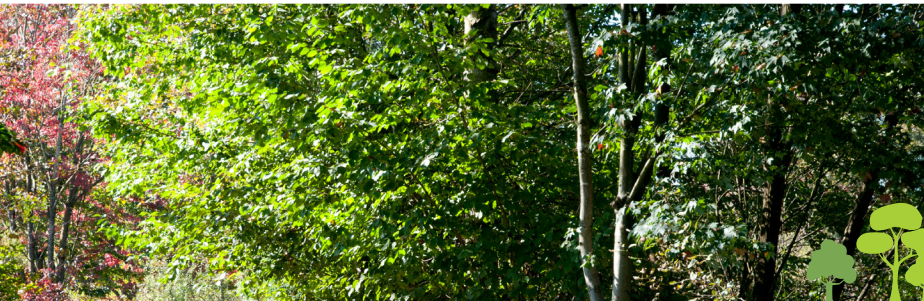


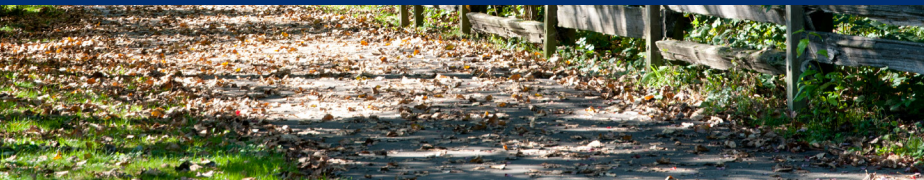


Urban Forest Strategy

– Stage 1

TREES

in Abbotsford



Committee of the Whole

October 28, 2019



Parks, Recreation & Culture



Agenda

- Purpose
- What is the urban forest?
- What does an Urban Forest Strategy do?
- Project timeline
- The value of Abbotsford's urban forest
- Key findings to date
- Strategy goals
- Next steps

Purpose

To inform Council on what an urban forest is, why it is important to the community, timelines for the development of an Urban Forest Strategy, key findings to date, proposed overall strategy goals and next steps.



What is the Urban Forest?

Includes all of the trees, vegetation, soil and associated natural processes, found across Abbotsford's landscapes



What does an Urban Forest Strategy do?

Provide:

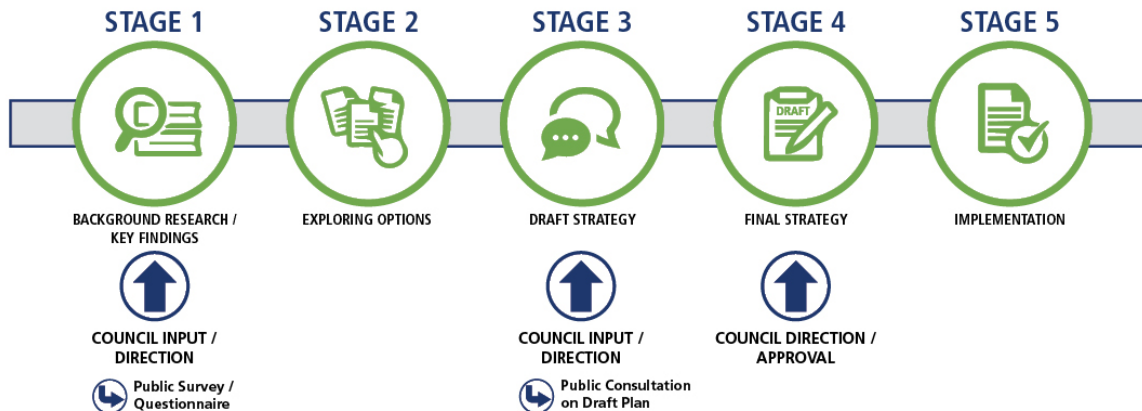
1. An understanding of the urban forest resource we have today
2. A vision for our future urban forest
3. A framework for how we get there

