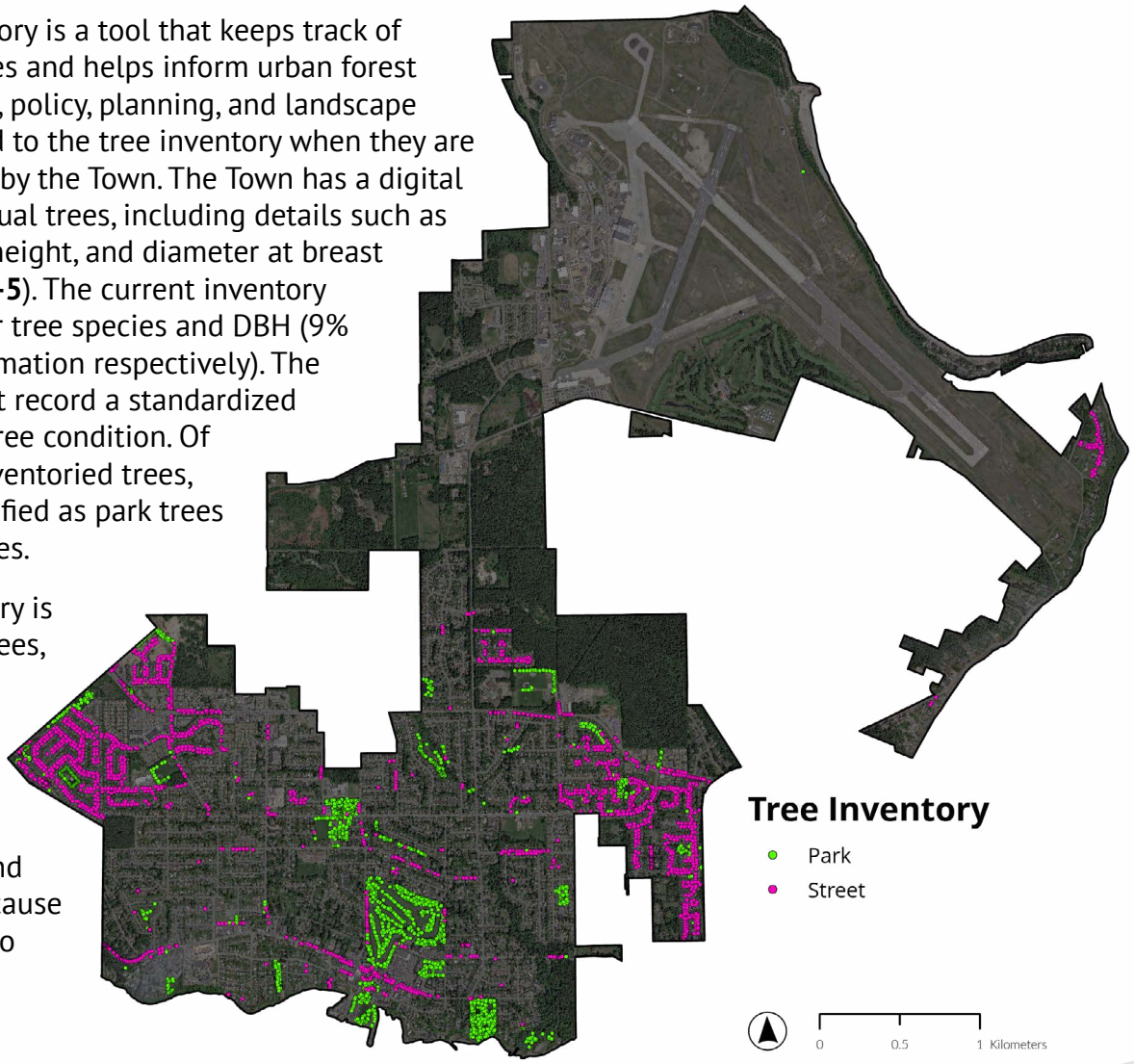


Figure 2-5. Comox's inventory of street and park trees.

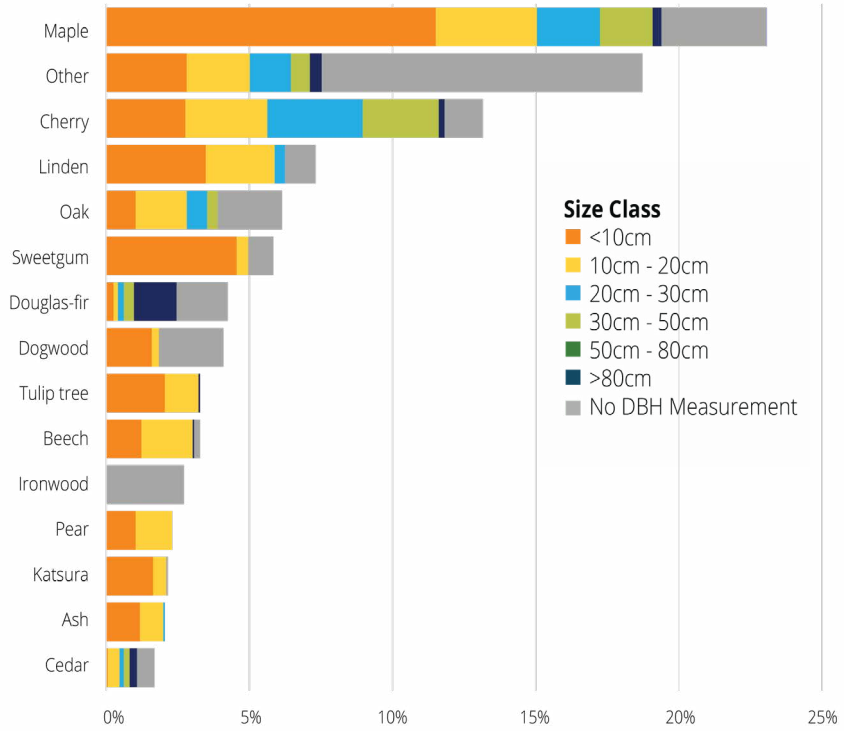


Figure 2-6. The relative proportion of street tree genera by size class in the Town (N=1,955).

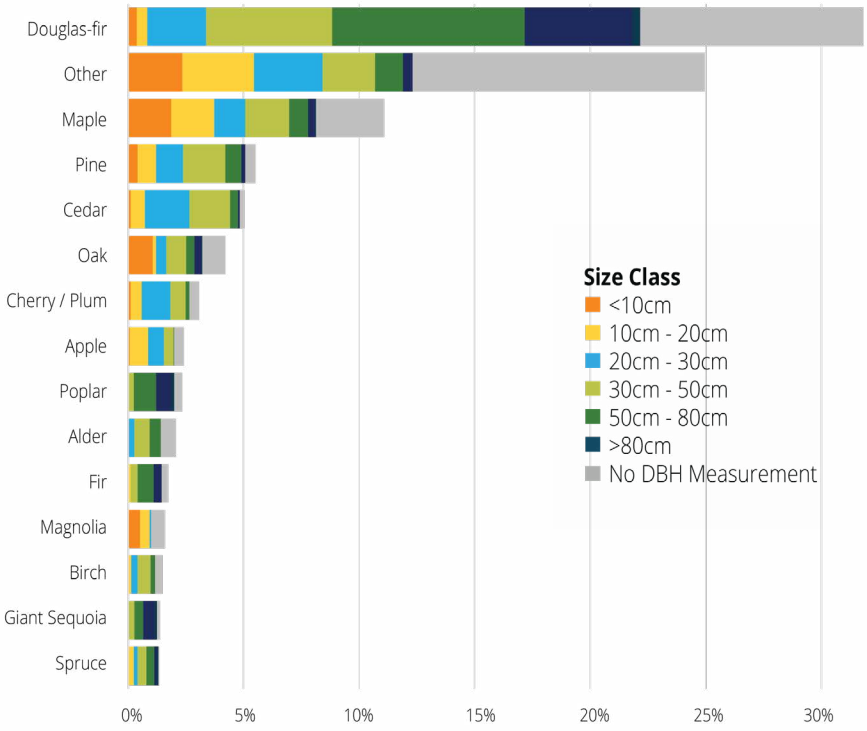


Figure 2-7. The relative proportion of park tree genera by size class in the Town (N=2,901).

The street tree inventory is made up of a small number of genera, with over half of the trees made up of maples (23%), cherries/plums (13%), lindens (7%), oaks (6%), and sweetgums (6%). A widely used guideline for promoting diversity in urban forests is the "10-20-30 Rule[16]", which recommends that no more than 10% of the tree population consist of a single species, no more than 20% belong to a single genus, and no more than 30% fall within a single family. Comox's street tree inventory generally meets this standard, except for maples (Acer) for the genus threshold and red maples (Acer rubrum) and likely cherries for the species threshold (there is uncertainty regarding cherries since the inventory is missing species information). Regular care like structural pruning and watering is essential to ensure young trees reach their full size and maximize their ecosystem benefits in streetscapes.

By contrast, park trees in the inventory suggest a more balanced age structure, with larger proportions of trees in the mid (30 to 50 cm DBH) to large (above 50 cm DBH) size classes implying greater age diversity (**Figure 2-7**). One-third of all inventoried park trees are Douglas-firs. Roughly half of all Douglas-fir trees are larger than 50 cm in DBH, making them the genus with the most large trees in the inventory. Guidelines for species diversity are inappropriate for species composition of natural forests but should be applied to diversify the planting palette in urban (landscaped) parks. Ongoing proactive maintenance of Town's large park trees will ensure these trees continue to serve the community for decades to come.

Comox's tree inventory is being improved over time to include more trees and to record information on tree condition which is necessary to support tree asset management as well as scheduled maintenance.

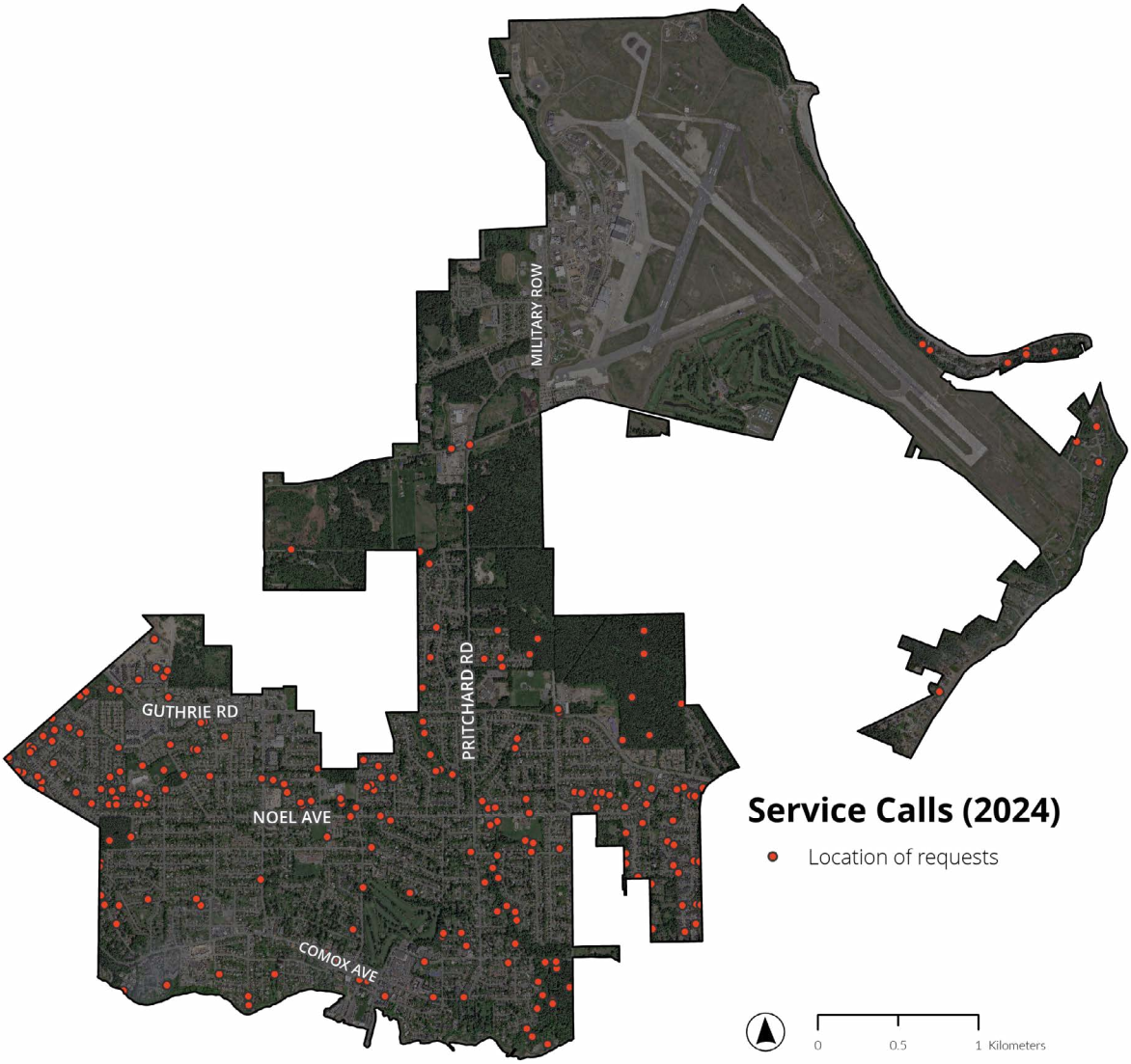


Figure 2-8. Service call requests in the Town of Comox.

Work history information is linked to the tree inventory through the Town's Tempest work order system. Service calls are requests made to the Town to maintain or remove a tree on Town-owned property. In 2024, 250 service calls were made (**Figure 2-8**). The most common service requests were for pruning and canopy reduction (29%), hazard tree maintenance (21%), and tree removals (16%).

2.2 MAPPING THE URBAN FOREST

Land ownership and canopy cover

Landowners are the primary decision-makers about trees on their land. Examining the urban forest across different types of land ownership helps the Town understand who is responsible for the existing urban forest and who can help grow it in the future (**Figure 2-9**). This information can help the Town create programs that support landowners in taking care of their trees and planting more.

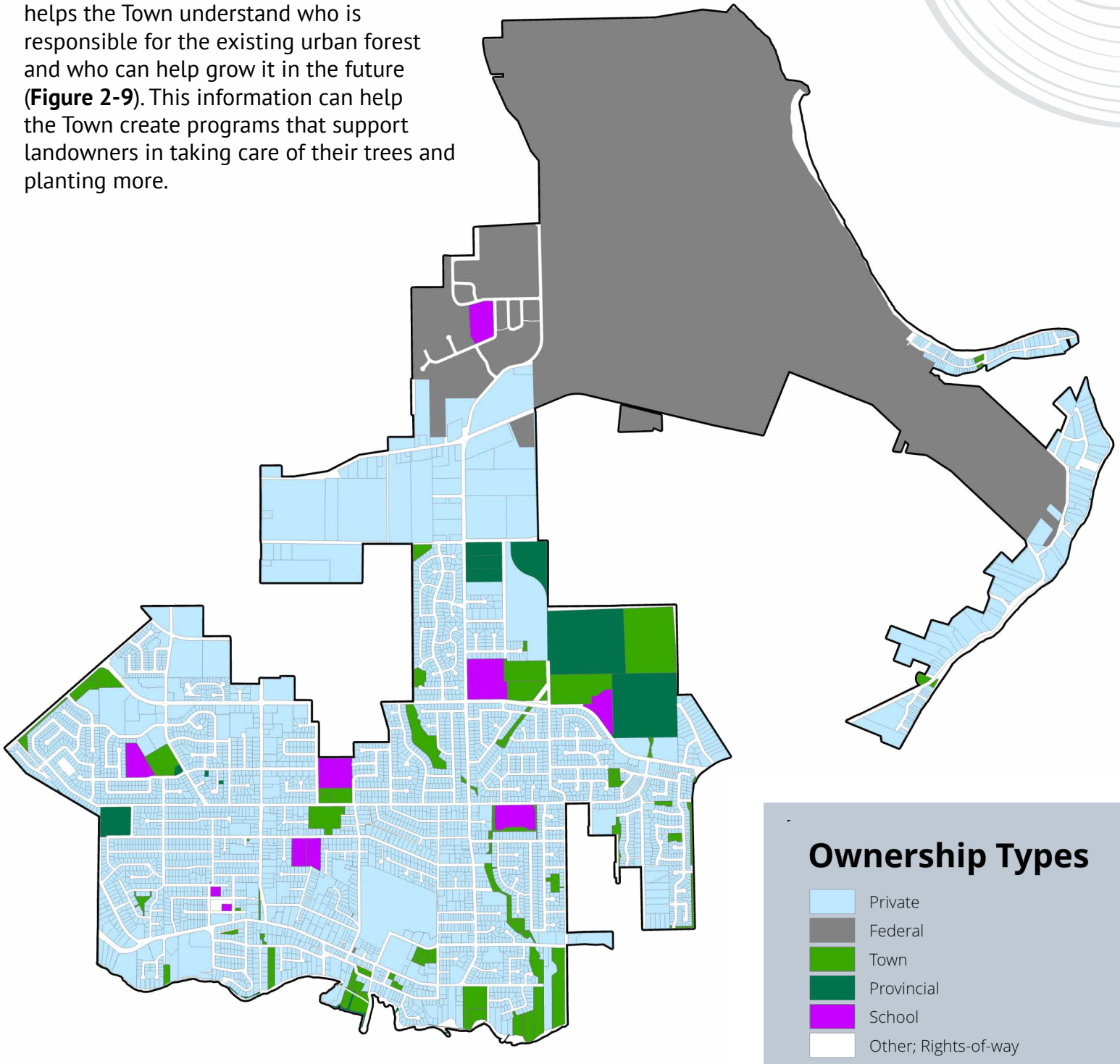


Figure 2-9. Broad types of ownership used for the UFMS summaries.

Figure 2-10 helps illustrate which types of land ownership have particularly high canopy cover relative to their size and the overall extent of the urban forest. Private lands make up the largest share of both the Town's canopy (55%) and land area (42%), and have moderately high canopy cover (i.e., the average canopy cover across all private land) at 33%. The amount of tree cover on private lands is almost five times the size of the Northeast Woods. Comox's private property owners have a significant role to play in determining the future of Comox's urban forest.

Federal lands are the second-largest land base (36%) but have lower canopy cover (11%) and contribute only 16% of total canopy. Excluding Federal lands would bring Comox's Town-wide canopy cover from 25% to 33% (and increase the share of the urban forest on private land to 66%). Town lands like parks and facilities have 55% canopy cover and contribute 9% of the total canopy. Similarly, Provincial lands have high canopy cover and contribute much to the urban forest despite their small area. Rights-of-way (including roadways) have 15% canopy cover and account for 7% of the total canopy area although they are the third largest type of ownership after Private and Federal lands. School sites occupy 2% of the Town's land area and contribute 1% of its urban forest canopy.

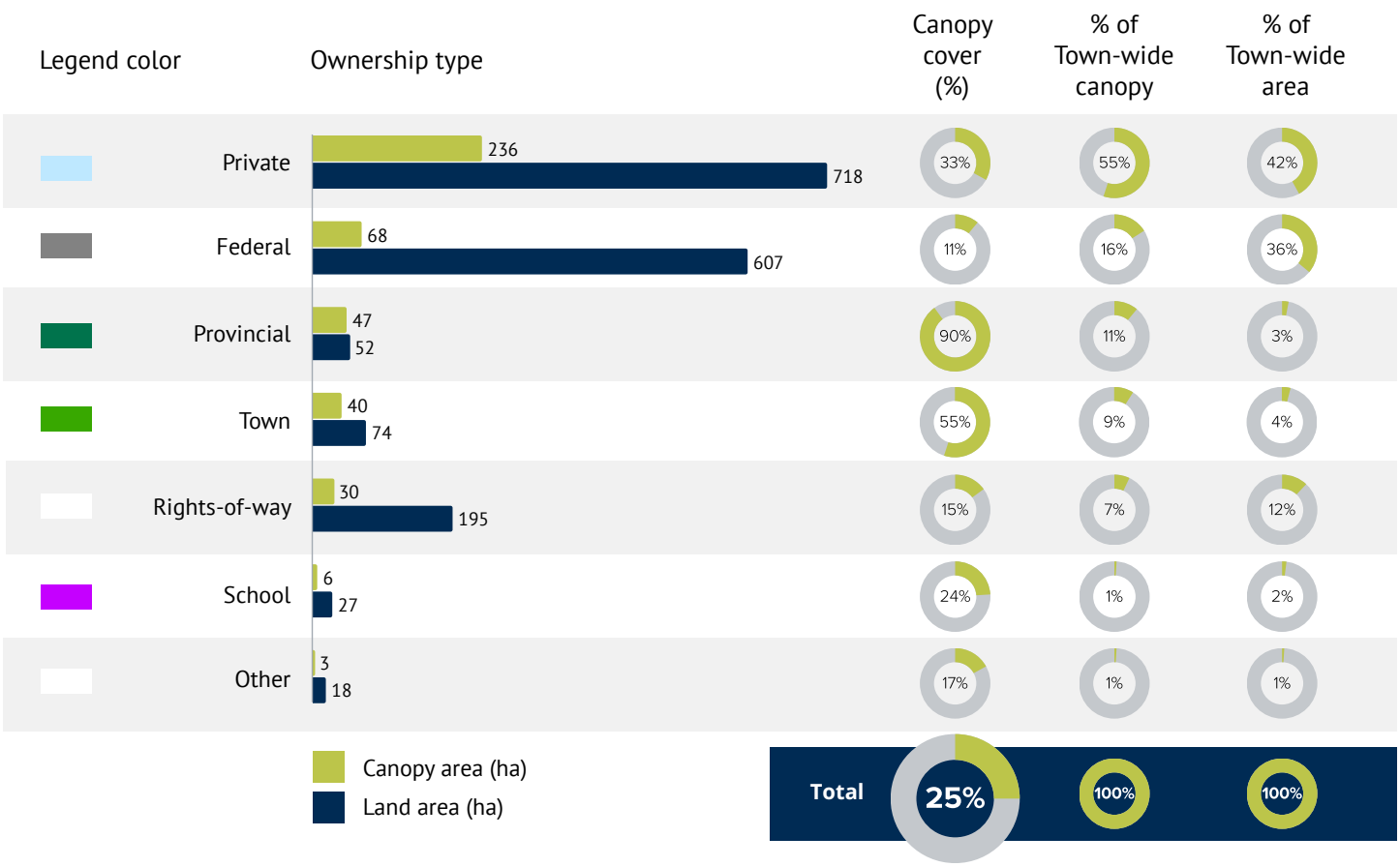


Figure 2-10. Canopy cover, proportion of total canopy, and proportion of town-wide area by ownership type.

