An urban forest is ...

all of the trees, vegetation, soil and associated natural processes across our city’s landscape.

It is found on both public and private lands including:

- **PARKS + NATURAL AREAS**
- **RESIDENTIAL NEIGHBOURHOODS**
- **URBAN CENTRES + INSTITUTIONS**
- **INDUSTRIAL AND AGRICULTURAL**

The benefits of urban forests

The urban forest is a critical part of Courtenay’s appeal and livability.

Trees serve to:
- beautify and cool the city
- intercept rainwater
- remove pollutants
- provide habitat for wildlife
- connect people to nature

... among many other benefits.

These ecosystem services are as important as other infrastructure, like water, sewers and road networks that service Courtenay.

Urban forestry is...

the art, science and technology of managing trees and natural systems in and around urban areas for benefits that contribute to the health, happiness and comfort of our communities.
Measuring canopy cover

Canopy cover is a common metric used to measure urban forests and their change over time. The map below summarizes Courtenay’s canopy cover percentage by block in 2016.

**Canopy cover is ...**
The extent of the urban forest, determined by measuring the area of tree canopy.

Think: the layer of leaves, branches and tree stems when viewed from above.

By comparison,

Courtenay’s urban forest cover is relatively similar to reported canopy cover for several other communities in the region. Victoria and Comox are lower, likely due to population density and land use respectively. Based on a 2001 nationwide study from the United States, canopy cover variation in urban areas is explained mostly by ecoregion type (i.e., forested, grassland, desert), population density and land use. Across all urban areas in forested ecoregions in the US, canopy cover averaged 34%.
Canopy is dynamic

Canopy cover changes over time depending on the rate of planting, growth and death in the population. Canopy gain occurs as existing trees grow or as new trees are added to the landscape. Canopy loss occurs primarily due to removal of ageing or unhealthy trees, or due to development. Disturbances like drought, flood, wildfire and insect and disease outbreak can also cause unexpected and widespread tree mortality. Climate change may increase the frequency or extent of disturbance events in Courtenay’s forests.

Changes to canopy cover were measured using i-Tree Canopy and Courtenay’s 1996, 2014 and 2016 imagery.

Since 1996, canopy has declined by approximately 3.7 percentage points (±1.5), or 121 hectares.

Examples of canopy changes

1996 2014 2016

- Canopy growth | Field reforestation
- Canopy growth | Backyard tree planting
- Canopy growth | Agricultural buffer planting
- Canopy loss | Commercial development
- Canopy loss | Residential development
- Canopy loss & growth | Development and field reforestation
A snapshot of Courtenay’s urban forest values

Courtenay’s urban forest is shaped by both natural processes and human influences. Climate, soils, natural disturbances such as flood and wildfire, and humans have driven the extent, species and age diversity of the urban forest.

Since time immemorial, the K’ómoks people have managed the landscape in this “land of plenty”. For example, the unique Tsolum River Garry oak woodland community was maintained by First Nations’ burning practices to enhance edible plant and hunting resources.

European settlement led to major landscape changes caused by logging and clearing, agriculture, urbanization and planting non-native vegetation. Today Courtenay’s urban forest is a mixture of native forests, ornamental landscapes and everything in between.

Garry oak woodlands
The Vanier Park area’s Garry oak woodland represents the northernmost extent of Garry oak in North America. The woodlands and individual trees are remnants of a unique and prominent pre-settlement forest type.

Mature forest
Lerwick Park’s forest, logged in the early 1900s, is about 100 years old. The forest is beginning to develop characteristics found in old-growth forests – a thick understory, layered canopy and dead trees.

If we preserve our older forests, opportunities to experience old-growth forest in Courtenay will return within our children’s lifetimes.

Young forest
Forests in Hurford Hill Nature Park are recovering from logging around 60 years ago. The overhead canopy is fairly dense and shades the understory, dead trees and downed wood are relatively uncommon.

Regenerating forest
This forest near the Comox Valley Logging Road appears to have been clear-cut harvested in the late 1990s. The stand is dense and has not yet started to form distinct canopy layers.

Downtown trees
Trees at the plaza at Cliffe & 4th make it a popular place to sit in the summer.

How would Duncan Street feel with more trees?
A resident planted 8 giant sequoias in the 1960s from California seedlings on what was then an 18 ha property; at least 5 remain.

This map highlights just a few of the ecological, cultural and character values of our urban forest

Check out some of Courtenay’s favourite urban forest places and add your own photos at: www.courtenay.ca/urbanforest
The Urban Forest Strategy is due for completion later this year. It will provide the City of Courtenay with:

1. An understanding of the urban forest resource we have today
2. A vision for what our future urban forest will be
3. A framework for how we get there

Strategy timeline

Policy context

The Urban Forest Strategy will work alongside Courtenay’s higher level plans and planning tools to ensure that trees are a valued and integrated part of the city’s eco-assets.

How we get there...

Review policies, management and best practices

Map and measure the urban forest resource and opportunities

In consultation with the Council, City staff and the public, establish a vision with goals and objectives

Draft an urban forest strategy and action plan to update policy and practices to achieve Courtenay’s urban forest vision