Urban Forest Plan

Open House

JANUARY 30, 2024

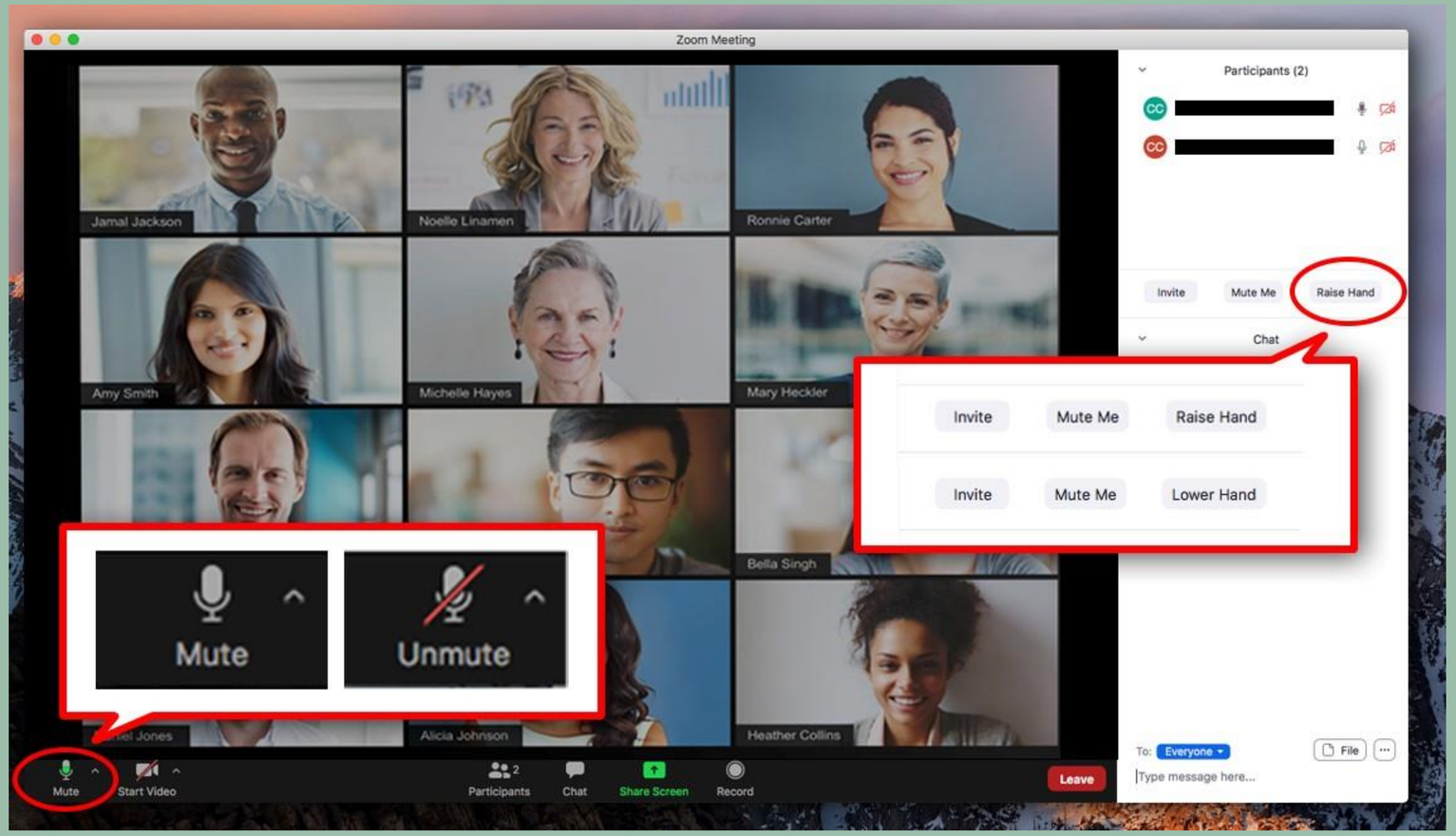
DIAMOND HEAD

TOWN OF GIBSONS

We respectfully acknowledge that the Town of Gibsons is located on the unceded territory of the Shwxwú7mesh Úxwumixw (Squamish Nation).

Housekeeping

- Please remain muted during the presentation
- The presentation will be followed by an open Q&A
- Technical difficulties? Reach out in the chat for help



DIAMOND HEAD

TOWN OF GIBSONS

URBAN FOREST PLAN

Project overview

1. Project overview
2. Current progress
3. Challenges and opportunities
4. Next steps

DIAMOND HEAD

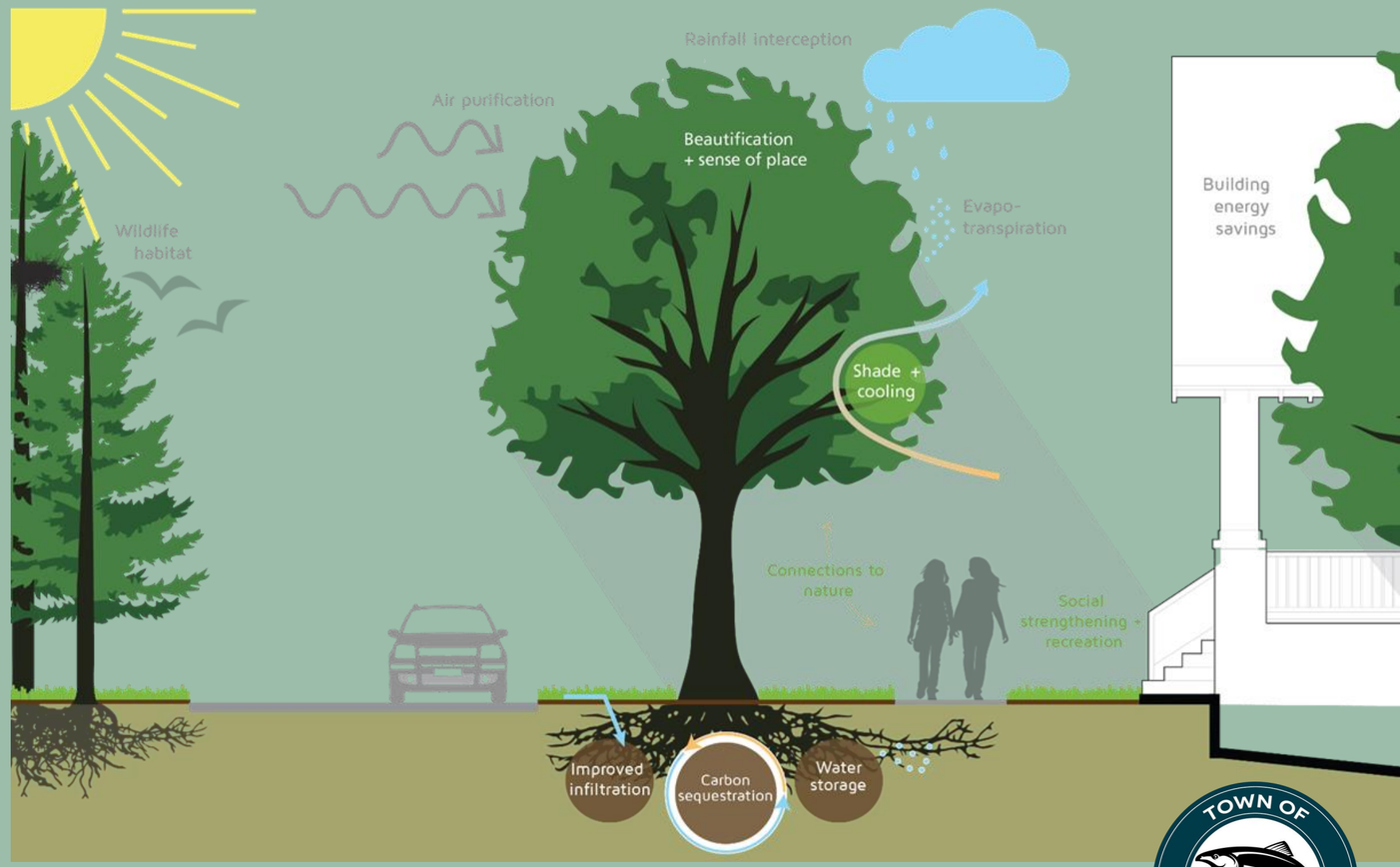
TOWN OF GIBSONS

Project overview

Why do we need trees in cities?

Trees provide many benefits:

- Provide habitat for wildlife
- Cool urban heat island
- Reduce stormwater runoff
- Improve air quality
- Provide recreational space
- Improve mental and physical health
- Stabilize steep slopes



Benefits can be called ecosystem services

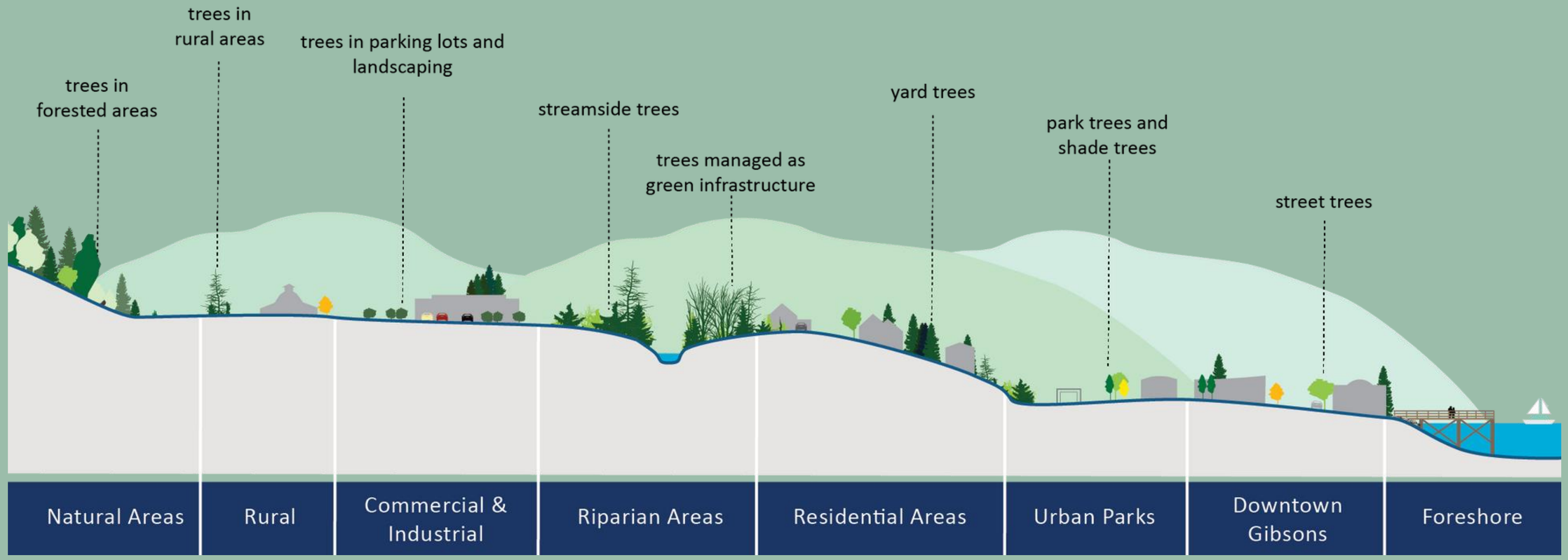
DIAMOND HEAD

TOWN OF GIBSONS

URBAN FOREST PLAN

Project overview

What is an urban forest?



