

VCAN COMMUNITY MAPPING PROJECT

<https://thevcan.wordpress.com>

Final Report

March 31, 2024 to March 31, 2025

///// My Great Neighbourhood Grant funded by



Victoria Community
Association Network



GARRY OAK MEADOW
PRESERVATION SOCIETY

“The Garry Oak Ecosystem is a living artifact of my ancestors. The Lekwungen people will continue to harvest and pitcook Kwetlal for many years to come. Its importance is vital to our history, traditions and future roles and responsibilities. There is still so much work to do in regards to reinstating Kwetlal food system and cultural roles.”

- Cheryl Bryce, 2011.

“Restoring Garry oak ecosystems is partly an act of imagination, piecing together the places that once were and those that might be. Beyond our conventional relationships with the land, especially in urban areas, is the dream of integrated landscape nourished by care, respect, and diligence. Ultimately, restoring Garry oak habitat is more than protecting an ecological community; it is at least a much about renewing social community and in this way bringing the ecological and the social together.”

- Eric Higgs from the school of Environmental Studies at UVic in 2002 at a Garry Oak Ecosystem Restoration Conference



Kwetlal in April.

Table of Contents

Territorial Acknowledgement.....	4
Thank you	5
<i>Community Supporters</i>	<i>6</i>
Project Team and Attendees	7
Objectives.....	8
Community Building and Mapping	9
Methods and Methodology.....	10
<i>GIS (Geographic Information System).....</i>	<i>10</i>
<i>Statistical Analysis - Preliminary Suitable Habitat Analysis</i>	<i>11</i>
<i>Interactive web map and tutorial</i>	<i>11</i>
<i>Interactive map publication</i>	<i>11</i>
<i>Organic Maps.....</i>	<i>12</i>
<i>Printed Maps.....</i>	<i>12</i>
<i>Ground-truthing.....</i>	<i>12</i>
<i>Speakers.....</i>	<i>13</i>
<i>Walking Tours</i>	<i>13</i>
<i>Wrap Up Event and Neighbourhood Reports.....</i>	<i>13</i>
<i>Presentation materials.....</i>	<i>13</i>
<i>Media</i>	<i>14</i>
<i>Event Photos</i>	<i>14</i>
<i>Dear Developer: Invitation template</i>	<i>14</i>
<i>Expense Report</i>	<i>15</i>
Appendix	16
<i>Historical Land Survey Map 1858</i>	<i>16</i>
<i>What Remains 1800 -1997.....</i>	<i>16</i>
<i>Native Plant Communities Map</i>	<i>17</i>
<i>Tutorial.....</i>	<i>18</i>
<i>Organic Map Tutorial.....</i>	<i>18</i>
<i>Interactive Map.....</i>	<i>18</i>
<i>Statistical Analysis - Preliminary Suitable Habitat Analysis</i>	<i>19</i>
<i>Printed Maps.....</i>	<i>19</i>
<i>Ground-truthing.....</i>	<i>32</i>
<i>Speaker and Presenter Program</i>	<i>33</i>

<i>May 22 with Nature R&D speaker: Anne-Marie Daniels.....</i>	<i>33</i>
<i>June 5 Walking Tour with Dave Clark</i>	<i>34</i>
<i>June 6 with Landen Matechuk speaker, GIS Consultant</i>	<i>36</i>
<i>July 6 Walking Tour with Ryan Senechal.....</i>	<i>37</i>
<i>Sept 25 with NAM speaker: Patricia Dijak</i>	<i>40</i>
<i>Neighbourhood reports.....</i>	<i>41</i>
<i>James Bay</i>	<i>41</i>
<i>Quadra Hillside.....</i>	<i>45</i>
<i>Rockland.....</i>	<i>46</i>
<i>Downtown.....</i>	<i>48</i>
<i>Fernwood</i>	<i>49</i>
<i>North Jubilee</i>	<i>50</i>
<i>Gonzales.....</i>	<i>51</i>
<i>Fairfield</i>	<i>54</i>
<i>Vic West</i>	<i>55</i>
<i>Burnside / Gorge</i>	<i>56</i>
<i>South Jubilee</i>	<i>57</i>
<i>Oaklands</i>	<i>58</i>
<i>North Park.....</i>	<i>59</i>
<i>Event Photos</i>	<i>60</i>
<i>June 5 Walking Tour with Dave Clark, Woodlands behind Government House.....</i>	<i>60</i>
<i>July 6 Walking Tour with Ryan Senechal.....</i>	<i>61</i>
<i>Event Invite</i>	<i>63</i>
<i>Dear Developer: An Earthly Invitation template</i>	<i>64</i>
<i>Bibliography.....</i>	<i>66</i>