Land use and canopy cover

In the Official Community Plan (OCP), Future Land Use mapping identifies where and what type of development will be supported in Comox. These designations are periodically updated to reflect Council priorities and community planning initiatives. In some areas, Future Land Use designation aligns with the existing use and density, signaling only modest change is likely, while in other areas more significant shifts in urban form and character are anticipated. Because land use designations vary in scale, those that occupy a larger portion of the Town will have a stronger influence on the long-term condition of Comox's urban forest. The distribution of canopy cover by land use in the Town can reveal key insights and opportunities for both protection and expansion of the urban forest.

While the Town-wide canopy cover is 25%, canopy cover by land use varies widely (**Figure 2-11**). Residential and mixed land uses account for 41% (combined: 175 ha) of the Town's canopy cover. Canopy cover averages 30% on low-density residential properties, 26% on medium/high-density residential properties, and 32% on mixed use properties. While these urban land uses currently have above average canopy cover, they are the land uses most at risk of canopy loss in the coming decades. Redevelopment, densification, and the expansion of hardscapes may lead to gradual canopy decline. Stronger tree protection requirements and incentives for retention and planting are needed to support the future of the urban forest in Comox.

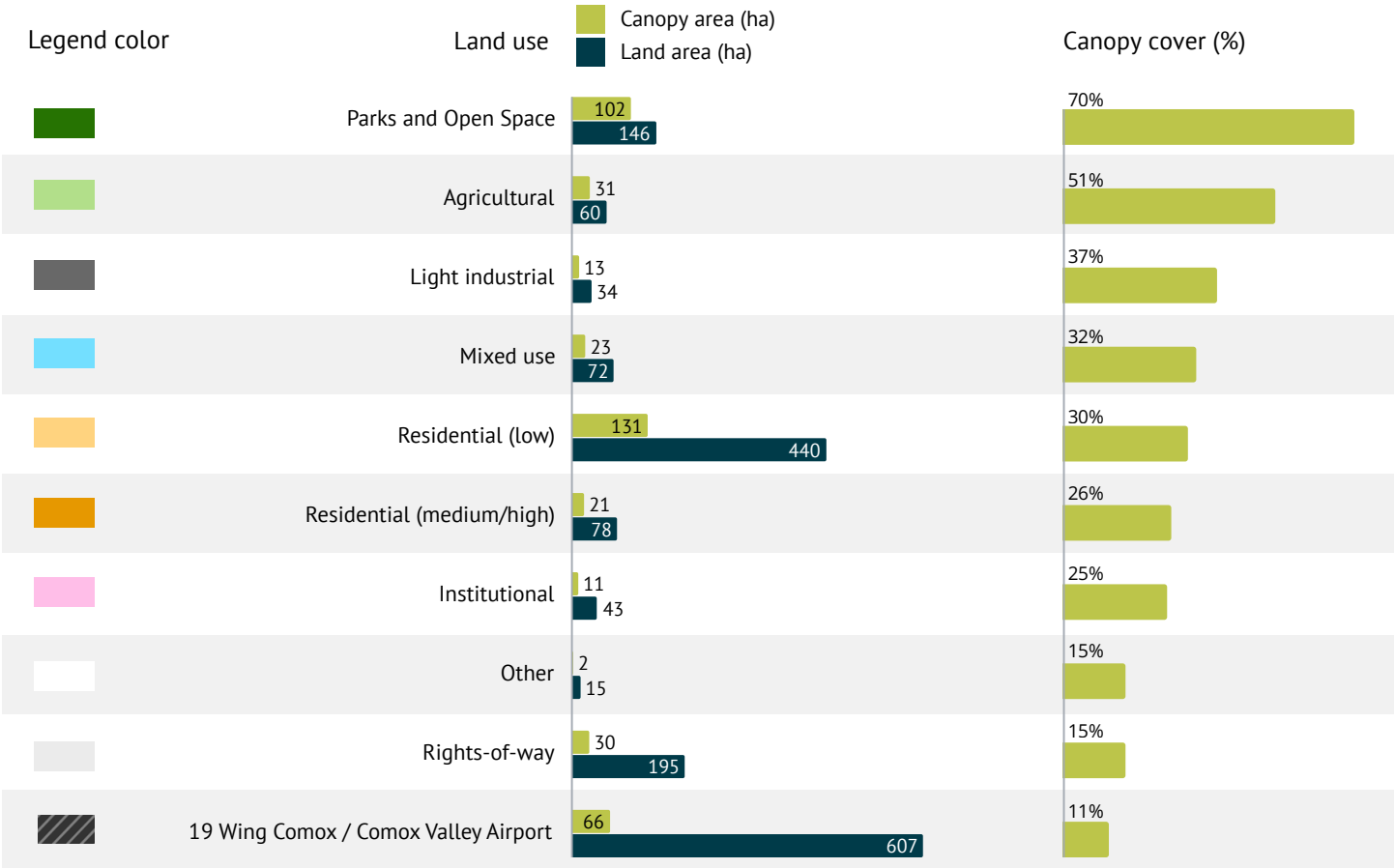


Figure 2-11. Canopy cover by consolidated OCP Future Land Use for the UFMS.

Parks and open space contain one-fifth (146 hectares) of the total canopy in the Town and have the highest canopy cover at 70%. These lands represent a stable foundation for Comox's urban forest, so long as proactive management for tree and forest health are prioritized. Rights-of-way, despite their lower current canopy (15%), present strategic opportunities for street tree planting and canopy expansion. Institutional lands also present opportunities for tree canopy growth by engaging with the school district to promote planting activities. Because of right-to-farm legislation, the Town has limited influence over the urban forest on agricultural property.

19 Wing Comox / Comox Valley Airport

Airport and military lands (19 Wing Comox / Comox Valley Airport) make up more than a third of Comox (607 hectares) but their canopy cover is just 11%. Excluding these lands would bring the Town's total canopy cover up to 33% but would also increase the apparent rate of loss in tree canopy, most of which occurred elsewhere between 2019 and 2025. Despite the limited influence of the Town on this land use, including these lands recognizes their current urban forest value and future potential for collaboration with Town initiatives.

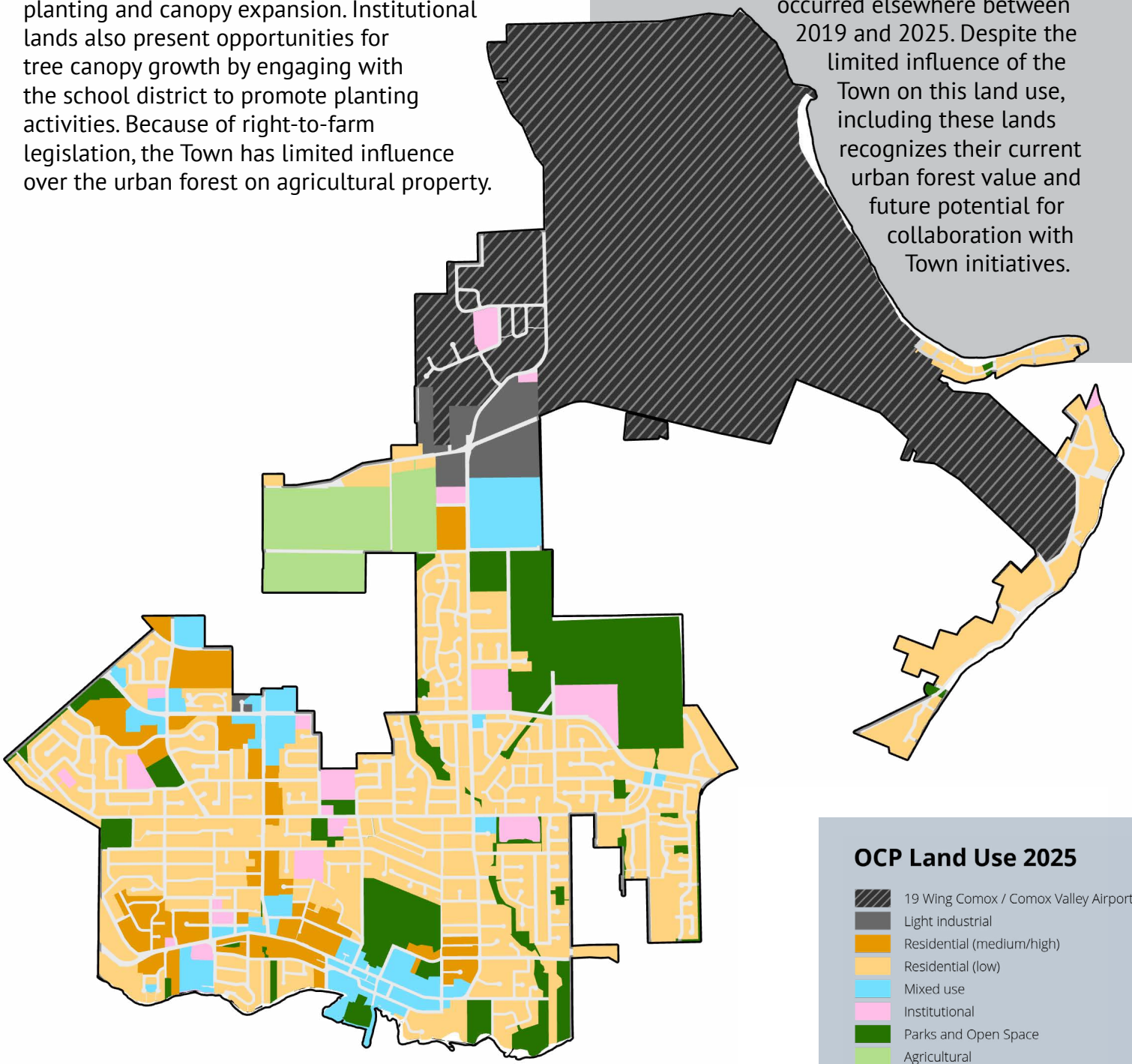


Figure 2-12. Town of Comox, showing consolidated OCP Future Land Uses for the UFMS.

Development impacts on the urban forest

Comox may need to house 3,300 new residents by the year 2041, according to the Housing Needs Report (2024). This will require both intensification, a process where the density of urban areas increases, and greenfield development, a process where previously undeveloped land is developed for new uses. Development can result in the removal of existing trees and reduce the amount of permeable space available for planting new trees. It can also put stress on trees that are retained throughout development. For example, development activities may compact tree roots and increase a tree's exposure to utility infrastructure, roads, and vehicles. Updating tree protection and design standards are part of identifying opportunities for urban change to support urban forest management. With thoughtful planning, trees can be accommodated through the development process, helping to ensure a healthy and sustainable urban forest.

Photo: Greenfield developments help meet the demand for housing but can result in substantial tree loss and a high level of public concern.

Tree equity score

Trees are not evenly spread across Comox. As a result, residents have unequal access to the urban forest and its benefits. Studies have shown that the distribution of trees impacts the quality of life for residents who live and work in neighbourhoods with low canopy cover[17,18]. For instance, high canopy neighbourhoods will have lower summer temperatures compared with low-canopy neighbourhoods. In low-canopy neighbourhoods, residents will have fewer ways to escape the heat and may face higher costs for luxuries such as air conditioning.

These challenges are compounded when low canopy cover overlaps with socially vulnerable populations, represented by the Priority Index in **Section 1**. These are socioeconomic groups that are less able to prepare for, adapt to, and recover from natural hazards due to factors like age, income, gender or ethnicity. For example, an older adult living in a neighbourhood with little to no tree cover is more at risk for heat-related illnesses during extreme heat events[19,20]. This is relevant in the Town of Comox where median age in 2021 was 52, ten years older than the median age in BC, and the dependency ratio was 84.7% compared to 53% in BC[21]. As climate change increases the frequency of heatwaves and severe storms, expanding Comox's urban forest is a critical step in protecting community health and resilience.

The Tree Equity Score (TES), developed by the nonprofit American Forests[22], was used to identify where in Comox trees are needed most. The TES compares canopy cover with five indicators that reflect vulnerability to loss of urban forest ecosystem services and applies them to Comox's census dissemination areas (**Table 1-2**). The resulting map illustrates where disparities exist across the Town (**Figure 2-13**). A low TES score indicates where low tree canopy cover overlaps with high vulnerability.

In the Town, areas with lower scores were mostly concentrated in newer developments along the Guthrie-Anderton Corridor in the northwest which were planted more recently compared to the rest of the Town. Other more scattered areas with lower TES were found in Central Comox just north of the Downtown Centre and north along Pritchard Road, and the Harbor View corridor west of Downtown. Planting in areas with low TES will improve access to urban forest benefits, making Comox a more equitable town that is better equipped to handle climate change.

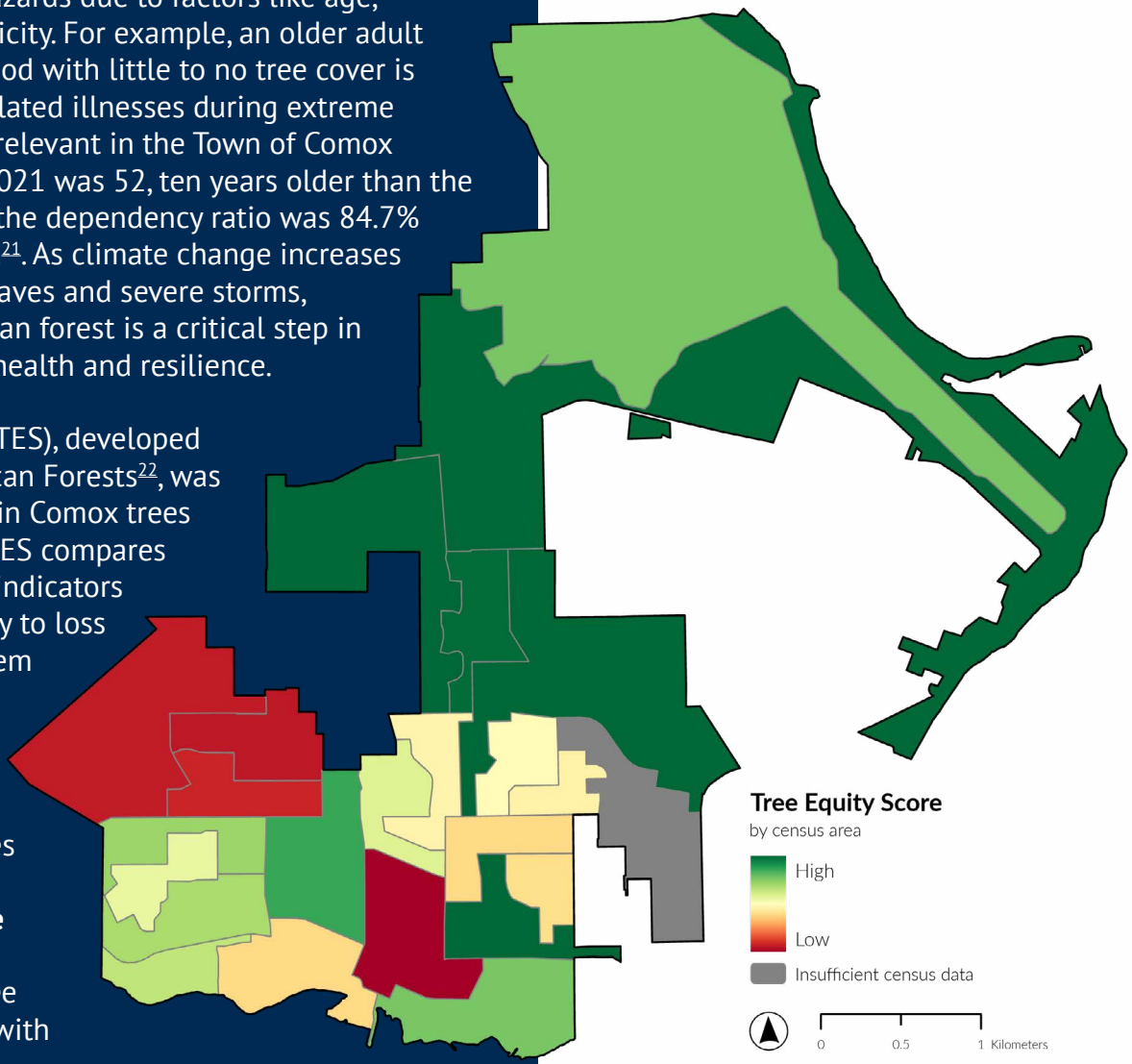


Figure 2-13. Tree Equity Score by census dissemination area in the Town of Comox.

Natural areas and biodiversity

Natural areas support ecosystem services and play a pivotal role maintaining biodiversity and the ecological health of the urban forest. In Comox, there are 276 hectares of forested natural areas on public and private land, representing 16% of the Town's total area, and over half the urban forest.

Historical development and logging have led to the replacement of Comox's original old-growth forests with urban land uses or fragmented younger second-growth forests. Today, most trees in Comox's second-growth forests are younger than 120 years. However, some old-growth Douglas-fir trees remain scattered throughout second-growth stands, offering a connection to an earlier landscape.

The Town's second-growth forests are in various stages of ecological succession depending on the amount of time they have had to reestablish following a major disturbance such as logging or wildfire.

Each stage has distinct characteristics including different canopy structures and species compositions. There are three stages of ecological succession that can be found in Comox's natural areas (**Figure 2-14).**

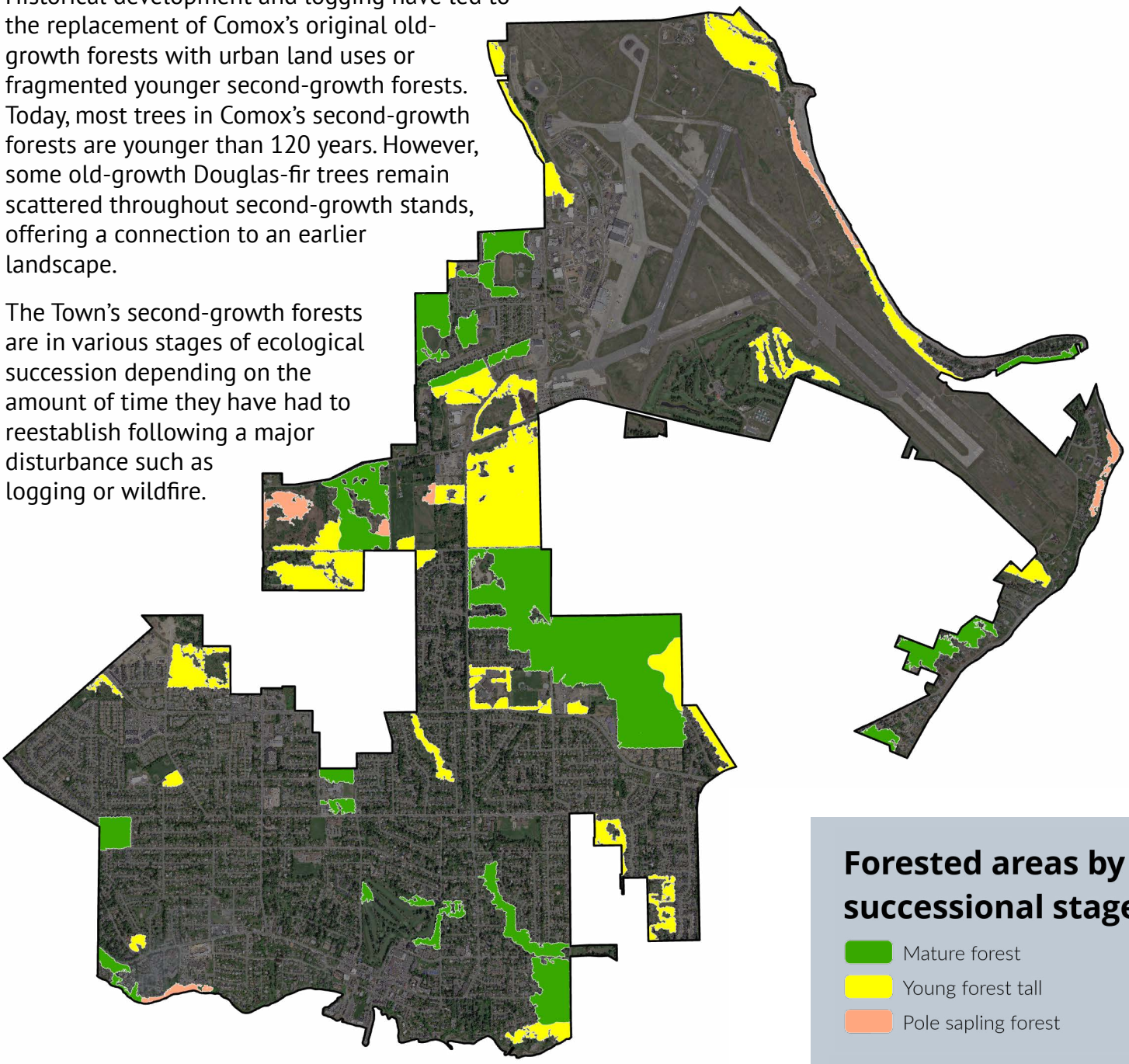


Figure 2-14. Forest structure distribution in the Town of Comox.

Pole sapling forests (5 to 35 years old):

In Comox, there are 11 hectares of pole sapling forests. These forests are in the early stages of recovery after disturbance, with young saplings growing densely together. In pole sapling forests, there is a high density of trees competing for light and space. The species that thrive in these forests are early successional species with low tolerance for shade. In Comox, pole sapling forests are typically dominated by deciduous species such as red alder, though coniferous species such as Douglas-fir are also present.

Young forests (35 to 80 years old):

Comox has approximately 118 hectares of natural areas with young forests. Trees in these forests have grown tall, the canopy has closed over and less light reaches the forest floor. The lack of light on the forest floor sometimes limits the variety of understorey shrubs that grow. In Comox, these forests may contain deciduous and coniferous species including Douglas-firs, red alders and bigleaf maples. Where present, the understorey includes native shrubs such as salmonberry, sword ferns, salal, and Oregon grape.