Planning Context

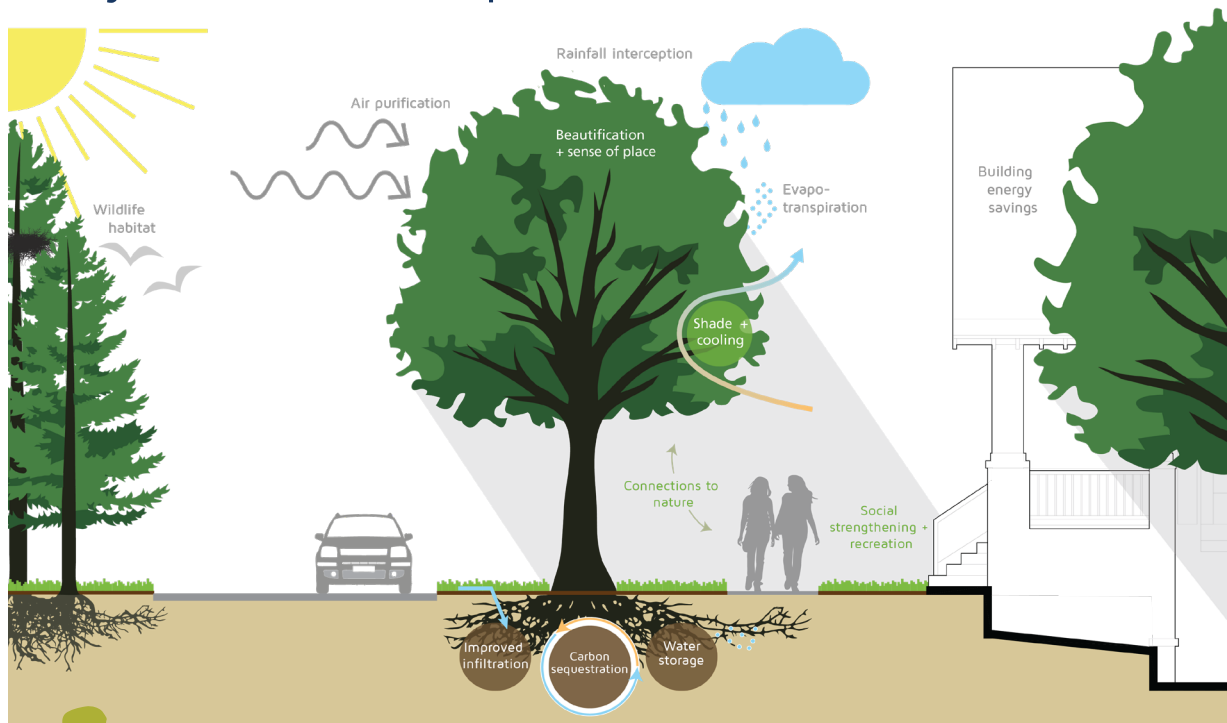


Project Timeline

PROJECT STATUS: Trees in Abbotsford - Urban Forestry Strategy



Why Are Trees Important?



TREES
in Abbotsford

Why Are Trees Important?

They support climate change adaptation and mitigation:



COOLING
Tree canopy
significantly lowers
temperatures on
hot days



STORMWATER
Trees store
stormwater in
their canopies



CARBON
Trees sequester
and store carbon

The Value of Abbotsford's Urban Forest

TD Bank found that, in Greater Vancouver, trees provide \$4.59 in benefits for every \$1 invested.

Abbotsford's urban forest canopy provides (preliminary i-Tree Canopy estimates):

Measured Benefits	Amount (metric tons)
CO2 storage	2,500,000
CO2 sequestration	95,480
PM2.5 removal	22.7
PM10 removal	156.5
NO2, SO2 and O3 removal	543.5

Abbotsford's urban forest sequesters CO2 equivalent to the GHG emissions from >20,000 passenger vehicles driven over one year¹

+ many more benefits that can't be measured.

