



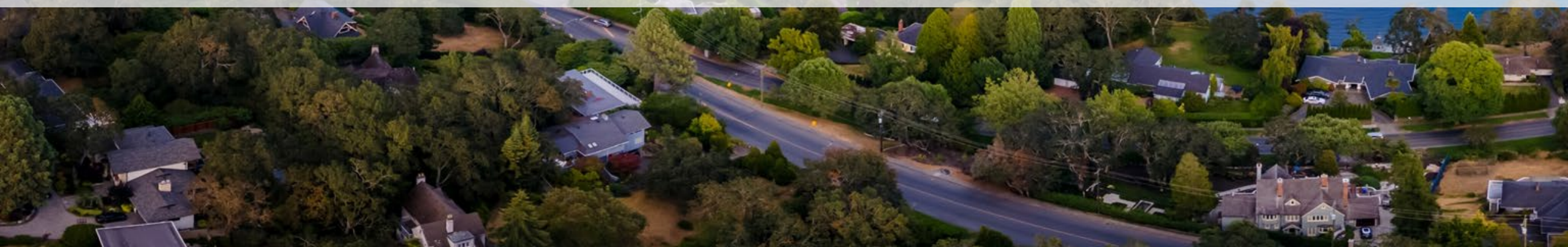
Urban Forest Strategy + Biodiversity Conservation Strategy

Joint Online Open House

District of Saanich

April 19, 2023

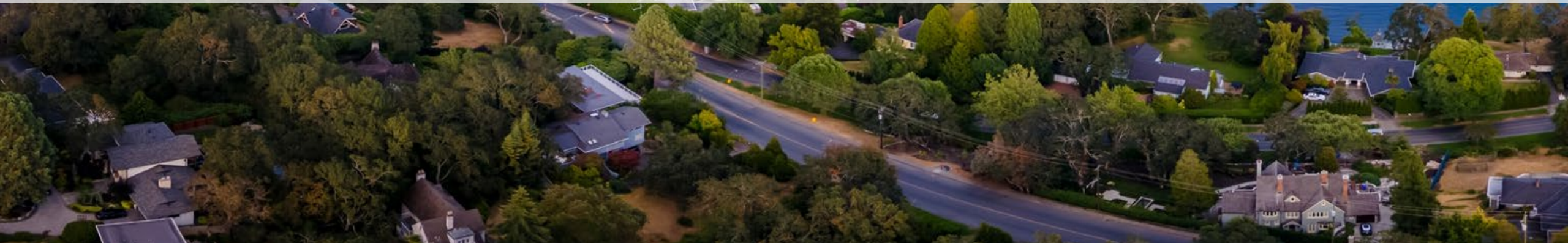
Diamond Head Consulting



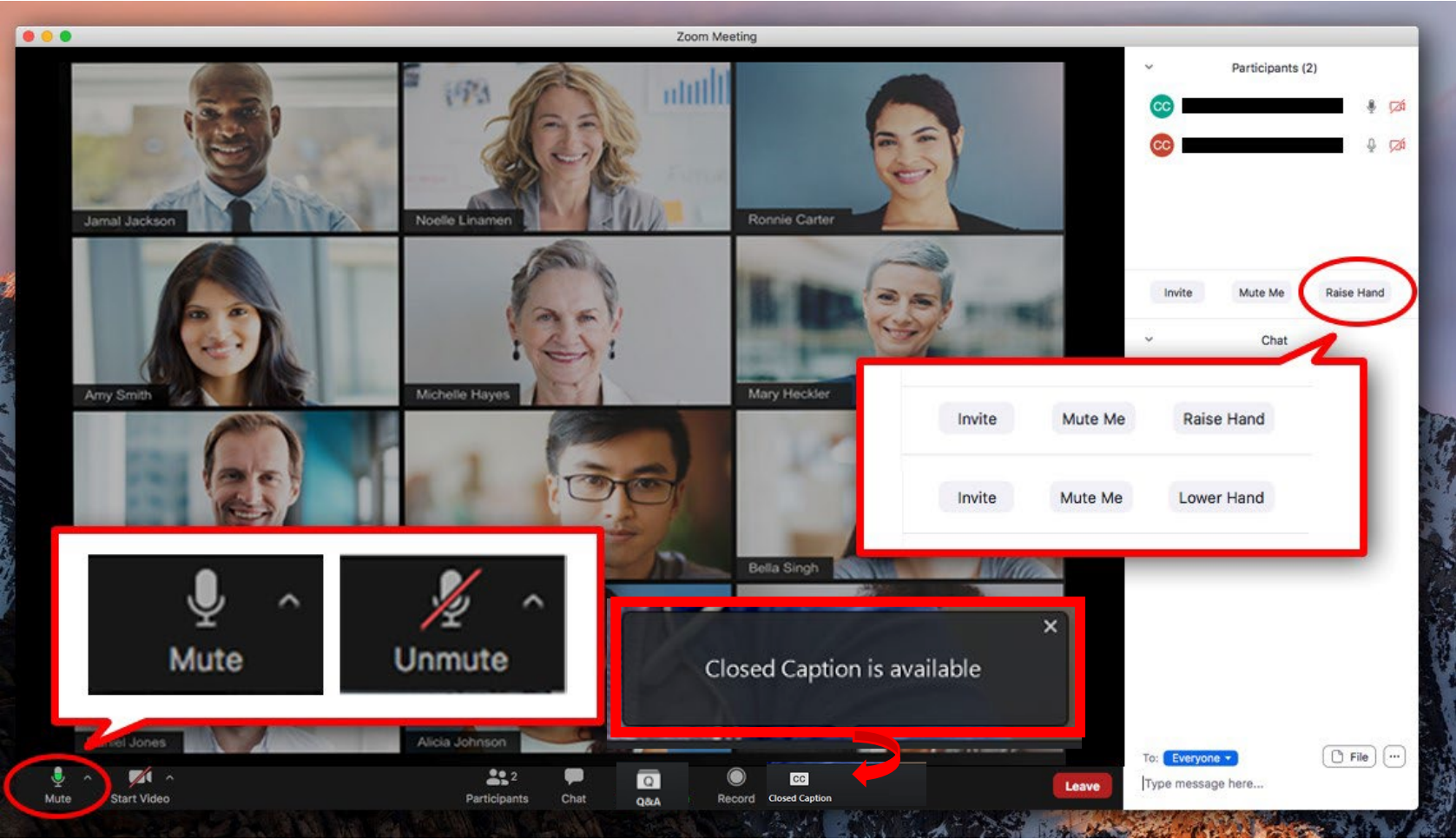
Land Acknowledgement



The District of Saanich lies within the territories of the ləkʷəŋən peoples represented by the Songhees and Esquimalt Nations and the W̱SÁNEĆ peoples represented by the W̱JOŁEŁP (Tsartlip), BOKÉĆEN (Pauquachin), S̱ÁUTW (Tsawout), W̱SIKEM (Tseycum) and MÁLEXEŁ (Malahat) Nations. The First Peoples have been here since time immemorial and their history in this area is long and rich.



How to participate



Presentation Overview



- Urban Forest Strategy
 - Project context
 - State of the Urban Forest
- Biodiversity Conservation Strategy
 - Project context
 - State of Biodiversity
- Get involved
- Q&A



Project context

State of the Urban Forest

Get involved

Q&A



Urban Forest Strategy Update

Online Open House

District of Saanich

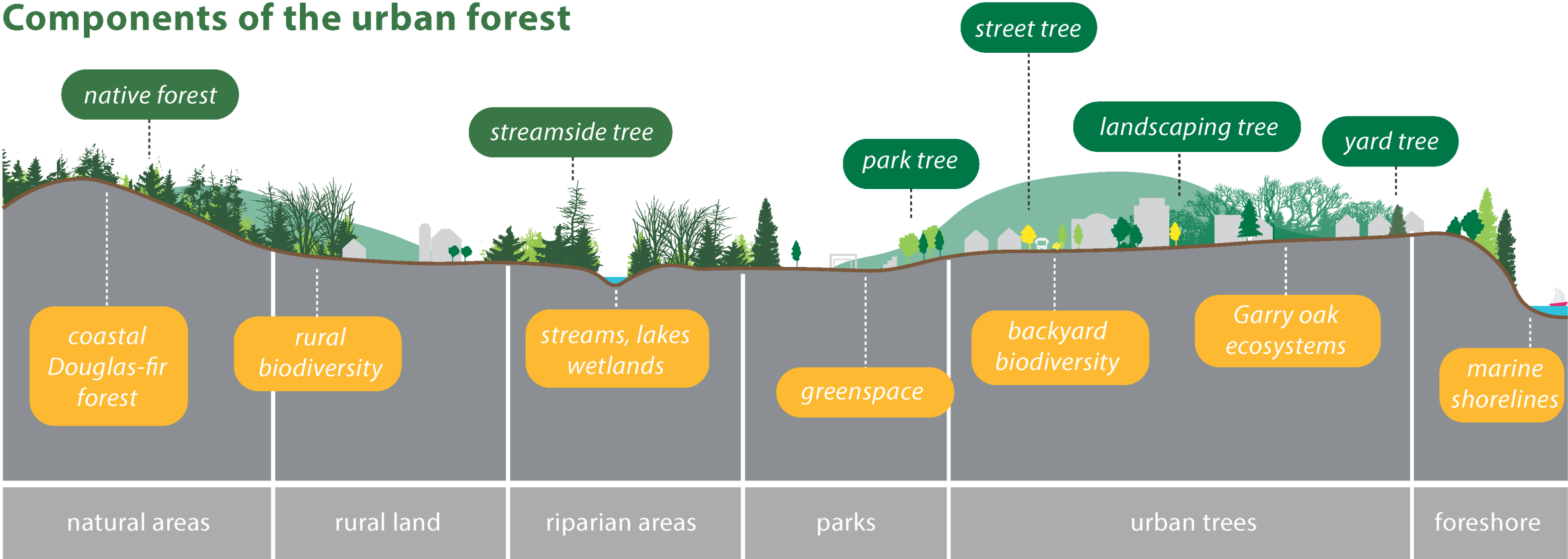
April 19, 2023

Diamond Head Consulting: Amelia Needoba

Urban forests and biodiversity



Components of the urban forest



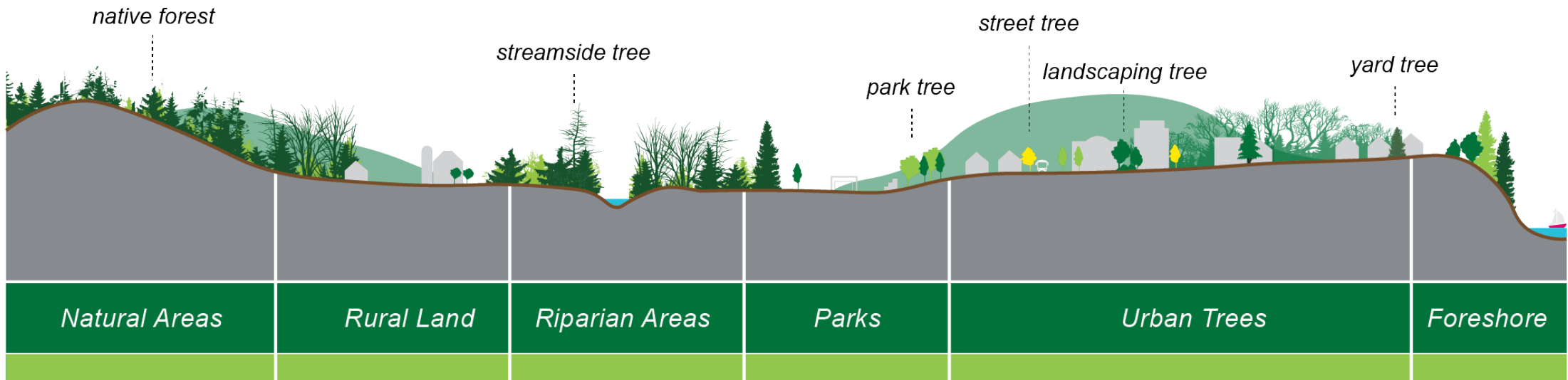
Components of biodiversity

Project context

What is the urban forest?