Mature forests (80+ years old):

Mature forests account for around 147 hectares of forested natural areas in Comox. They have a well-established canopy and a diverse understorey. Canopy gaps form as trees die, allowing a complex structure to take shape. These forests are dominated by coniferous tree species, especially Douglas-fir, though grand fir, Sitka spruce and western redcedar are also found. Large bigleaf maples and other legacy deciduous trees are sometimes present. Native shrubs in the understorey include sword ferns, Oregon grape, salal, and oceanspray.

While some of the differences in forest composition are subtle, a variety of forest successional stages can be seen during a visit to MacDonald Wood or Northeast Woods/ Lazo Marsh Conservation Area. Douglas-fir is the dominant canopy tree on many sites, and western hemlock and western redcedar are less common, especially on drier sites. Grand fir, bigleaf maple, shore pine, and Pacific yew are also present.

Comox also has a unique forest type that developed on the Lazo dune field, an area of stabilized sand dunes that are a remnant of the movement of sand after the retreat of the last glaciers over 10,000 years ago. Forests of shore pine and Douglas-fir that can tolerate the dry, nutrient-poor sand soils have developed, with salal and Oregon grape as understorey shrubs. The small portion of the dune field within the Town of Comox is connected to adjacent forests in the CVRD.

Douglas-fir/pine forests occupy the Lazo dune field.

Garry oak trees are a unique part of Comox's urban forest and have ecological and cultural significance. This windswept forest edge near Point Holmes reflects the effects of wind and saltspray along Lazo Road.

Healthy natural forests in Comox are home to many other plant species, which form the basis of complex food webs and unique ecosystems on land and for downstream aquatic and marine life. Some of the common understorey plants in Comox's forests are salal, red huckleberry, oceanspray, baldhip rose, orange honeysuckle, bracken fern, and trailing blackberry. Rarer plants often indicate areas of high ecological integrity, and include Calypso orchid, western trillium, rattlesnake plantain (also an orchid), vanilla-leaf, and Pacific sanicle. Many of these small plants are best observed in the spring, when they produce flowers.

Invasive species such as Scotch broom, English ivy and Himalayan blackberry are found in forested natural areas at all stages of ecological succession, especially near edges. These invasive plants compete with native species, threatening the overall health of the ecosystem. Effective management includes removal programs that replace invasive species with native shrubs and trees to restore ecological balance.

Forested natural areas are vital habitats that support biodiversity, providing essential resources for the survival and well-being of native plants and animals. The Town actively supports natural areas through wildlife stewardship, working closely with organizations such as the Brooklyn Creek Watershed Society, and is designated as a Bat Friendly Community by the BC Community Bat Program. Additionally, Comox was recently certified as a Bird Friendly Community through Nature Canada in 2025 and a Bee City by Bee City Canada. Ongoing efforts to expand and nurture the urban forest will benefit these initiatives by enhancing the habitat quality for the diverse range of plants and animals.

Native:

Salal

Red huckleberry

Bracken fern

Invasive:

Himalayan blackberry

English holly

English ivy

Conservation priority of Coastal Douglas-fir ecosystems

The Comox Peninsula is located at the transition between the Coastal Douglas-fir moist maritime (CDFmm) and the Coastal Western Hemlock very dry (CWHxm1) biogeoclimatic variants—two ecological units that encompass the lowland forests of eastern Vancouver Island. Native forests in this area support a distinct community of trees and shrubs adapted to drier and warmer conditions than elsewhere on the coast of British Columbia, featuring high numbers of Douglas-fir. The rainshadow formed by the Vancouver Island mountains and the low-lying topography of the Comox peninsula reduces rainfall. Comox receives about 1200 mm of rainfall annually, while west-facing Tofino receives almost 3300 mm. Local forests are recognized for their high biodiversity values and rarity: less than 1% of the original forest remains in this region and most of the native forests in Comox developed after logging more than 100 years ago. The Coastal Douglas-fir Conservation Partnership (CDFCP) is a collaboration of agencies, organizations and land managers who are interested in promoting and protecting healthy Coastal Douglas-fir and associated ecosystems on Vancouver Island into the future.

Tallest trees in Comox

The heights of trees in the Town of Comox are shown in **Figure 2-15**. Over 50 trees in Comox exceed 50 metres in height, the equivalent of a 15-storey apartment building. Most of the Town's tallest trees are second-growth coniferous trees that are likely over 100 years old.

The presence of tall trees in the Town of Comox contribute to a more complex forest structure and higher productivity, making areas with concentrations of these trees particularly valuable for biodiversity and ecosystem services. The tallest trees are most often found in natural areas along creeks and forested lands where soils and water availability allow them to reach impressive heights, like in Northeast Woods. There are significant numbers of trees over 30 metres in height scattered throughout urban Comox, including near parks and waterfront areas, where they not only provide important habitat but also contribute to the Town's unique character and sense of place. These trees were identified during canopy analysis using LiDAR, which provides accurate estimates of tree height above the ground.

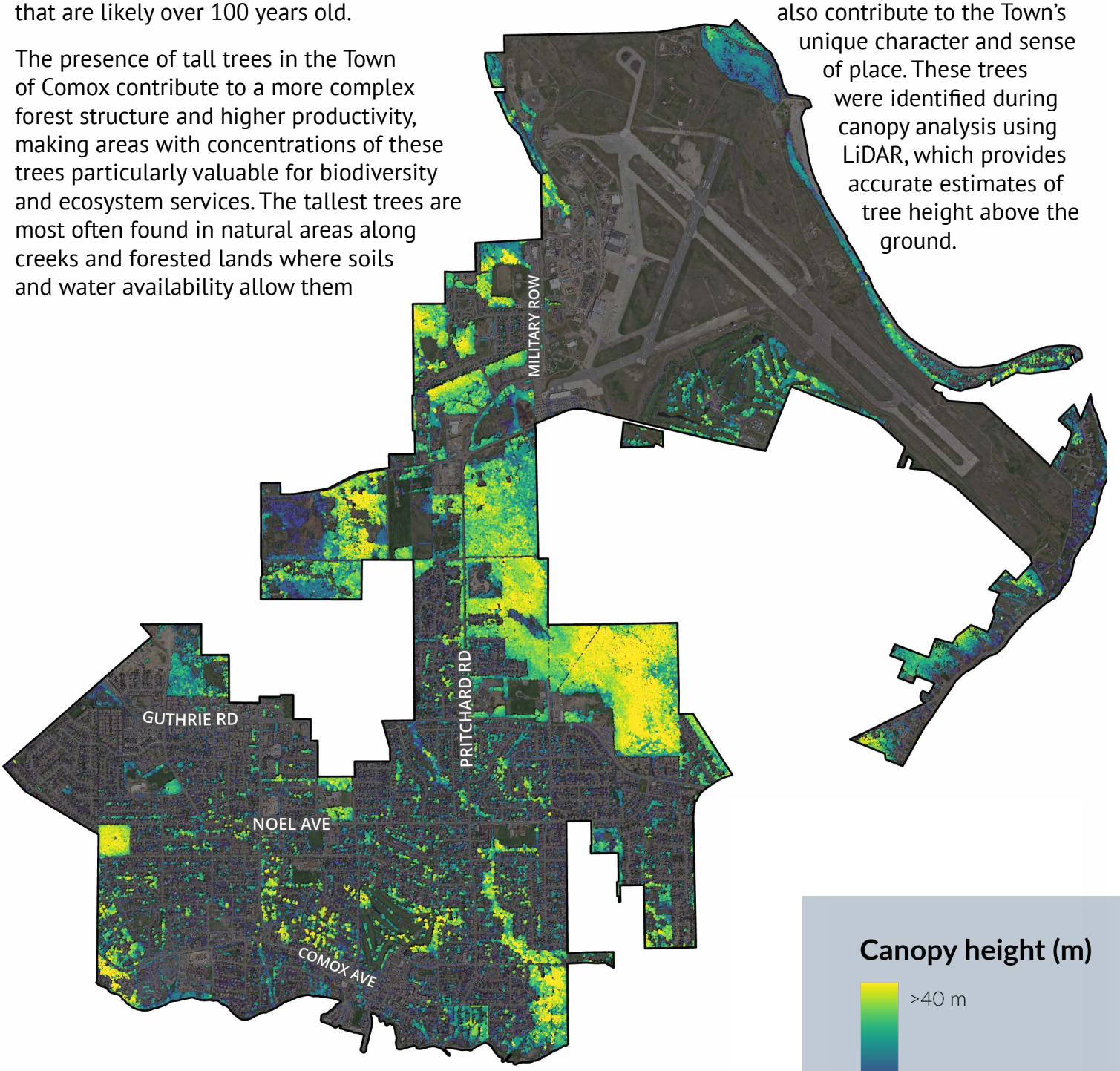


Figure 2-15. Canopy height in the Town of Comox.

2.3 MANAGING THE URBAN FOREST

Key policies, plans and bylaws

The UFMS is supported by federal, provincial and local policies, plans and bylaws (**Figure 2-16**). These have an impact on urban forest management at the following levels:

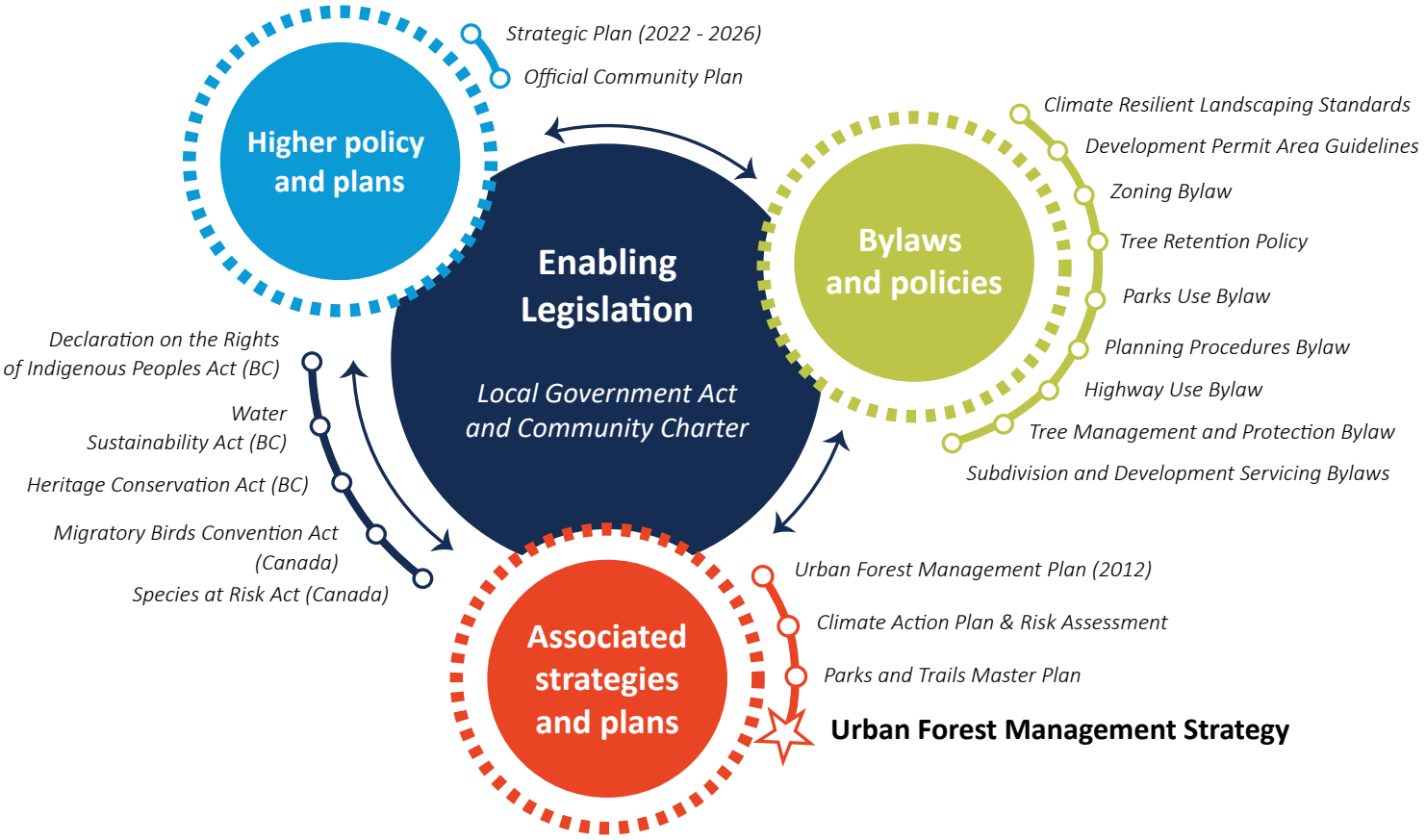


Figure 2-16. Key policies, plans and bylaws for the Town of Comox.

1. **Enabling Legislation:** These are provincial and federal laws that guide the Town's operations and give it the authority to make regulations about trees.
2. **Higher Policy and Plans:** These policies and plans outline the strategic vision for the Town of Comox. They create a roadmap for the community, achieved through day-to-day operations and other planning processes.
3. **Associated Strategies and Plans:** These are documents, like the UFMS, that influence the implementation and outcomes of urban forestry.
4. **Bylaws and Policies:** Bylaws and policies establish rules and oversight for urban forest management. Comox has multiple bylaws that set standards for tree protection, planting and development variances and reporting requirements. Council Policies guide day-to-day business and set standards for operations and procedures followed by staff.

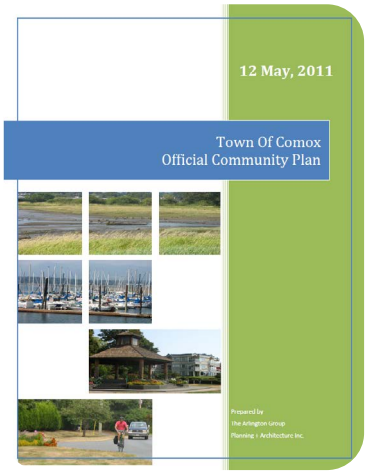
Enabling legislation

The *Local Government Act* enables the Town to make plans and policies, and establishes the authority for the Official Community Plan, zoning powers, and other bylaws. The *Local Government Act* also authorizes development permit areas that regulate land uses and construction within the Town. These regulations influence how Comox will grow and change over time and therefore influence changes in the urban forest.

The *Community Charter* gives the Town the power to make bylaws about trees on both public and private land. It lets the Town protect nature, carry out municipal services, look after public spaces and buildings, and control soil removal practices. These rules can directly affect how well trees are able to grow throughout the Town.

Laws from the federal and provincial governments set standards for urban forest management. They require the protection of nature and cultural heritage. These include federal laws such as the *Species at Risk Act* and *Migratory Birds Convention Act*; and provincial laws such as the *Heritage Conservation Act*, *Water Sustainability Act* and *Declaration on the Rights of Indigenous Peoples Act*.

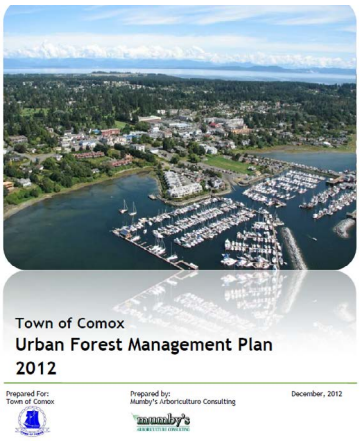
Higher policies and plans



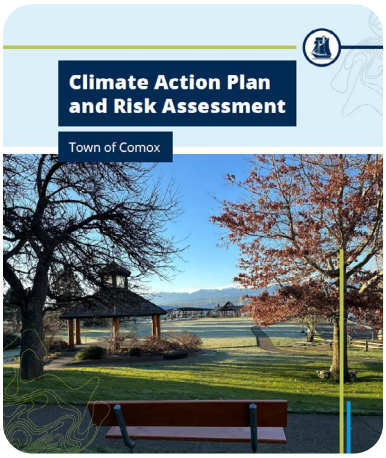
The *Official Community Plan* (OCP) establishes the long-term community vision of Comox as a pedestrian-oriented seaside town that recognizes the value of its natural areas. It contains environmental and land use policies and development permit areas. The OCP outlines the direction for urban forest management work within the Town, including development of this UFMS, expansion of the tree protection bylaw and a policy statement for Net Zero Deforestation that implies that Comox's canopy cover target should be no less than current town-wide canopy cover. All bylaws must be supported by the OCP and adopted by Council. The Town is currently updating its OCP in 2025 as required by the Province of BC.

The *Strategic Plan (2022-2026)* offers a four-year framework for achieving the community vision outlined in the OCP. It describes the current high priorities for Town business through three lenses: Climate, Accessibility, and Reconciliation.

Associated strategies and plans



The *2012 Urban Forest Management Plan* is the predecessor of this UFMS. It improved the Town's urban forest program and led to the development of the Town's tree inventory and adopting ANSI A-300 Standards and ISA Best Management Practices for tree care. This plan recommended the development of tree canopy cover targets for Comox.



The *Climate Action Plan and Risk Assessment (2023)* reflects Comox's goal to become a carbon neutral community by reducing greenhouse gas emissions and it prepares the Town for the long-term impacts expected from climate change. It recognizes the key role the urban forest plays in mitigating, adapting, and building resilience to climate change by offering co-benefits such as shade, stormwater runoff attenuation, and carbon sequestration. It also contains actions that seek to involve the community with urban forest stewardship through education about FireSmart and establishing a residential tree planting program.

The *Parks and Trails Master Plan (2025)* guides the growth of Comox's parks and trails over the next decade and beyond. This Master Plan recognizes the urban forest's role in mitigating impacts of climate change and the recreational value of trees. It recommends budget allocations for tree planting and maintaining the existing urban forest.

Bylaws and policies

Protection Bylaws and Policies

The current *Comox Tree Management and Protection Bylaw* dictates how many and which trees can be cut and removed, and which trees must be replaced. It applies to private rural properties greater than 0.5 hectares in certain areas of Comox and some Town-owned properties.

The *Comox Parks Use Bylaw* protects trees in Town-owned parks from damage establishing prohibitions on vandalism and mistreatment.

The *Comox Highway Use Bylaw* protects boulevard trees by allowing the Municipal Engineer to ask for notice if tree roots are found in the road area and to change or cancel a permit if the work would harm those tree roots.

The *Tree Retention Policy* guides staff to maintain a target of 30% of existing trees that have a DBH of 20 cm or more on development sites that require rezoning.

Bylaws Affecting Tree Planting

The *Subdivision and Development Servicing Bylaw* sets regulations for how land is subdivided and what works and services are required to support development of the land. These works and services include the design of municipal and utility infrastructure in the road adjoining private property, including planting and spacing requirements for trees along boulevards, which impact the available space and quality of planting sites for trees. The Bylaw also dictates soil volume requirements based on tree height classes and details the use of structural soil and soil cells when planting in hardscapes or constrained softscapes.

The *Comox Zoning Bylaw* informs which types of activities and densities are allowed on each land parcel within the Town. It sets regulations for landscaping requirements and building size and siting, major influences on parcel land value. Setback and lot coverage requirements in the Zoning Bylaw determine the leftover space that is available for tree planting or retention and sometimes impact the planting environment in the adjacent public realm. Some zones, like for Multi-Family and Small Scale Multi-Unit Housing require minimum areas of permeable landscape and on-site tree planting.

Development Variances and Tree Reporting Requirements

According to *Comox's Planning Procedures Bylaw*, when a person applies for a development, Town staff can ask for extra information and assessment of proposed development impacts (called Development Approval Information). This information can include how the project might affect the natural environment, including forests and trees. Staff are also allowed to approve small changes to building rules, called Minor Development Variance Permits. These small changes can help solve problems when tree protection would conflict with what the zoning bylaw allows. Finally, this Bylaw allows the Town to collect money (called a security) for conditional landscaping, such as tree planting required as a condition of rezoning.

Climate Resilient Landscaping Standards provides standards for landscape design on Town-owned property, or where given effect by bylaw or a development condition, on private property.

Budget and program stats

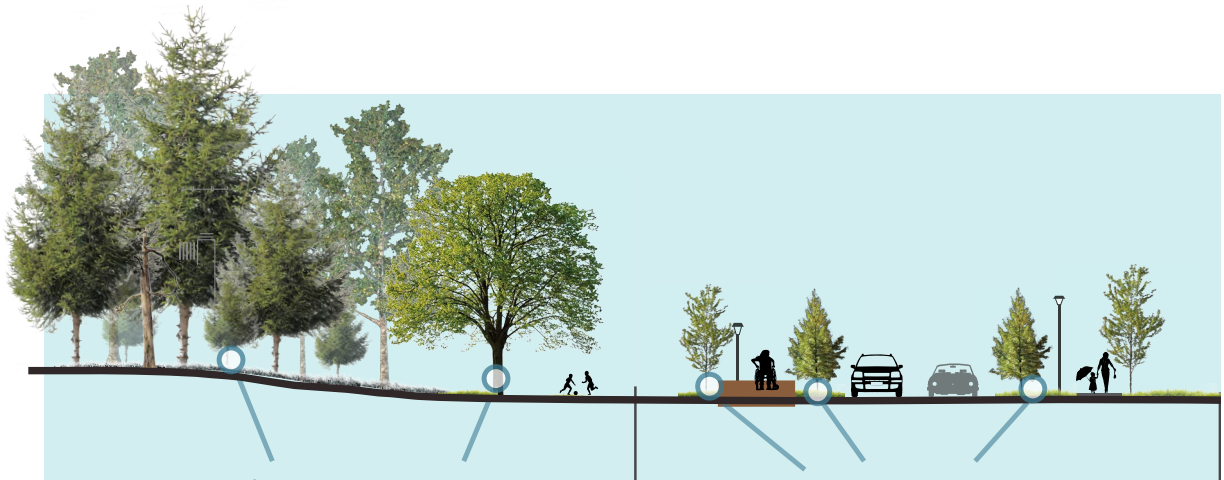
The Parks Department is responsible for delivering Comox's Urban Forest Management Program, with its budget covering costs related to referrals, plan reviews, program administration, and associated community engagement and outreach. Other departments such as the Planning Department and the Engineering Department also perform duties that support the urban forest.