Findings to Date



LiDAR Canopy Mapping Drafted

Estimates:

- >1,000,000 trees in Abbotsford
- 70% deciduous
- 30% coniferous

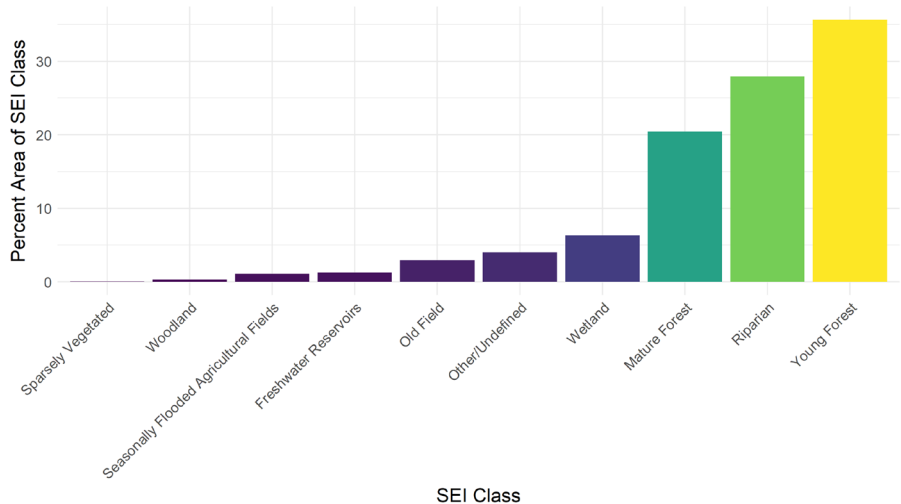
Manual corrections
in process



Native Forests in Abbotsford

Natural forests classified in the sensitive ecosystem inventory are predominantly:

- Young forest
- Riparian (mostly within ALR)
- Mature forest



TREES
in Abbotsford

Urban Trees in Abbotsford



Street trees



Park trees



Private trees

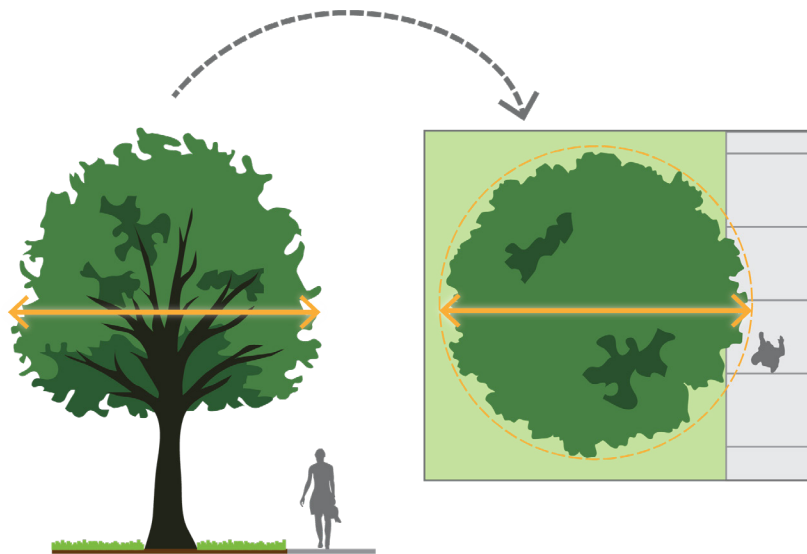
11,020 street and park trees inventoried

- Predominantly young (<10 cm)
- Five most abundant trees by genus: 25% maple, 9% oak, 6% ash, 5% magnolia, 5% liquidambar

Unknown composition on private land

Canopy Cover

Canopy cover is the layer of leaves, branches and tree stems when viewed looking down from above