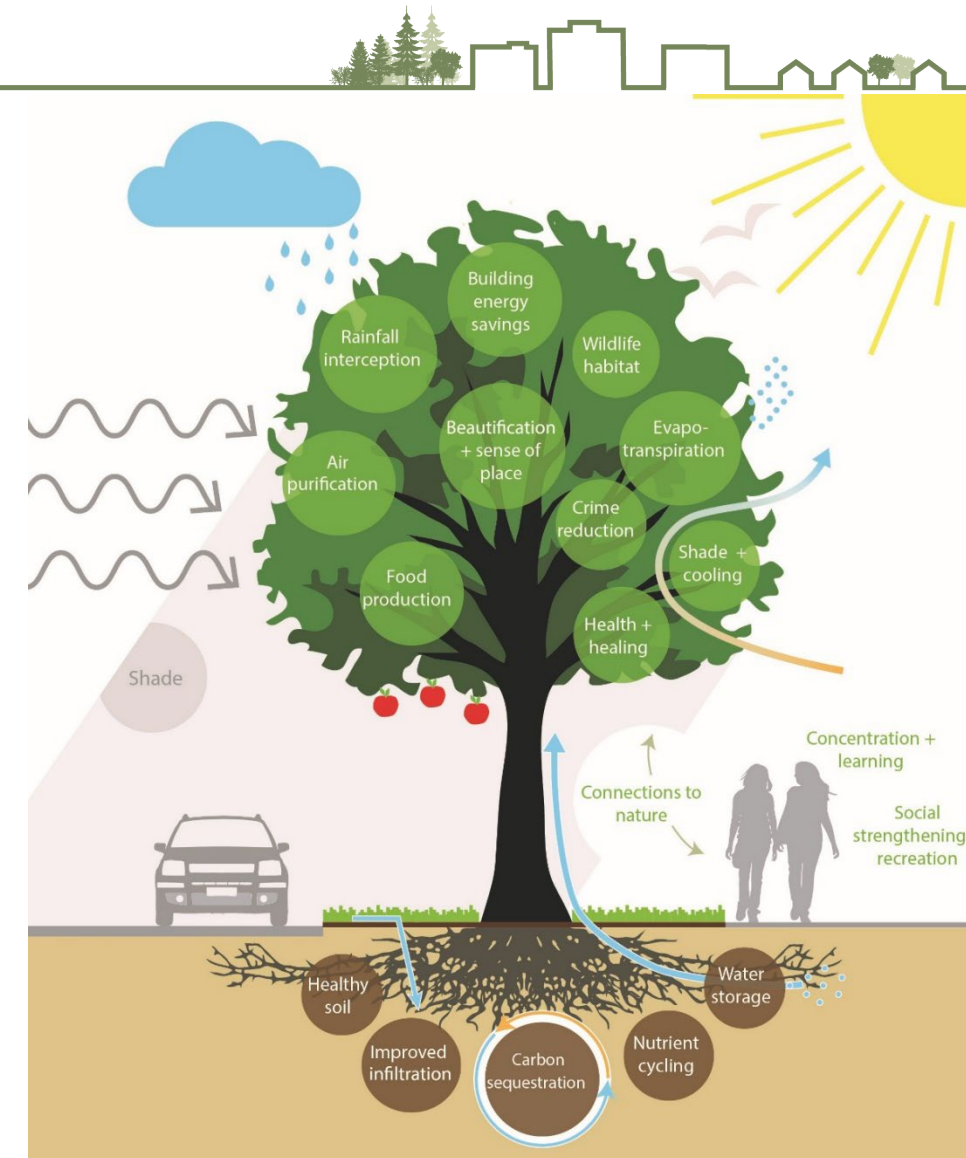
“Saanich’s urban forest includes all treed landscapes within the District’s municipal boundary, including private yards, public parks, conservation areas, boulevards, natural areas, and other locations in urban areas and Rural Saanich.”



Project context

Trees provide many benefits

- Providing habitat for wildlife
- Stabilizing steep slopes
- Storing and sequestering carbon
- Cooling urban areas
- Improving mental and physical health
- Encouraging social cohesion



Project context

Updating the 2010 Urban Forest Strategy



Saanich Council endorsed Saanich's first Urban Forest Strategy in 2010. Over a decade later, there is a need to update it to reflect present and emerging challenges and opportunities.

The updated Urban Forest Strategy will:

- ✓ Renew the Urban Forest Strategy with guidance for today's challenges
- ✓ Align with and support other District policies and priorities
- ✓ Engage the public and key stakeholders
- ✓ Establish the baseline state of the urban forest
- ✓ Provide a 50-year vision for the urban forest
- ✓ Provide a 10-year implementation road-map



Project context

Timeline



Project context

Work Completed to Date



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Progress on the 2010 Urban Forest Strategy

The 2010 Urban Forest Strategy resulted in positive changes to regulations and practices that increased tree protection in the municipality and grew public awareness. With the renewal of the Urban Forest Strategy, now is an appropriate time to review the actions and assess progress on implementation.

The 2010 Urban Forest Strategy organized its actions within seven Strategies. The seven strategies are to:

- » **Grow the Urban Forest Canopy**
- » **Amend the Tree Preservation Bylaw**
- » **Develop Urban Forest Guidelines**
- » **Integrate the UFS with other District and Regional Initiatives**
- » **Inventory the Urban Forest**
- » **Develop an Urban Forest Operations Program**
- » **Engage the Community**



14 actions are listed within the strategies. In the table on the following pages, actions are listed as complete, in progress, or not started.

In total, three actions are complete, ten actions are in progress, and one action is not started.

Action Update: 2010 Urban Forest Strategy Implementation

- 3 Complete
- 10 In Progress
- 1 Not Started

Project context

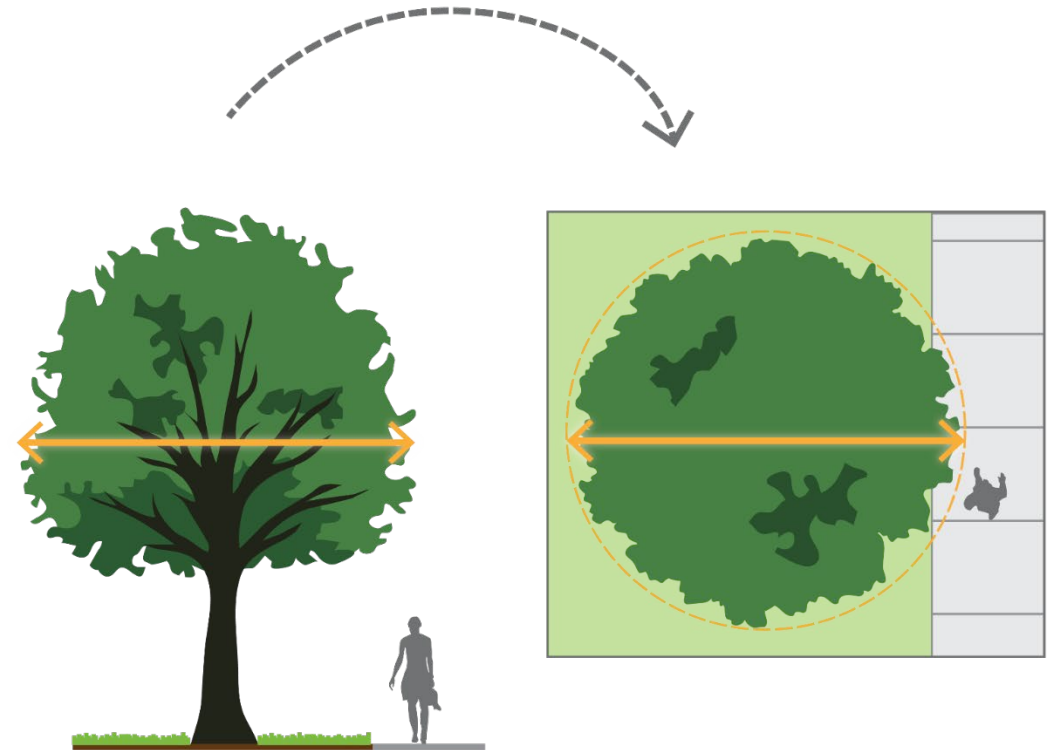


State of the Urban Forest

What is canopy cover?



Canopy cover refers to the percentage of an area covered by tree crowns when looking down from above.



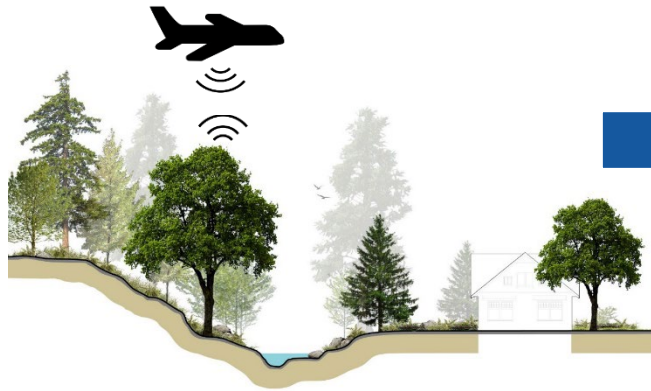
How is canopy cover measured?



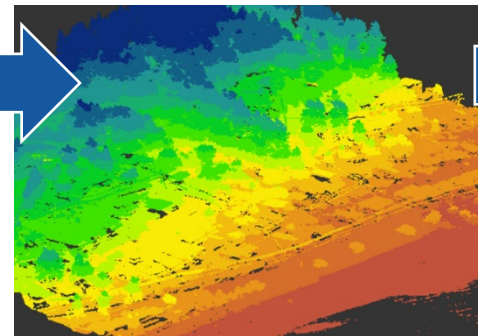
- Measured using a Light Detection and Ranging (LiDAR) and aerial imagery from 2019
- Estimates tree height and location using laser sensor
- Creates individual segmented trees

**Canopy
cover
process**

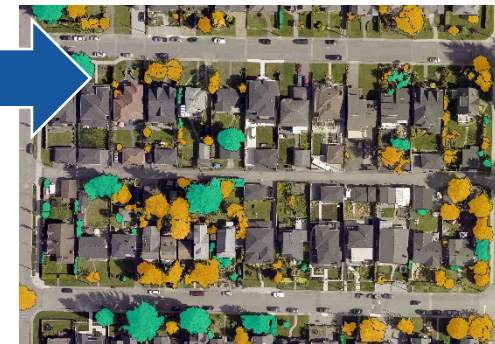
1) LiDAR data collection



2) LiDAR data



3) Canopy cover segmented
by individual trees

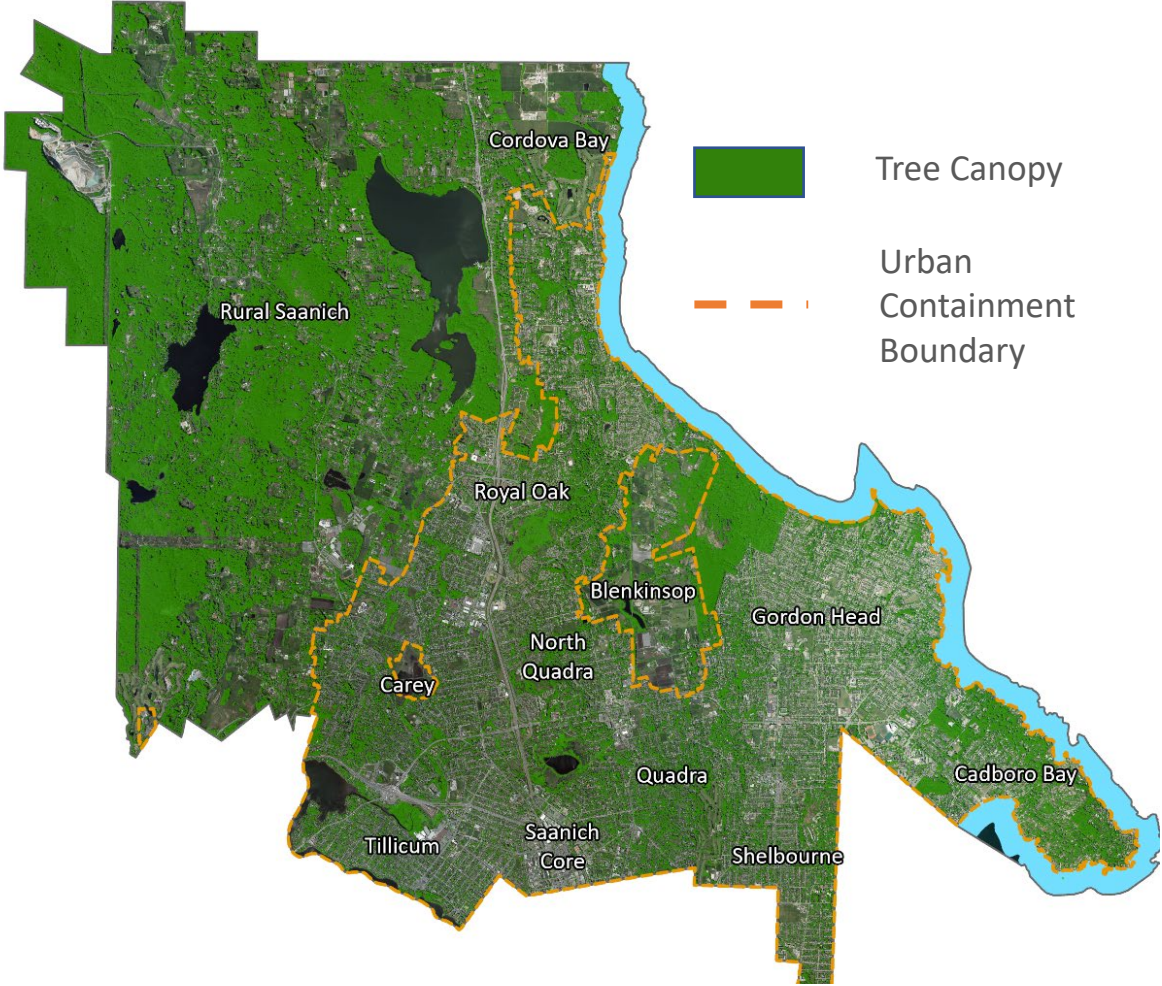
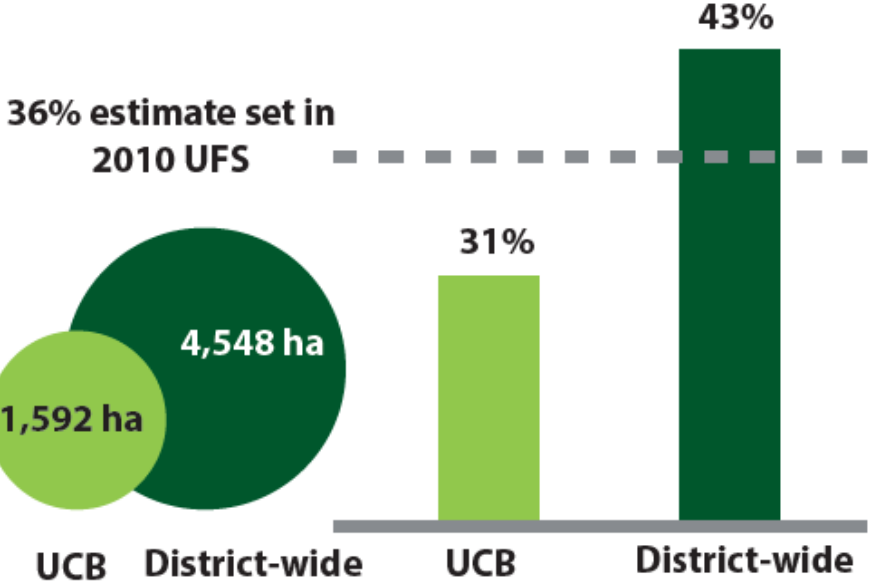