Territorial Acknowledgement

The Victoria Community Association (VCAN) Mapping Project took place on the traditional, ancestral and unceded territory of the ləkʷəŋən speaking peoples known today as the Songhees and Xwsepsum (Kosapsom) Nations.

The Kwetlal Food System, as it is known in ləkʷəŋən language, is also known by the colonial name, Garry oak ecosystem. The Kwetlal Food System is considered to be a living artifact by the ləkʷəŋən families who took care of this land for generations.

VCAN acknowledges that colonial maps have historically erased Indigenous cultures and territories. Historical maps based on colonial data records as well as current mapping projects in the Metro Victoria area are not completely accurate if they do not provide Indigenous input and fail to acknowledge the impacts of environmental colonialism on ləkʷəŋən land. Furthermore, there has been no mapping and analysis of the overall Kwetlal Food System and individual old-growth native oak trees—on what the municipality refers to as private property—in the region in over 20 years, presenting an obstacle to Indigenous stewardship.


VCAN is grateful to the ləkʷəŋən peoples on whose land and territory we work and reside. VCAN will work to learn more about the ongoing impacts of colonialism and encourage neighbourhoods to make room for native plants and trees as a tangible act of connecting with the territory.

háysxʷ qə 𐑭



smáyas; máwəč (black tailed deer)

Thank you

The project was funded by the City of Victoria's My Great Neighbourhood Grant (Resilience) program. A tremendous thank you goes out to the VCAN Mapping Team for your time and significant contributions to the project. 

A big thanks to our neighbourhood grant liaison, Gary Pemberton, Susanne Rautio, Gonzales Neighbourhood, for initiating the idea of a mapping project, and Landen Matechuk, Cedar Shore Tech Consulting (GIS) for mapping strategies and analysis. Our presenters and speakers; Dave Clark, Environmental Chair of the Rockland Neighbourhood Association, Ryan Senechal, Garry Oak Meadow Preservation Society, Patricia Dijak, Natural Asset Management, Anne-Marie Daniel, NatureRnD (What's the Rush). We are grateful for the letters of support from the Sierra Club of BC, The Garry Oak Meadow Preservation Society (GOMPS), and the Rockland Neighbourhood Association (RNA) who also administered the grant. We appreciate City of Victoria Councillor Marg Gardiner for joining us at the wrap-up event.

The project is obliged to the VCAN reps and the substitute volunteers. VCAN asks all the neighbourhood associations to consider a way to recognize the project, and the time, effort, and expertise of their neighbourhood volunteers.

Respectfully submitted by

Carollyne Yardley
Neighbourhood Representative, Victoria Community Association Network
Director, Rockland Neighbourhood Association (RNA)

Dave Clark
Environmental Chair, Rockland Neighbourhood Association (RNA)

Community Supporters

City of Victoria, My Great Neighbourhood Grant

<https://www.victoria.ca/city-government/city-grants/my-great-neighbourhood-grants>

Gary Pemberton, Neighbourhood Grant Liaison

gpemberton@victoria.ca

Victoria Community Network Association

<https://thevcan.wordpress.com>

Rockland Neighbourhood Association

<http://www.rockland.bc.ca>

Garry Oak Meadow Preservation Society

<https://www.garryoak.info>

Sierra Club BC

<https://sierraclub.bc.ca>

Project Team and Attendees

Jen McKillop, Steve Beffort
Sandra Severs
Astrid Frayne
Jan Firstbrook
Susanne Rautio
Alan Dibb, Nic Humphries
Carollyne Yardley
Dave Clark
Kathryn Pankowski, Jacklyn Jolicoeur
Terry Loepky, Darrel Woods, Vivian Welling, Norman Hoffman, and Wayne Peterson
Ken Wong, Deirdre Gotto, Anne Christensen
Rowena Locklin, Matt Takach
Susan P. Wetmore
Andrea
Katie Fillion
Patti Parkhouse
Wendy Harmer
Tamara Bonnemaision
Brenda Turner