2017 Canopy Cover Extent

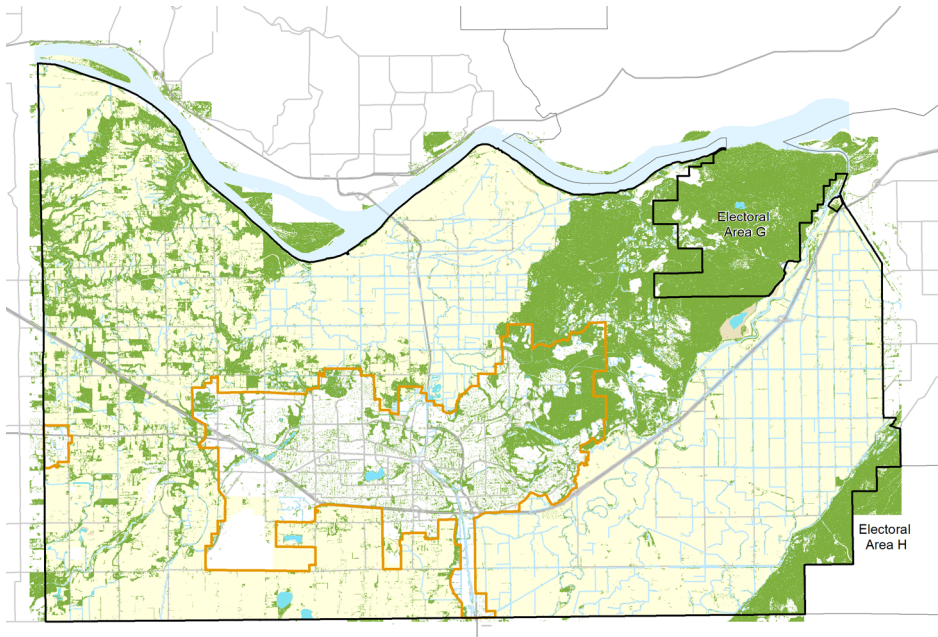
22%

City-wide

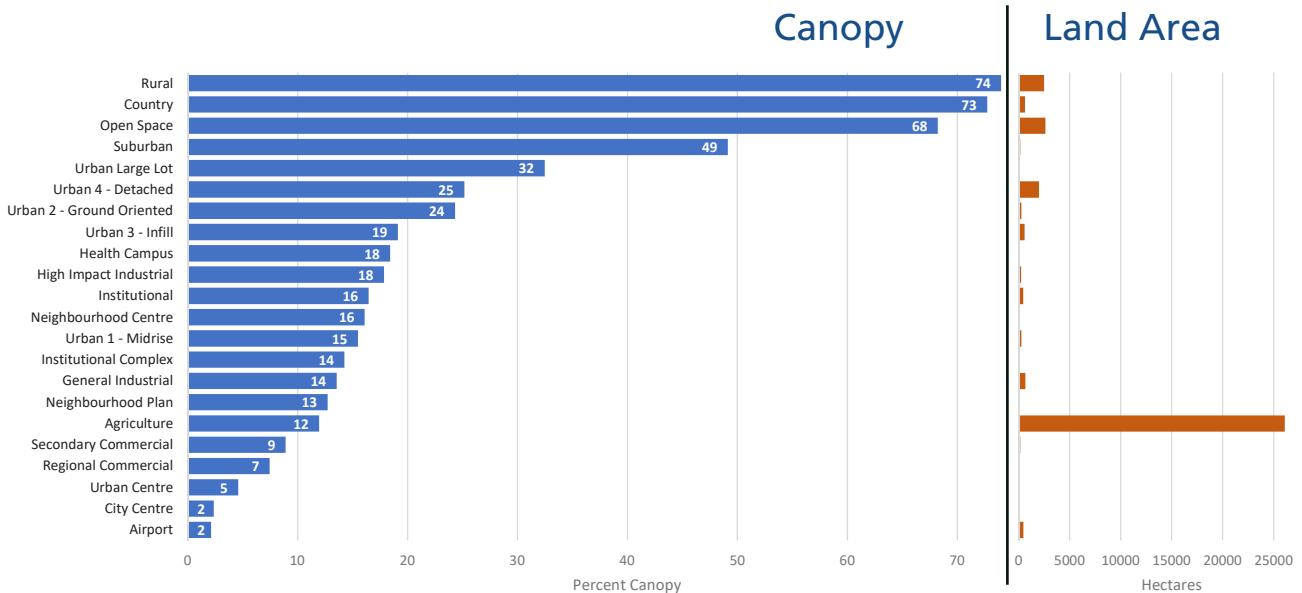
25%

Urban
development
boundary