State of the Urban Forest

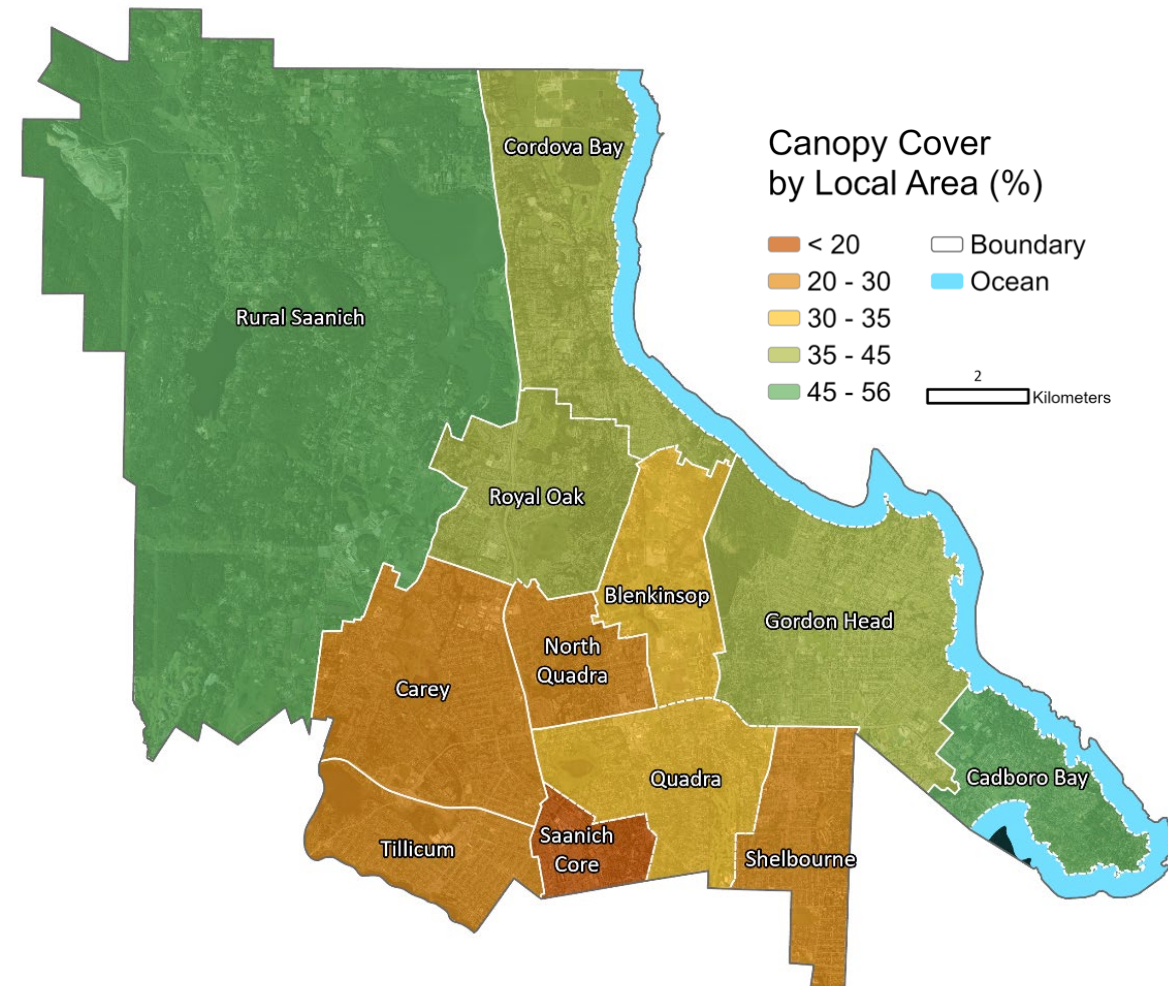
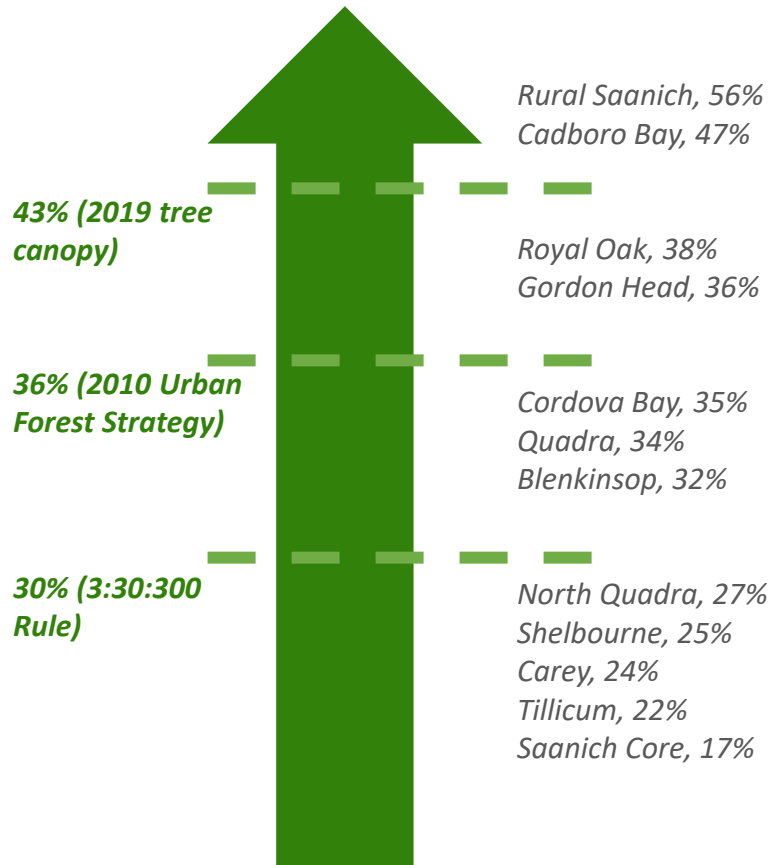
District-wide canopy cover