In 2024, approximately $100,000 was spent directly on care and protection for the urban forest on Town-owned property. This included $45,000 in operating costs for activities such as planting, watering, maintenance, protection, removals and inspections. This amount has steadily increased since the Town arborist was hired in 2021, which increased capacity to deliver tree-related services. Approximately 0.5 FTE are allocated directly to tree care activities each year within the Parks Department. Additionally, $30,000 to $45,000 per year is spent on contracted services, often for large tree removals and work requiring a certified utility arborist. An additional $20,000 has been added to the Parks Department's operating budget to support tree replacement for special projects.

Trees in Comox policies and bylaws

Theme	Private trees	Private trees in riparian areas and Environmentally Sensitive Areas (ESAs)
Planting trees	The **Zoning Bylaw** requires front yard tree planting in R1.0 and R1.2 residential zones within permeable landscaping (minimum one 5 cm caliper tree with 30 m^3 of soil volume per 10 m parcel frontage). The Zoning Bylaw also requires 25% pervious open space in some multi-family zones. It also requires planting buffers between some parcel types and agricultural land reserves. The **Subdivision and Development Servicing Bylaw** regulates private lot area, frontage and depth. These standards can affect the quality of tree planting sites in front yards. The Downtown and Infill DPAs in the **Official Community Plan** refer to BCSLA Standards, and the others encourage 'sound landscaping principles'.	The **Zoning Bylaw** excludes ESAs from further landscaping requirements - this provision credits on-site natural area as supplied landscaping in otherwise unoccupied open space.
Protecting trees	The Comox **Tree Management and Protection Bylaw** establishes on some private rural lots of at least 0.5 hectares as Tree Protection Areas (TPAs). It requires that 25% of existing trees over 20cm in DBH be retained when land is cleared. This bylaw does not apply when the clearing is for an agricultural purpose. The Official Community Plan (OCP) mentions **Zero Net Deforestation** and has an objective of retaining mature trees in the Ground-Oriented Infill and Low-Rise Apartments & Townhouses land uses. The **Planning Procedures Bylaw** enables Town staff to issue minor development variances for the purpose of tree protection.	The **OCP** contains Environmental DPAs, with guidelines for protection of wildlife and habitat, including riparian areas, marine foreshore. Bald eagle and great blue heron nesting sites (DPA 10), wildlife corridors (DPA 11), and Garry oak habitat (DPA 12) that specifically protect components of the urban forest. The Upland Environment DP (DPA 9) aims to protect old forest near the marine foreshore and forests contributing value to downstream riparian or foreshore fish habitat.
Replacing trees	The Comox **Tree Management and Protection Bylaw** requires a 2:1 tree replacement ratio if trees over 20cm in DBH are removed from TPAs.	Per Qualified Environmental Professional recommendations.
Managing and maintaining trees	The **CRLS** offers a Developers Guide to provide general guidance related to urban forestry for the private sector. A voluntary **FireSmart** program has been promoted by the Town for the last 10 years, including vegetation management principles and species selection guidelines.	Risk inspections are conducted based on service requests.

Trees in Comox policies and bylaws (continued)

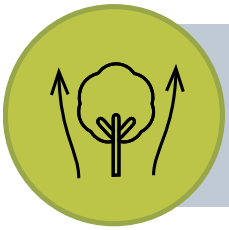


Theme	Trees in forested areas and landscaped parks	Street trees
Planting trees	Trees are planted in conservation areas as stewardship opportunities arise. New trees are planted in parks as they are built and developed. The **Climate Resilient Landscaping Standards (CRLS)** provide best-practice guidance for site preparation, species selection, and planting for trees in parks.	The **Subdivision and Development Servicing Bylaw** regulates the subdivision of land and servicing requirements, including tree planting and spacing requirements in the boulevard along new roadways and road extensions. The Bylaw dictates soil volume requirements based on tree height classes and details the use of structural soil and soil cells when planting in hardscapes or constrained softscapes. The Bylaw requires planting plans to be submitted to Town staff. The **CRLS** recommend street tree species that are tolerant of pollutants, harsh roadside conditions, and climate change impacts such as drought.
Protecting trees	The **Tree Retention Policy** delegates Town staff to negotiate a target of 30% of existing trees over 20cm in DBH. The **Parks Use Bylaw** protects trees in Town-owned parks from damage by issuing fees to those that mistreat them. The **Planning Procedures Bylaw** supports development variances for the purposes of tree protection. The **Town's Climate Action Plan (CAP)** acknowledges the importance of green infrastructure in supporting climate resilience, and encourages the protection of biodiversity, expansion of the tree canopy, and the use of green infrastructure in parks and municipal properties.	The **Tree Retention Policy** delegates staff to negotiate a target of 30% of existing trees over 20cm in DBH. Requires a covenant for long term protection. The **Highway Use Bylaw** protects boulevard trees in front of private properties by allowing the Municipal Engineer to ask for notice if tree roots are found in the road area and to change or cancel a permit if the permit's work would harm tree roots.
Replacing trees	The **Tree Retention Policy** states that where less than 30% retention/replacement is secured on development sites, the Town will seek to retain and plant trees within road boulevards, parks and greenways. The annual tree replacement goal is 1:1 for street and park trees.	The **Tree Retention Policy** states that where less than 30% retention/replacement is secured on development sites, the Town will seek to retain and plant trees within road boulevards, parks and greenways. The annual tree replacement goal is 1:1 for street and park trees.
Managing and maintaining trees	The **CRLS** contain directives on vegetation management for FireSmart implementation in forested areas. Risk inspections are conducted based on service requests.	Risk inspections are conducted based on service requests.

Comox's performance on criteria and indicators for urban forestry

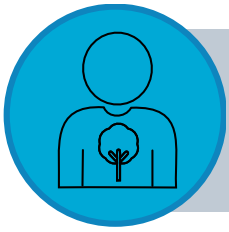
The Urban Forest Management Strategy uses a "criteria and indicators" approach to evaluate the Town's urban forest program capacity for 2025. The approach used is based on the framework for sustainable urban forest management prepared by Leff[23]. The report card assesses the performance of the urban forest program using best practice criteria, assigning each an indicator value of 'poor', 'fair', 'good', or 'optimal' to reflect the quality of the Town's performance on each subject area. Each criterion supports progress towards one of five overarching themes: planning the urban forest, planting/growing trees, protecting trees, day-to-day management and maintenance of the urban forest, and partnering with the community. Comox's urban forest program received an overall scoring of 'fair' (**Figure 2-17**). This is not an unusual score for towns similar in size to Comox with comparable resources allocated to urban forestry. It indicates that the Town has an urban forest program with core components in place but that lacks the resources to provide service levels that meet best practices in one or more areas. The detailed report can be found in the **Appendix**.

Key opportunities for improvement identified through the assessment include:

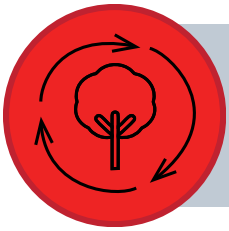


- **Canopy growth:** including policy alignment to support canopy growth, a strategic planting program, and equity considerations in tree planting programs.

- **Tree protection:** including expanding the scope of tree protection on private property, tree protection measures during development, and protection of significant trees.



- **Partnerships:** including partnerships with the school district, K'ómoks First Nation, CFB-Comox, and the Nature Trust.



- **Tree management:** including tree inventory, risk management, young tree management program, extreme weather response, and pest and disease management.

Urban Forest Report Card

2025 program grade (in colour)

	Poor	Fair	Good	Optimal
PLAN				
Awareness of the urban forest as a community resource	○	●	○	○
Tree canopy cover relative to established canopy cover goals	○	●	○	○
Clear and defensible urban forest canopy cover	○	○	○	●
Interdepartmental/municipal agency cooperation in urban forest strategy implem.	○	●	○	○
Municipality-wide urban forest management plan	○	○	○	●
Municipal green infrastructure management	○	●	○	○
Municipal-wide biodiversity or green infrastructure strategy	○	●	○	○
Municipal urban forestry program capacity	○	●	○	○
Urban forest funding to implement a strategy	○	●	○	○
PLANT/GROW				
Municipal tree planting and replacement program design, planning, and implementation	○	●	○	○
Development requirements to plant trees on private land	○	●	○	○
Streetscape and servicing specifications and standards for planting trees	○	●	○	○
Equity in planting program delivery	●	○	○	○
Native species planting	○	●	○	○
Selection and procurement of stock	○	●	○	○
Ecosystem services targeted in tree planting projects and landscaping	○	○	●	○
PROTECT				
Policy/regulations for the protection and replacement of private and municipal trees	○	●	○	○
Policy/reg. for sensitive ecosystems, soils, or permeability through private development	○	○	●	○
Internal protocols guide municipal tree or sensitive ecosystem protection	○	●	○	○
Standards and specifications supporting tree protection during development	○	●	○	○
Cooperation with utilities on protection and pruning of municipal trees	○	●	○	○
MANAGE				
Tree inventory	○	●	○	○
Knowledge of trees on private property	○	●	○	○
Natural areas inventory	○	●	○	○
Age diversity (size class distribution)	●	○	○	○
Species diversity	○	●	○	○
Species suitability	insufficient data			
Publicly owned tree species condition assessment	●	○	○	○
Maintenance of intensively managed trees	○	●	○	○
Emergency response planning	●	○	○	○
Tree risk management	○	●	○	○
Pest and disease management	○	●	○	○
Waste biomass utilization	○	○	●	○
Tracking of operational carbon footprints and urban forest carbon-cycle balance	●	○	○	○
PARTNER				
Citizen involvement	○	●	○	○
Involvement of large private land and institutional land holders	●	○	○	○
Urban forest research	○	●	○	○
Regional collaboration	○	●	○	○

Figure 2-17. Comox's 2025 urban forest report card.

Caption: *We inherited this tree when we bought our home in 2010. It leafs out late, around June. The flowers appear in late July or early August and are simply stunning. The perfume is wonderful.*

Description: The tree is now about 28 years old and is 9 m tall. The trunk is 57 cm DBH, and the canopy spreads 12 m across the front yard.

Submitted by: Kathy Tae.

3 | THE FUTURE OF THE URBAN FOREST

3.1 KEY CHALLENGES AND OPPORTUNITIES

Forest health and invasive species

Invasive insects, animals, and plant diseases impact the urban forest in Comox. The arrival in southwestern B.C. of Emerald Ash Borer, an insect pest of ornamental ash trees, is one example. Local community groups in Comox are important partners for invasive plant species removals in natural areas and the Town is expanding efforts for invasive species management.

Invasive plant species like English ivy, English holly, Spurge-laurel, Scotch broom, periwinkle, yellow lamium and Himalayan blackberry reduce forest health and can derail the natural renewal of healthy ecosystems following disturbance. These species compete successfully with native plants for space and resources, leading to loss of habitat or habitat quality for local biodiversity.

Development

Like many communities in British Columbia, Comox is required by the province to plan to meet housing targets and is experiencing a growing demand for housing, driving urban development. Greenfield and infill development have resulted in significant loss of urban forest canopy in Comox since 2019: gaps in the current Tree Protection and Management Bylaw have left many trees without protection. Regulations like the Zoning Bylaw and the Subdivision and Development Servicing Bylaw contain tree planting requirements but also affect the growing environments that will be available to trees for many decades. As development pressure increases, better integrating urban forestry objectives with development should be a priority. To ensure long-term sustainability of Comox's urban forest, it will be essential to prioritize the protection and integration of more trees into all types of development.

Caption: *A good example of an urban tree, it marks the corner of three adjacent lots. It also provides shade from the summer sun and the lower branches are high enough that the winter sun shines on our house providing some heat and light.*

Description: There was an eagle nest in the tree until December 24, 2021, when a heavy wet snow fall caused it to fall out of the tree. The eagle relocated to Filberg Park and raised two eagles the next year.
It is 38 m tall and 112 cm DBH.

Submitted by: Bob Hauser.

Climate change and extreme weather

There are four key climate hazards that are expected to directly impact the Town by the year 2100: extreme heat, flooding, wildfire, and sea level rise. While the urban forest offers resilience to the impacts of climate change, trees are also vulnerable to extreme weather events. For example, a stand of trees which provides shade and cooling in a public park may be impacted by heavy rains or storms which break off branches and reduce the canopy area providing shade. Adaptive management and increasing proactive maintenance can enhance the condition of the overall urban forest and are essential to help the urban forest withstand these pressures and remain resilient in the face of climate change.

Wildfires and urban forestry

Wildfire risk is increasing on the coast of BC as the annual summer period without rain lengthens. Historically, cultural fire managed by Indigenous people around the Salish Sea played a role in reducing fuel hazards and maintaining landscapes of open meadows and groves on southern and eastern Vancouver Island. With warming, this legacy could contain important lessons about how ecosystems could be managed to promote ecosystem health and reduce the risk of larger fires. FireSmart BC has released a landscaping guide for property owners, with recommendations for shrubs, trees, and groundcover suitable for high-risk areas that are echoed by the Town's Climate Resilient Landscaping Standards.

The recently completed Community Wildfire Resiliency Plan (CWRP) led by the Comox Valley Regional District found low to moderate wildfire risk is typical around Comox. Fuel management in forests is one tool to reduce wildfire risk. Fuel management focuses on increasing the horizontal and vertical separation between fuel components in the forest, including dead woody debris and organic matter near the ground (surface fuels), live and dead vegetation and branches in tree canopies (crown fuels), and the branches and small trees that bridge between (ladder fuels). The CWRP suggests fuel management potential be explored in Northeast Woods, Condor Park, and Baybrook Nature Park.

At private homes, FireSmart is a starting point for homeowners to understand what may cause risk to their property during a wildfire. In general, coniferous trees are much more combustible than deciduous trees, and small-diameter trees and hedging are more likely to ignite than large mature trees. It is important to consider the ongoing benefits provided by mature trees when planning to reduce wildfire risk at your home. Often, the greatest reduction in risk comes from decluttering the space at the perimeter of your home and pruning back and removing coniferous hedges and shrubbery within a few metres of the building envelope.

BRITISH COLUMBIA FireSmart

Reconciliation

K'ómoks people are the traditional keepers of the land on which the Town of Comox is located. They maintain a deep cultural connection to the forests and natural environment, despite the impacts of displacement and environmental degradation that have resulted in a loss of access to their traditional territories. As part of its commitment to reconciliation, the Town of Comox has identified strengthening relationships with the K'ómoks First Nation and other Indigenous partners as a key lens of its 2022–2026 Strategic Plan. The Town has an opportunity to further uphold this commitment through the implementation of the UFMS by meaningfully integrating traditional knowledge and Indigenous values and perspectives into planning, stewardship, and decision-making processes (see **Strategies 2** and **10** in **Section 4**).

Management capacity

Urban forestry responsibilities are shared among just a few Town staff. Currently, there is little capacity to provide proactive maintenance of trees on Town property, support new tree protection initiatives, and increase the rate of planting on Town property. Some changes to procedures and efforts to improve resources like the tree inventory can help to make the most of existing resources. Accessing funding through grant programs such as the Growing Canada's Community Canopies (GCCC) program administered by Tree Canada and the Federation of Canadian Municipalities offer potential opportunities to strengthen urban forest management and planning through cost-sharing and external contributions. If done sustainably, building capacity among volunteers and engaged community members to support special projects in urban forest management can also help expand programming.

Policy support

Through key policy tools such as the development of a new Tree Protection Bylaw, the Town is making efforts to ensure that unavoidable tree loss is offset through replanting or preservation. Amendments to bylaws affecting development and land use, such as the Zoning Bylaw and Subdivision and Development Servicing Bylaw, have recently improved provisions related to tree planting, protection, and planting site creation. Together with the vision, strategic framework, and canopy cover goals set forth in this document, the Town has a solid foundation for protecting, enhancing, and growing its urban forest into the future.

Stewardship and engaged community

The Town of Comox has many community groups that support urban forest stewardship. Organizations such as the MacDonald Wood Park Society, Brooklyn Creek Watershed Society, Save Comox Urban Forests, Comox Valley Naturalists, Friends of Mack Laing Park, and the Broom Busters group support urban forest activities like environmental education, tree planting, trail maintenance, and invasive species removals across Comox. These groups play an active role in educating and engaging the community with urban forest management.

Summer drought

Summer drought increases stress on urban forests. In Comox, signs of drought-related changes to forests are already occurring—western redcedar and grand fir, which require more water during the summer, are dying. Some of the effects of drought are weakened trees that are more prone to insect and fungal pests like bark beetles or root rot. Newly planted trees in parks and backyards are also at risk and require more regular watering for the first 1 to 3 years after they are planted. Summer drought is expected to worsen with climate change. Modelling by UVIC's Pacific Climate Impacts Consortium predicts modest increases in total annual precipitation in the next 25 to 50 years (+5% by the 2050s and +11% by the 2080s) but seasonal changes will increase stress on Comox's urban forest. Warmer temperatures will mean less winter snowfall including higher elevation areas that provide snowmelt to Comox Lake and the drinking water system (which is also used to sustain landscaped areas). Warmer summers will increase transpiration from vegetation, while summer rainfall is projected to decrease by about 10% by the 2050s. There are several strategies to increase the resilience of Comox's urban forest for a future warmer and drier climate:

- Selecting tree species, both native and non-native, that are tolerant of summer drought and heat. The Town of Comox is planting more Garry oak trees, a native oak that is adapted to dry summers on eastern Vancouver Island.
- Avoiding planting too much of one tree species or variety because this increases the potential impact if this species is affected by drought or disease.
- Ensuring trees in development areas have adequate and good quality soil to provide an area for root development, and water holding capacity to sustain the tree during the summer. Soil is often stripped off or compacted during construction.
- Summer watering for young trees is essential; water bags, temporary irrigation, and support from residents is needed to ensure that newly planted trees survive the summer drought.

Comox's summers are drier and warmer than in the past which increases stress on young trees. These water bags help dogwood street trees on Forester Avenue survive drought.

3.2 WHAT WE HEARD

The Comox community guided the development of the UFMS via two phases of public engagement. Phase 1 Engagement occurred in the winter of 2025 and included an online survey, a mapping and ideas tool, a workshop with interested community groups, and a public open house (**Table 3-1**). Phase 2 Engagement occurred in the fall of 2025 and offered community members the opportunity to provide feedback on the draft UFMS through an additional online survey and an online open house event. Feedback from Phase 2 Engagement was reflected in the final document presented to Council.

Phase 1 Engagement

Feedback from Phase 1 Engagement has been organized into four main themes: planting, protection, management and engagement.

Table 3-1. Summary of engagement opportunities in Phase 1 Engagement.

Date	Engagement Activity	Participants
March 13, 2025	Public Open House	55 attendees
March 13, 2025	Interest Groups Workshop	17 attendees
February 18 – March 31, 2025	Online Survey	245 responses
February 18 – March 31, 2025	Mapping and Ideas Tool	59 contributors (153 contributions)

Protection

There is strong community support in Comox for preserving existing trees on both private and public lands. Protecting Comox's urban forest on private property was considered essential by 48% of survey respondents and very important by 34% of respondents (**Figure 3-1**).

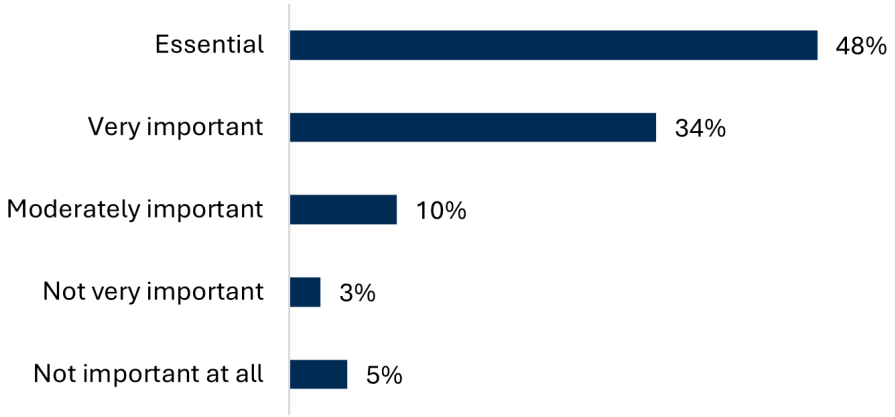


Figure 3-1. Respondents' perception towards the importance of protecting trees on private property (Skipped: 2 | Answered: 244).

Nearly half of all survey respondents expressed that development and construction impacts on private property are their biggest concern for urban forest loss (**Figure 3-2**). Protecting Comox's urban forest on public (Town-owned) property was essential to 74% of survey participants and very important for 20% of respondents.