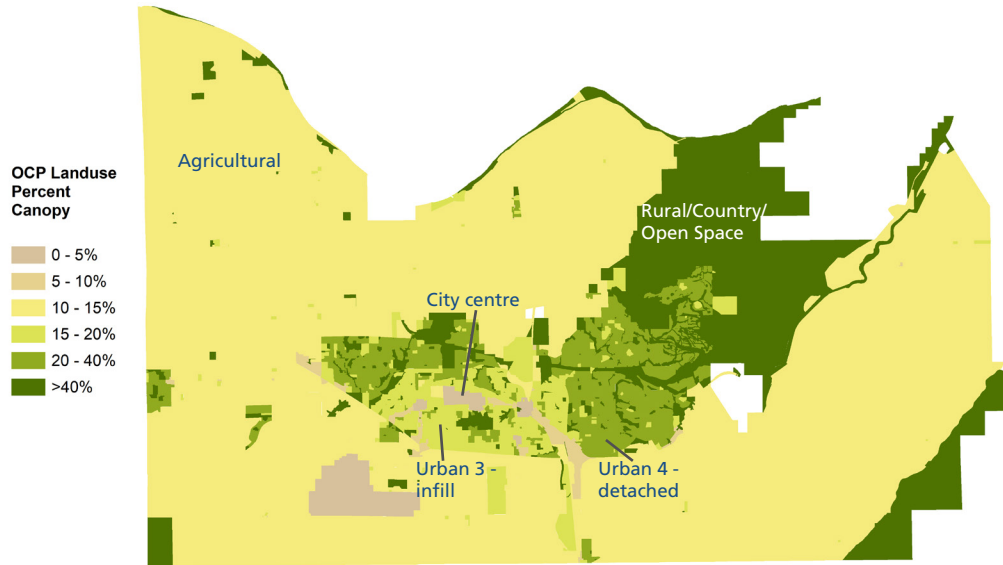
-  Tree canopy
-  City of Abbotsford
-  Electoral areas
-  Urban development boundary
-  Agricultural Land Reserve