Canopy cover
(2019): **43%**

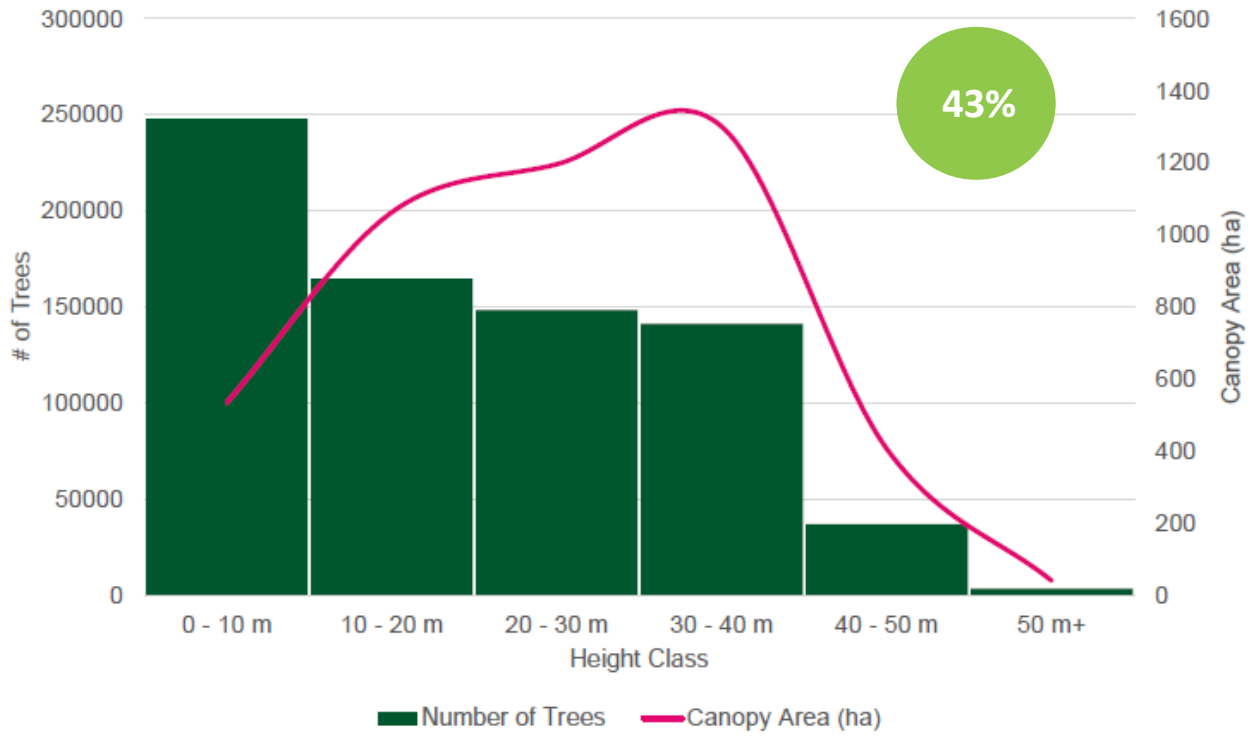


Canopy cover by Local Area

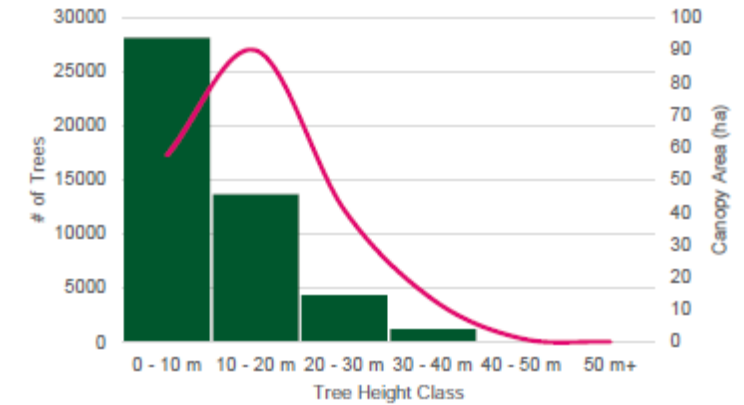


State of the Urban Forest

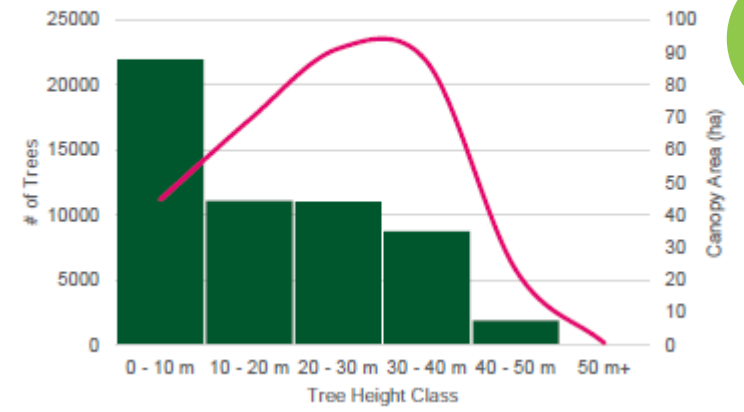
Canopy area and forest structure



Carey, 47,300 trees



Cordova Bay, 54,800 trees

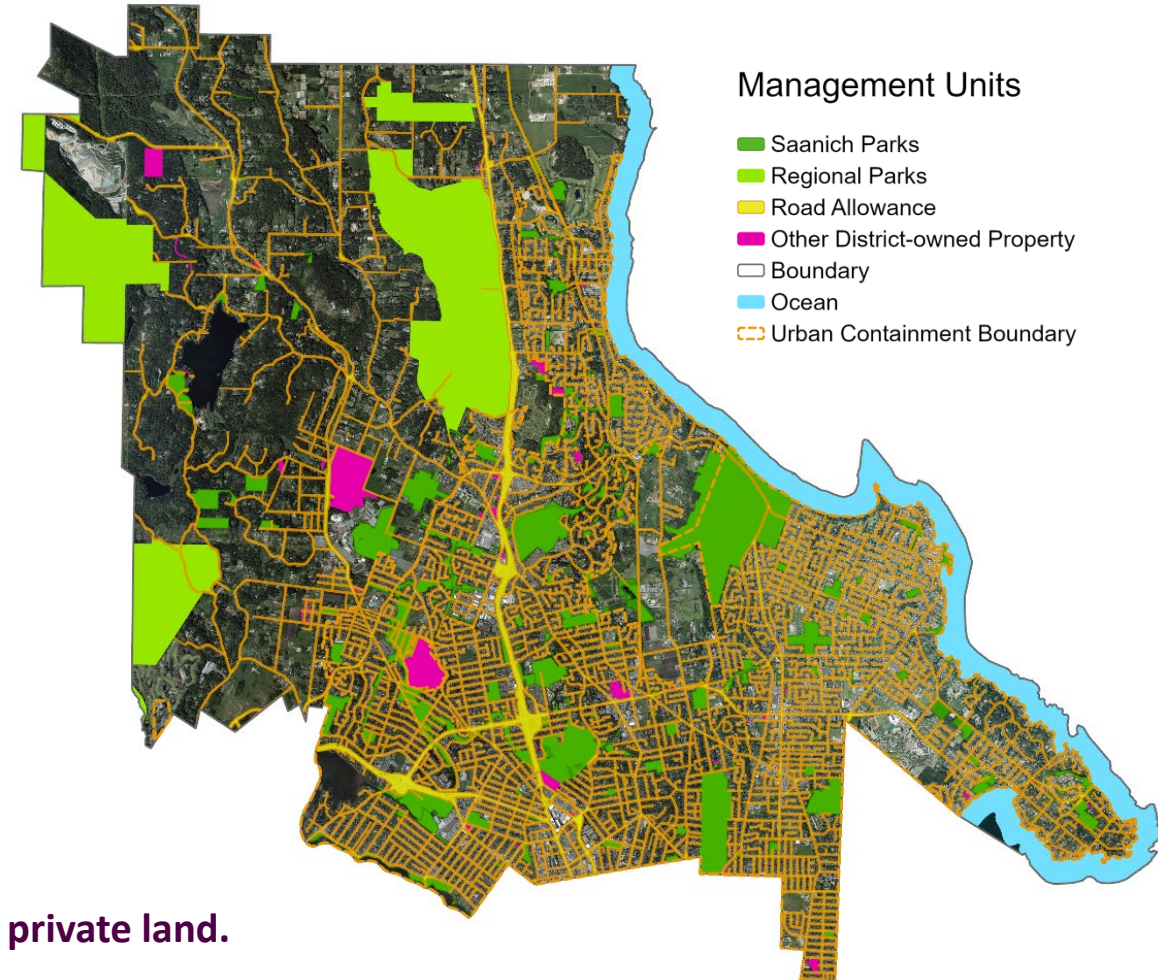
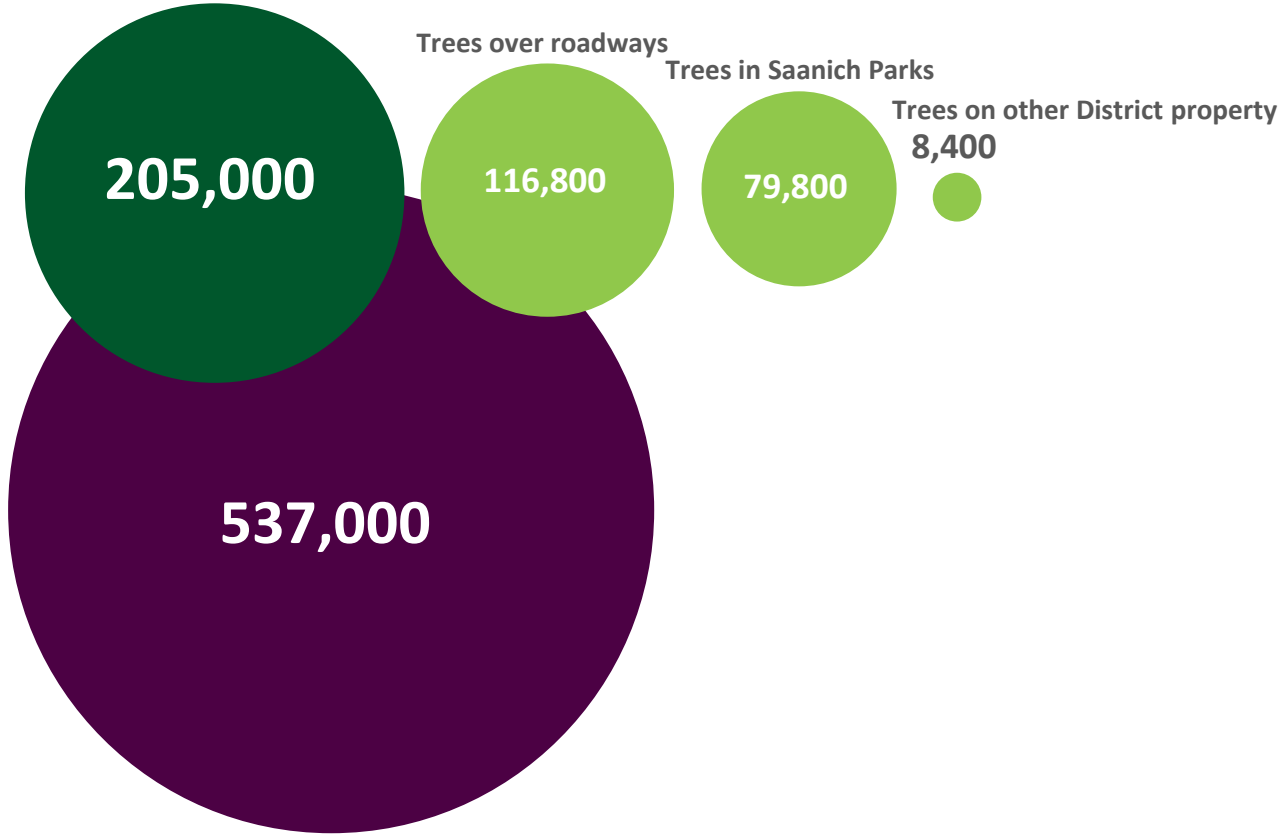


State of the Urban Forest

Where trees are located in Saanich



Trees on Saanich-owned property, including:


















Trees on property not owned by Saanich, including Regional Parks and private land.

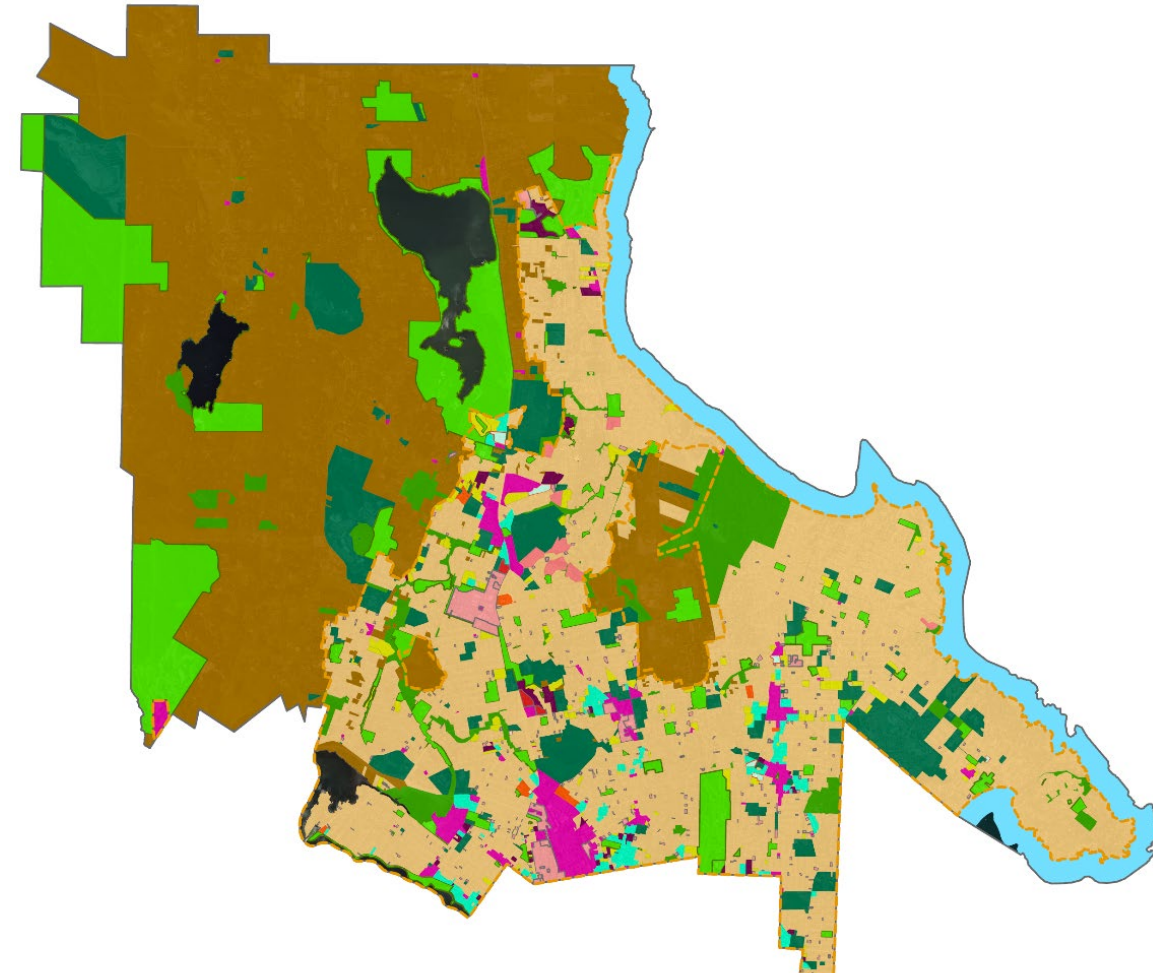
State of the Urban Forest

Where trees are located in Saanich



- **Industrial and commercial** lands have the lowest tree canopy cover, about 11%.
- **Single family residential** lands have 31% canopy cover, while multifamily lands have less.
- **Rural lands** have 52% canopy cover, the highest of non-park land uses.

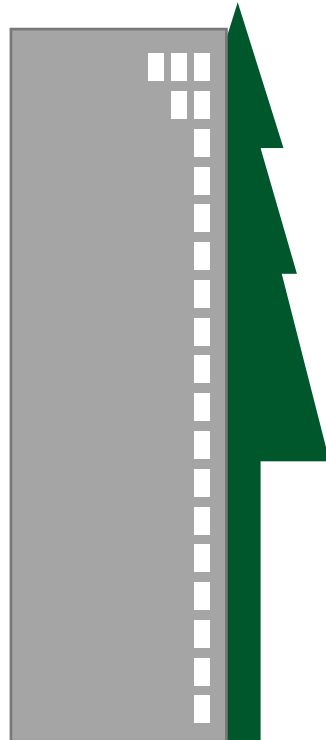
Zoning Classification	Canopy
 <i>Natural Park Zone</i>	71%
 <i>Recreation and Open</i>	61%
 <i>Rural</i>	52%
 <i>Public (Institutional)</i>	36%
 <i>Single Family</i>	31%
 <i>Residential</i>	30%
 <i>Attached Housing</i>	26%
 <i>Residential Personal</i>	26%
 <i>Two Family</i>	25%
 <i>Apartment</i>	23%
 <i>Residential Mixed</i>	21%
 <i>Comprehensive</i>	13%
 <i>Multi-Family</i>	12%
 <i>Commercial</i>	11%
 <i>Industrial</i>	11%



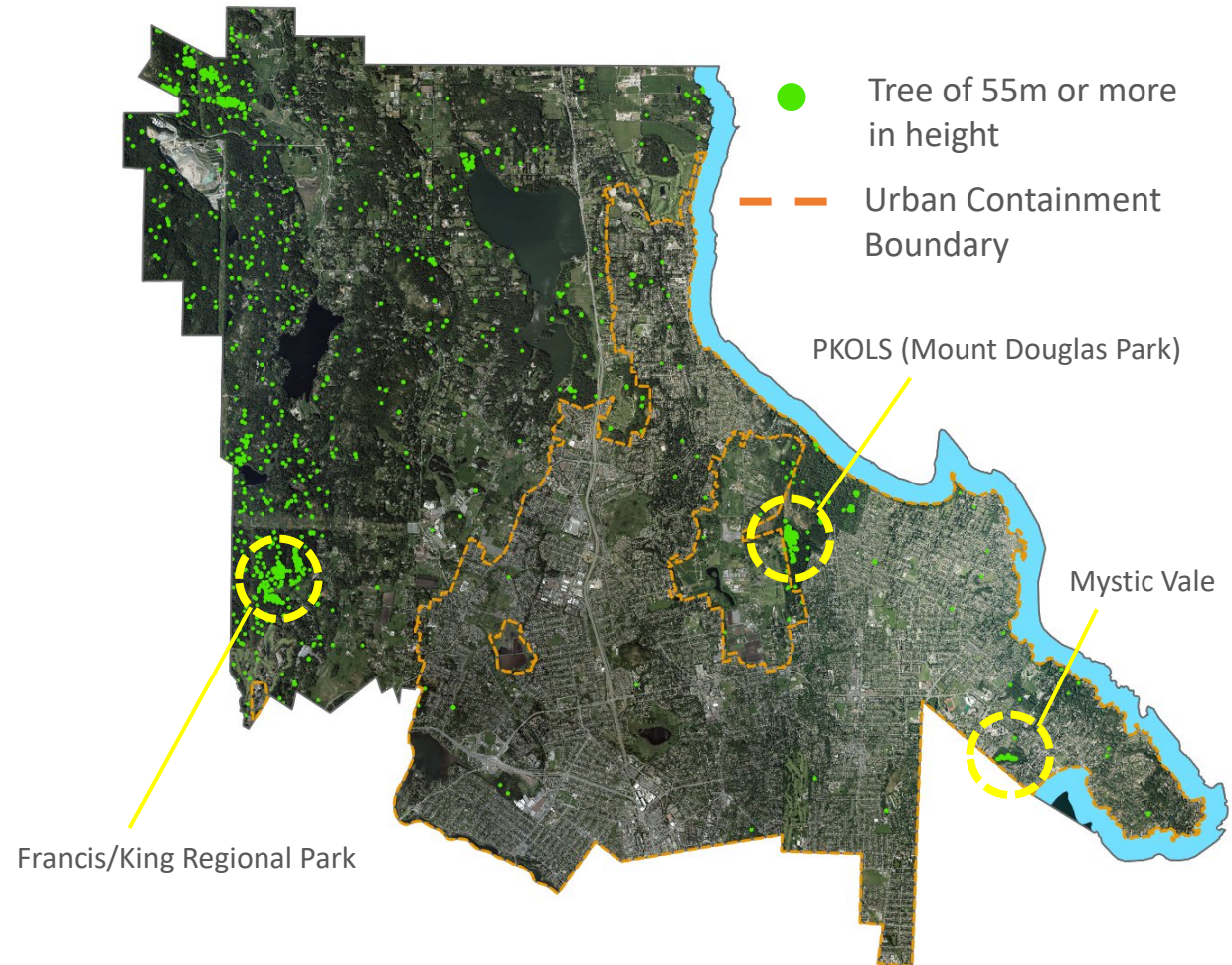
State of the Urban Forest

Saanich's tallest trees

- Saanich's tallest trees are **taller than an 18-storey apartment building**.
- **Most tall trees are found in Rural Saanich.**
- Tall trees often indicate older, more complex forest habitats with **high ecological and cultural value.**