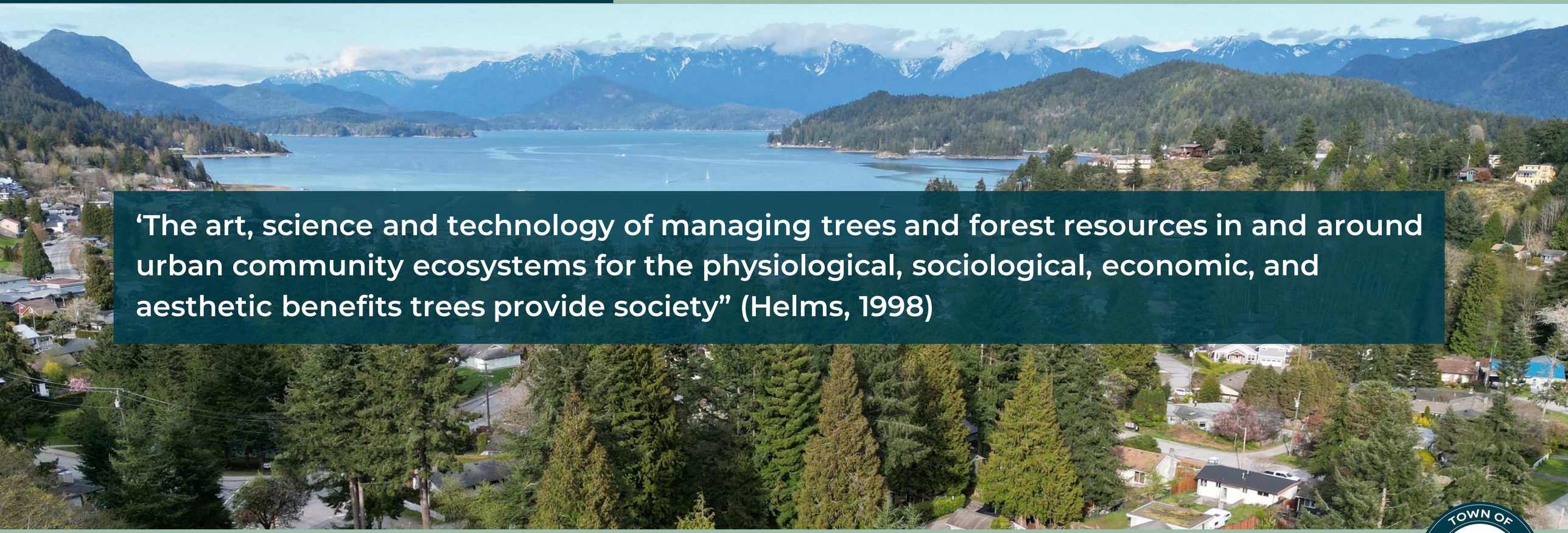
DIAMOND HEAD

TOWN OF GIBSONS

URBAN FOREST PLAN

Project overview

What is urban forestry?



‘The art, science and technology of managing trees and forest resources in and around urban community ecosystems for the physiological, sociological, economic, and aesthetic benefits trees provide society” (Helms, 1998)

DIAMOND HEAD

TOWN OF GIBSONS

URBAN FOREST PLAN

Project overview

Why do we need a Plan?

- The value of trees increases over their lifetime
- Studies suggest urban trees only live 20-30 years on average

Climate change

Space for trees

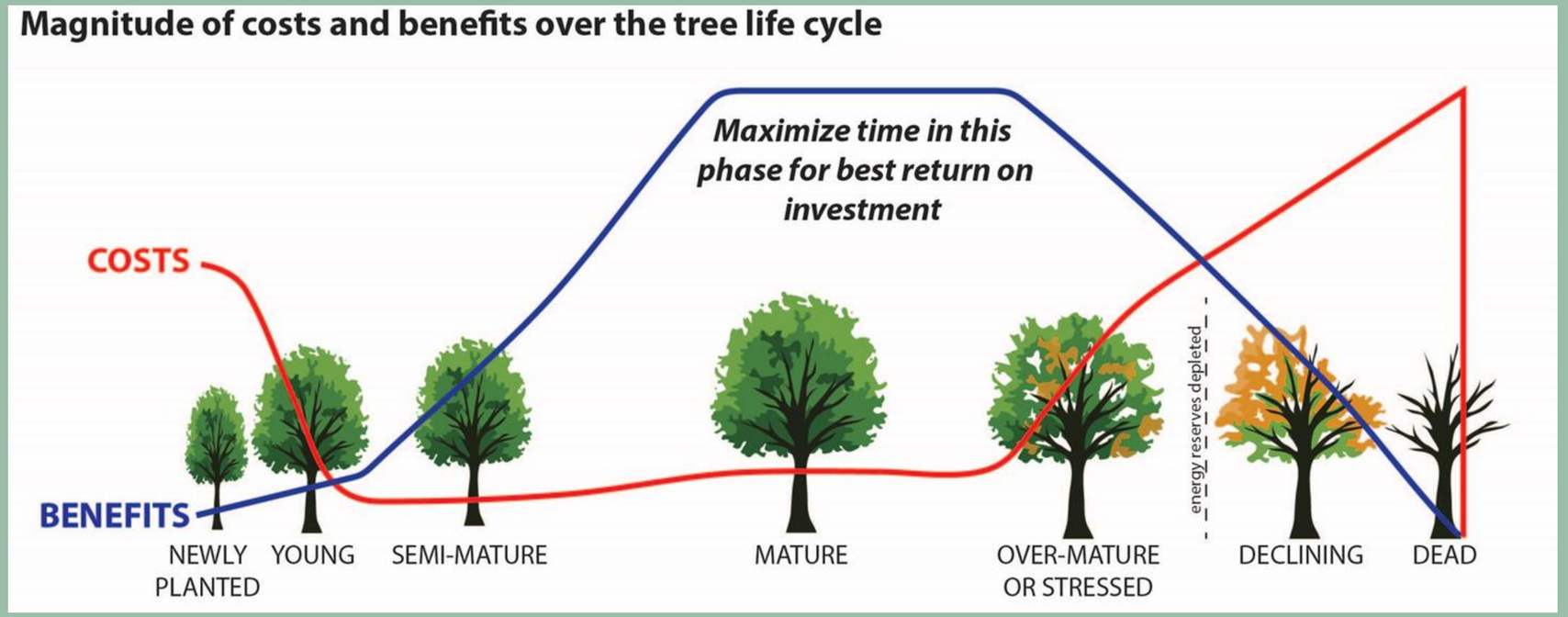
Soil volume

DIAMOND HEAD

TOWN OF GIBSONS

Project overview

Why do we need a Plan?



DIAMOND HEAD

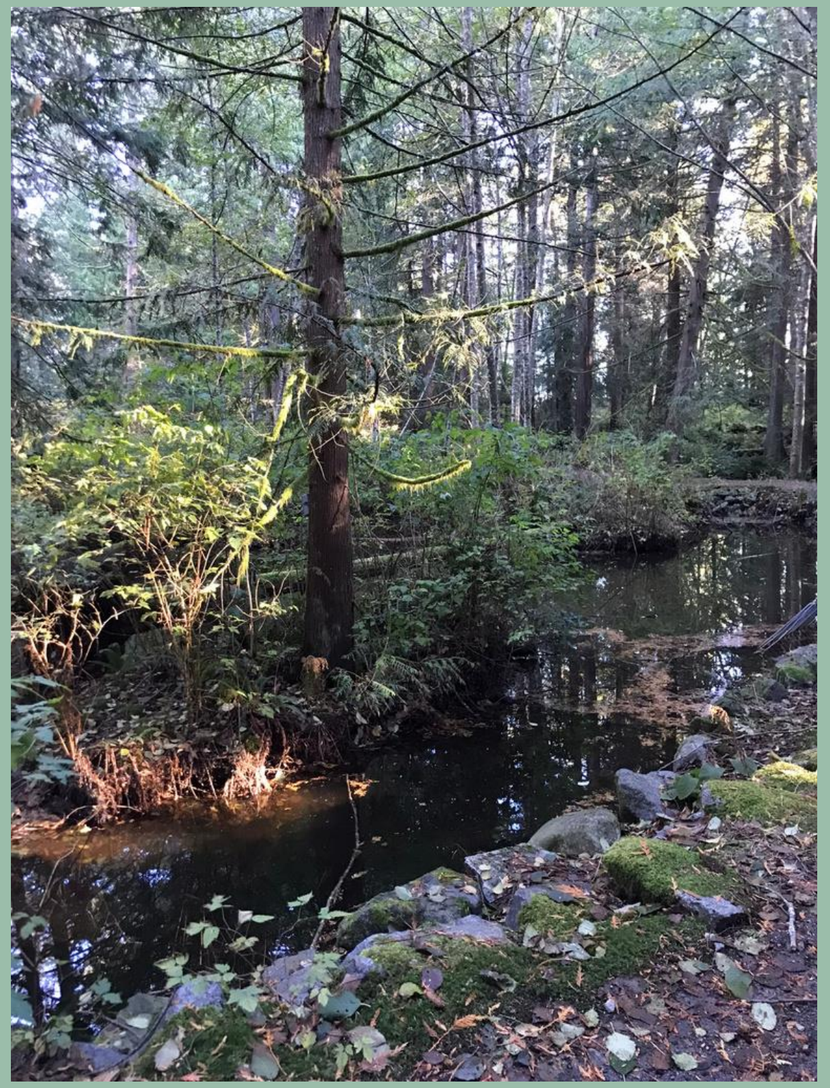
TOWN OF GIBSONS

URBAN FOREST PLAN

Project overview

What will the Plan do?