2017 Canopy Cover by OCP Land Use

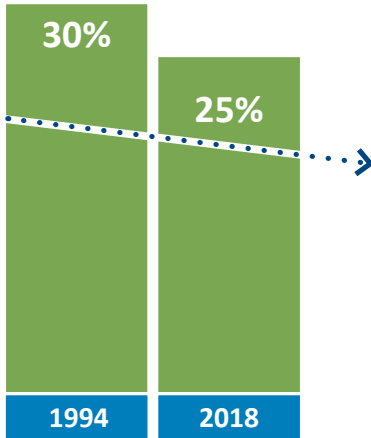


2017 Canopy Cover by OCP Land Use



Abbotsford's Canopy Cover Change

Within the Urban Development Boundary



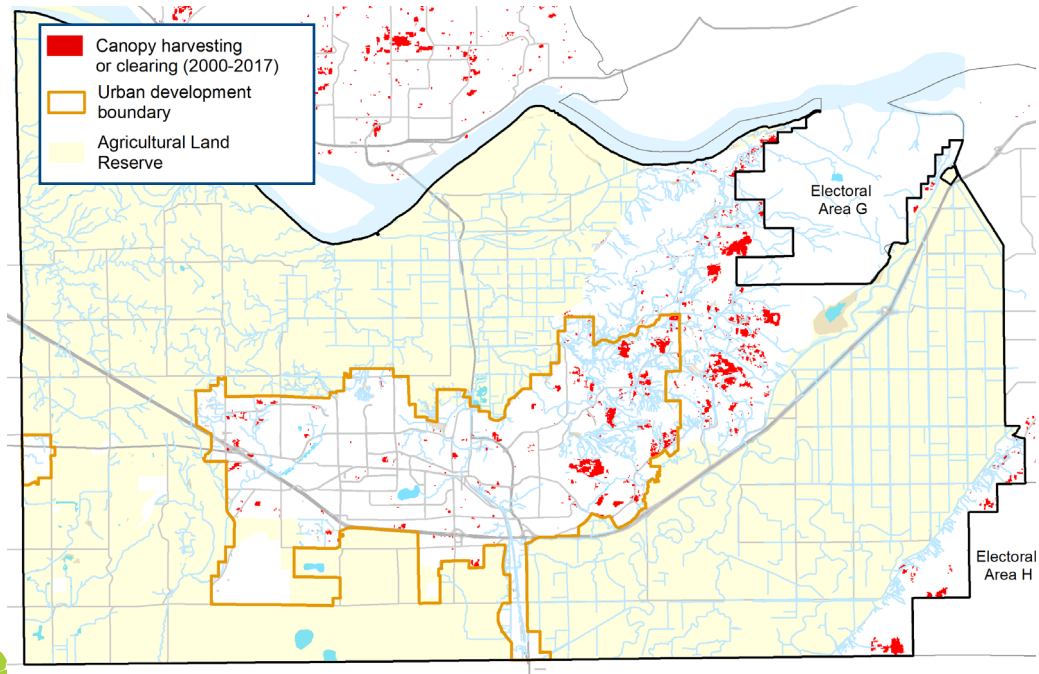
LOSS | Residential development



GAIN | Residential tree planting



Locations of Canopy Loss

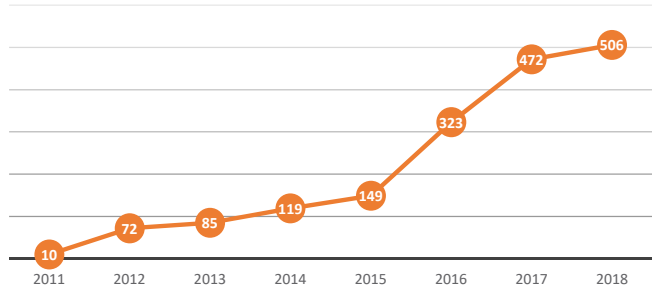


Abbotsford's Urban Forest Management

Significant challenges:

- Increasing rate of tree removals on public and private land
- Development and replanting site quality
- Climate change forest health