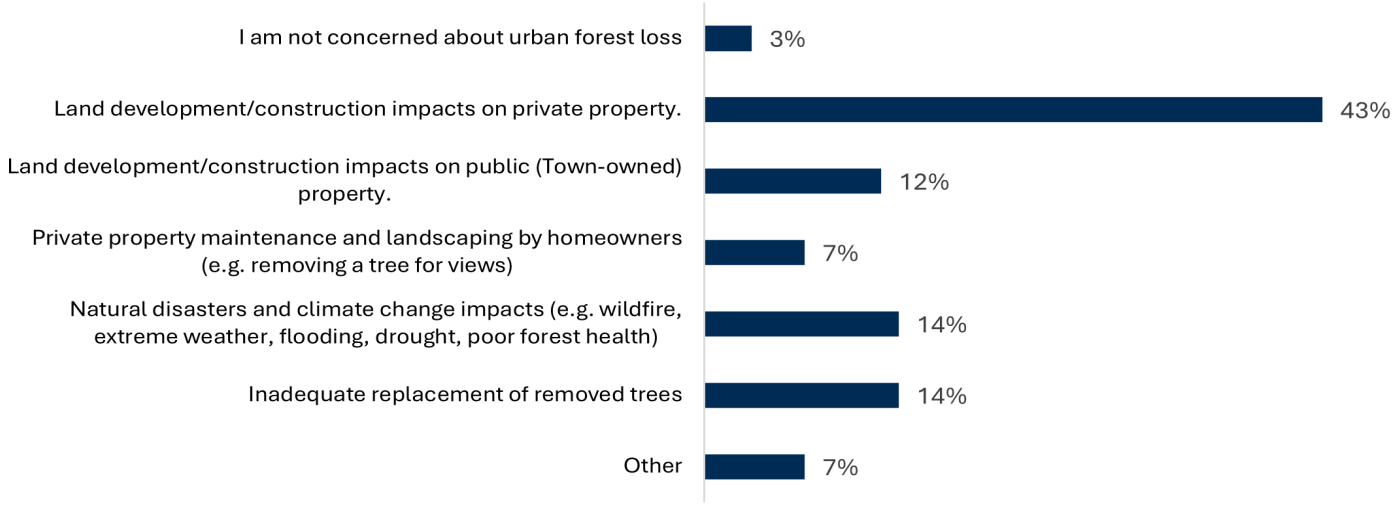
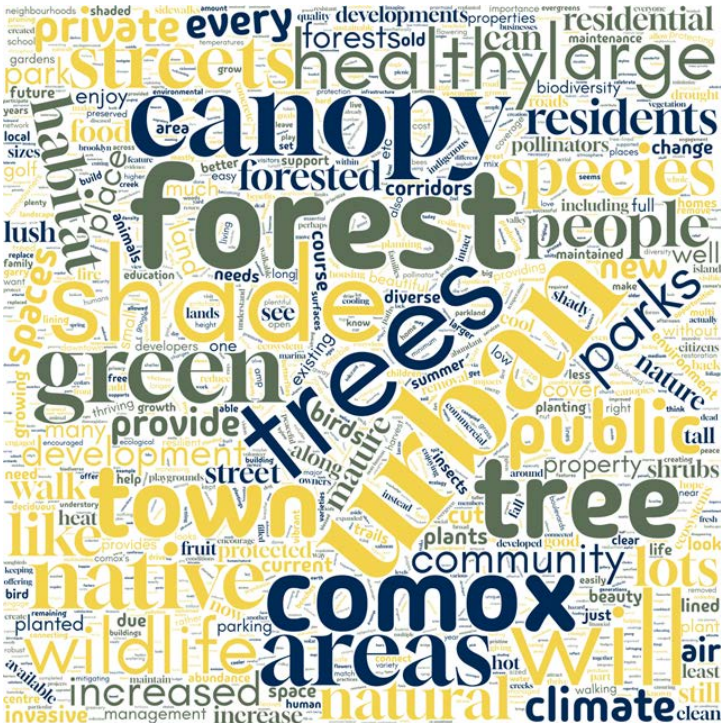


Figure 3-2. Respondents' concern for urban forest loss factors (Skipped: 3 | Answered: 244).

Participants at the interest groups workshop strongly supported protecting existing trees and recommended increasing the Town's internal capacity to do so by hiring more arborists, creating a comprehensive tree inventory, and allocating resources for long-term stewardship.



Word cloud showing the most common words used by respondents to describe their vision of the urban forest by 2055.

Planting

The majority of survey respondents (86%) were favorable to increasing the Town's canopy cover (**Figure 3-3**). Top choices for where trees should be planted were along local (residential) streets that do not have existing street trees and near playgrounds and schools, in landscaped parks (e.g., Anderton Park, Lions Park), and along major roads (e.g., Pritchard Rd, Anderton Rd).

In addition, participants at the interest groups workshop expressed that they want plantings to be well-cared for and managed according to best practices. They suggested that this could be done through methods such as soil quality testing, avoiding planting under power lines, controlling invasive species, planting in groves, and prioritizing native, climate-resilient trees.

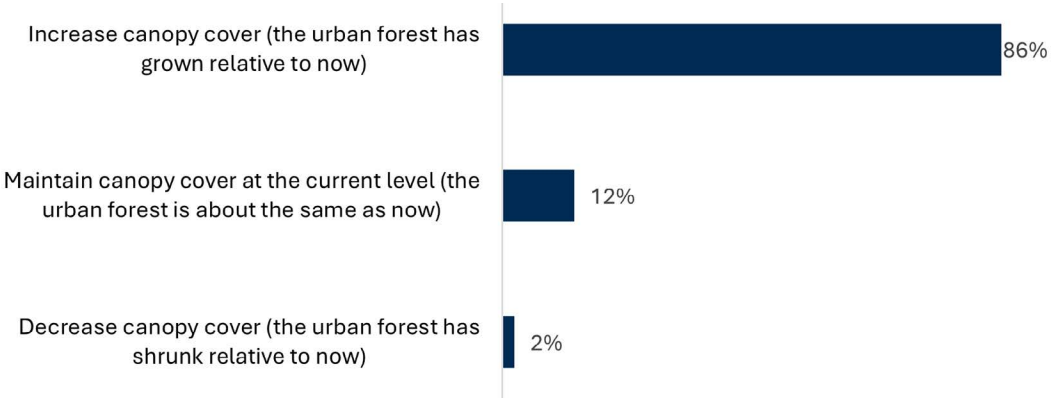


Figure 3-3. Preference for canopy cover change in the future (Skipped: 2 | Answered: 244).

Management

When surveyed about their satisfaction with the Town's urban forest services, respondents expressed the highest satisfaction with tree pruning and maintenance (**Figure 3-4**). The area of greatest dissatisfaction was the protection of trees during development. Public education, tree planting efforts, and natural area restoration were also rated poorly. Many respondents were unaware that the Town manages pests and diseases (for Town-owned trees).

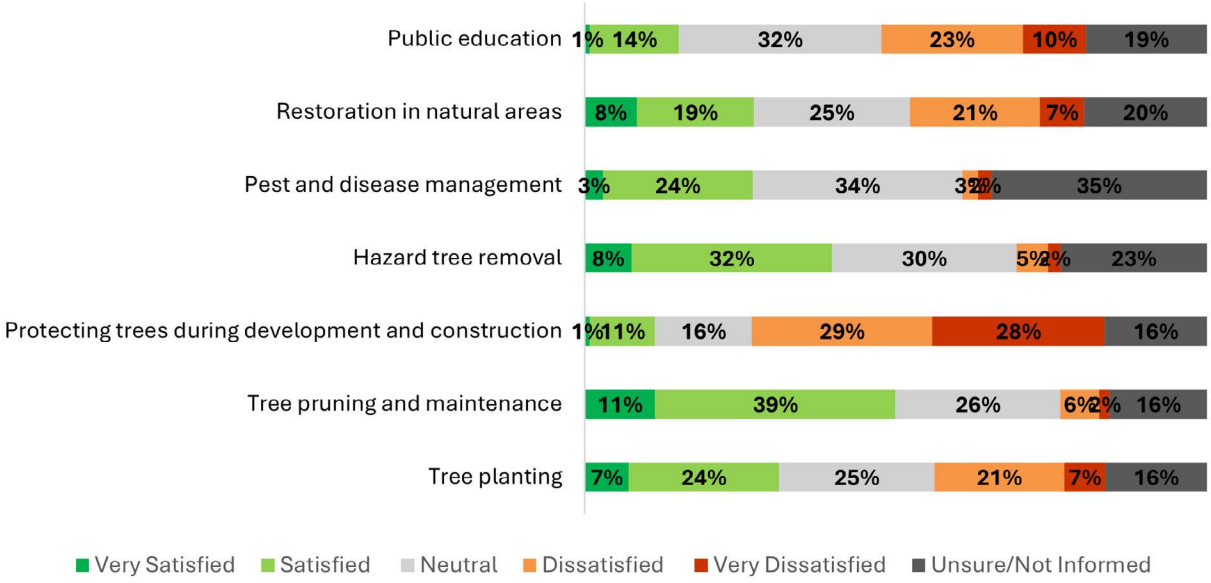


Figure 3-4. Respondents' satisfaction with the current levels of tree service provided by the Town (Skipped: 3 | Answered: 244).

Urban forest funding

Over 72% of respondents were in favour of increasing the amount of urban forest management funding for the Town (**Figure 3-5**).

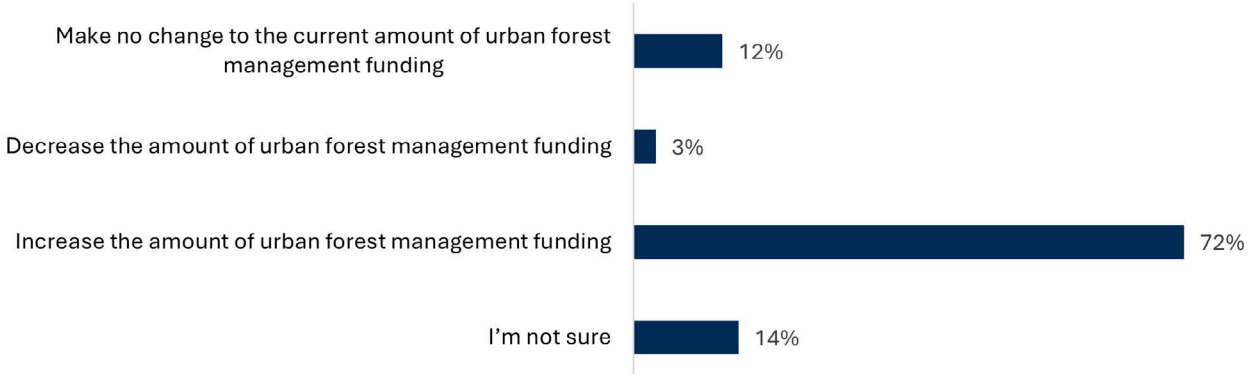


Figure 3-5. Respondent support for urban forest management funding (Skipped: 5 | Answered: 240).

Engagement

Phase 1 engagement participants revealed that they want Town of Comox residents to become more engaged. They want to grow a community that values the urban forest and is active in its ongoing stewardship. In the online survey, 22% of survey respondents viewed opportunities to participate in urban forest management as essential, 40% viewed them as important, and 29% moderately important (**Figure 3-6).**

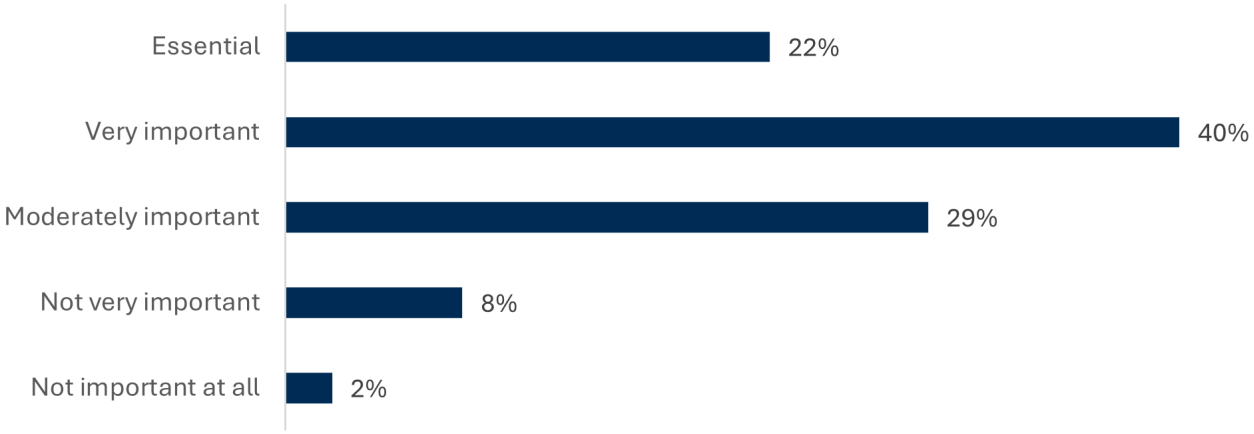


Figure 3-6. How important respondents feel it is to have opportunities to engage in urban forest management (Skipped: 5 | Answered: 241).

Places of value

Places that were highly valued through the mapping tool were Filberg Park, Mack Laing Nature Park, Baybrook Nature Park, MacDonald Wood Park, Brooklyn Creek Park, and Northeast Woods (**Figure 3-7**). These areas were valued for their natural beauty, biodiversity, wildlife habitat, and the recreational opportunities they provide. Smaller community parks were valued for providing access to nature, as well as appreciation for favourite trails, recreational spaces, biodiversity, and wildlife habitat.

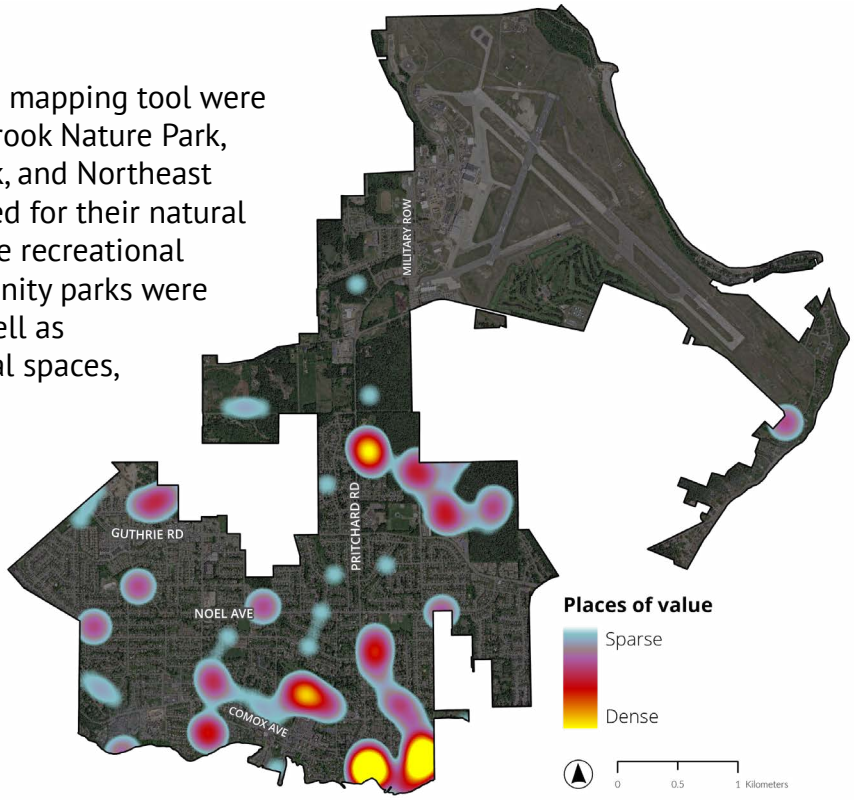


Figure 3-7. Urban forest places valued by respondents (Places: 102).

Places needing improvement

Participants noted where and how improvements to the urban forest can be made (**Figure 3-8**). In the Town's natural areas, the need for improved trail maintenance and better forest management was often mentioned. Other concerns included invasive species, creek erosion, and issues related to off-leash dogs. Many participants expressed a desire for more tree planting and stronger protection of existing trees. Concerns were also raised about tree loss from development, soil compaction around the roots of large trees, and areas where improved trail maintenance is needed. Mapping tool participants also want to see more trees in community parks such as Marina Park.

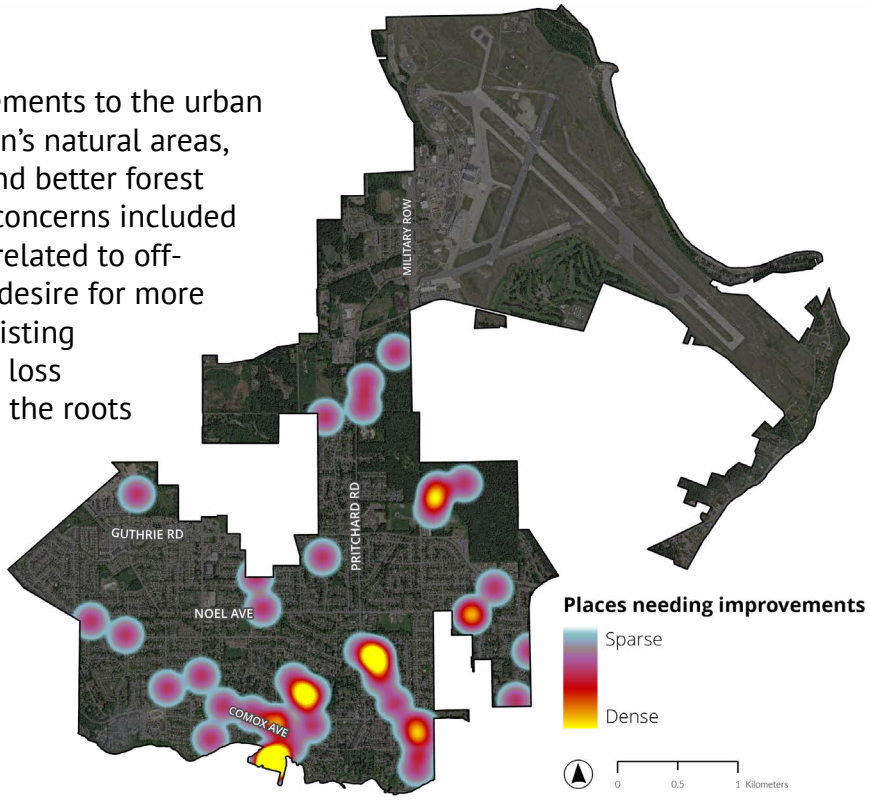


Figure 3-8. Urban forest places needing improvements (Places: 51).

Phase 2 Engagement

Phase 2 engagement consisted of an online public open house event and survey.

Table 3-2. Summary of engagement opportunities in Phase 2 Engagement.

Date	Engagement Activity	Participants
October 16, 2025	Online Public Open House	27 attendees
November 14 – December 19, 2025	Online Survey	63 responses

Feedback on the draft Strategy

Overall, there was a strong understanding of the draft UFMS. Specifically, 86% understood its content, 86% found the data and trends clear, and 71% learned new information about the urban forest.

Canopy target

Of the total responses, 71% supported the UFMS canopy target of 26% by 2055 (**Figure 3-9**). Of the 29% that disagreed or were unsure, 26% supported a higher canopy cover or a shorter timeframe to reach the target.

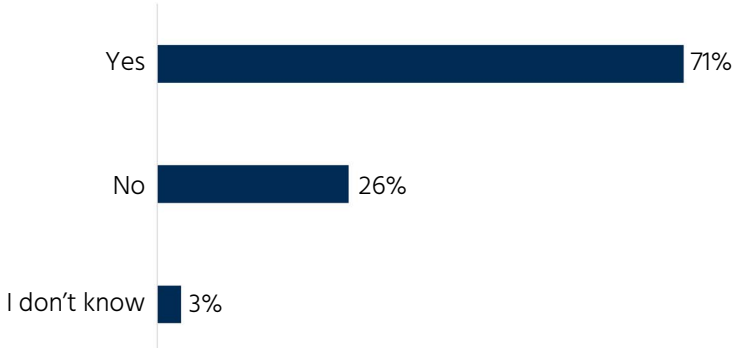


Figure 3-9. Respondents' support for the 26% canopy cover target by 2055 (Skipped: 1 | Answered: 62).

Feedback on the vision

Responses indicated strong overall support for the proposed urban forest vision statement, and the majority of responses (89%) agreed that the statement captures the essential elements of an urban forest vision for Comox (**Figure 3-10**).

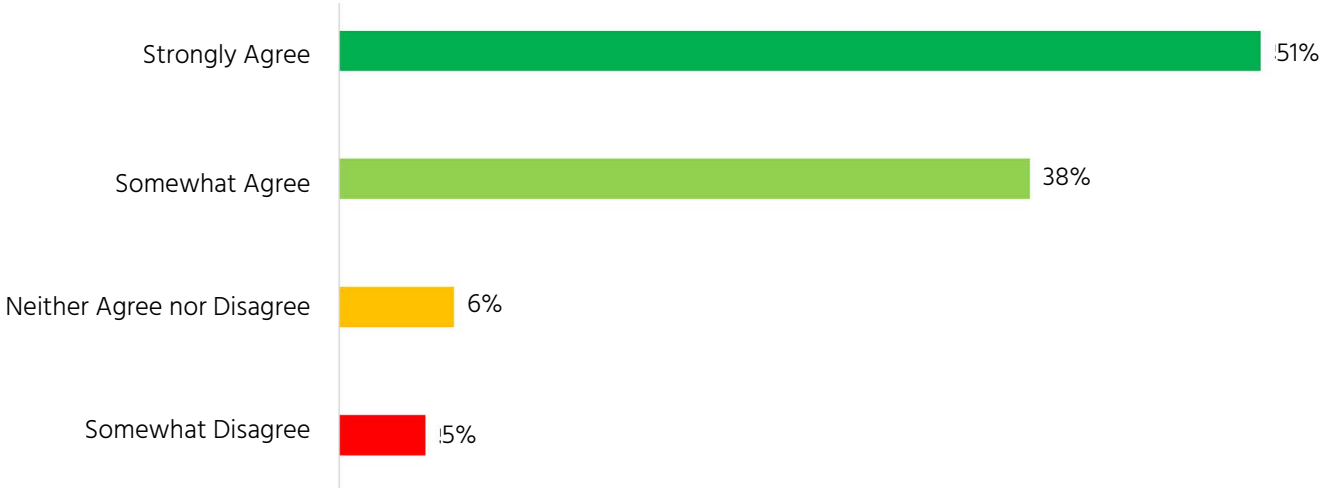


Figure 3-10. Respondents' agreement with the proposed UFMS vision statement (Skipped: 0 | Answered: 63).

Feedback on the goals

Survey responses indicated strong support (>86%) for all four draft goals of the UFMS, with Goals 1 to 3 supported by over 90% of respondents (**Figure 3-11**). Goal 2, 'protect Comox's urban forest to prevent avoidable loss of ecosystem services' was the most strongly supported (85%). Goal 4, Sustain Comox's urban forest as an organizational priority to secure its future, was also widely supported (86%), but had the highest proportion of neutral responses (10%).