- Understand the current condition of the urban forest
- Develop a vision for the future
- Establish goals and targets
- Provide advice for how we get there



DIAMOND HEAD

TOWN OF GIBSONS

URBAN FOREST PLAN

Current progress

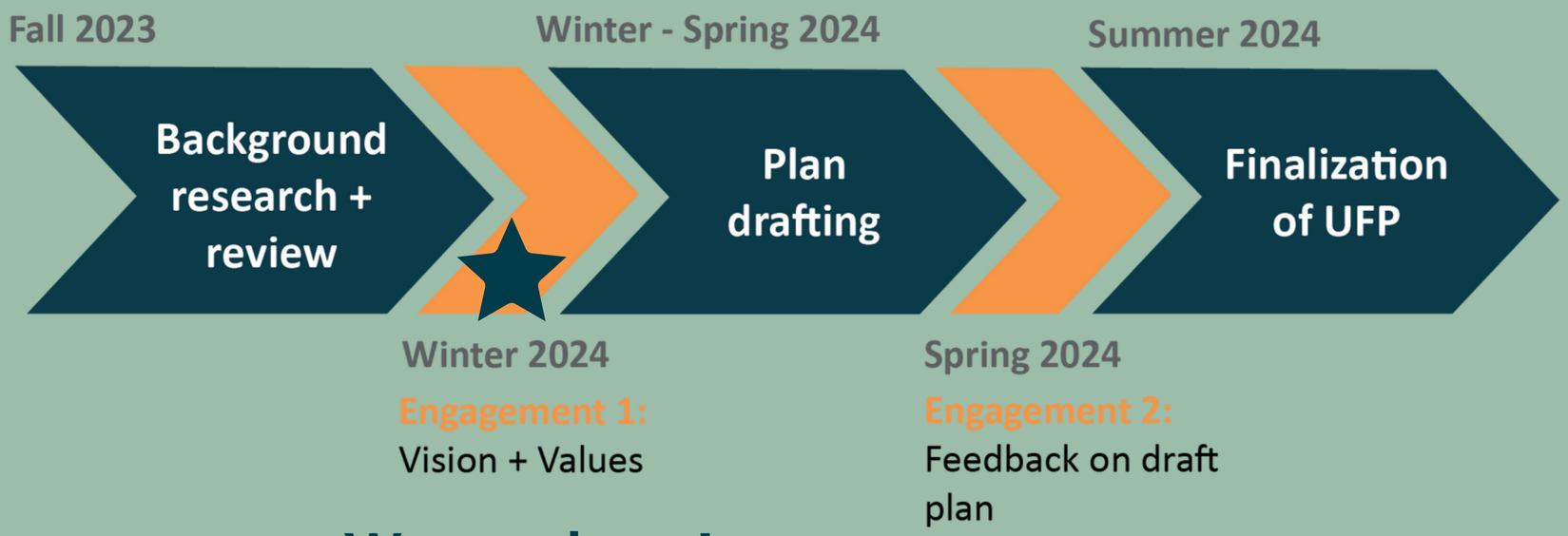
DIAMOND HEAD

TOWN OF GIBSONS

URBAN FOREST PLAN

Current progress

Project timeline



DIAMOND HEAD

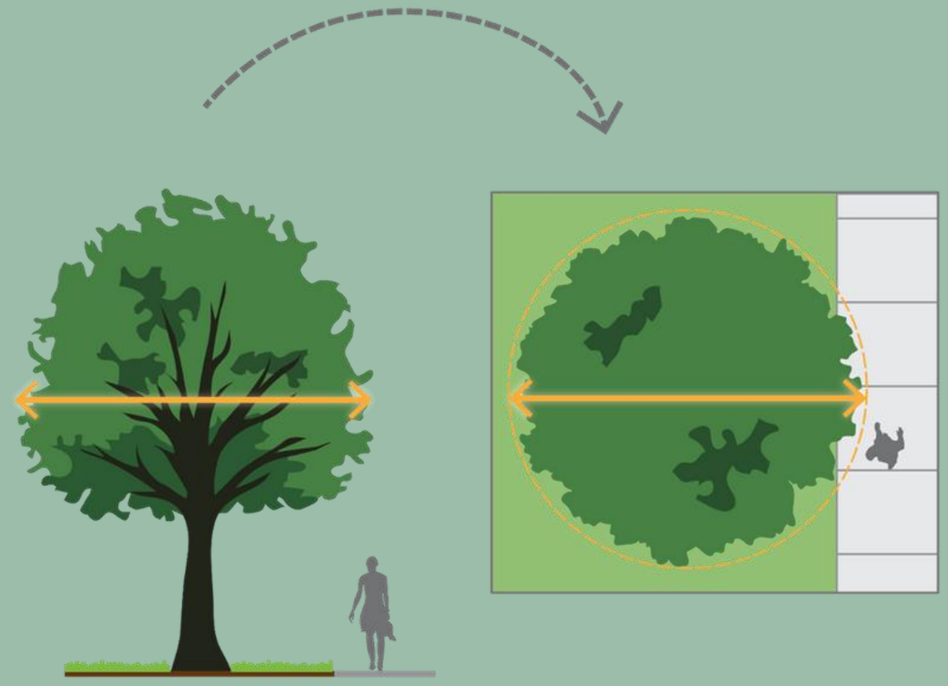
TOWN OF GIBSONS

URBAN FOREST PLAN

Current progress

Canopy cover mapping

- A metric to assess the quantity and extent of the urban forest
- Area occupied by tree crown when viewed from above



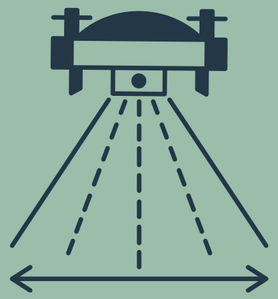
DIAMOND HEAD

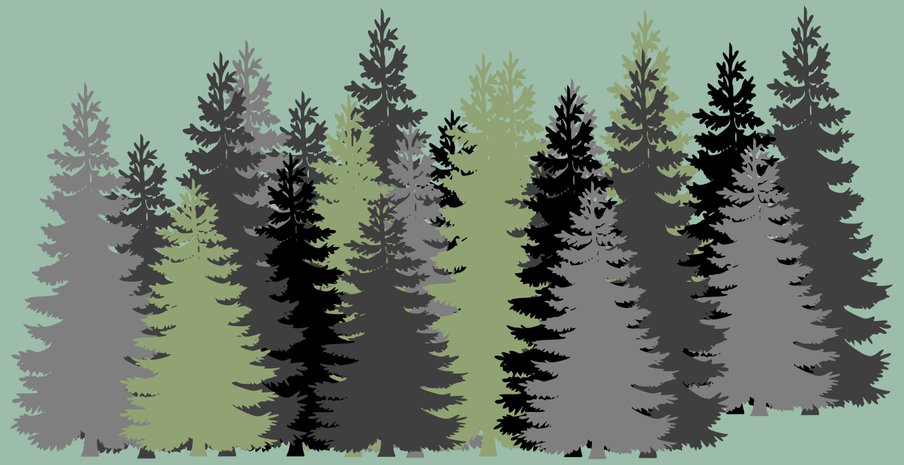
TOWN OF GIBSONS

URBAN FOREST PLAN

Current progress

Canopy cover mapping





- Estimated using current Light Detection and Ranging (LiDAR) + imagery
- Used imagery from 2020

DIAMOND HEAD

TOWN OF GIBSONS

URBAN FOREST PLAN

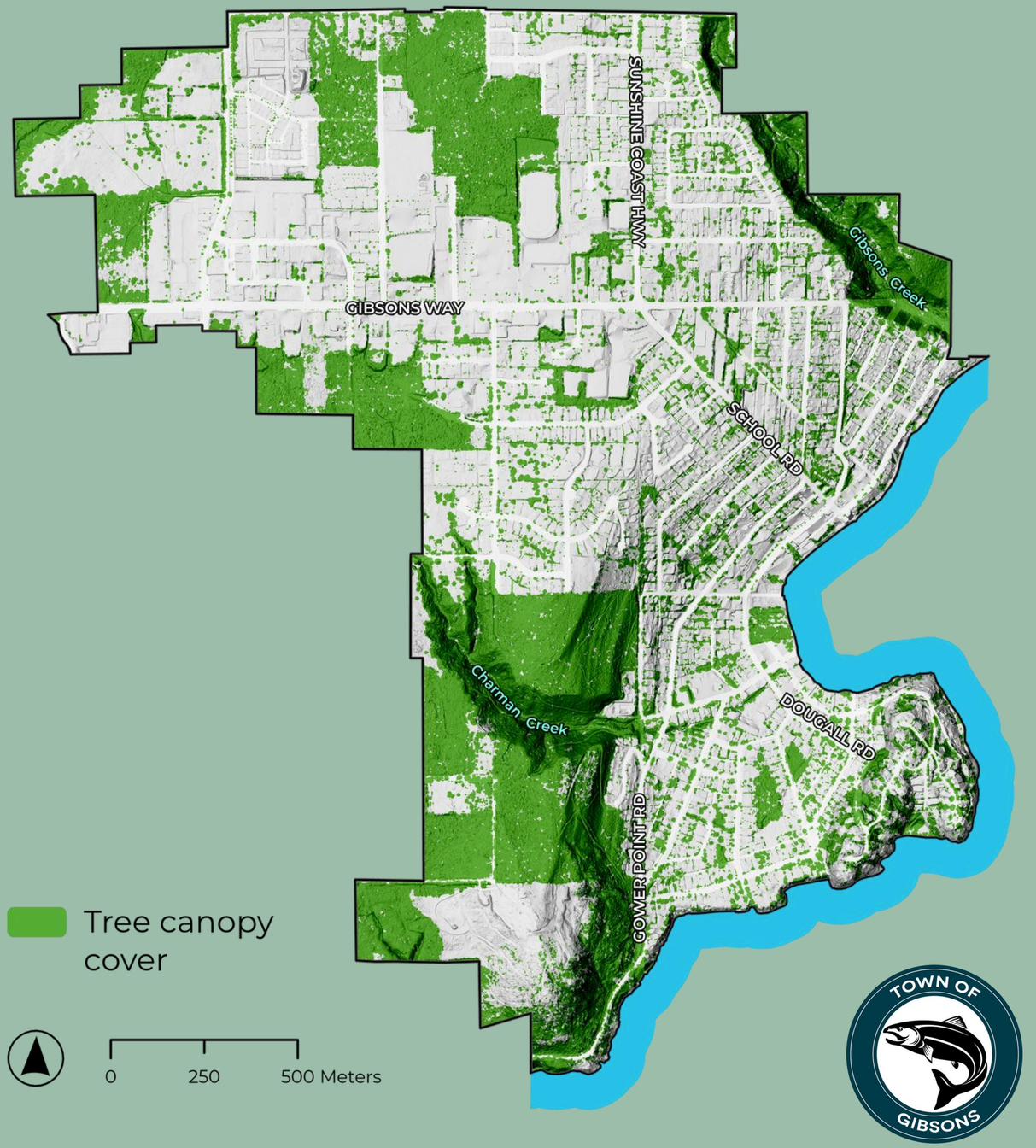
Current progress

Town-wide canopy cover

- Gibsons' 2020 canopy cover was:

38% (168 ha of tree canopy)

Total area of the Town: 438 ha



DIAMOND HEAD

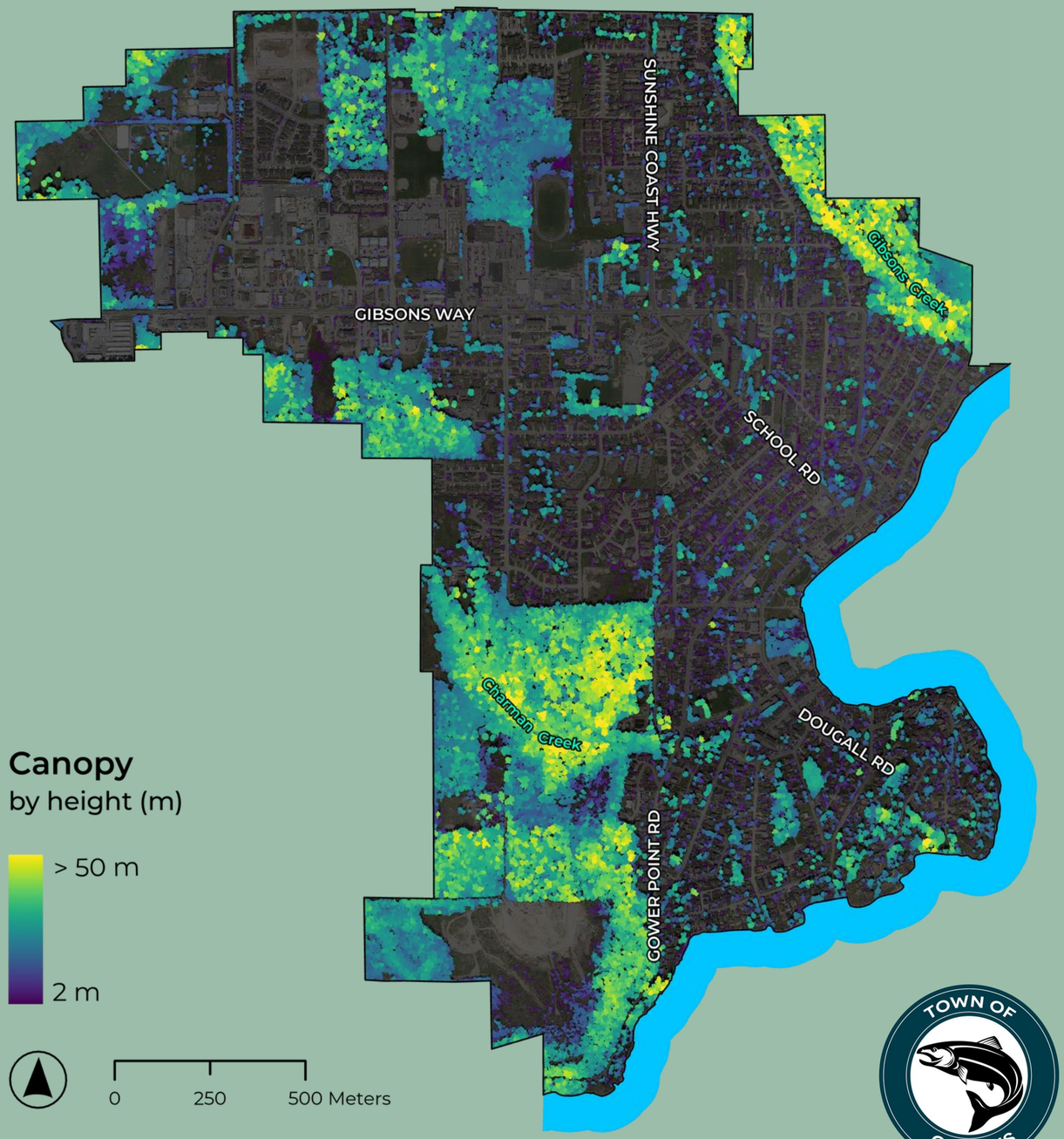
TOWN OF GIBSONS

URBAN FOREST PLAN

Current progress

Canopy by height (m)

- Gibsons' tallest trees are 50+ meters
- Concentrated along the Gibson Creek and Charman Creek riparian areas