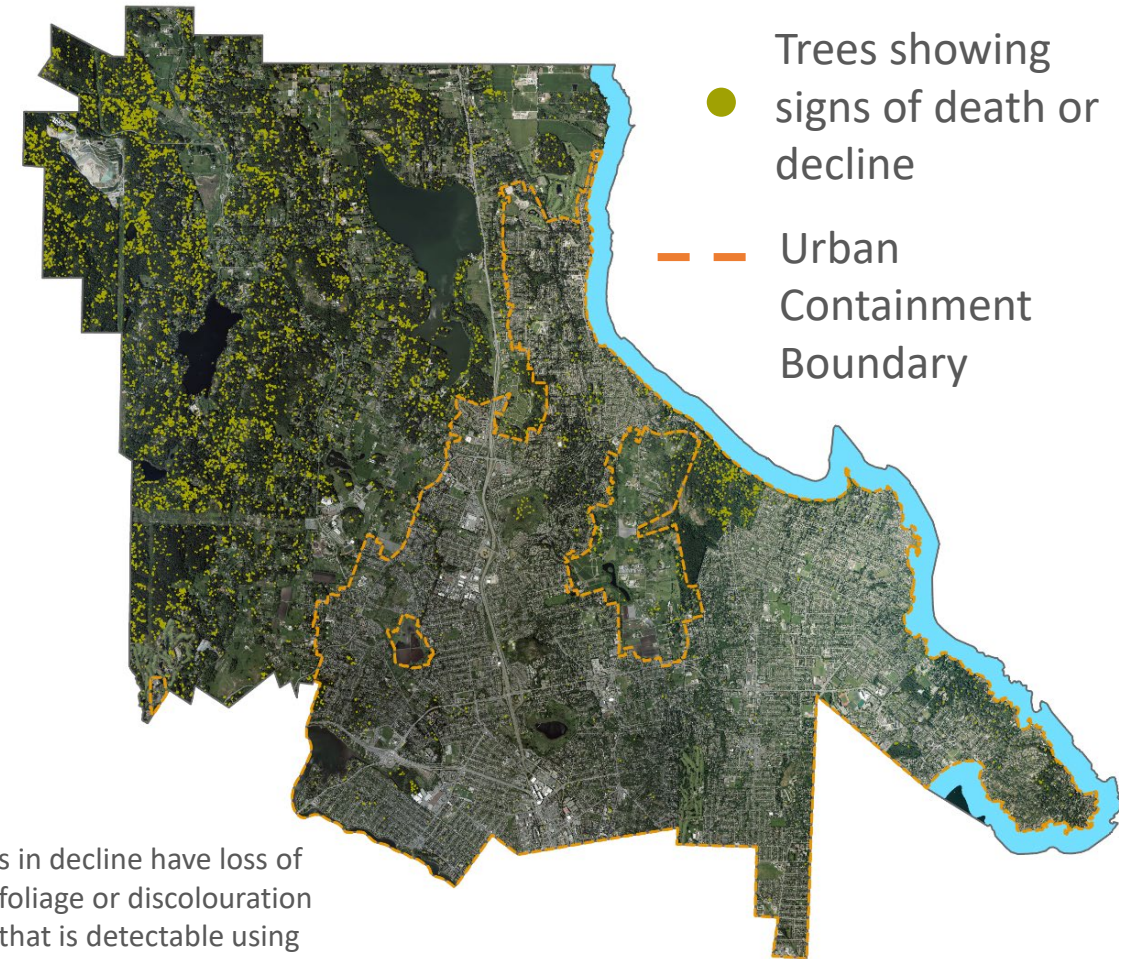
State of the Urban Forest



Signs of poor tree health



- **About 13,000 trees** in Saanich have signatures of decline.
- **Most trees identified are in natural areas.** Western Redcedar and Grand Fir are native species struggling with climate change related drought impacts.



<< Trees in decline have loss of foliage or discolouration that is detectable using remote sensing technology

State of the Urban Forest

Tree equity prioritization

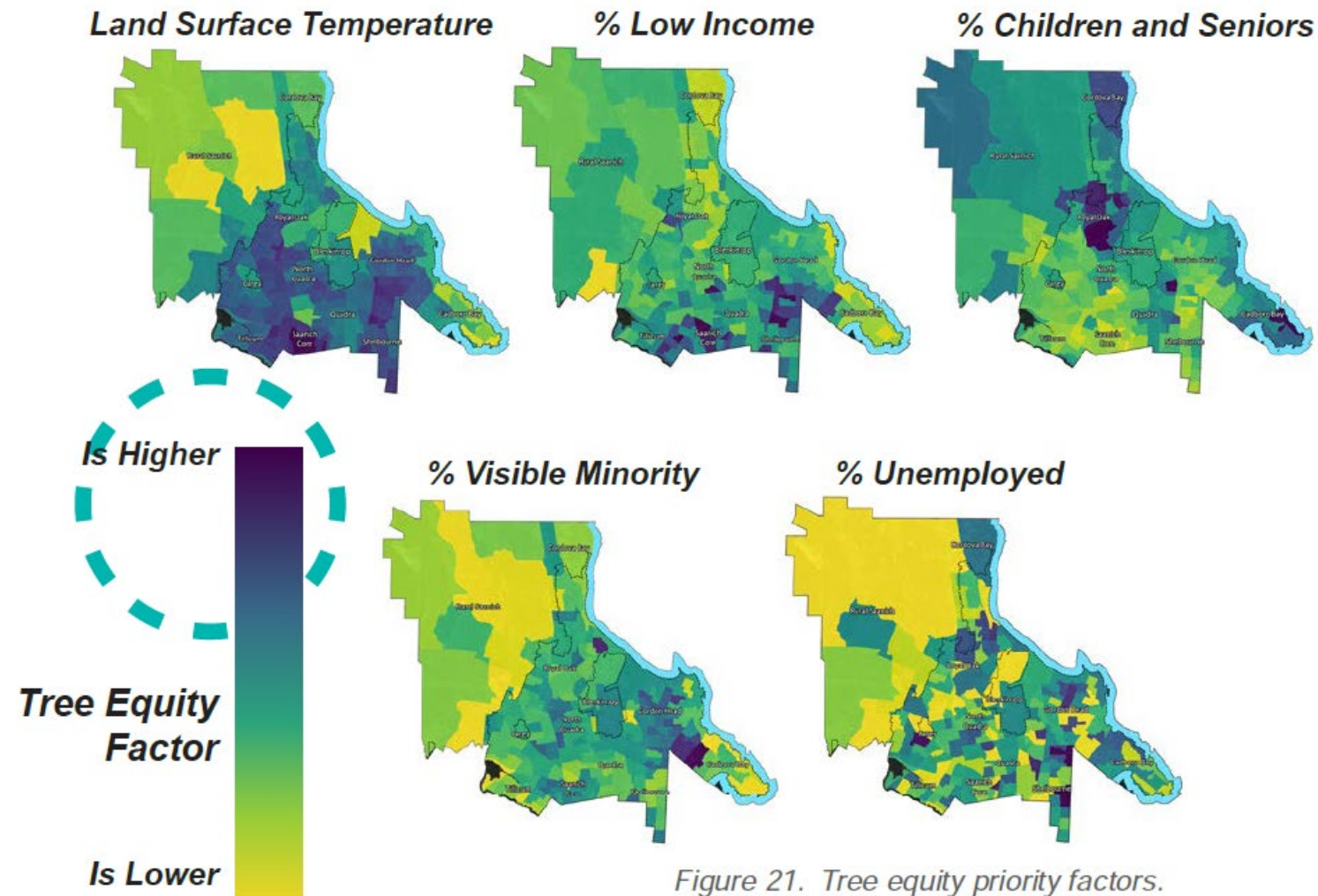


Figure 21. Tree equity priority factors.