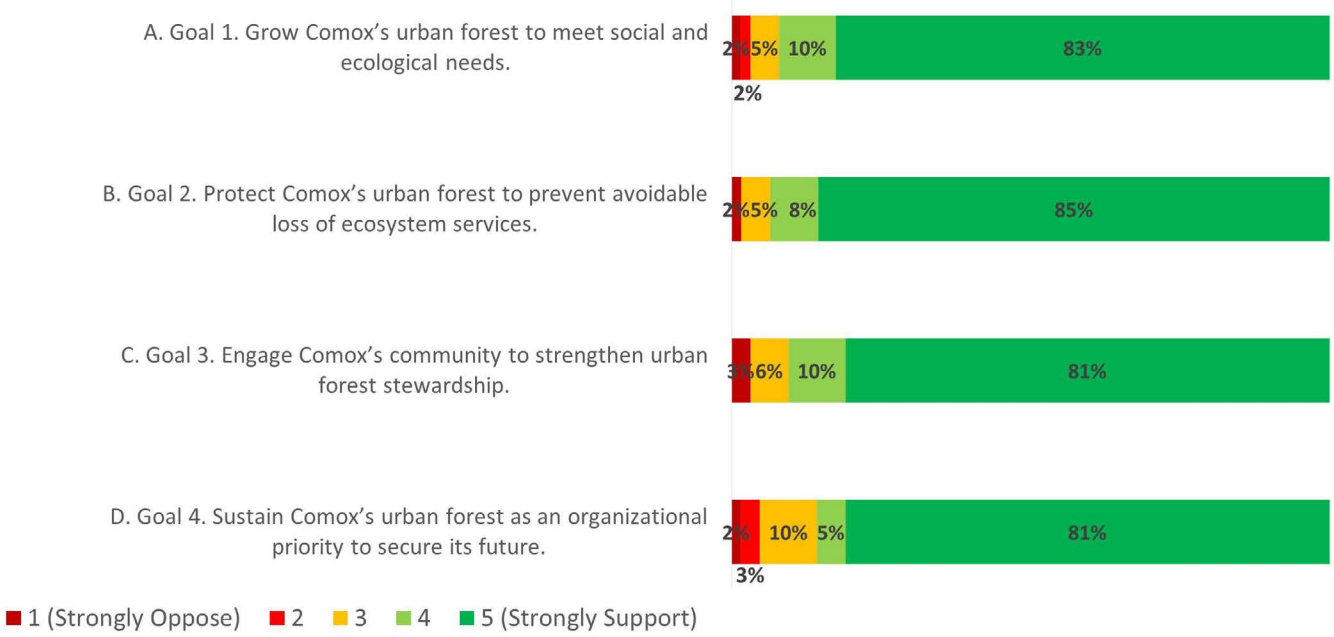


Figure 3-11. Level of support for the four draft UFMS goals, ranked from 1 (Strongly Oppose) to 5 (Strongly Support) (Skipped: 0 | Answered: 63).

Caption: *The height of the tree is 20 m and the trunk is 163 cm DBH. The size of this tree attracted me, and now I know that sequoias are fast growers. Owner, Ken Rowe, reported the unique street shapes and house placements in this neighbourhood were determined to preserve some of the trees at the time. This is another benefit of the Tree of the Year event–learning more about trees and meeting friendly owners.*

Description: Front yard of 1495 Baybrook Avenue, Comox. The property owner reported he hired an arborist to take 10' off one side of the co-dominant tree to prevent it splitting. From this viewing of the tree, there is an entrance to Baybrook Park at the junction of Baybrook Avenue and Orchard Park Drive. Through the yellow gate and down the road is access to the park and the ocean.

3.3 URBAN FOREST VISION

The Town of Comox's vision for the urban forest was prepared in consideration of community and staff input and is intended to serve as a long-term guide for UFMS implementation. This vision establishes the direction for how the urban forest will be protected, managed, and expanded over the coming decades, ensuring that short-term actions align with long-term goals for resilience, equity, and sustainability.

Comox's urban forest is a connected system of treed yards, natural areas, parks, trails, and open spaces that foster healthy and active living. Our urban forest is diverse, equitable, and resilient to the impacts of climate change. Through strong community stewardship, tree protection, and adaptive management, the urban forest and its benefits are safeguarded for the community, ensuring a green future for generations to come.

3.4 DEVELOPING A CANOPY COVER TARGET

Canopy cover target scenarios

Tree canopy cover is a widely used metric that helps communities assess the extent of their urban forest and monitor how it changes over time. Many communities set canopy cover targets to define the level of canopy they seek to achieve within a given timeframe. While canopy cover is not the only indicator of progress, canopy cover targets provide a clear link between the community's vision and measurable outcomes, guiding the implementation of the UFMS.

There is no universally recommended canopy cover target for any given community. However, over the past two decades, approaches to establishing canopy targets have become more sophisticated, reflecting a deeper understanding of the complexities of urban forest management. Establishing a realistic and achievable canopy target requires an understanding of local ecological conditions, baseline canopy levels, existing and anticipated development patterns, population trends, land uses, and the strength of local tree regulations. Determining optimal canopy cover also depends on community priorities and investment in trees and the ecosystem services they provide. Research suggests using the SMART framework (Specific; Measurable; Achievable; Resourced; Time-bound) to establish effective canopy cover targets[24].

To set canopy cover targets in Comox, the project team first forecasted what Comox's canopy cover would be in 30 years in a Status Quo scenario. A second scenario was then developed to forecast canopy cover change assuming implementation of the UFMS is pursued over the next 30 years (**Figure 3-12**).

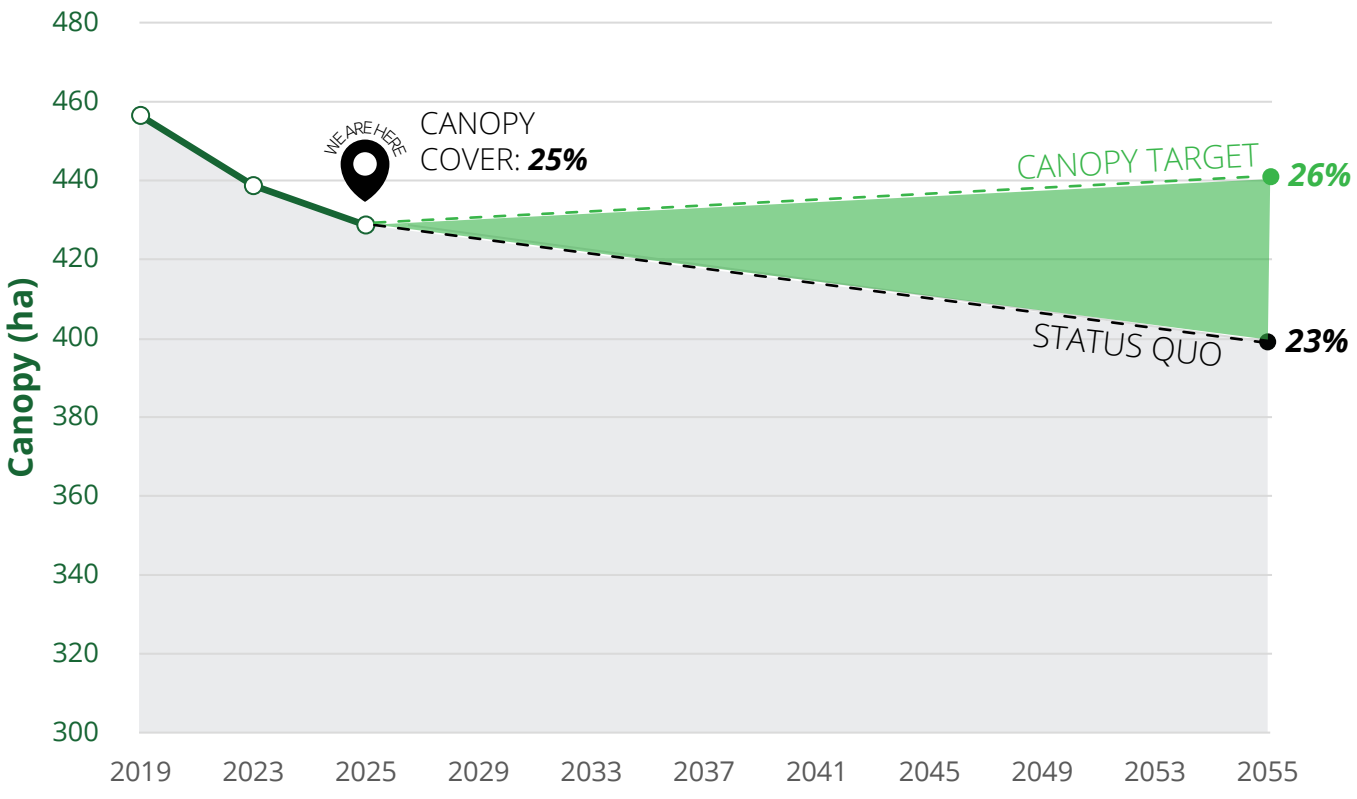


Figure 3-12. Comox's canopy cover scenarios: Status Quo and UFMS implementation.

CANOPY COVER TARGET SCENARIOS

Scenario 1 Status Quo | Canopy cover decreases to 23% by 2055

This scenario estimates what would happen if no changes were to occur to the Town's current urban forest program, including the rates of tree planting in streets and parks and policies affecting urban forest outcomes. The annual rate of canopy loss is expected to decrease over time as greenfield development sites are exhausted within the Town boundary. This scenario would result in a 2% canopy cover decline (~30 hectares of canopy loss) by 2055.

Scenario 2 UFMS | Canopy cover increases to 26% by 2055 and 30% by 2085

This scenario forecasts canopy cover given implementation of the strategies and actions outlined in this UFMS. This includes strengthening of tree protection measures through the implementation of OCP policies, a new Tree Protection Bylaw, updated landscaping requirements in the Zoning Bylaw, the implementation of a Tree Planting Master Plan for Town streets and parks, and the introduction of a tree sale program to encourage tree planting on private property. Continued investment in urban forest management beyond the time horizon set in the UFMS could bring the Town towards an aspirational long-term canopy cover target of 30% by 2085.

Recommended planting targets

Achieving 26% canopy cover by 2055 will require the planting of:

- **1,200 street trees (40 per year)**
- **2,250 ornamental park trees (75 per year)**
- **3,000 forest trees (100 per year)**
- **3,000 tree sales (100 per year).**

Caption: *One thing is for sure, Garry oaks seem to thrive in the meadows, they thrive in the urban settings near busyness of roads and pollution, they thrive in the small quiet neighbourhoods, they even thrive on the mountain.*

So if we all planted one baby Garry oak tree in our Comox Valley, especially where their original ecosystem has been, maybe in few hundred years there will be a forest of them.

Description: *Quercus garryana* on private property.

Submitted by: Kate Panayotof and Gary Schaan.

4 | ACTION PLAN

4.1 ACTION PLAN

THE STRATEGIC FRAMEWORK

This section outlines a strategic framework for implementing Comox's UFMS in its first ten years following adoption (**Figure 4-1**). It comprises four high-level goals, 14 supporting strategies, and 68 actions. This comprehensive framework is designed to realize the community's vision for its urban forest by encouraging holistic and sustainable changes to urban forest policy, procedures, and programming. Each action has assigned implementation timeline, cost, and priority (**Table 4-1**).

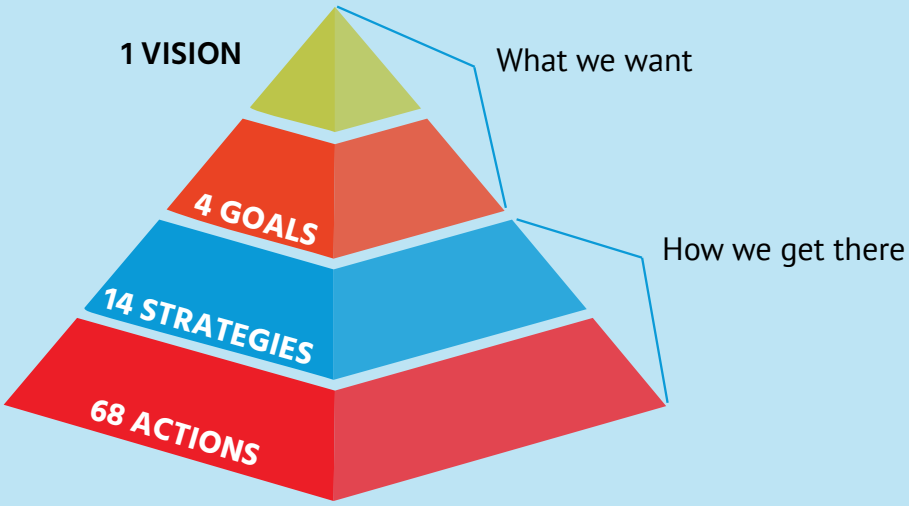


Figure 4-1. The strategic framework for Comox's UFMS.

Table 4-1. Legend for the action plan.

Action plan legend	
Implementation timeline	**Financial impact**
Short – 1-2 years	**$** – time reallocation or annual impact <$10,000
Mid – 2-5 years	**$$** – $10,000-$50,000
Long – 5-10 years	**$$$** – $50,000-$150,000
	$$$$ – >$150,000 or requires major estimate
Priority	
A – Action is considered critical for achieving the recommended canopy cover target.	
B – Action directly supports implementation of an A-priority action.	
C – Action can be deferred with limited impacts on the goal or canopy cover target.	

Goal 1. Grow Comox's urban forest to meet social and ecological needs.

The UFMS charts a course for Comox's urban forest to grow 1% in 30 years and 5% in 60 years. Goal 1 is focused on what actions the Town can take to support the increased tree planting required to make the canopy cover target a reality. Five "strategies" are provided under this goal to address planting all tree asset classes and improving planting site quality to support healthier, larger trees. A mixture of requirements (regulation/policy) and voluntary planting will be needed to implement this goal. Planting numbers quoted in the actions for this goal are annual averages; however, each year that fewer than the optimal number of trees are planted means more trees will need to be planted in future years.

Strategy 1. Plant more trees in urban parks and streets, guided by the Tree Planting Master Plan.

To expand Comox's canopy cover in a strategic and equitable way, the Town will need to identify and activate new planting opportunities while ensuring diversity and long-term success of trees. The following actions focus on mapping and reclaiming suitable planting sites, setting ambitious planting targets for streets and parks, building partnerships with residents and businesses, and diversifying the species mix to strengthen resilience against pests, disease, and climate change.

Action	Priority	Timeline	Cost
1a. Inventory 'vacant' boulevard planting sites in a GIS database that includes information on conflicts with utilities, planned works, and current planting suitability by tree size (informed by the Climate Resilient Landscaping Standards).	A	Short	$$
1b. Note special locations where opportunities exist to remove or shift parking or other paved surfaces on Town-owned property to reclaim suitable planting sites.	B	Mid	$
1c. Over the 10-year period for implementing the Tree Planting Master Plan, aim to install 40 new street trees and 75 new urban park trees on average per year, prioritizing early year planting in areas with lower tree equity.	A	Short	$$$$
1d. Develop a "Partners in Planting" program for residents and business owners to request tree planting in the Town-owned boulevard in front of their property, with planting to be undertaken by the Town and shared responsibility for watering, protection, and monitoring.	A	Short	$$
1e. Prioritize species diversity in urban street and park tree plantings so that no single species or genus is over-represented (excluding native tree species).	B	Short	$

Strategy 2. Restore degraded natural areas, focusing on areas appropriate for reforestation and low tree equity.

To restore the health and resilience of Comox's natural areas, the Town will prioritize ecological restoration in places where canopy has been lost, particularly in low-equity neighbourhoods and sites of cultural importance to K'ómoks people. This strategy focuses on identifying priority restoration sites, setting annual tree planting targets, and tailoring restoration designs through detailed site assessments. By trialing diverse native stock and innovative methods like mini-forests, the Town can accelerate the return of healthy, structurally complex forests that provide habitat, climate resilience, and long-term community benefits.

Action	Priority	Timeline	Cost
2a. Identify high priority sites for ecological restoration of natural forests, including natural areas where tree cover has been lost adjacent to areas of low tree equity or sites of importance for K'ómoks people.	B	Short	$
2b. Over the 10-year period for UFMS Action Plan implementation, aim to install 100 new trees in restoration areas on average per year.	A	Short	$$$
2c. Prepare site assessments prior to natural restoration planting that characterize the challenges informing planting and maintenance design, including acknowledgement of soil conditions, moisture, wind/storm exposure, invasive plant species risk, fire hazard, legacy habitat features, and other factors which should influence species selection and the scheduling of site monitoring and/or maintenance.	B	Short	$$
2d. Investigate opportunities to trial native species planting stock of different sizes and/or provenances to respond to site conditions and climate change impacts.	C	Mid	$$
2e. Trial the "mini-forest" approach (Miyawaki method) to restoration planting to advance forest structure development on an appropriate site (e.g. moist, mixed-species planting palette).	C	Mid	$$$

Strategy 3. Strengthen tree planting requirements during redevelopment.

This strategy focuses on updating Comox's development regulations and guidelines to ensure new projects help grow and protect the Town's tree canopy. These changes will set clear standards for planting and caring for trees on private and public land, require space for trees in boulevards and parking areas, and ensure that tree planting commitments are followed through. By strengthening these rules, Comox will make sure that future growth contributes to a greener, healthier, and more resilient community.

Action	Priority	Timeline	Cost
3a. Amend the Zoning Bylaw to incorporate additional Landscaping Standards, including: **i)** Determine the number of required trees by general zone as follows: **a)** In Detached Residential and Multi-Unit Residential Zones, 1 tree per dwelling unit where 1-3 dwelling units; and 1 tree per 15 linear metres of parcel frontage where 4 or more dwelling units. **b)** In all other Zones, 1 tree per 15 linear metres of parcel frontage. **ii)** Require the following Minimum Tree Size Ratio: **a)** Large Tree (mature canopy diameter >10 metres): 50% of required trees **b)** Medium Tree (mature canopy diameter of 6-10 metres): 25% of required trees **c)** The minimum number of Small Trees (mature canopy diameter <6 metres) shall be equal to the total number of required trees minus the required number of large and medium trees. **d)** Where only one tree is required, it must be a large tree. **iii)** Require 35 m^3 of soil volume per tree, provided in an area of suitable length and width. **iv)** Required trees are permitted to be planted anywhere on the lot; but minimum tree spacing shall be based on site requirements for sightlines, accessibility, and standard planting practices for the selected tree species. **v)** Require planting stock size of at least 1.4 m height (conifers) and 4.0 cm trunk caliper (deciduous). **vi)** Maintain other guidance for species selection, spacing from utilities, and meeting the Canadian Landscape Standard.	A	Short	$

3b. Amend provisions in the Subdivision and Development Servicing Bylaw to: **i)** In the Landscape Standards, **a)** Reduce the minimum planting stock size to 1.4 m height (conifers) and 4.0 cm trunk caliper (deciduous). **b)** Enable bridged soil volumes under pavement (i.e. using structural soil) to be calculated as meeting the required Growing Medium where the required Growing Medium cannot be accommodated in a continuous softscape boulevard planting strip. **ii)** Develop a supplemental drawing demonstrating installation of soil bridging to achieve required Growing Medium. **iii)** Require soil cell installation or soil bridging to support adequate soil volumes for tree planting wherever designed boulevard planting strips are less than 1.5 m wide.	A	Short	$
3c. Amend the Development Application Procedures Bylaw to: **i)** Direct forfeited securities related to tree planting into a dedicated reserve fund.	A	Mid	$

Coquitlam's Frontage Works Program

The City of Coquitlam has faced challenges in updating streetscapes in infill development areas to modern standards of works and services required by its Subdivision and Development Bylaw. The City developed a Frontage Works Program to encourage cash-in-lieu payments for required works and services from single-family zoned properties undergoing redevelopment. It pools payments in a reserve fund which is then used to supply the modern works and services on a block-by-block basis, including substantial boulevard planting strips (minimum 1.9 m) for tree planting.

Strategy 4. Encourage tree planting on private property by local residents and business owners.

To encourage residents and local businesses to take part in growing Comox's tree canopy, the Town will expand community-based planting programs. A subsidized tree sale will make it easier for people to plant trees on their own property, while native seed mixes and seedling plugs will be given away at community events to support backyard biodiversity. The Town will also provide practical online guidance on species selection, siting, installation, and early tree care so residents have the tools they need to ensure healthy, long-lived trees.

Action	Priority	Timeline	Cost
4a. Offer trees for sale to local residents and small businesses below retail cost by pooling orders during spring for fall delivery and planting. Aim to supply 100 trees per year on average through the tree sale program.	A	Short	$$
4b. Offer native seed mix and seedling plug giveaways to local residents at community events and open houses related to environmental action and sustainability.	C	Mid	$$
4c. Publish tree planting guidance regarding species selection, siting, installation, and young tree care on the Town's website that can be referred to by local residents.	B	Short	$$

Kelowna's Neighbourwoods Program

The City of Kelowna runs a biannual tree sale, Neighbourwoods, to offer discounted trees to residents for planting on private property. Since the program's beginning in 2010, the City has sold 8,300 trees for private yard planting. Residents can submit pre-orders on the City's website which are then added to the City's bulk tree order for maximum savings. The trees are available for pick up twice per year in the spring and fall planting season. On pick-up day and its website, the City offers guidance to homeowners about how to properly plant and care for their young tree.

Strategy 5. Create higher quality planting sites.

Comox is ensuring new trees have the best chance to grow strong and healthy. In neighbourhoods with fewer trees, streetscape improvements will create room for bigger trees, while all new planting will follow the Climate Resilient Landscaping Standards. The Town will also amend poor soil conditions before planting, so that new trees can thrive and provide lasting shade, beauty, and habitat.

Action	Priority	Timeline	Cost
5a. Adjacent to areas of lower tree equity, consider streetscape renovations to improve boulevard planting site conditions, where doing so would enable the installation of larger tree species.	B	Mid	$$
5b. Follow the Town's Climate Resilient Landscaping Standards, current edition, for all new tree planting.	A	Short	$
5c. Invest in airspading, soil amendments, fencing, or other improvements as part of planting site preparation where vacant planting sites have compacted, damaged, or low quality soils.	B	Short	$$

Saanich Partnership Tree Program

Through the Saanich Partnership Tree Program, private property owners can request a boulevard tree to be planted in front of their homes. The District oversees planting and early maintenance, while homeowners select the tree species and planting location from an approved list. Residents may also choose to help with ongoing care, such as watering. Since beginning in 2016, the program has contributed 60 to 75 new street trees annually in Saanich.

Goal 2. Protect Comox's urban forest to prevent avoidable loss of ecosystem services.