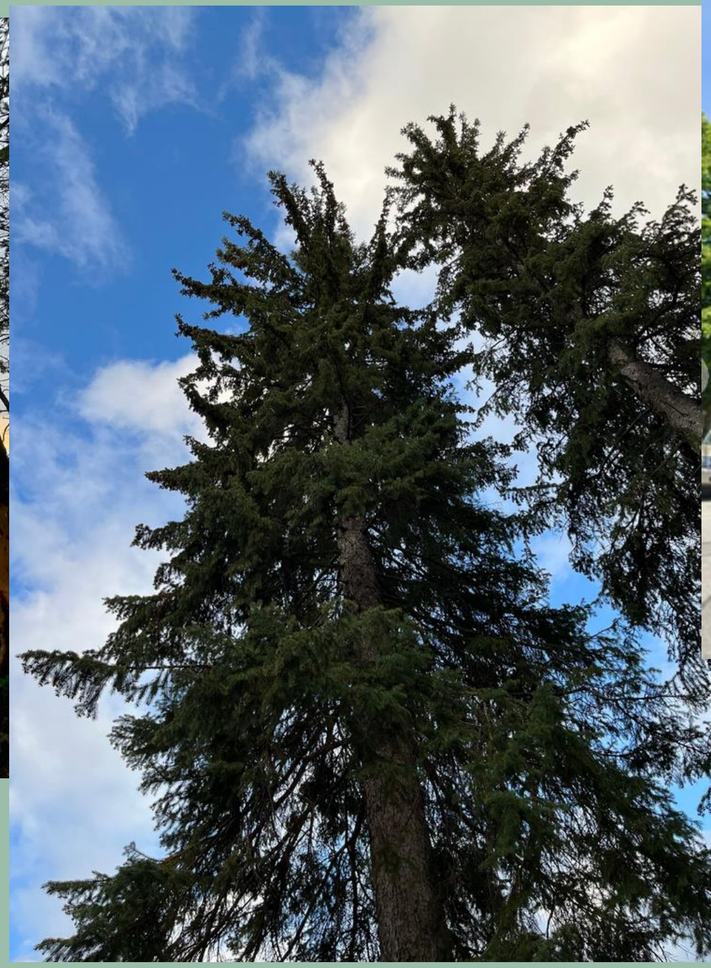
DIAMOND HEAD

TOWN OF GIBSONS

URBAN FOREST PLAN

Current progress

Species in the urban forest



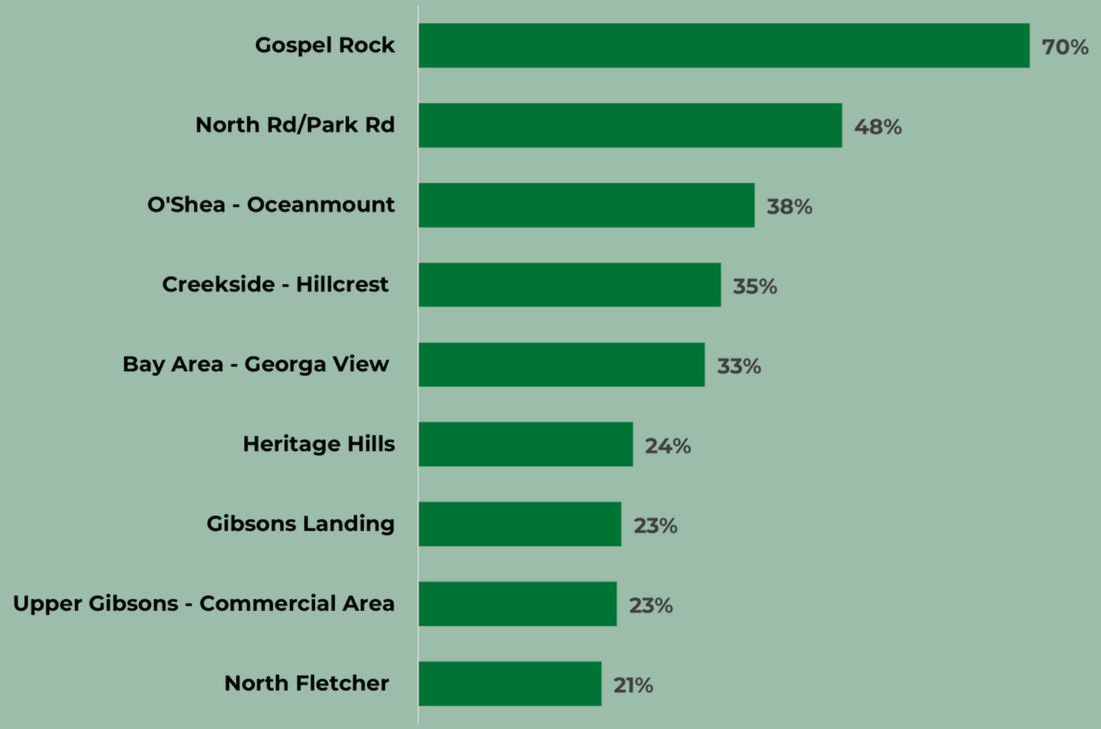
DIAMOND HEAD

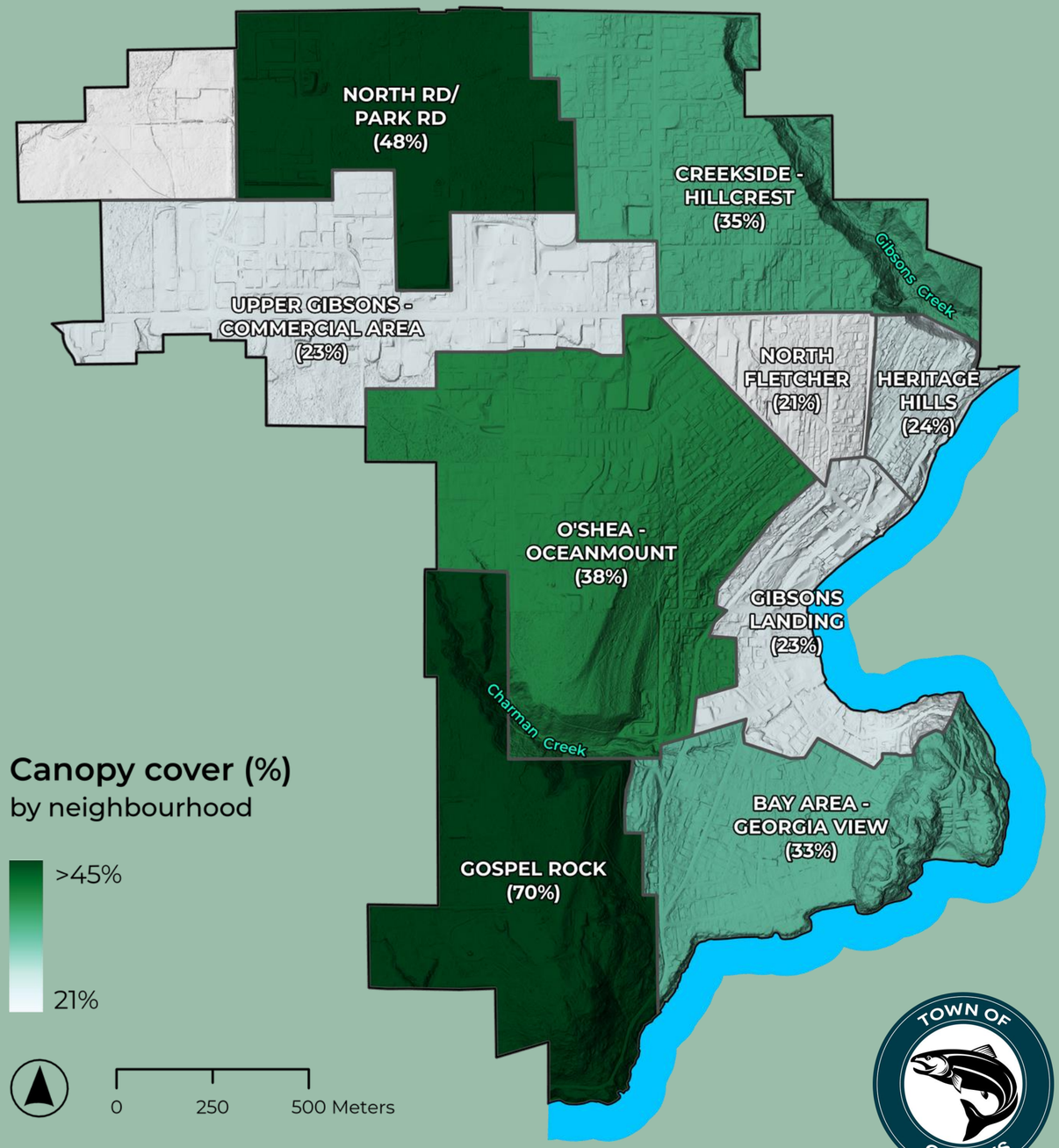
TOWN OF GIBSONS

URBAN FOREST PLAN

Current progress

Canopy cover by neighbourhood





DIAMOND HEAD

TOWN OF GIBSONS

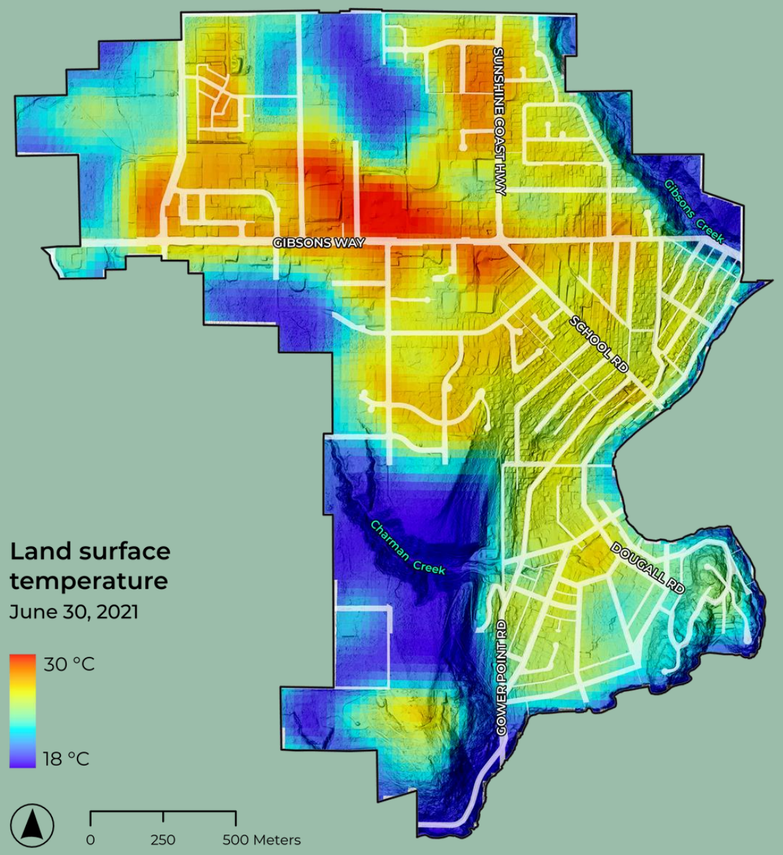
URBAN FOREST PLAN

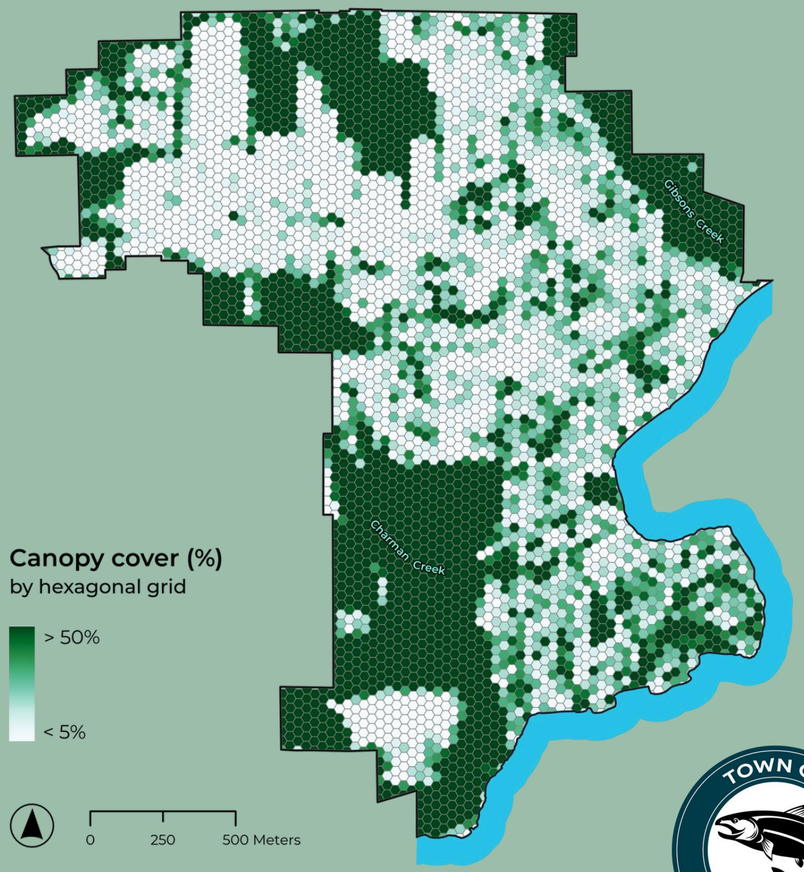
Current progress

Canopy cover & heat mapping

- Heat is influenced by the presence or absence of canopy cover

- During the 2021 heat dome event
  - hottest areas had low canopy cover and higher paved surfaces
  - coolest areas had high canopy cover and lower paved surfaces