Saanich's Planting Programs



1

Partnership Tree Planting Program

60-75 trees per year since 2016

2

Boulevard Tree Planting

1,934 street trees since 2016

3

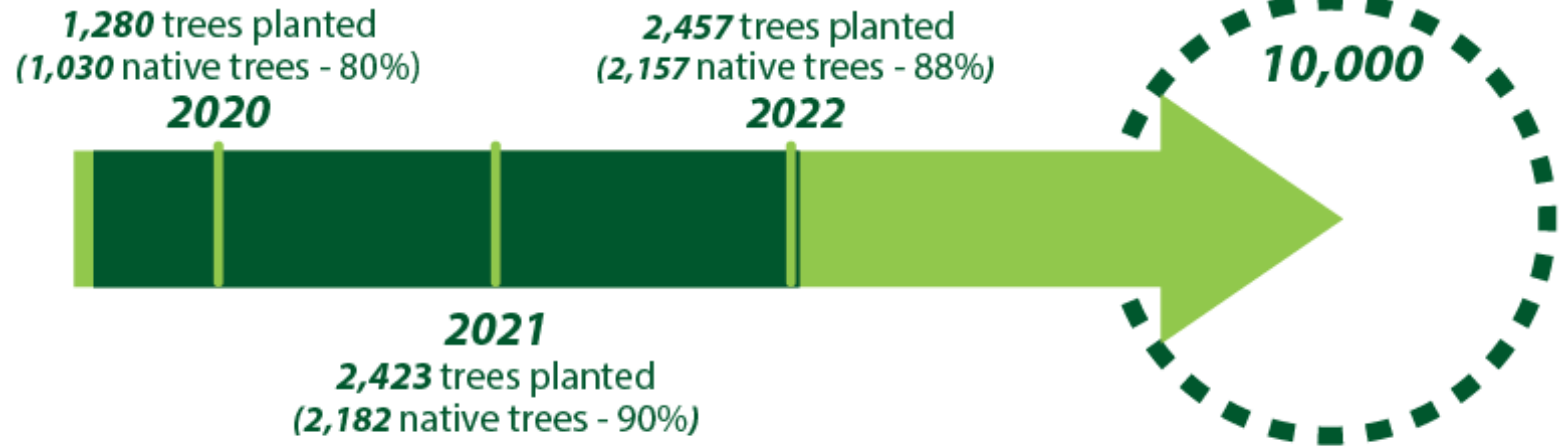
Parks Tree Planting

600 trees per year since 2016

4

Natural Areas Restoration

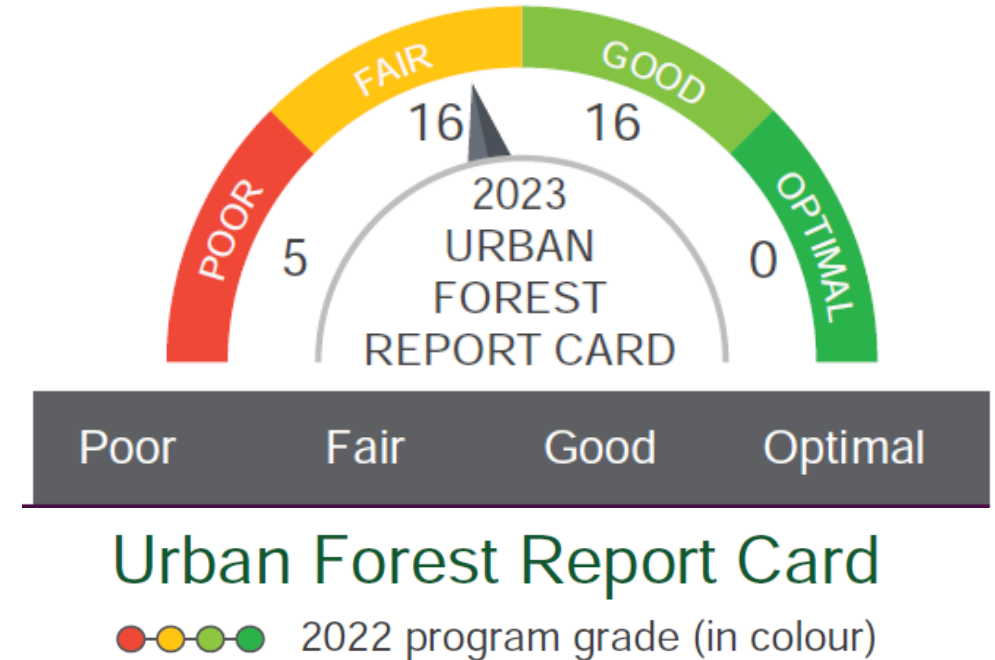
4,733 trees since 2020



Progress made since 2010



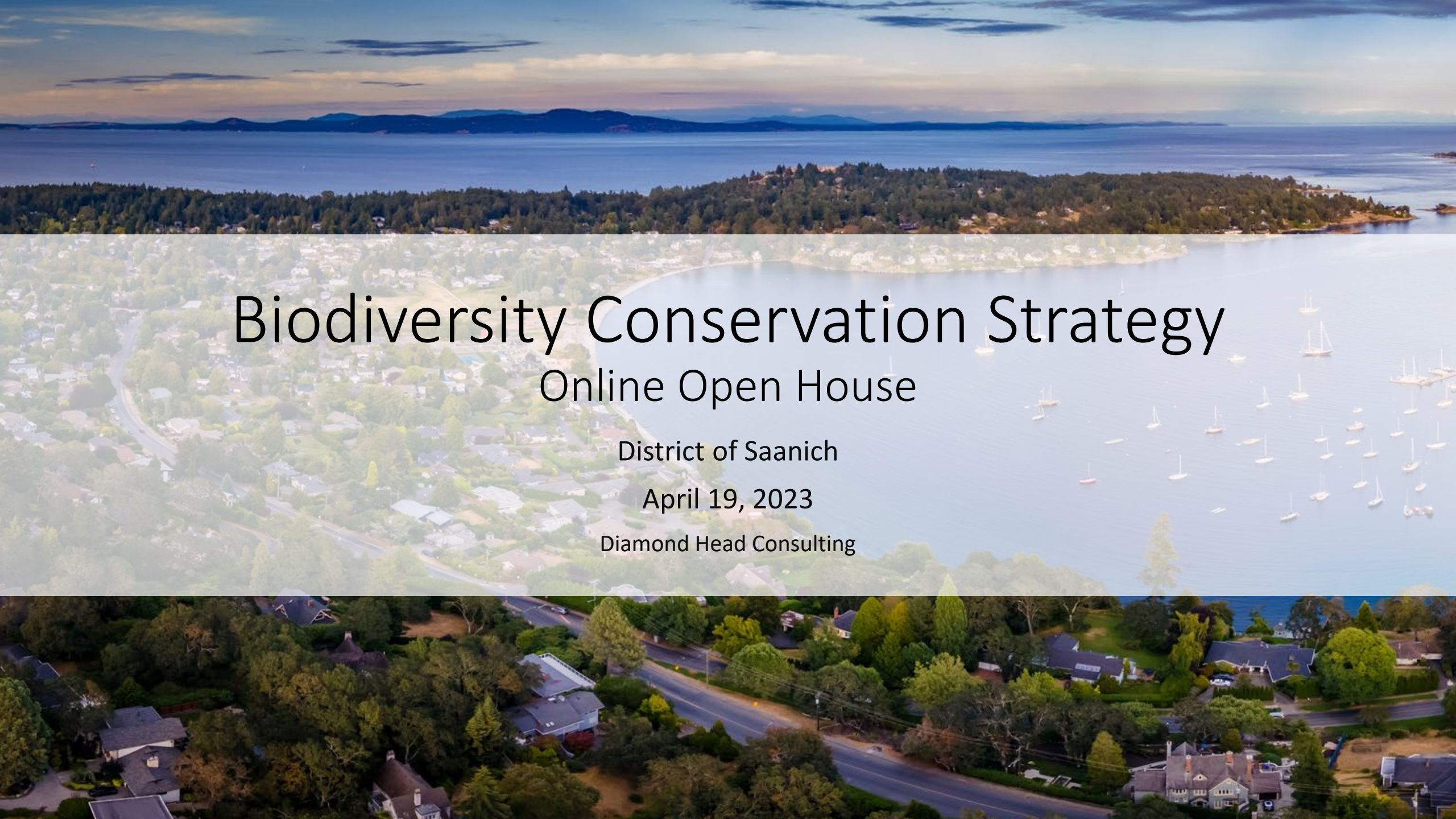
- Saanich has made progress since the 2010 Urban Forest Strategy, including:
 - Creation of the Urban Forest Reserve fund
 - Adopting the Tree Protection Bylaw
 - Investing in stewardship programs
- **Challenges** for implementation include:
 - Limited resources
 - Planting site availability
 - Conflicting or competing priorities for space
 - Climate risk



State of the Urban Forest



Biodiversity Conservation Strategy

An aerial photograph of a coastal town and harbor. The town is built on a hillside overlooking a large body of water. The water is filled with numerous sailboats. In the background, there are mountains under a blue sky with some clouds. The text is overlaid on a semi-transparent white banner across the middle of the image.

Biodiversity Conservation Strategy

Online Open House

District of Saanich

April 19, 2023

Diamond Head Consulting

What is Biodiversity?



The variety and variability of life on Earth.

- Encompasses every living thing on the planet
- Microorganisms to plants, animals, fungi, and even entire ecosystems
- Interpreted as the number of species that inhabit an area and their abundance
- Indicator of ecosystem health and integrity



Project Context



State of Biodiversity Report



The purpose of the State of Biodiversity report is to:

- Develop a baseline inventory of biodiversity in the District
 - Collect and combine existing district wide spatial layers
 - Ground truth a select proportion of sites



Biodiversity Conservation Strategy



The Biodiversity Conservation Strategy will:

- Identify a “Habitat Network”
- Identify tools and policy opportunities for the District to protect, conserve, and enhance Saanich’s natural assets



State of Biodiversity Report



This information will help inform the Strategy along with:

- Community input
- Research
- Best practices



Work Completed To Date



	Task	Key deliverables
State of Biodiversity	Ecological Inventory and Habitat Mapping	<ul style="list-style-type: none"> ✓ Collect and combine existing GIS layers ✓ Complete LiDAR analysis for tree canopy & watercourses ✓ Field assessment of natural areas
	Biodiversity Assessment & Reporting	<ul style="list-style-type: none"> ✓ Ecological inventory summary, maps ✓ Biodiversity ranking ✓ Threats to biodiversity ✓ State of Biodiversity Report ✓ State of Biodiversity Summary Report
Biodiversity Conservation Strategy	Engaging the Community and Stakeholders	<ul style="list-style-type: none"> ✓ Online mapping tool (StoryMap) ➤ Consult with the RSTC at regular intervals (ongoing) ➤ WSÁNEĆ workshops (ongoing) ➤ Public survey ➤ Open houses/workshops (public, staff, & stakeholders) ➤ Council/Committee presentations
	Develop a Biodiversity Conservation Strategy	<ul style="list-style-type: none"> ➤ Review existing policy and legislation, gap analysis, municipal context ➤ Identify hubs and corridors for a habitat network • Develop recommendations for policy, monitoring, education, and stewardship • Draft Biodiversity Conservation Strategy • Finalized public-facing Strategy

State of Biodiversity



Methods

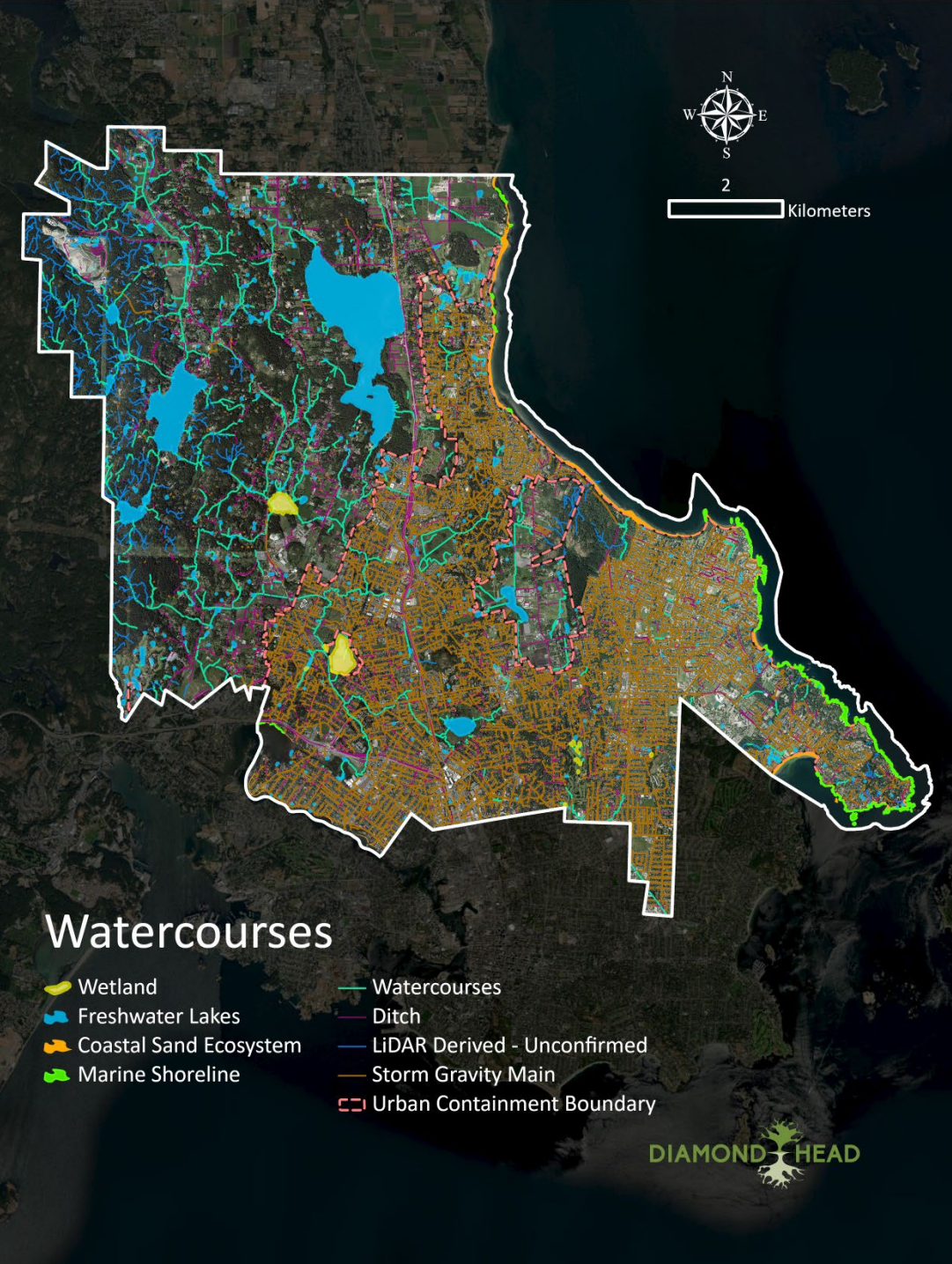


- Mapping based on
 - Field work
 - Provincial forestry data (TEM)
 - CRD LiDAR tree canopy & pervious
 - Saanich lot lines, UCB, watercourses
 - LiDAR flow accumulation model
 - Orthophotos
- Field work limited to public land
- 141 sites visited, ~8% of polygons
- Ecosystem polygons are >0.5 ha

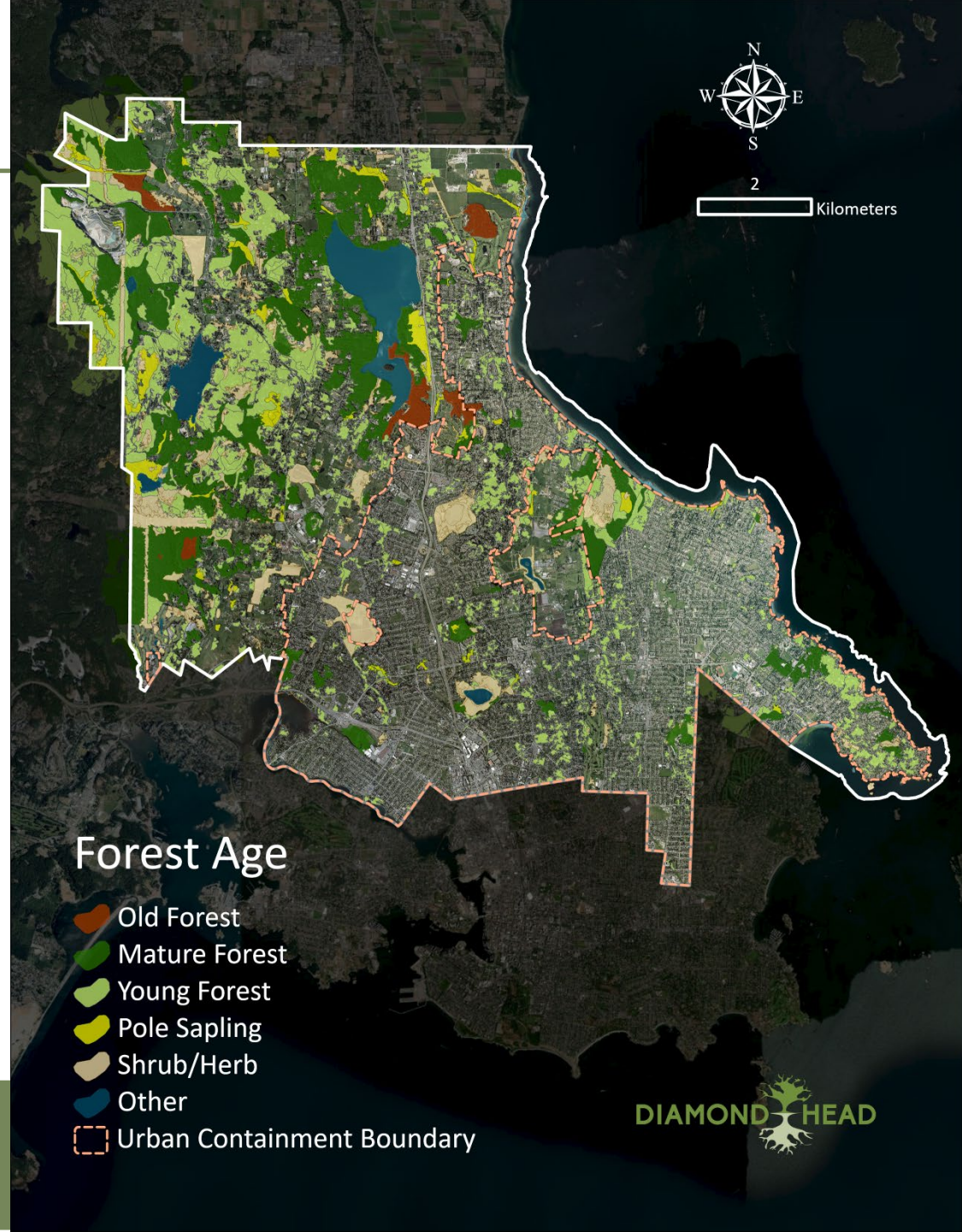
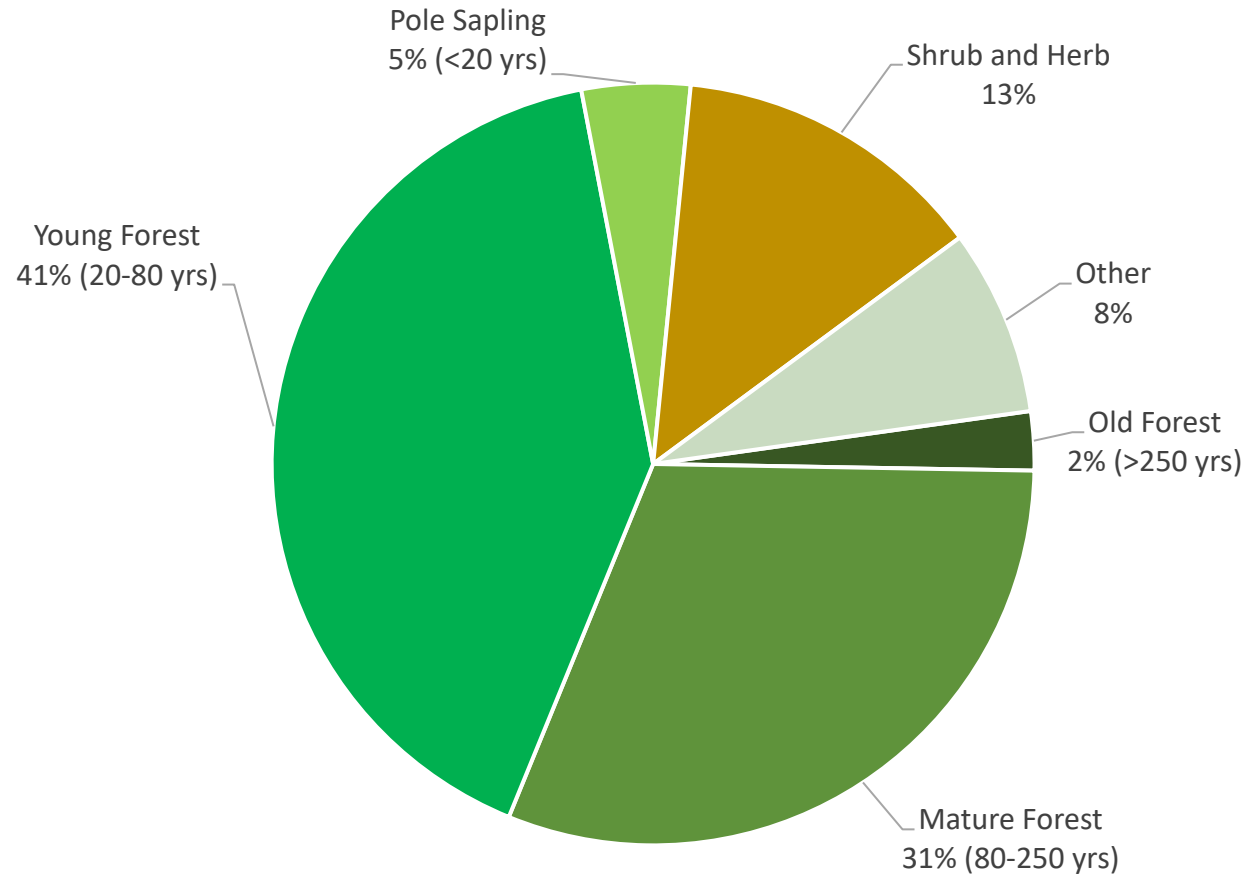