Goal 2 concerns aligning policy and regulations in Comox—and filling gaps—to secure the future of the urban forest by protecting what we have today. The UFMS findings suggest tree loss from private property for development and non-development reasons are primary factors in a loss of 2% canopy cover in the Town between 2019 and 2025. The current Tree Management and Protection Bylaw does not apply to urban properties in Comox, where the Official Community Plan indicates much of forecasted population growth will be accommodated. Work to develop a new Tree Protection Bylaw is currently underway in concert with preparation of the UFMS and will be guided by it. Engagement with the community will be an important part of developing the new Bylaw to determine technical details like the criteria for a protected tree and when tree removal should be allowed. Incorporating UFMS findings and targets into other planning documents, like the OCP, should also be an important outcome of early UFMS implementation. Developing incentives for tree retention alongside protection requirements can help demonstrate the Town's leadership and secure community support.

Strategy 6. Amend plans and policies to support achieving the UFMS vision and targets.

Comox will strengthen its policy framework by embedding updated urban forest targets into key plans and strategies. The OCP will be amended to reflect UFMS findings, Council's Tree Retention Policy will be renewed to clarify removals and replacement requirements, future area plans will include canopy targets, and a Biodiversity Strategy will be considered to identify priority sites for restoration and planting.

Action	Priority	Timeline	Cost
6a. When next renewed, reflect urban forestry targets and findings in Comox's Official Community Plan.	A	Short	$
6b. Replace Council's Tree Retention Policy with a Tree Management on Town Property Policy with updated targets and measures to achieve the UFMS canopy cover target, to address when the Town will approve the removal of a tree on Town-owned property, and formalize protection and replacement planting requirements and procedures to be followed by the Town and its agents during capital works.	A	Short	$
6c. Establish tree planting/canopy cover targets informed by land use analysis in future area plans.	A	Mid	$
6d. Consider advancing work on a municipal Biodiversity Strategy to identify high priority ecosystems and corridors for naturalization and tree planting.	B	Mid	$$$

Connecting habitat: Surrey's Biodiversity Strategy

Biodiversity Conservation Strategies provide long-term direction for safeguarding and restoring ecosystems, giving municipalities a key framework for managing natural areas. Surrey has implemented its own Strategy, supported by complementary policies, to ensure biodiversity is protected over the long-term. A central feature is the Green Infrastructure Network (GIN), which connects forests, wetlands, parks, watercourses, farmland, and urban areas into a system of critical habitats and wildlife corridors. The Strategy's policy and management actions also strengthen Surrey's commitments to environmental protection, sustainable development, and the expansion of green infrastructure.

Strategy 7. Extend the Town's oversight of tree cutting and removal through a new Tree Protection Bylaw.

This strategy will replace Comox's current Tree Management and Protection Bylaw with a stronger bylaw that applies to all Town-owned trees and a subset of private trees. It introduces higher oversight for significant trees, and requires effective protection measures during construction. The bylaw will also establish a minimum 1:1 replacement ratio, with higher ratios for higher-value trees, and ensure that resourcing and enforcement needs are considered in future financial planning.

Action	Priority	Timeline	Cost
7a. Replace the current Tree Management and Protection Bylaw with a new bylaw to apply to all trees on Town property and a subset of trees on all private properties.	A	Short	$$
7b. Clarify protection requirements for trees subject to a Section 219 covenant under the Land Act.	A	Short	$
7c. Consider establishing, by bylaw, higher levels of oversight for a class of significant trees in Comox.	A	Short	$
7d. Ensure adequate tree protection measures are installed where trees will be retained on or near construction sites or other sites where tree-damaging activities occur, for the duration of the activities.	A	Short	$
7e. Establish a minimum 1:1 replacement ratio when regulated trees are cut or removed, with higher replacement ratios in place for higher-value trees.	A	Short	$
7f. Consider the resourcing and enforcement requirements of a new bylaw during financial planning for the 2026 fiscal year and following years.	A	Short	$$$

North Vancouver's Development Procedures Bylaw

Local governments can utilize delegated minor variances to specify how permit applicants should adjust their designs to accommodate existing trees. The City of North Vancouver's Development Procedures Bylaw allows delegation to staff of minor development variance permits, which include reducing parking minimums to retain mature on-site trees and adequate soil volume.

Strategy 8. Support tree retention during development and on private property.

This strategy will strengthen tree retention and planting in redevelopment by updating development regulations to align with urban forest goals. Revised OCP guidelines, new applicant checklists, and staff-issued variances will support retention of higher-value trees, while financial tools such as DCC reductions and stormwater tax rebates will incentivize canopy integration. Together, these measures ensure redevelopment protects mature trees and expands Comox's canopy.

Action	Priority	Timeline	Cost
8a. Update DP guidelines for tree planting, retention, and planting sites in the OCP to reflect the Climate Resilient Landscaping Standards.	A	Short	$
8b. Develop an applicant check-list for DP guidelines that incorporates guidance on meeting tree survey and protection requirements under current or future tree and development bylaws.	B	Mid	$$
8c. Encourage the use of staff-issued minor development variance permits where modifications to design are likely to enable successful retention of higher-value trees.	A	Short	$
8d. Consider introducing a DCC waiver/reduction bylaw to incentivize major developments to incorporate existing higher-value trees and forested areas into their designs in connection with the stormwater offsetting function of tree canopy.	B	Mid	$
8e. Consider introducing a parcel tax on all properties for stormwater infrastructure that can be partly or fully rebated when properties meet higher thresholds for on-site canopy cover.	C	Long	$$$

Victoria's Rainwater Rewards Program

The City of Victoria has established an incentive for low-impact stormwater management with its Rainwater Rewards Program. Rebates for installation of rainwater management technologies exist for low density developments to support features like permeable paving, rain barrels, and infiltration systems. Credits on the annual stormwater utility bill are available to different maximum rates for a variety of installations at low density and higher density developments.

Goal 3. Engage Comox's community to strengthen urban forest stewardship.

Comox's urban forest management can be strengthened through active partnerships with the community and with K'ómoks First Nation. The enthusiasm for the urban forest in our community is an important asset that can assist implementation of planting and protection programs. The UFMS imagines continued and close connections between the Town's urban forest program and community partners. At the same time, this Goal recognizes that ongoing relationship building with K'ómoks First Nation should influence the Town's management of natural and cultural resources in the urban forest. The UFMS does not prescribe outcomes for engagement, recognizing that in a diverse setting like Comox relationship building is the key to open unseen opportunities.

Strategy 9. Encourage community participation in UFMS implementation.

This strategy will expand community involvement in urban forest stewardship through outreach, partnerships, and volunteering. A communications plan, collaboration with schools and industry, therapeutic programming with Island Health, and opportunities for residents to participate in planting and monitoring will ensure the whole community is engaged in growing and caring for Comox's trees.

Action	Priority	Timeline	Cost
9a. Prepare a communications and engagement plan to guide stewardship programming and community outreach.	B	Short	$
9b. Engage with School District 71 to promote youth learning and engagement and encourage/support future tree planting and/or natural restoration activities.	B	Mid	$
9c. Engage the development/construction industry to promote proper planting practices and maintenance during security periods, and to gain information about appropriate and feasible incentives for tree retention on private property.	A	Short	$$
9d. Liaise with Island Health to explore opportunities to develop local parks for therapeutic, nature-centered programming.	C	Mid	$
9e. Recruit volunteers from the community to contribute to monitoring, restoration, and outreach programs.	B	Short	$

Involving Community in Urban Forest Monitoring: Oakville's (ON) Forest Health Ambassadors

The City of Oakville, Ontario, monitors its street trees every year with help from community volunteers. Volunteers are called to participate in the Forest Health Ambassador program, and are given essential training in identification of major pests and diseases as well as other issues related to tree health. Results from field observations are used by Oakville to assess management needs and schedule proactive maintenance or further assessments.

Strategy 10. Engage K'ómoks people to invite collaboration in urban forest management.

This strategy will strengthen collaboration with K'ómoks First Nation by continuing to share information about the Town's urban forest management program and seeking opportunities to respectfully reflect K'ómoks perspectives in planning, stewardship, and decision-making.

Action	Priority	Timeline	Cost
10a. Continue to share urban forest management program information with representatives of K'ómoks First Nation.	A	Short	$$
10b. Seek opportunities to adequately and respectfully represent K'ómoks perspectives through urban forest management.	A	Short	$$

Goal 4. Sustain Comox's urban forest as an organizational priority to secure its future.

Goal 4 focuses on promoting the stature of urban forest management within the Town's organization and ensuring resources are adequate to support the needs of the urban forest program. This also requires reframing urban forest management from a reactive framework reliant on service calls to a more proactive approach to tree care that is aligned with philosophies of asset management and improving tree condition. Under-resourcing urban forestry means foreclosing the potential of investments in tree planting and protection. Investigating program structure and efficiencies, and supplying additional resources to meet community expectations are equally important factors in sustaining Comox's urban forest for the long-term.

Strategy 11. Establish an asset management approach for urban forestry.

Inventory data is a cornerstone of asset management, as it provides insight into the species, size, condition, and risk of trees and helps guide renewal and maintenance activities. For this reason, this strategy recommends updating Comox's tree inventory and developing a complementary inventory of natural forest stands to track health, wildfire and invasive species risks, and other management needs. These inventories will be integrated into natural asset management plans, including defining the desired life expectancy for different urban forest asset classes. To further strengthen asset management, the Town will establish a compensation framework for tree loss during capital projects, develop operational cost values for each new tree, and ensure that soil cells and other green infrastructure are properly recorded and maintained. An Urban Forest Reserve Fund will also be created to support planting, afforestation, and site improvements, with implementation overseen by an interdepartmental working group chaired by Parks.

Action	Priority	Timeline	Cost
11a. Update the Tree Inventory to report on species, size, condition, and risk/tree hazard.	B	Short	$$
11b. Develop an inventory of natural forest stands to track forest health and condition, invasive species risks, wildfire risks, and other measures useful for monitoring natural areas and arranging maintenance.	A	Mid	$$$
11c. Incorporate the Town's urban forest asset classes in future natural asset management plans, including identifying the desired life expectancy by asset class to promote investments in tree retention and maintenance.	B	Mid	$$
11d. Establish a compensation framework for capital projects that result in tree/forest loss through which tree replacement is incorporated into the project budget, prioritizing on-site replacement where feasible, and where the loss of healthy or large trees must be replaced at a higher ratio than young or poor condition trees.	B	Mid	$
11e. Develop an operational budget impact value for each new tree on Town property to plan for increasing maintenance costs with growing tree inventory.	A	Short	$
11f. Ensure new installations of soil cells or other green infrastructure technologies on public property are adequately inventoried and marked with an above ground locator so they can be maintained in the Town's asset management program.	A	Short	$$
11g. Establish an Urban Forest Reserve Fund to hold monies dedicated for tree planting and planting site improvements.	B	Mid	$
11h. Convene an interdepartmental working group chaired by the Parks Department to oversee UFMS implementation.	A	Short	$

Strategy 12. Document and improve service levels for urban forest assets.

Service levels for Comox's urban forest should be clearly defined to guide consistent, proactive management of trees and forests across Town lands. This strategy recommends developing a new tree risk management policy to establish inspection standards and thresholds for mitigation, as well as a young tree care procedure to ensure pruning, watering, and protection in the first 10 years of growth. A regular block inspection and pruning cycle will provide proactive maintenance, while updated storm callout procedures will prioritize safety and asset value. Operational guidance will be aligned with best practices, supported by a new utilization policy for wood generated from Town operations. Finally, all management activities will be documented in an Urban Forest Operations Procedure Manual, ensuring clear standards and continuity of practice.

Action	Priority	Timeline	Cost
12a. Develop a new tree risk management procedure to establish inspection guidelines, standards of assessment, and thresholds for mitigation for urban forest asset classes and forest edges on Town-owned property.	A	Short	$$
12b. Formalize a young tree management procedure for all newly planted trees by asset class that incorporates structural pruning, trunk guard removal, and supplemental watering (as necessary) for up to the first 10 years of a tree's life.	A	Mid	$$$$
12c. Target proactive maintenance of street and urban park trees on a 7-year block inspection and pruning cycle.	B	Long	$$$$
12d. Update storm callout procedures to include a decision-making framework for resource allocation that prioritizes safety and then preserving life-cycle asset value.	C	Short	$
12e. Refer to best practice standards (e.g., ISA BMPs, ANSI, TCIA) in operational guidance documents for planting, pruning, risk assessment, and young tree care.	A	Short	$
12f. Prepare a new utilization procedure for waste wood generated by Town operations to encourage the reuse and recycling of waste wood prior to disposal.	C	Long	$
12g. Record and compile procedures for all regular urban forest management activities into an Urban Forest Operations Procedure Manual.	C	Mid	$

Strategy 13. Monitor the urban forest program and adjust management to changing circumstances.

This strategy will ensure Comox's urban forest program stays accountable and adaptable by revisiting the UFMS every five years with updated canopy analysis, program reviews, and public reporting. An Integrated Pest Management Plan will guide responses to invasive species and emerging pests, while the Town pursues Tree Cities of the World status to showcase its commitment. Innovation will be supported through trials of new technologies, FireSmart practices, and restoration methods, along with partnerships with nurseries, municipalities, and academic institutions to secure species diversity and advance applied research.

Action	Priority	Timeline	Cost
13a. Maintain the UFMS by revisiting its analysis and findings at least once every five years, including by: i) Resurveying urban forest canopy cover using a reliable, consistent method. ii) Reviewing planting program outcomes and targets (annual reporting of total number of trees planted). iii) Reviewing tree protection outcomes and targets. iv) Renewing an urban forest program review using a criteria and indicators approach to track progress. v) Publishing an accessible report for Council and the public on UFMS implementation.	A	Mid	$$
13b. Develop an Integrated Pest Management Plan that details thresholds for mitigation/control of various forest health factors, such as common invasive species and unauthorized use/vandalism, and liaise with federal and provincial authorities annually to understand emergent pests and pathogens that could require response.	B	Mid	$$
13c. Seek Tree Cities of the World status to reflect Comox's renewed commitment to urban forest management.	C	Long	$
13d. Trial new technologies for tree planting, maintenance, planting site improvement, water storage/delivery, and other capital assets where feasible, with a preference for supporting trials through external funding (grants).	C	Mid	$$$

13e. Trial the use of alternative, innovative, and emerging practices to enhance forests such as soil aeration, copse planting, coarse woody debris placement for soil shading and moisture retention, and soil amendments like biochar.	B	Mid	$$$
13f. Encourage the use of FireSmart vegetation and landscaping principles on properties in areas of higher wildfire risk such as private properties adjacent to natural forests.	B	Short	$
13g. Explore partnering with other municipalities and a local nursery to secure future supply of additional tree species diversity and support higher rates of tree planting.	B	Short	$
13h. Explore partnering with a higher education institution to open opportunities for applied research in support of Comox's urban forest management program.	C	Mid	$

Strategy 14. Secure resources and build capacity needed to implement.

This strategy will build the resources and capacity needed to deliver the UFMS. A staffing review, pursuit of grants and employment funding, and consideration of new financial tools—such as parcel taxes, development cost charges, or levies—will ensure Comox has the people and funding required to meet long-term urban forest goals.

Action	Priority	Timeline	Cost
14a. Conduct an integrated staffing review in concert with new mandates (such as a new tree bylaw and development bylaw amendments) to examine where additional staff are needed to operate urban forest program needs.	A	Short	$
14b. Pursue external funding sources such as Growing Canada's Community Canopies or other grant programs as they become available to support tree planting, maintenance, and strategic urban forestry initiatives.	A	Short	$
14c. Access employment funding, such as the Green Jobs program, to access wage subsidies for eligible projects within the urban forest program.	A	Short	$
14d. Consider new financial tools to fund urban forest management, including new utility (parcel) taxes, development cost charges, permit and inspection fees, special levies, cash-in-lieu, or general property taxes to meet implementation needs for the urban forest program.	B	Long	$

Funding Opportunities

- Launched in 2024, the Green Municipal Fund's **Growing Canada's Community Canopies (GCCC)** initiative supports tree planting in communities nationwide, with a focus on building climate resilience and delivering social and environmental benefits. Through the program, local governments and their partners can access both tree-planting grants and strategic funding for planning and operational support. GCCC is funded by the Government of Canada's 2 Billion Trees (2BT) program and delivered in collaboration with Tree Canada.
- **Tree Canada's Community Tree** Grants offer funding and technical assistance to support community greening, innovation, and stewardship projects. Municipalities can apply to launch, enhance, or achieve their local greening goals.

4.2 MONITORING PLAN

Ongoing monitoring is critical to assess progress in delivering the strategies and actions set out in the UFMS. **Table 4-2** identifies performance indicators to help guide implementation and measure outcomes. To remain effective and relevant, the Action Plan should be reviewed and updated at least every five years so that these indicators continue to reflect Comox's evolving urban forest management needs and community preferences.

Table 4-2. Monitoring performance indicators, targets, frequency and method of measurement.

Performance measure	Target	Frequency and method of measurement
Goal 1: Grow Comox's urban forest to meet social and ecological needs.		
Town-wide urban canopy cover	26% by 2055 (1% increase over 30 years) 30% by 2085 (5% increase over 60 years)	5 years, LiDAR remeasurement
New tree planting in streets and urban parks	40 street trees 75 planted park trees	Annually, program records
New tree planting in natural parks	100 planted trees	Annually, program records
Species diversity	Plant no more than 10% of a single species in any year, nor 20% or more of any single genus	Annually, planting records
Species suitability	100% of planted non-native trees are drought/heat tolerant	Annually, planting records
Goal 2: Protect Comox's urban forest to prevent avoidable loss of ecosystem services.		
Urban tree life expectancy	Increasing tree asset life expectancy	Annually, by tree inventory and tree removal records
Goal 3: Engage Comox's community to strengthen urban forest stewardship.		
Community satisfaction	>50% awareness of UF service levels, and >80% satisfaction among those aware	Annually, by survey
Community tree sale	100 trees are purchased on average per year, or program numbers are increasing	Annually, program records

Goal 4: Sustain Comox's urban forest as an organizational priority to secure its future.		
Inventory	Complete inventory of street trees and planted park trees on Town property	Annually, by tree inventory records
Forest inventory	An inventory of natural forest stands on Town-owned property supports forest health monitoring and condition assessment	5 years
Valuation	100% of inventoried tree and forest assets on Town property are provided an asset replacement value	Annually, by asset records
Young tree mortality	<1% young tree mortality	Annually, site visits
Third party recognition	Achieve Tree Cities of the World Status	Annually, by application
Reporting	Report annually on urban forest management outcomes	Annually, program records
Urban forest report card	Urban forest report card ratings are improving	Annually, program records

Glossary

Asset management	*A systematic process of maintaining, upgrading, and operating assets cost effectively. In urban forestry, this involves managing trees to increase their capacity to provide benefits and services, ensure safety, and plan for long-term sustainability.*
Biodiversity	*Biodiversity is the variety of all life, including plants, animals, and fungi, that exists in a particular area.*
Canopy cover	*A measure of the extent of the urban forest based on the amount of ground covered by foliage of trees when viewed from above.*
Diameter at breast height	*The diameter through the centre of a tree's stem, measured at 1.4 m along the stem above the ground on the high side of the tree.*
Genus	*The taxonomic level directly above species: a closely related group of species sharing a common ancestor, e.g., Acer (Maple), Pinus (Pine), or Populus (Poplar).*
Green infrastructure	*Natural and human-made assets in the community that support ecological and hydrological function and ecosystem processes (e.g. trees, permeable pavers, rain garden).*
Greenfield development	*Land development that converts natural and rural areas into urban area, such as the conversion of forested property to a residential subdivision or commercial plaza.*
LiDAR	*Light Detection and Ranging (LiDAR), an aerial or satellite survey technology that uses invisible signals of light to remotely measure the surface height.*
Natural forest	*Unmaintained landscapes where indigenous tree species form a dominant vegetation cover, or forested areas specifically managed to promote natural ecosystem characteristics.*
Significant tree	*Significant trees are recognized for their high ecological and cultural values. The UFMS proposes developing a concise, criteria-based definition for a significant tree as part of the Tree Protection Bylaw update.*
Tree equity	*An ideal state describing when every person's needs for urban forest ecosystem services are adequately met by urban trees.*
Urban forest	*The urban forest includes every public and private tree, planted or naturally occurring, within the municipal boundary of Comox.*
Urban forest management	*The sustained planning, planting, protection, maintenance, and care of trees, forests, and related resources in and around communities to promote economic, environmental, social, and public health benefits for people and wildlife.*
Urban forest program	*A collective description of the policies, procedures, and resources used for urban forest management activities and the people undertaking those activities.*
Urban trees	*Trees located in streets, yards, landscaped parks, and other urban settings (not on rural property or in natural forests).*

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Appendix

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Criteria and Indicators for the Urban Forest Report Card (2025)

Primary source **modified by DHC from original*	**Assessment Criteria**		INDICATORS FOR URBAN FORESTRY PERFORMANCE			
		OBJECTIVE	POOR	FAIR	GOOD	OPTIMAL
			PLAN			
Davey 2016 C6*	**Awareness of the urban forest as a community resource**	*The urban forest is recognized as vital to the community's environmental, social, and economic well-being.*	General ambivalence or negative attitudes about trees, which are perceived as neutral at best or as the source of problems. Actions harmful to trees may be taken deliberately.	**Trees are widely acknowledged as providing environmental, social, and economic services but are not widely integrated in corporate strategies and policies.**	Trees are widely acknowledged as providing environmental, social, and economic services and urban forest objectives are integrated into other corporate strategies and policies.	Urban forest recognized as vital to the community's environmental, social, and economic well-being. Widespread public and political support and advocacy for trees, resulting in strong policies and plans that advance the viability and sustainability of the entire urban forest.
Davey 2016 T1	**Tree canopy cover relative to established canopy cover goals**	*Achieve desired degree of tree cover, based on potential or according to goals set for entire municipality and for each neighbourhood or land use.*	The existing canopy cover for entire municipality is <50% of the desired canopy.	**The existing canopy is 50%-75% of desired.**	The existing canopy is >75%-100% of desired.	The existing canopy is >75%-100% of desired - at the individual neighborhood level as well as overall municipality.
Davey 2016 R2 target*	**Clear and defensible urban forest canopy assessment and goals**	*Urban forest policy and practice is driven by comprehensive goals municipality-wide and at the neighbourhood or land use scale informed by accurate, high-resolution assessments of existing and potential canopy cover.*	No assessment or goals.	Low-resolution and/or point-based sampling of canopy cover using aerial photographs or satellite imagery – and limited or no goal setting.	Complete, detailed, and spatially explicit, high-resolution Urban Tree Canopy (UTC) assessment based on enhanced data (such as LiDAR) – accompanied by a comprehensive set of goals	**The municipality has a complete, detailed, and spatially explicit high-resolution Urban Tree Canopy (UTC) assessment accompanied by a comprehensive set of goals, all utilized**