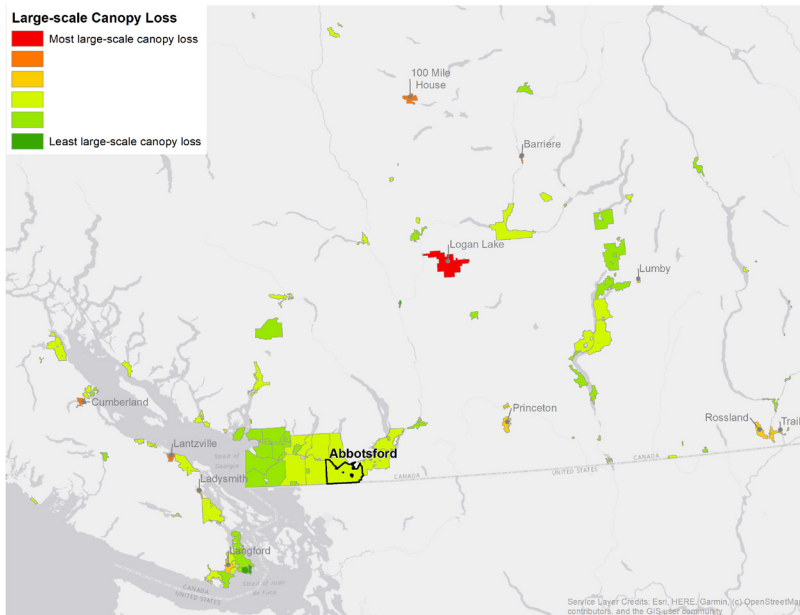
Tree Permits Issued



Municipal Comparison

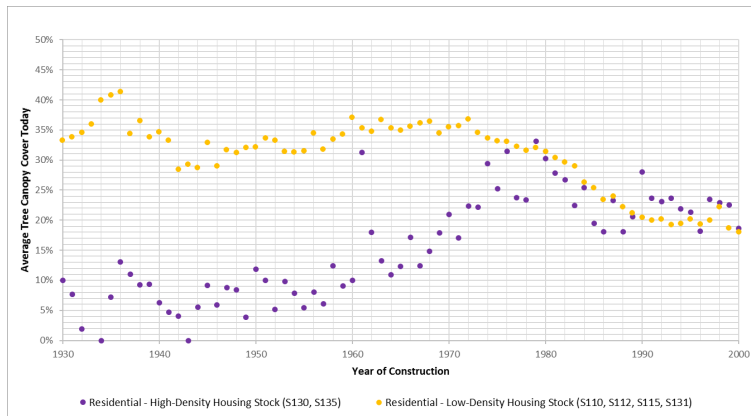
From 2000 to 2017, it is estimated that

90% of BC municipalities have experienced large-scale canopy loss, including Abbotsford.



Municipal Comparison

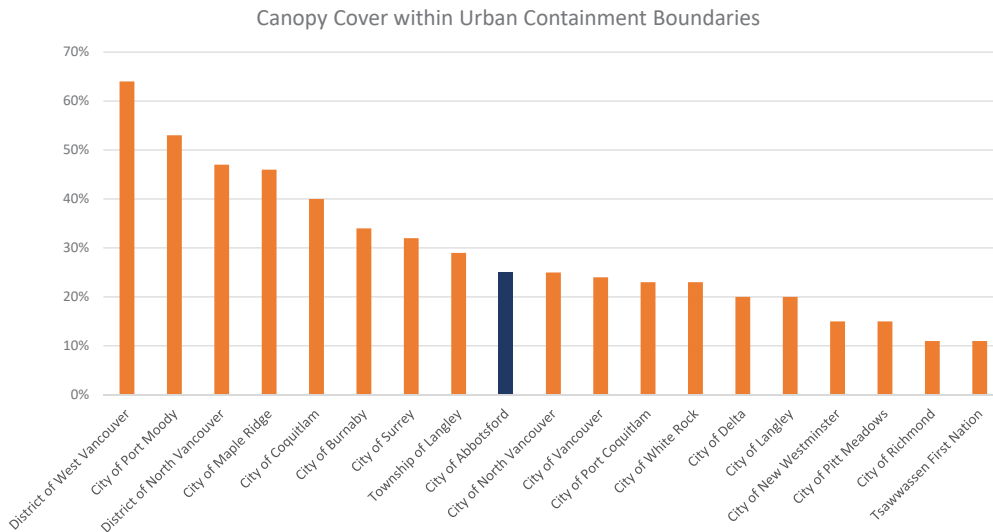
Metro Vancouver trend:
single-family detached
accommodates increasingly
fewer trees and more
impervious surface
due to expanding home
sizes and lot-splitting¹



1 Regional Tree Canopy Cover and
Impervious Surfaces [http://www.
metrovancouver.org/boards/ClimateAction/
CAC_2019-Sep-20_AGE.pdf](http://www.metrovancouver.org/boards/ClimateAction/CAC_2019-Sep-20_AGE.pdf)

Municipal Comparison

Metro Vancouver Canopy Comparisons using 2014 regional land cover dataset (Abbotsford's 2017 UCB estimate is 25%)



Strategy Goals



TREES
in Abbotsford

Goals by Project Stages



Project stages:

1. Background research and review

- Review policies, budget and management practices

2. Inventory, mapping and analysis

- Analysis of canopy cover trend and public tree inventory and stands composition and condition

We are here
←

3. Public feedback and priorities

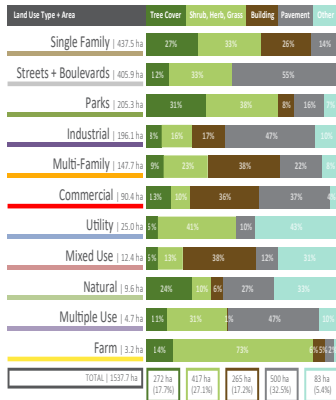
- Visioning, challenges and opportunities and target setting