Aquatic Systems

- Lakes, ponds, reservoirs (350 ha)
- Wetlands (31 ha)
- Watercourses (>310 km verified, 93 km unverified)
- Marine shoreline (47 km)

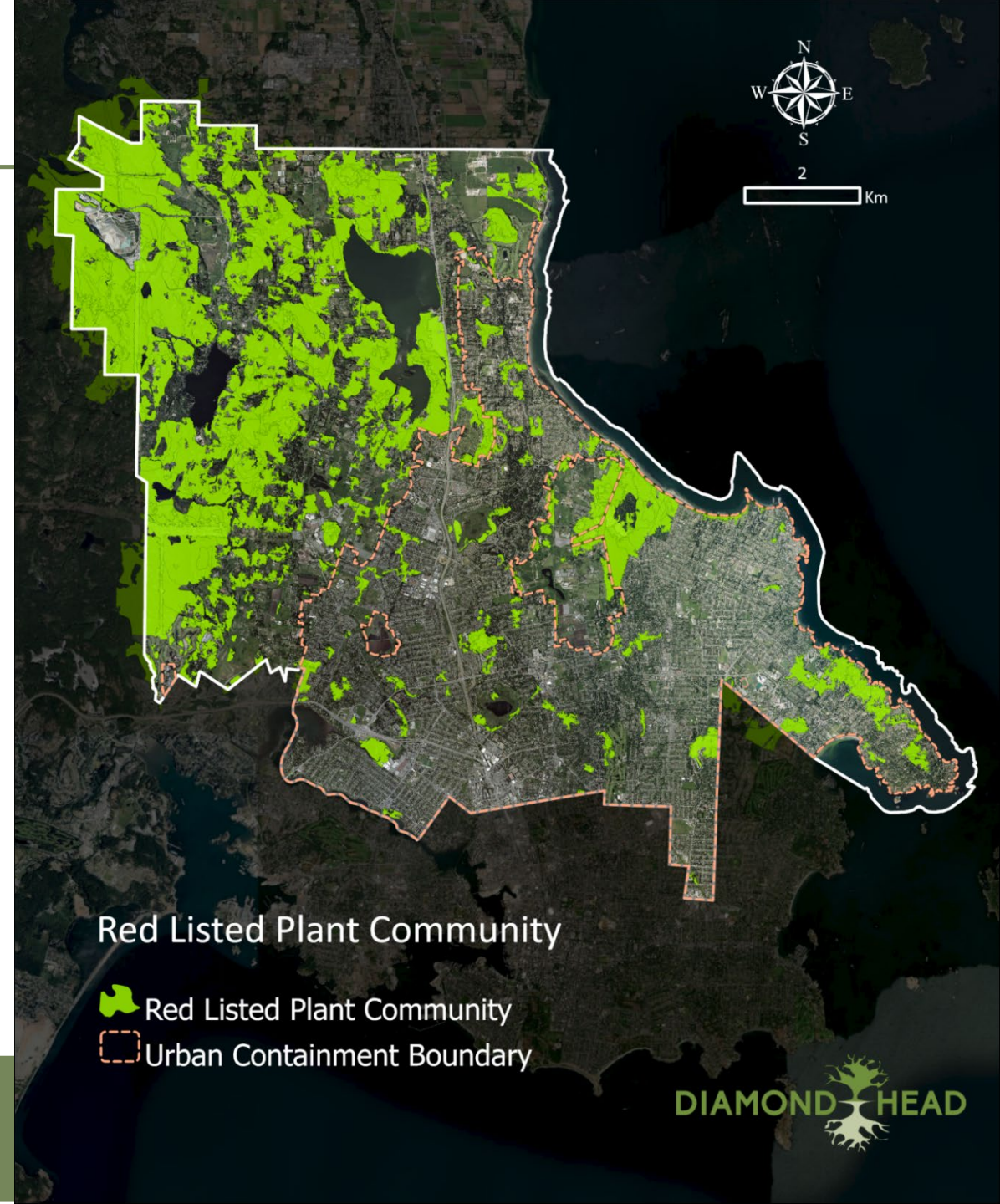


Terrestrial Systems



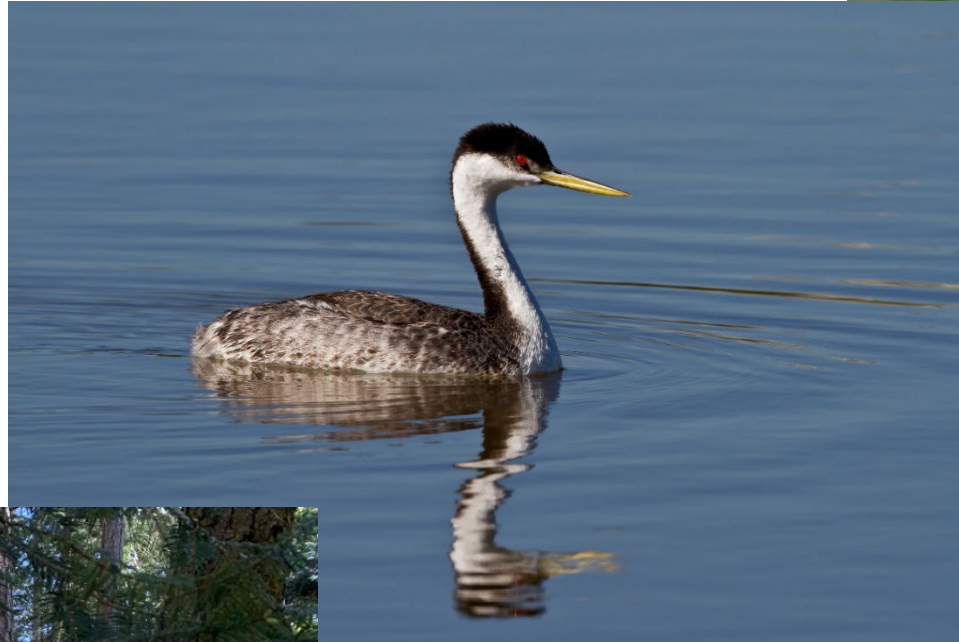
Species & Ecosystems at Risk

- Coastal Douglas-Fir Forests
- Garry Oak ecosystems
- Species at risk (SAR)
- Migratory Birds