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Primary source **modified by DHC from original*	**Assessment Criteria**		**INDICATORS FOR URBAN FORESTRY PERFORMANCE**			
		OBJECTIVE	**POOR**	**FAIR**	**GOOD**	**OPTIMAL**
					by land use and other parameters.	**effectively to drive urban forest policy and practice municipality-wide and at neighbourhood or smaller management level.**
Davey 2016 C1 target*	**Interdepartmental and Municipal agency cooperation on urban forest strategy implementation**	*Ensure all relevant municipal departments and agencies cooperate to advance goals related to urban forest issues and opportunities.*	Little cooperation and conflicting among departments and/or agencies often leading to poor outcomes for trees.	**Common goals but limited cooperation among departments and/or agencies and mixed outcomes for trees.**	Municipal departments, affected agencies and urban forest managers recognize potential conflicts and reach out to each other on an informal but regular basis.	Formal interdepartmental working agreements or protocols for all projects that could impact municipal trees.
Davey 2016 R4	**Municipality-wide urban forest management plan**	*Develop and implement a comprehensive urban forest management plan for public and private property.*	No plan.	Existing plan limited in scope and implementation.	Recent comprehensive plan developed and implemented for publicly owned forest resources, including trees managed intensively (or individually) and those managed extensively, as a population (e.g., trees in natural areas).	**Strategic, multi-tiered plan with built-in adaptive management mechanisms developed and implemented for public and private resources.**
DHC	**Municipal green infrastructure asset management**	*Integrate green infrastructure assets into the municipal asset management system to support valuing and accounting for natural assets in the Town's financial planning to build climate resilient infrastructure.*	No recognition of value of natural or human-made elements that provide ecological and	**Local government recognizes the value of green infrastructure but does not yet have information to include**	Green infrastructure assets have been partially or fully inventoried and some assets are included in an asset management system, with	Green infrastructure assets are inventoried and included in an asset management system and on the consolidated

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Primary source **modified by DHC from original*	**Assessment Criteria**		**INDICATORS FOR URBAN FORESTRY PERFORMANCE**			
		OBJECTIVE	**POOR**	**FAIR**	**GOOD**	**OPTIMAL**
			hydrological functions (green infrastructure).	**them in an asset management system.**	the intent to ultimately capture all assets in the consolidated financial statements of the municipality.	financial statement of the municipality.
SFI Objective 3	**Municipal-wide biodiversity or green network strategy**	Acquire and restore publicly-owned natural areas in pursuit of meeting municipal-wide biodiversity and connectivity goals.	No or very limited planning and stewardship of natural areas.	**Area specific management plans focused on management, restoration, and protection of natural areas.**	Municipal-wide urban forest, parks or natural areas strategy guiding management, restoration, and protection of the existing natural areas network.	Biodiversity strategy or equivalent in effect to manage, restore and existing and acquire future natural areas network throughout the municipality.
Davey 2016 R6 target*	**Municipal urban forestry program capacity**	Maintain sufficient well-trained personnel and equipment – whether in-house or through contracted or volunteer services – to implement municipality-wide urban forest management plan.	Team severely limited by lack of personnel and/or access to adequate equipment. Unable to perform adequate maintenance, let alone implement new goals.	**Team limited by lack of staff and/or access to adequate equipment to implement new goals.**	Team able to implement many of the goals and objectives of the urban forest management plan.	Team able to implement all of the goals and objectives of the urban forest management plan.
Davey 2016 R5 target*	**Urban forest funding to implement a strategy**	Maintain adequate funding to implement the urban forest strategy.	Little or no dedicated funding.	**Dedicated funding but insufficient to implement the urban forest strategy or maintain new assets as they are added to the inventory.**	Dedicated funding sufficient to partially implement the urban forest strategy and maintain new assets as they are added to the inventory.	Sustained funding to fully implement the urban forest strategy and maintain new assets as they are added to the inventory.

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Primary source **modified by DHC from original*	**Assessment Criteria**		**INDICATORS FOR URBAN FORESTRY PERFORMANCE**			
		OBJECTIVE	**POOR**	**FAIR**	**GOOD**	**OPTIMAL**
PLANT/GROW						
Davey 2016 R7 target*	**Municipal tree planting and replacement program design, planning and implementation**	Comprehensive and effective tree selection, planting and establishment program that is driven by canopy cover goals and other considerations according to the UFS.	Tree replacement and establishment is ad hoc.	**Some tree planting and replacement occurs, but with limited overall municipality-wide planning and insufficient to meet replacement requirements.**	Tree replacement and establishment is directed by needs derived from an opportunities assessment and species selection is guided by site conditions, tree health and climate adaptation considerations.	Tree planting and replacement is guided by strategic priorities and is planned out to make progress towards targets set for canopy cover, diversity, tree health and climate adaptation within the timeframe of the strategy.
DHC	**Development requirements to plant trees on private land**	Ensure that new trees are required in landscaping for new development or, where space is lacking, there is an equivalent contribution to tree planting in the public realm.	Landscaping requirements do not address trees on private land.	**Developments are generally required to plant trees but the outcomes are often in conflict with public trees and other infrastructure due to space limitations and not connected to meeting canopy cover targets.**	Developments are required to plant trees or, where space is not adequate according to soil volume available, provide cash-in-lieu for equivalent tree planting on public land. The requirement is not connected to meeting canopy cover targets.	Developments are required to provide a minimum density of trees per unit measure or, where space is not adequate according to soil volume available, provide adequate cash-in-lieu for equivalent tree planting on public land. Planting density is determined based on meeting a

Primary source **modified by DHC from original*	**Assessment Criteria**		**INDICATORS FOR URBAN FORESTRY PERFORMANCE**			
		OBJECTIVE	**POOR**	**FAIR**	**GOOD**	**OPTIMAL**
						municipal-wide canopy cover target.
Davey 2016 R8 target*	**Streetscape and servicing specifications and standards for planting trees**	Ensure all publicly owned trees are planted into conditions that meet requirements for survival and maximize current and future tree benefits.	No or very few specifications and standards for growing sites.	**Specifications and standards for growing sites exist but are inadequate to meet urban forest goals.**	Specifications and standards exist and are adequate to meet urban forest goals but are not always achieved.	All trees planted are in sites with adequate soil quality and quantity, and with sufficient growing space to achieve their genetic potential and life expectancy, and thus provide maximum ecosystem services.
(Davey 2016 R3 target)	**Equity in planting program delivery**	*Ensure that the benefits of urban forests are made available to all, especially to those in greatest need of tree benefits.*	**Tree planting and outreach are not determined equitably by canopy cover or need for benefits.**	Planting and outreach include attention to low-canopy neighborhoods or areas.	Planting and outreach targets neighborhoods with low canopy and a high need for tree benefits.	Equitable planting and outreach at the neighbourhood level are guided by strong citizen engagement in identified low-canopy/high-need areas.
Davey 2016 R14 target*	**Forest restoration and native species planting**	*Encourage the appreciation of climate suitable native vegetation by the community and ensure native species are widely planted to enhance native biodiversity and connectivity.*	Voluntary use of climate suitable native species on publicly and privately-owned lands.	**The use of climate suitable native species is encouraged on a site-appropriate basis in public and private land development projects.**	Policies require the use of climate suitable native species and management of invasive species on a site-appropriate basis in public and private land development projects but are not integrated across all	Policies require the use of climate suitable native species and management of invasive species on a site-appropriate basis in public and private land development projects and through tree bylaw.

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Primary source **modified by DHC from original*	**Assessment Criteria**		**INDICATORS FOR URBAN FORESTRY PERFORMANCE**			
		OBJECTIVE	**POOR**	**FAIR**	**GOOD**	**OPTIMAL**
					policy or guided by a connectivity analysis.	
Davey 2016	**Selection and procurement of stock in cooperation with nursery industry**	*Diversity targets and climate adaptation/mitigation objectives guide tree species selection and nurseries proactively grow stock based on municipal requirements.*	Species selection is not guided by diversity targets or climate adaptation/mitigation objectives.	**Species selection is guided by diversity and climate adaptation/ mitigation but required stock is rarely available from nurseries and acceptable substitutes reduce diversity.**	Species selection is guided by targets for diversity and climate adaptation/ mitigation and required stock or acceptable substitutes are usually available from nurseries.	Species selection is guided by targets for diversity and climate adaptation/mitigation and required stock is secured ahead of the planned planting year from contract or in-house nurseries.
SFI	**Ecosystem services targeted in tree planting projects and landscaping**	*Incorporate ecosystem services objectives into public and private tree planting projects to improve urban tree health and resilience, carbon sequestration, stormwater management and cooling.*	Ecosystem services not considered in planting projects or intentionally designed into vegetated landscapes.	Ecosystem services, such as stormwater interception, occasionally incorporated into Town or private land planting projects and landscape designs.	**Guidelines in place for planting projects and landscape designs on public and private land to deliver specific ecosystem services.**	Ecosystem services targets are defined for the urban forest and policy requires planting project and landscape designs on public and private land to contribute to meeting targets.
PROTECT						
Davey 2016 R9 target*	**Policy or regulations regulating the protection and replacement of private and Town trees**	*Secure the benefits derived from trees on public and private land by enforcement of municipality-wide policies and practices including tree protection.*	No or very limited tree protection policy.	**Policies in place to protect public trees and employ industry best management practice.**	Policies in place to protect public and private trees with enforcement but lack integration with other municipal policy to enable effective tree retention.	Urban forest strategy and integrated municipal-wide policies that guide the protection of trees on public and private land, and ensure they are

Primary source **modified by DHC from original*	**Assessment Criteria**		**INDICATORS FOR URBAN FORESTRY PERFORMANCE**			
		OBJECTIVE	**POOR**	**FAIR**	**GOOD**	**OPTIMAL**
						consistently applied and enforced.
SFI Objective 3 and 4	**Policy or regulations for conservation of sensitive ecosystems, soils, or permeability on private property through development**	*Secure the benefits derived from environmentally sensitive areas by enforcement of municipality-wide policies in pursuit of meeting biodiversity and connectivity goals.*	No or very limited natural areas protection policy.	Policies in place to protect privately-owned natural areas without enforcement.	**Development Permit Areas in place to protect privately-owned natural areas with enforcement but lack integration with other municipal policy to enable effective tree retention.**	Biodiversity strategy or equivalent and integrated municipal-wide policies that guide privately-owned natural area protection and ensure they are consistently applied.
SFI Objective 3	**Internal protocols guide Town tree or sensitive ecosystem protection**	*Ensure all relevant municipal departments follow consistent tree or ecosystem protection protocols for capital design and construction activities.*	No protocols guiding Town tree or ecosystem protection for capital design and construction activities.	**Informal and inconsistent processes followed for Town tree or ecosystem protection for capital design and construction activities.**	Established protocols for Town tree or ecosystem protection for capital design and construction activities but outcomes are inconsistent or sometimes unachievable.	Established protocols for Town tree or ecosystem protection for capital design and construction activities are consistently followed and outcomes are successful.
Davey 2016 C3 target*	**Standards of tree protection and tree care observed during development or by local arborists and tree care companies**	*Consulting arborists and tree care companies understand Town-wide urban forest goals and objectives and adhere to high professional standards.*	Limited understanding or support for tree protection requirements.	**General understanding or support for tree protection requirements but large variation in the quality of information and services provided.**	General understanding or support for tree protection requirements and generally consistent quality of information and services provided.	Advocacy for tree protection requirements, engagement with Town staff on improving processes and standards, and generally consistent quality of information and services provided to high professional standards.

Primary source **modified by DHC from original*	Assessment Criteria		Indicators for Urban Forestry Performance			
		OBJECTIVE	Poor	Fair	Good	Optimal
Davey 2016 C2 target*	**Cooperation with utilities on protection (and pruning) of Town trees**	*All 3rd party utilities employ best management practices and cooperate with the Town to advance goals and objectives related to urban forest issues and opportunities.*	Utilities take actions impacting urban forest with no municipal coordination or consideration of the urban forest resource.	**Utilities inconsistently employ best management practices, rarely recognizing potential municipal conflicts or reaching out to urban forest managers and vice versa.**	Utilities employ best management practices, recognize potential municipal conflicts, and reach out to urban forest managers on an ad hoc basis – and vice versa.	Utilities employ best management practices, recognize potential municipal conflicts, and consistently reach out to urban forest managers and vice versa.
MANAGE						
Davey 2016 R1 target*	**Tree inventory**	*A current and comprehensive inventory of intensively managed trees to guide management, including data such as age distribution, species mix, tree condition and risk assessment.*	No inventory.	**Partial inventory of publicly-owned trees in GIS.**	Complete inventory of street trees and intensively managed park trees in GIS but inconsistently updated.	The municipal tree inventory is complete, is GIS-based, supported by mapping, and is continuously updated to record growth, work history and tree condition.
Davey 2016 T7 target*	**Knowledge of trees on private property**	Understand the extent, location, and general condition of privately-owned trees.	No information about privately owned trees.	**Aerial, point-based or low-resolution assessment of tree canopy on private property, capturing broad extent.**	Detailed Urban Tree Canopy analysis of the urban forest on private land, including extent and location, integrated into a municipality-wide GIS system	The Town has an i-Tree Eco analysis of private trees as well as detailed Urban Tree Canopy analysis of the entire urban forest integrated into a municipality-wide GIS system.

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		OBJECTIVE	**POOR**	**FAIR**	**GOOD**	**OPTIMAL**
Added to bridge gap in Davey	**Natural areas inventory**	*A current and comprehensive inventory of sensitive and modified natural ecosystems and their quality mapped to Provincial standards to provide standardized ecological information to support decision-making.*	No inventory of natural areas.	**Natural areas inventoried in GIS but not recently updated and attribute information not to a standard that can support decision-making.**	Natural areas inventoried in GIS and with standard and complete attribute information to support decision-making but not updated in the last 5 years.	Natural areas inventoried in GIS and with standard and complete attribute information to support decision-making and updated in the last 5 years.
Davey 2016 T2	**Age diversity (size class distribution)**	*Provide for ideal uneven age distribution of all "intensively" (or individually) managed trees – municipality-wide as well as at neighbourhood level.*	**Even-age distribution, or highly skewed toward a single age class (maturity stage) across entire population.**	Some uneven distribution, but most of the tree population falls into a single age class.	Total tree population across municipality approaches an ideal age distribution of 40% juvenile, 30% semi-mature, 20% mature, and 10% senescent.	Total population approaches that ideal distribution municipality-wide as well as at the neighborhood level.
Davey 2016 T3	**Species diversity**	*Establish a genetically diverse population across the municipality as well as at the neighbourhood scale.*	Five or fewer species dominate the entire tree population across municipality.	**No single species represents more than 10% of the total tree population; no genus more than 20%, and no family more than 30%.**	No single species represents more than 5% of total tree population; no genus more than 10%; and no family more than 15%	At least as diverse as "Good" rating (5/10/15) municipality-wide - and at least as diverse as "fair" (10/20/30) at the neighborhood level.
Davey 2016 T4	**Species suitability** *n.b. Insufficient data from inventory.*	*Establish a tree population suited to the urban environment and adapted to the overall region.*	Fewer than 50% of all trees are from species considered suitable for the area.	>50%-75% of trees are from species suitable for the area.	More than 75% of trees are suitable for the area.	Virtually all trees are suitable for the area.
Davey 2016 T5 target	**Publicly owned tree species condition**	*Current and detailed understanding of condition and risk potential of all publicly owned trees that are managed intensively (or individually).*	**Condition of urban forest is unknown.**	Sample-based tree inventory indicating	Complete tree inventory that includes detailed tree condition ratings.	Complete tree inventory that is GIS-based and includes detailed tree

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				tree condition and risk level.		condition as well as risk ratings.
Davey 2016 R10*	**Maintenance of intensively managed trees**	*Maintain all publicly owned intensively managed trees for optimal health and condition in order to extend longevity and maximize current and future benefits.*	Intensively managed trees are maintained on a request/reactive basis.	**Intensively managed trees are maintained on a request/reactive basis. Limited systematic (block) pruning and/or immature trees are structurally pruned.**	All intensively managed trees are systematically maintained on a cycle determined by workload and resource limitations. All immature trees are structurally pruned.	All mature intensively managed trees are maintained on an optimal pruning cycle. All immature trees are structurally pruned.
	Emergency response planning	*A response plan guides call-out procedures, resources available and the clean-up response for extreme weather and earthquake.*	**Response plan not documented or not current.**	Response plan is documented and includes call-out procedures, roles and responsibilities but lacks details to prioritize hazards and clean-up.	Response plan includes call-out procedure, roles and responsibilities, and criteria for prioritizing tree hazards and removing debris is in place.	A comprehensive response plan is in place and a response drill occurs annually.
Davey 2016 R12 target* (Updated by DHC to make more relevant/nuanced)	**Tree risk management**	*Comprehensive tree risk management program fully implemented, according to ANSI A300 (Part 9) "Tree Risk Assessment" standards, and supporting industry best management practices.*	No coordinated tree risk assessment or risk management program. Response is on a reactive basis only.	**Some areas within the Town are prioritized for risk assessment and management. Little annual budget is available to develop a more proactive inspection program.**	Priority areas of the Town are inspected on a regular schedule and operational standards and budgets are in place for responding to and managing tree risks within an appropriate timeframe.	A comprehensive risk management program is in place, with all public lands inspected on defined schedules and operational standards and budgets in place for responding to and managing tree risks

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		OBJECTIVE	**POOR**	**FAIR**	**GOOD**	**OPTIMAL**
						within an appropriate timeframe.
DHC made	**Pest and Disease Management**	*An Integrated Pest Management (IPM) plan guides treatment responses to existing and potential pest, disease and invasive species threats to the urban forest.*	No integrated pest management plan and no pest management.	**No integrated pest management plan and reactive pest management.**	An integrated pest management plan is in place and implemented.	A comprehensive pest management program is in place, with detection, communication, rapid response and IPM practiced.
Davey 2016 R13 target*	**Waste biomass utilization**	*A closed system diverts all urban wood and green waste through reuse and recycling.*	Wood waste from the urban forest is not utilized.	Wood waste from the urban forest is utilized as mulch or biofuel.	**Wood waste from the urban forest is utilized as mulch or biofuel and sometimes high value pieces are milled and stored for later use or sold on to local value-added industries.**	Low value wood waste from the urban forest is utilized as mulch or biofuel and all high value pieces are milled and stored for later use or sold on to local value-added industries.
SFI	**Tracking of operational carbon footprints and urban forest carbon-cycle balance**	*Organization will actively track their operational carbon footprints and their community-wide urban forest carbon-cycle balance and work with community partners to minimize greenhouse gas emissions (GHG) emissions while maximizing carbon sequestration and avoided GHG emissions.*	**Basic CO2/GHG accounting not considered for urban forestry operations**	Basic CO2/GHG accounting and carbon cycle assessment and climate action plan undertaken for urban forestry operations and for the entire community with general goals and objectives to minimize community emissions.	Basic CO2/GHG accounting and carbon cycle assessment and climate action plan undertaken with specific goals and objectives for urban forestry and formal policies in place to encourage use of trees and green infrastructure	Basic CO2/GHG accounting and carbon cycle assessment and climate action plan undertaken for urban forestry operations and for the entire community with specific goals and objectives for urban forestry and formal policies in place to

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		OBJECTIVE	Poor	Fair	Good	Optimal
					for carbon sequestration and energy conservation in buildings.	encourage use of trees and green infrastructure for carbon sequestration and energy conservation in buildings, and to maximize urban wood and woody biomass utilization.
PARTNER						
Davey 2016 C5 target*	**Citizen involvement and neighbourhood action**	*Citizens and groups participate and collaborate at the neighbourhood level with the municipality and/or its partnering NGOs in urban forest management activities to advance municipality-wide plans.*	Little or no citizen involvement or neighborhood action.	**Community groups are active and willing to partner in urban forest management, but involvement and opportunities are ad hoc.**	Several active neighborhood groups engaged across the community, with actions coordinated or led by municipality and/or its partnering NGOs.	Proactive outreach and coordination efforts by the Town and NGO partners result in widespread citizen involvement and collaboration among active neighbourhood groups engaged in urban forest management
Davey 2016 C4 target*	**Involvement of large private land and institutional land holders (e.g., schools)**	*Large private landholders to embrace and advance Town-wide urban forest goals and objectives by implementing specific resource management plans.*	**Large private landholders are generally uninformed about urban forest issues and opportunities.**	Landholders manage their tree resource but are not engaged in meeting municipality-wide urban forest goals.	Landholders develop comprehensive tree management plans (including funding strategies) that advance municipality-wide urban forest goals.	As described in "Good" rating, plus active community engagement and access to the property's forest resource.
	Urban forest research	*Research is active and ongoing towards improving our understanding of the urban forest resource, the*	No urban forest research.	**Isolated academic research occurs in the**	The municipality supports and has input on academic research occurring in its	The urban forest is a living laboratory - in collaboration with public,

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		OBJECTIVE	**POOR**	**FAIR**	**GOOD**	**OPTIMAL**
		benefits it produces, and the impacts of planning, policy, design and management initiatives.		**municipality's urban forest.**	urban forest and knowledge transfer occurs.	private, NGO and academic institutions - integrating research and innovation into managing urban forest health, distribution, and abundance.
Davey 2016 C7 target	**Regional collaboration**	*There is cooperation and interaction on urban forest plans among neighbouring municipalities within the region, and/or within regional agencies.*	Municipalities have no interaction with each other or the broader region for planning or coordination on urban forestry.	**Some neighboring municipalities and regional agencies share similar policies and plans related to trees and urban forest.**	Some urban forest planning and cooperation across municipalities and regional agencies.	Widespread regional cooperation resulting in development and implementation of regional urban forest strategy.

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