4. Recommendations and action plans

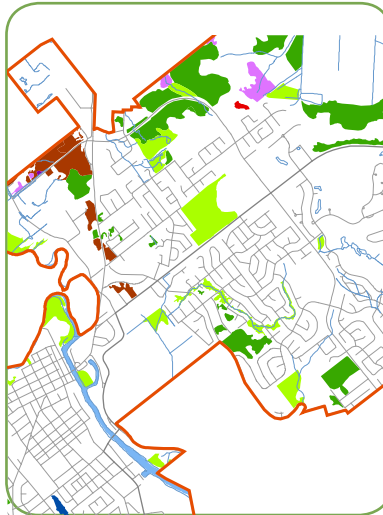
- Actions, budgetary implications and standards updates

Deliverables to be Completed

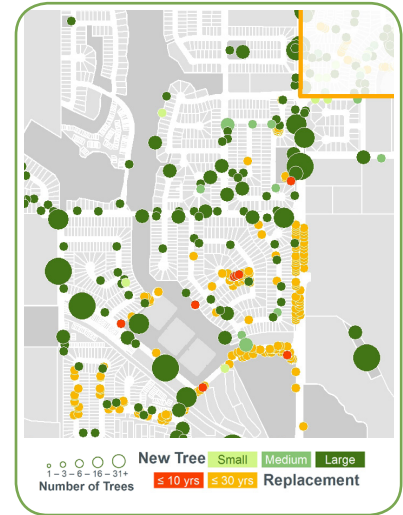
Canopy + inventory



High value stands



Planting opportunities



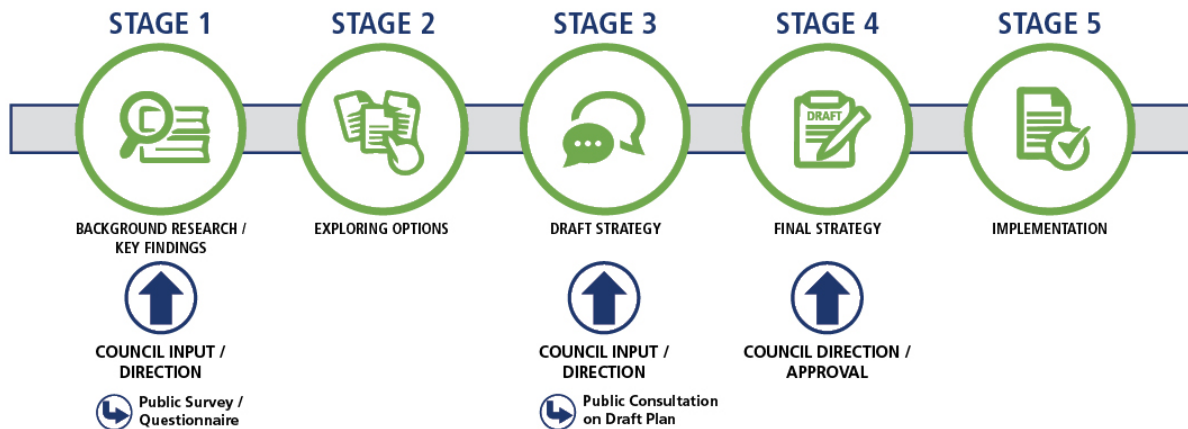
Goals for Public Engagement



- INVOLVE the community in developing an urban forest vision.
- CONSULT the community in:
 - Setting an optimal canopy cover target; and
 - Identifying opportunities to grow or enhance the urban forest.
- INFORM the community about the importance of the urban forest and the changes in our urban forest.

Next Steps

PROJECT STATUS: Trees in Abbotsford - Urban Forestry Strategy



Recommendations

THAT the verbal report, and PowerPoint presentation, by the General Manager, Parks, Recreation and Culture and Diamond Head Consulting regarding the Urban Forestry Key Finding Report, be received for information.