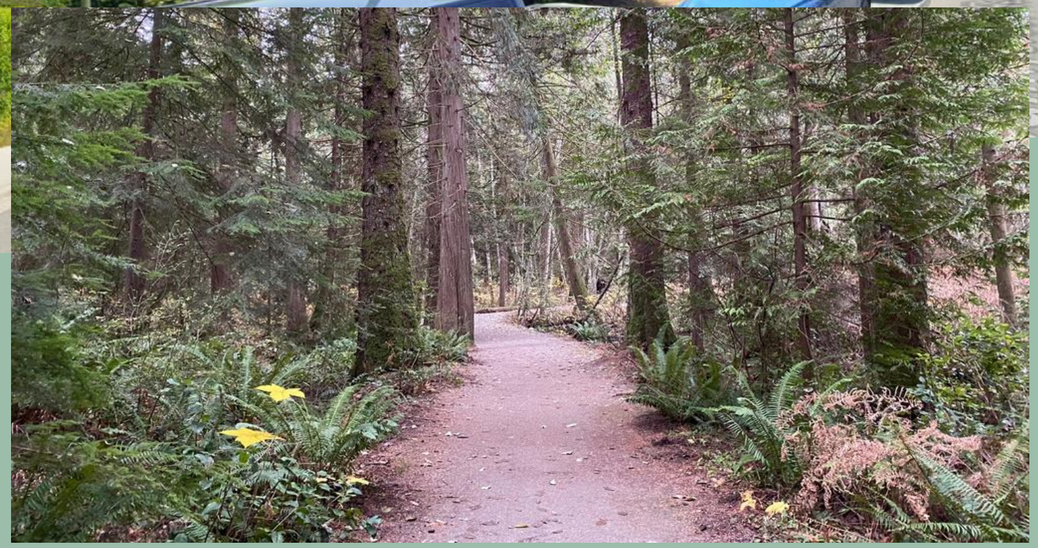


URBAN FOREST PLAN

Current progress

Land use and ownership

… influence where trees grow



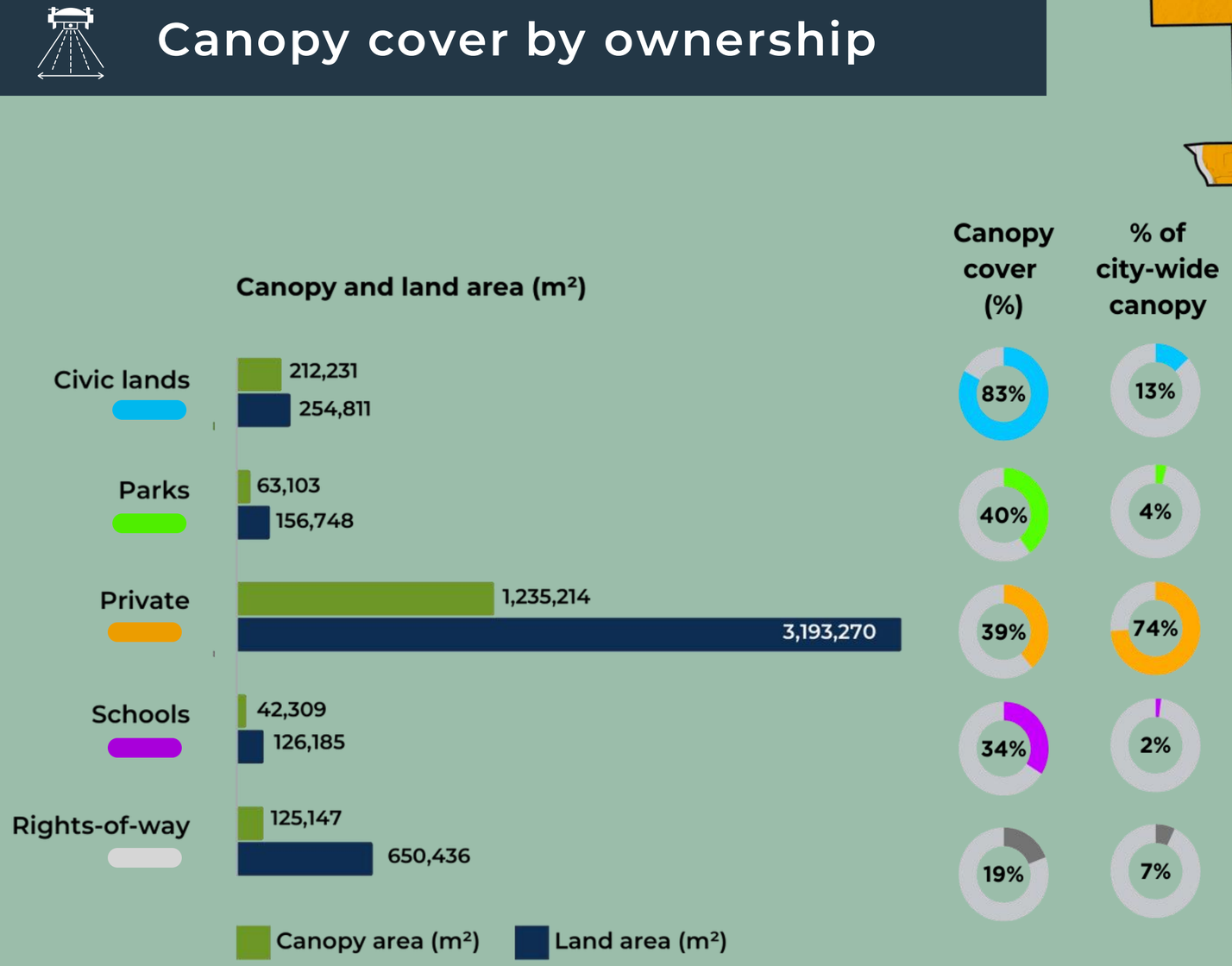
DIAMOND HEAD

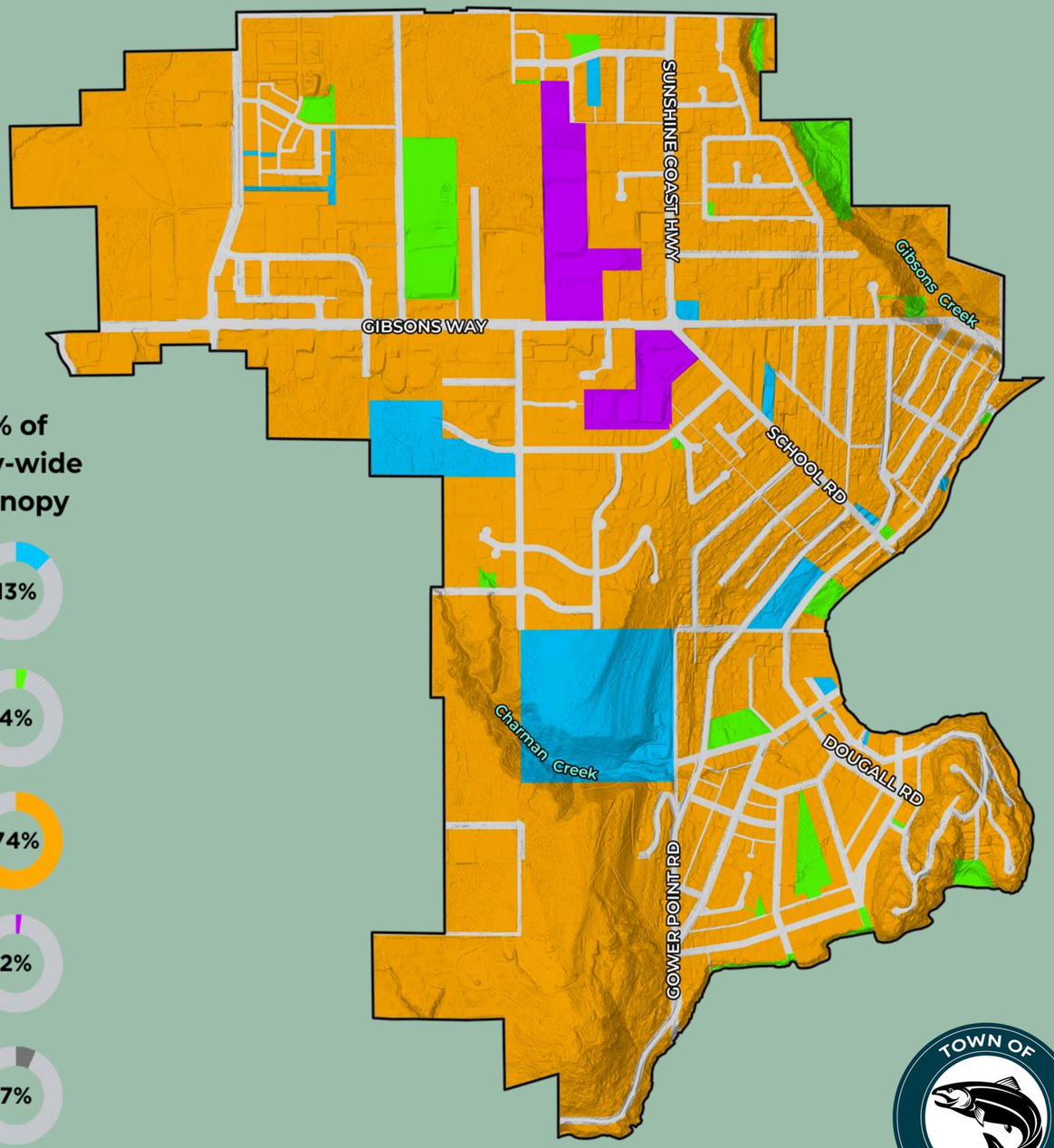
TOWN OF GIBSONS

URBAN FOREST PLAN

Current progress

Canopy cover by ownership

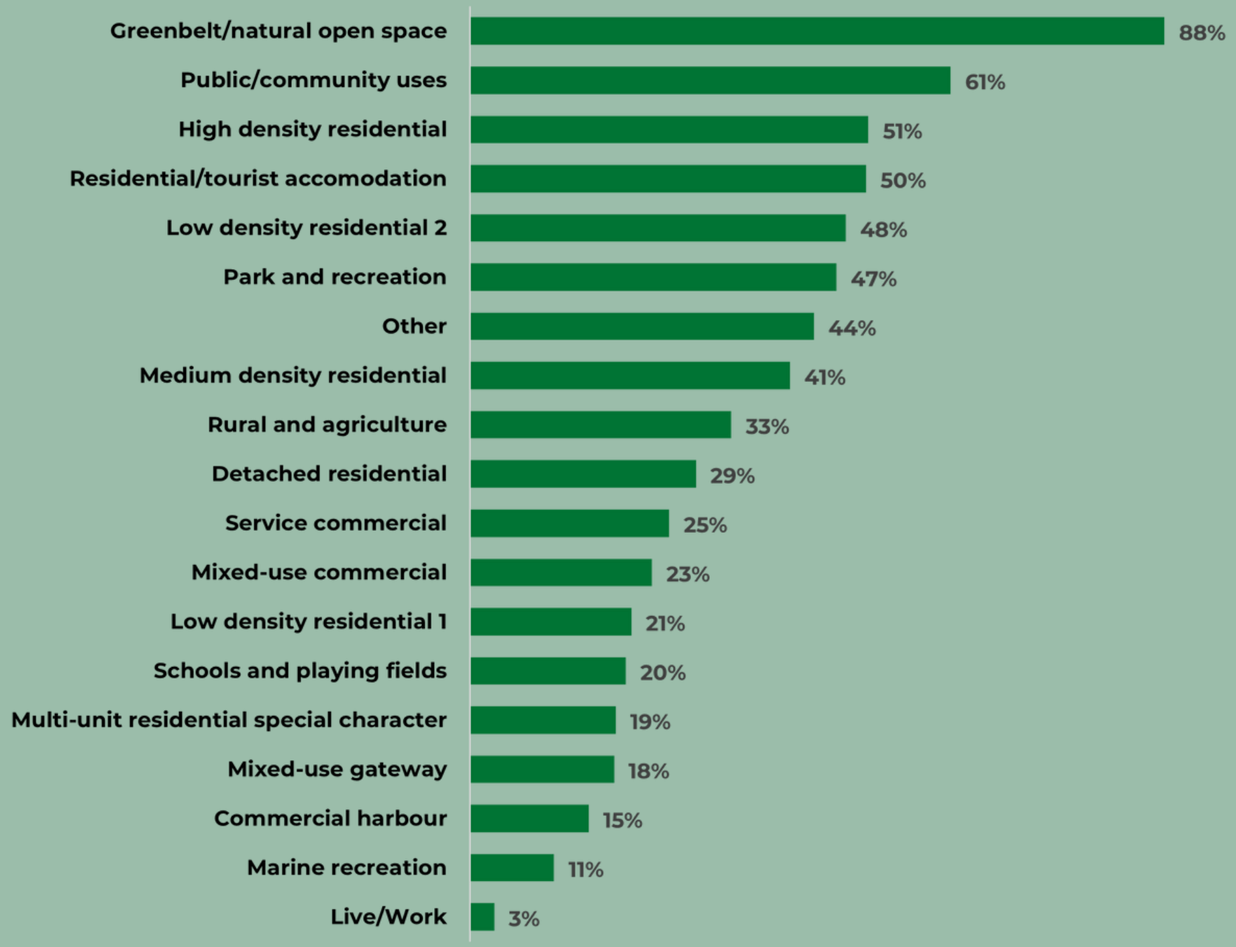


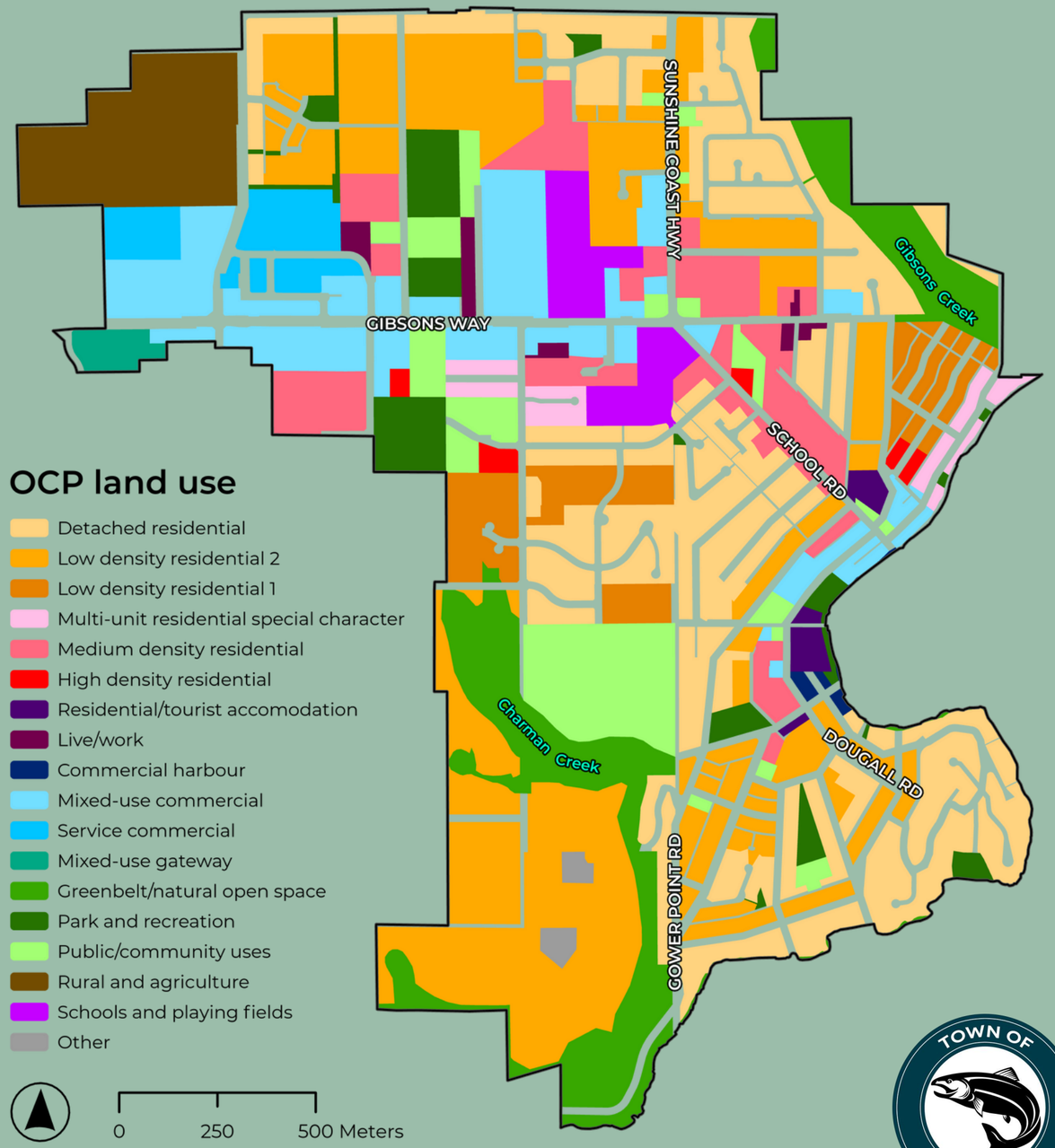


URBAN FOREST PLAN

Current progress

Canopy cover by land use





URBAN FOREST PLAN

Challenges and opportunities

DIAMOND HEAD

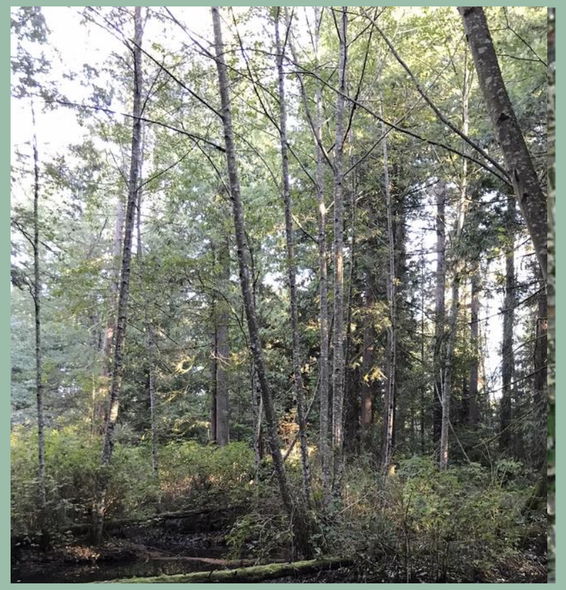
TOWN OF GIBSONS

URBAN FOREST PLAN

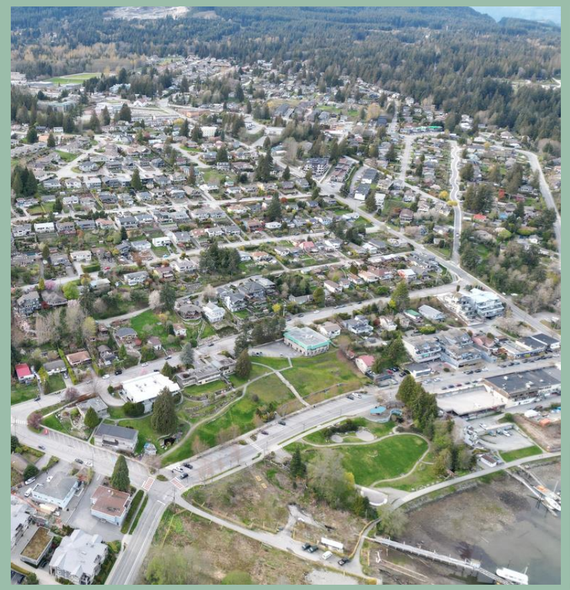
Challenges + opportunities

Program capacity