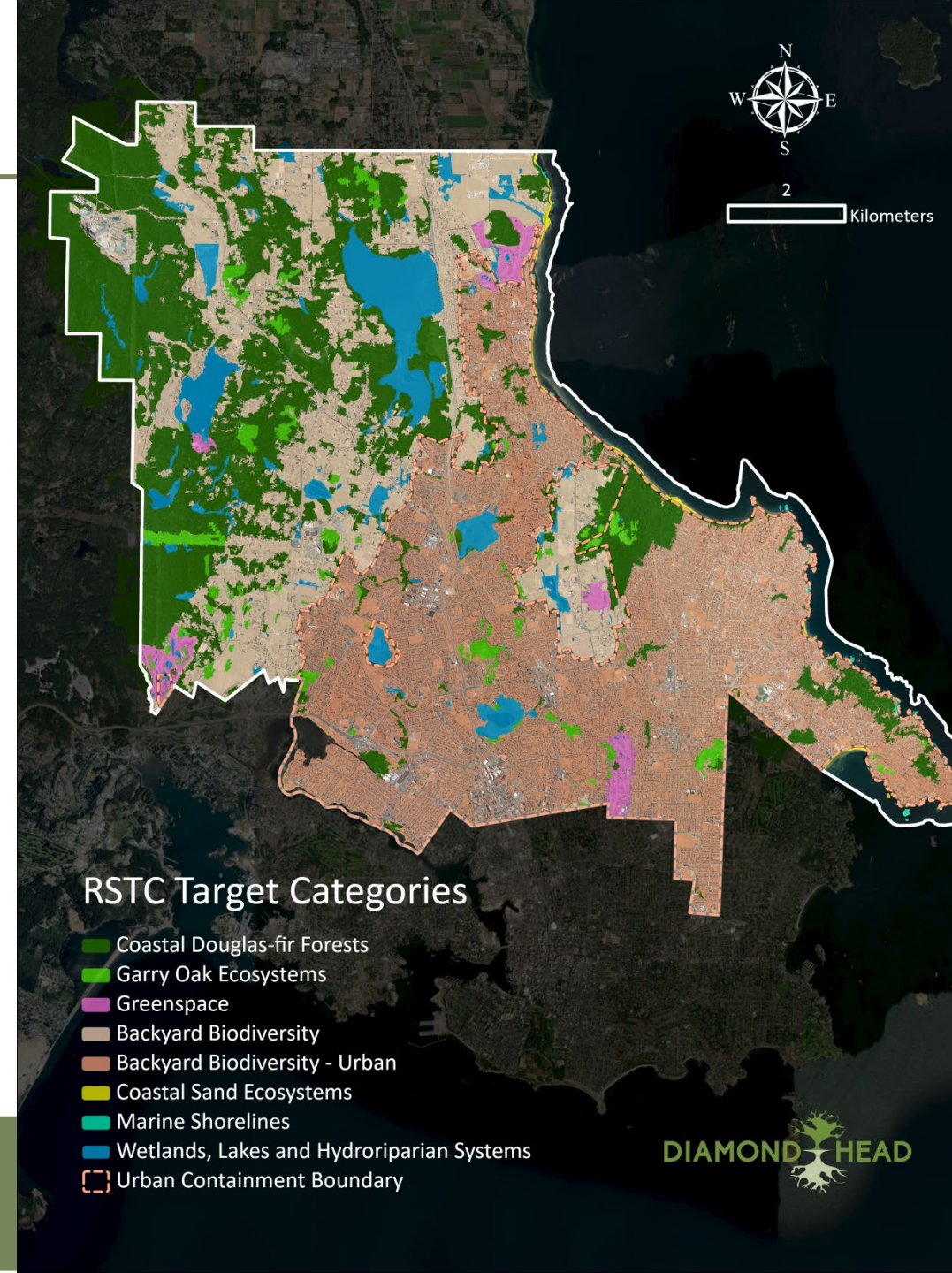
iNaturalist data

- Native Species
- Threatened Species
- Invasives



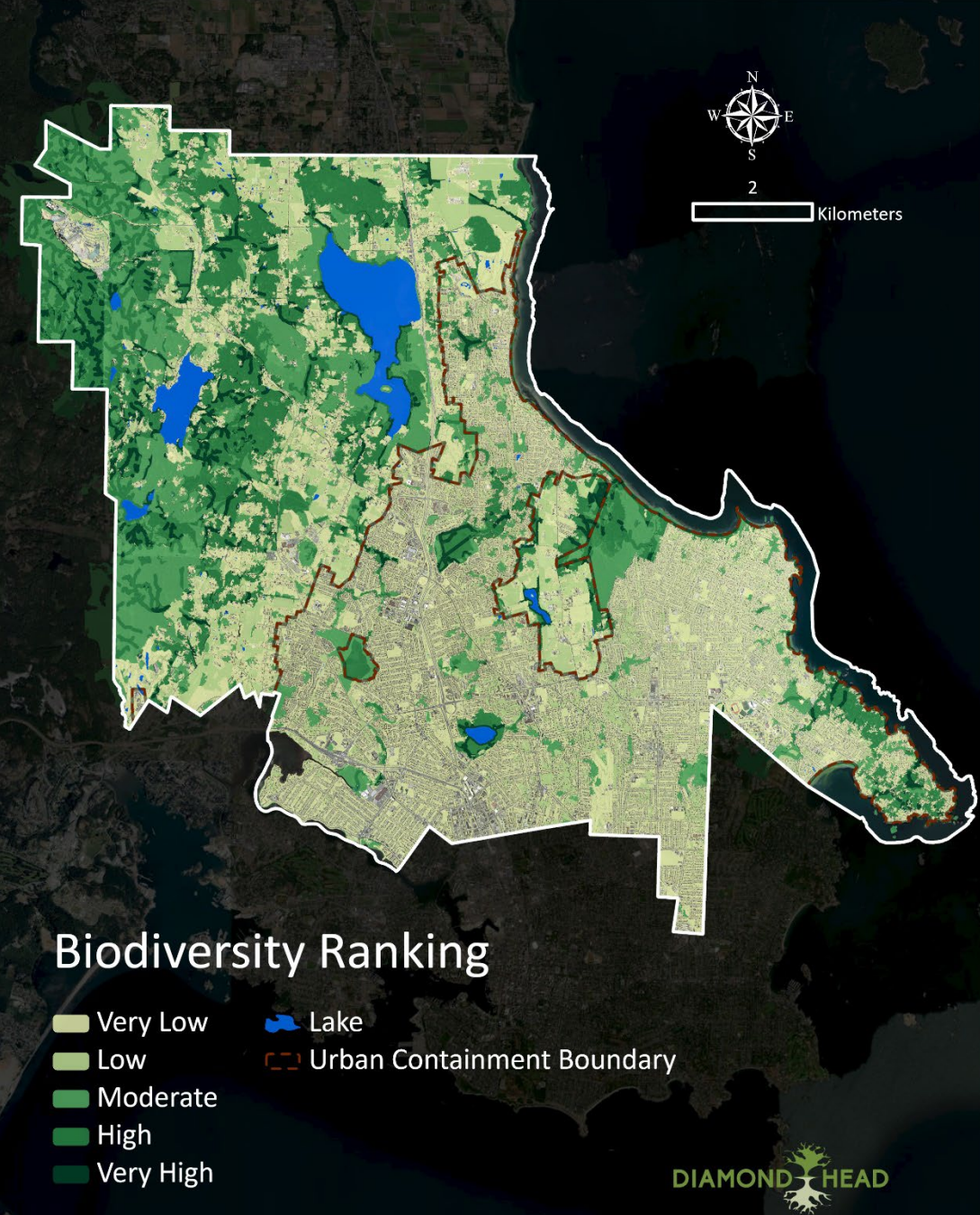
Biodiversity Target Categories

- Coastal Douglas-Fir
- Garry Oak
- Greenspace
- Backyard Biodiversity – Rural + Urban
- Coastal Sand
- Marine Shorelines
- Wetlands, Lakes and Streams



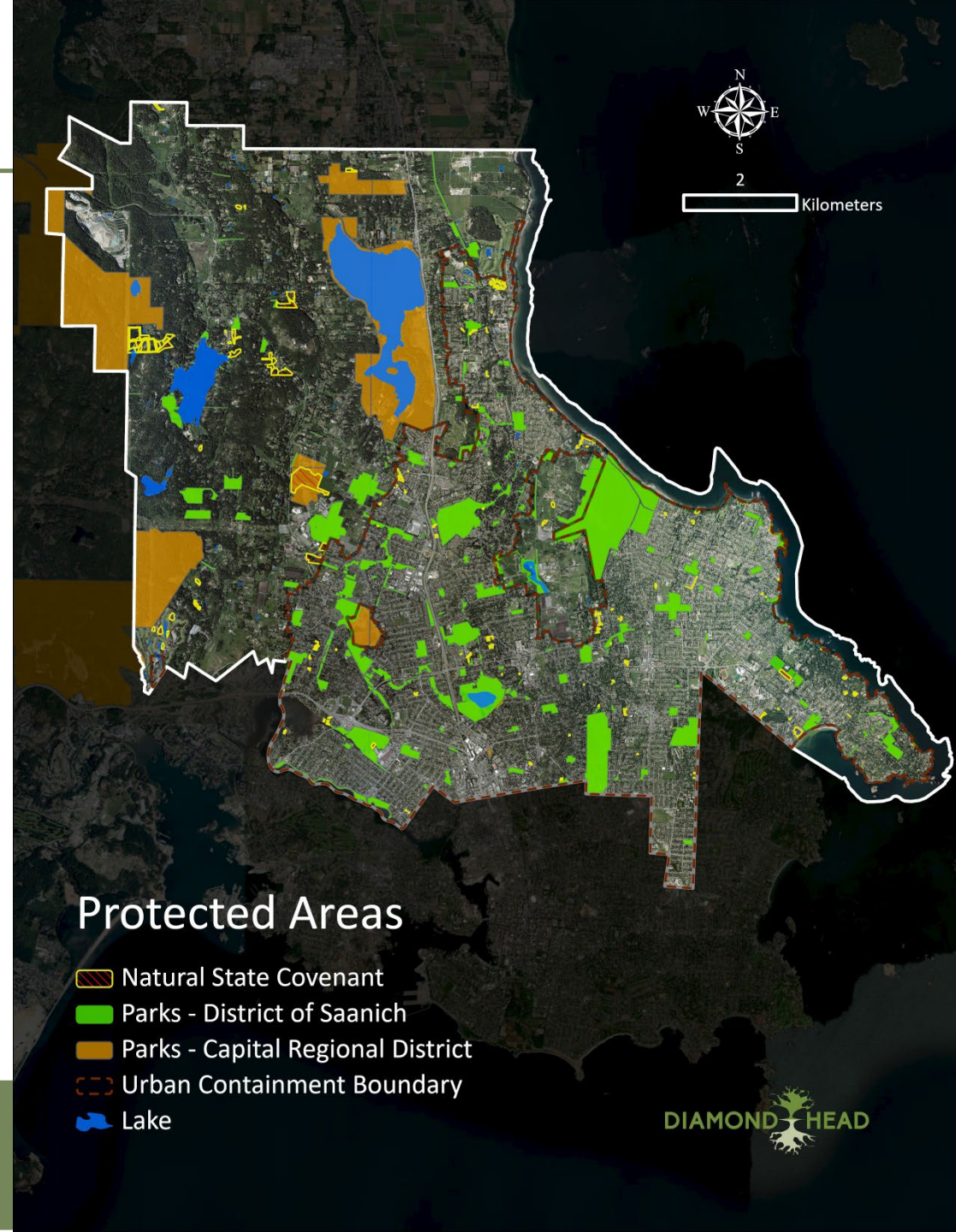
Biodiversity Ranking

- Urban Containment Boundary's effect on biodiversity
- Large, intact connected CDF forests
- Riparian areas
- Garry Oak ecosystems



Threats to Biodiversity

- Development
 - Protected areas includes: municipal parks, regional parks & private-land covenants
- Climate change & severe weather
- Sea level rise
- Invasive species
- Pests and diseases
- Impervious surfaces
- Loss of indigenous knowledge & practices
- Other human activities





Get involved

Get involved

Ongoing: UFS + BCS Questionnaires



Launched:

April 4, 2023

Closing:

May 8, 2023

- Understand community values
- Results will inform vision, principles, goals, and targets
- Questions ask about planning, managing, growing, protecting, partnering

District of Saanich Urban Forest Strategy

Introduction

Thank you for your interest in the Urban Forest Strategy!

This survey will take about 15-20 minutes to complete.

The questionnaire results will be used to help update and develop the strategic direction and priorities for Saanich's new Urban Forest Strategy.

Disclosure - Collection Notice

The District of Saanich will not collect, use, or disclose personal information using this survey. Please do not provide any third-party information (i.e. talk about others) and/or any personally identifiable information about yourself in your responses.

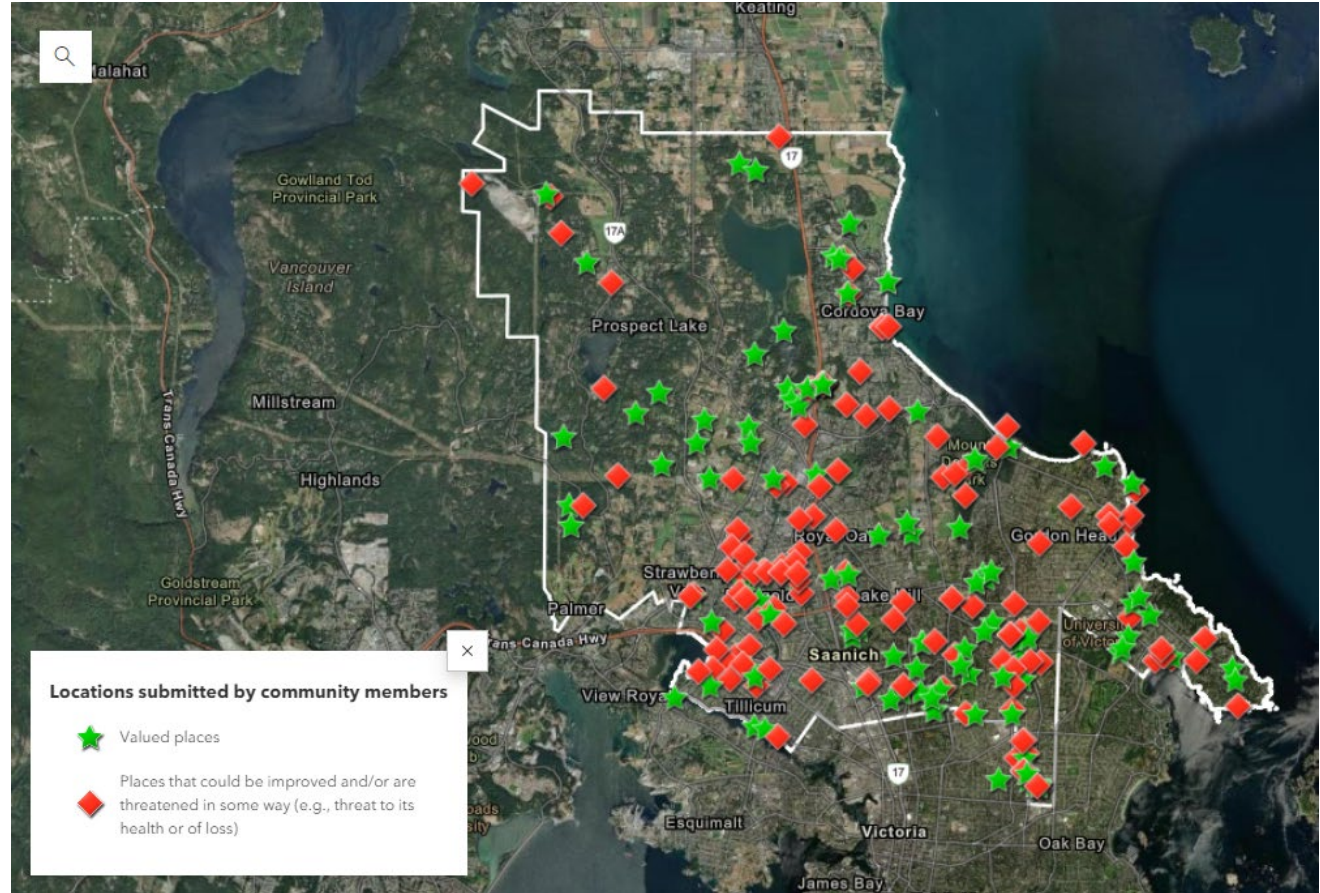
[Get involved](#)

Ongoing: Mapping Tool



Launched:
July 2022
Closing:
May 8, 2023

- Web-based tool introducing the Urban Forest Strategy update and parallel Biodiversity Conservation Strategy
- Residents can indicate places in the urban forest they value and places needing improvement
- 299 locations shared since July 2022



Get involved

Other engagement



- In-person open house: April 18
- RSTC meetings – ongoing
- Joint drop-in event with WSA NEC Leadership Council May 10
- Stakeholder workshops April 27 + 28



For more information, visit: saanich.ca/EN/main/community/natural-environment/joint-urban-forest-strategy-and-biodiversity-conservation-strategy-public-engagement.html



Q&A Session

Q&A Session



A screenshot of a Zoom meeting interface. The main window shows a 3x3 grid of participants: Jamal Jackson, Noelle Linamen, Ronnie Carter, Amy Smith, Michelle Hayes, Mary Heckler, and Bella Singh. The bottom toolbar includes icons for Mute, Start Video, Participants, Chat, Q&A, Record, Closed Caption, and Leave. The Mute icon is circled in red. A red callout box highlights the Mute and Unmute icons. Another red callout box highlights the 'Raise Hand' button in the Participants panel, with a secondary callout box showing the 'Lower Hand' button. A 'Closed Caption is available' notification is also highlighted with a red box. The bottom right corner shows a chat window with a 'Type message here...' input field.

Q&A Session

Participation guidelines



- Share the air: share your idea briefly so we can hear from more people
- Give everyone a FIRST turn before you take a SECOND turn to speak
- Use the chat if your comment is lengthy or complex



Thank you!