Asset management



Urbanization



Climate change

DIAMOND HEAD

TOWN OF GIBSONS

Challenges + opportunities

Program capacity

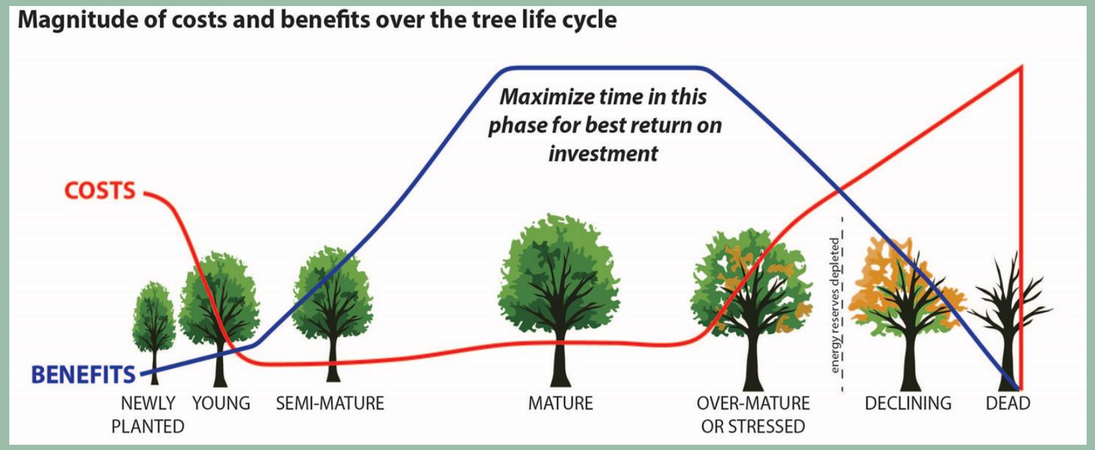
- No urban forestry team
- Limited capacity for new tree planting and care
- Lots of local knowledge, but credentials can be an issue

Bright spot!

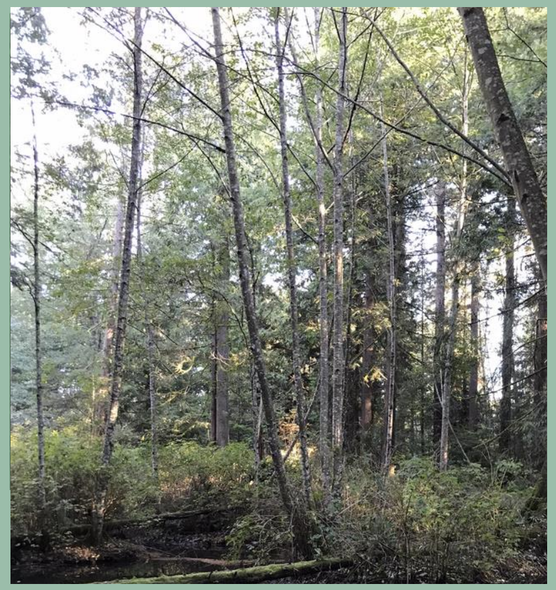
- Passionate staff and community volunteers

URBAN FOREST PLAN

Challenges + opportunities



Asset management



- No tree inventory
- No planning for pests or disease outbreaks
- No defined service levels for high-value trees
- No asset valuation for individual trees or urban forest ecosystem services

Bright spot!

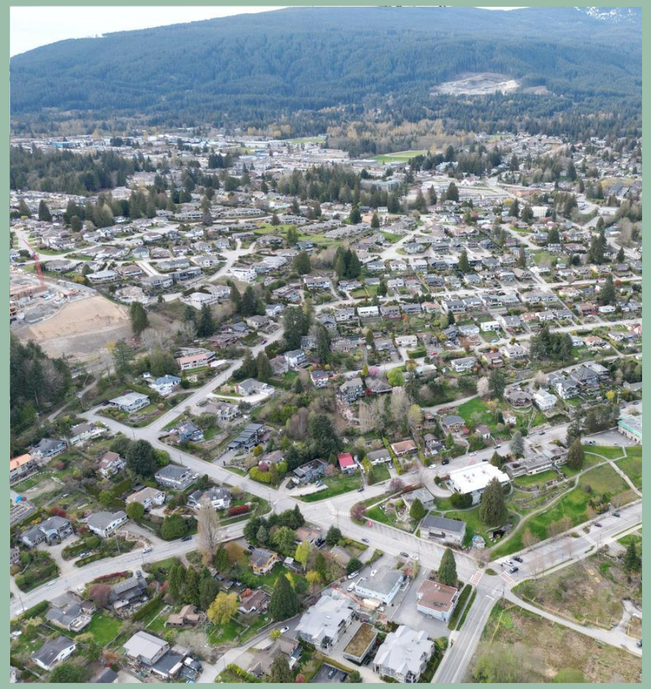
- Solid base in natural asset management from which to grow

DIAMOND HEAD

TOWN OF GIBSONS

Challenges + opportunities

Urbanization



- Urban environments often feature:
  - Restricted + compacted soils
  - Heat + pollution
  - Competition for space (clearance, utilities, parking, etc.)
  - Low permeability (limited water storage)

Bright spot!

- Development can help create new planting spots in low canopy areas and help pay for urban forest enhancement.

DIAMOND HEAD

TOWN OF GIBSONS

URBAN FOREST PLAN

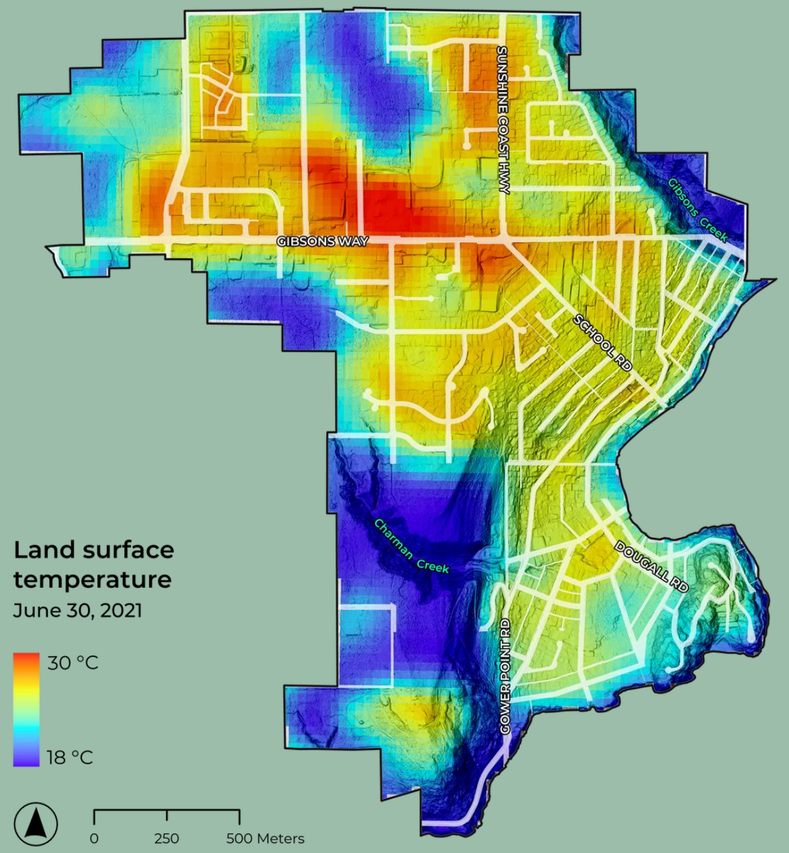
Challenges + opportunities

Climate change

- Extreme weather, including heat waves, drought, and wildfire
- Conditions favourable for pest outbreaks
- Milder climate may enable new invasive species to establish
- Greater need for healthy trees to provide benefits for community climate resilience

(Sort of) bright spot!

- Potential to diversify urban tree species



URBAN FOREST PLAN

Next steps

URBAN FOREST PLAN

Next steps

We are here!

DIAMOND HEAD

TOWN OF GIBSONS

URBAN FOREST PLAN

Next steps

The Plan will help the Town develop:

- Vision
- Principles
- Targets and priorities
- Recommendations and implementation

DIAMOND HEAD

TOWN OF GIBSONS

URBAN FOREST PLAN

Next steps

Community engagement

Two phases planned

- **Phase 1 - Winter 2024 (current)**
  - Purpose: understand the community vision, concerns + aspirations for the urban forest

Plan drafting

- **Phase 2 - Spring 2024**
  - Purpose: receive feedback on draft Plan + establish implementation priorities

DIAMOND HEAD

TOWN OF GIBSONS

URBAN FOREST PLAN

Next steps

Community engageme

Phase 1 - Winter 2024 (current)

- Project page
- Open house
- Survey (online)

Take the survey by visiting
https://gibsons.ca/urban-forest-

DIAMOND HEAD

Thank you!

DIAMOND HEAD

TOWN OF GIBSONS

JANUARY 30, 2024

Question and Answer

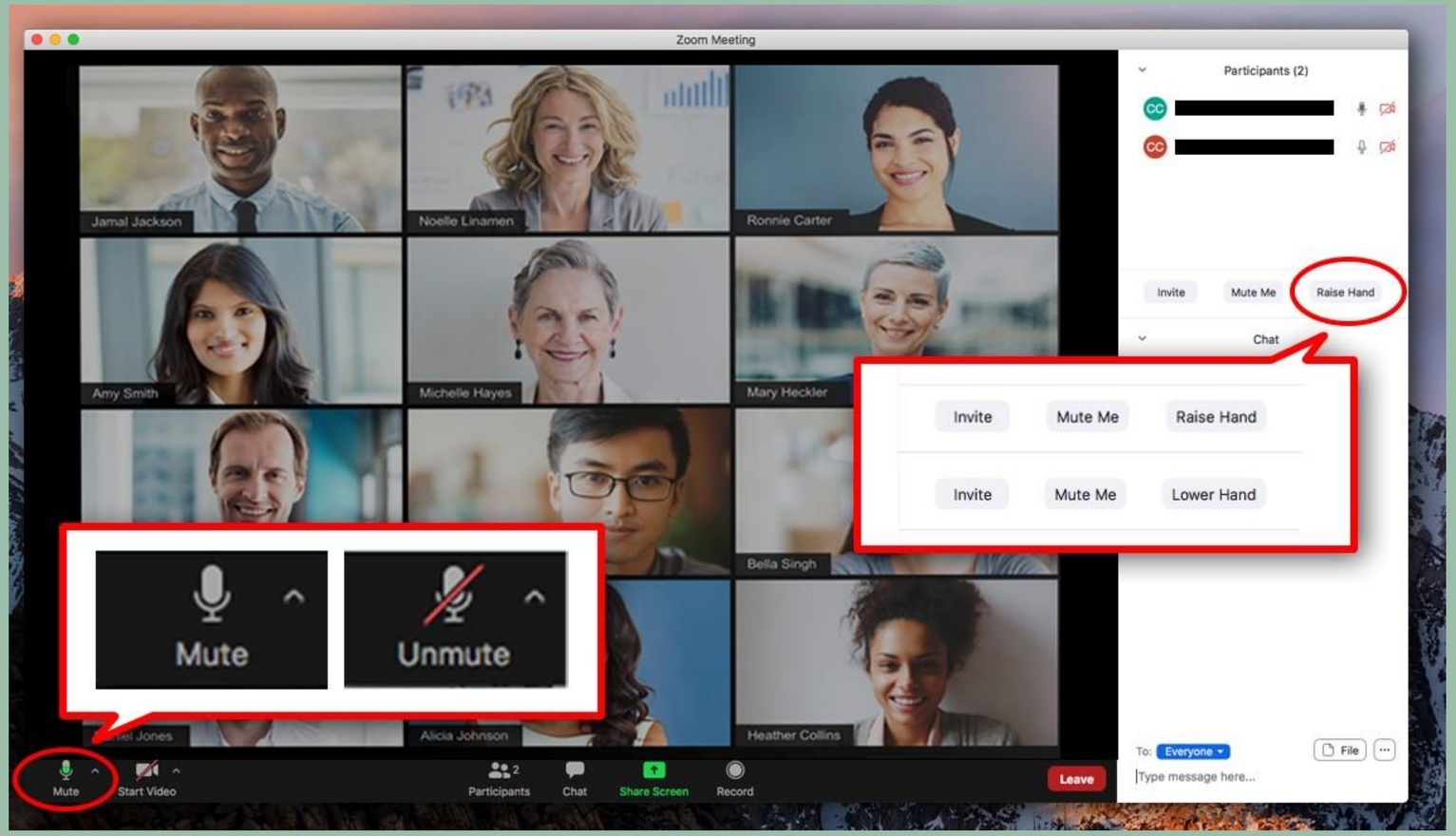
DIAMOND HEAD

TOWN OF GIBSONS

JANUARY 30, 2024

Q&A Housekeeping

- Share questions for the presenters in the chat or by using the “raise hand” feature
- Moderators will try to balance questions from the chat and from “raised hands”
- Please remain muted until it is your turn to speak
- “Share the air”: please consider leaving time for others to ask a question



DIAMOND HEAD

TOWN OF GIBSONS