Landen Matechuk

Anne Marie Daniel
Dave Clark
Ryan Senechal
Patricia Dijak

Councillor Marg Gardiner
Judith Carder
Dawn Moorhead
J Munn
Don Monsour
Leslie Kenny
Mike Medland
Trevor Moat
Avery Stetski
Courtney Miller
Daniel Powell
Tyler Akis

Neighbourhoods

Burnside-Gorge (Subs)
Downtown
Fairfield (Sub)
Fernwood
Gonzales
Gonzales (Subs)
Rockland (Co-chair Land Use)
Rockland (Environmental Chair)
James Bay (Subs)

Hillside/Quadra (Subs)
Hillside/Quadra
South Jubilee
North Jubilee
North Park
Vic West
Vic West (Sub)
Vic West (Sub)
Oaklands

GIS Consultant and Presenter

Cedar Shore Tech Consulting

Presenters

Nature R&D (What's the Rush)
Rockland Neighbourhood Association
Garry Oak Preservation Society
Natural Asset Management

Attendees

City of Victoria
Garry Oak Meadow Preservation Society
Downtown
Hillside/Quadra
Fairfield
Quadra/Hillside
Vic West
James Bay
Burnside Gorge
North Park (Land Use Planning)
Fairfield
Fernwood

Objectives

The VCAN Mapping project began as a conversation about the distribution of biodiversity within and between the City of Victoria's neighbourhoods. The project was executed between March 2024 through March 2025. To complement the City's excellent inventory of all trees on public land, VCAN involved each neighbourhood (Burnside/Gorge, Vic West, Fairfield/Gonzales, Oaklands, Rockland, North Jubilee, South Jubilee, Fernwood, James Bay, North Park, Downtown, Hillside/Quadra) in an inventory of Garry oaks and other elements of the ecosystem on private property. Each neighbourhood developed their own approach and will be reporting back to residents on what they learned about the larger patterns within the urban forest. Individual reports are listed in the Appendix.

The urban area of the City of Victoria *is* the Garry oak ecosystem (GOE)—a fact often left out of discussions on the urban forest. The Garry oak ecosystem, or Kwetlal food system in the lək'wəŋən language, has been shaped by Indigenous agroecological management for thousands of years and emerged after the glacial retreat around 10,000 years ago. Prior to European settlement, most of the land now within the City of Victoria (with the exception of the shorelines and the low-lying riparian areas), supported the Garry oak ecosystem. The open woodland character resulted from millennia of lək'wəŋən land management and harvesting. In the absence of these activities, the landscape would be dominated by closed stands of Douglas-fir and Grand fir.

The Garry oak (GO), a long-lived keystone species, **currently supports** over 1,645 co-evolved species of plants, insects, amphibians, reptiles, birds, and mammals, making its preservation crucial. GO and associated ecosystems in this region have a unique local genetic adaptation would be difficult to re-introduce if lost. With continued intentional inputs drawing from lək'wəŋən knowledge, human and non-human populations may continue to benefit from this highly adaptable and long-lived plant community.

Objectives of the project included:

- to increase awareness of cultural connections to the territory and impacts of settlement on the landscape.
- to create opportunities for Victoria residents to connect with the natural urban environment.
- to create a more complete map of the current distribution of Garry oaks and other elements of biodiversity.
- to identify wildlife corridors that facilitate the movement of organisms between large nodes of complex, functioning ecosystems.

We hope that this continuing improvement in our understanding of the food system/ecosystem can inform initiatives such as ecological and cultural restoration, urban development, parks acquisition, and canopy equity across the city.

Community Building and Mapping

Garry oak ecosystems (GOE) were last mapped in 2006. The scale of recent land use changes has accentuated the need to foreground how smaller fragments of urban green space can be thought about as locations of conservation for the Garry oak forest to facilitate the distribution of ecosystems services, scaffold urban forest connectivity, and empower community members in stewardship opportunities. The project helped us consider potential areas for future natural areas restoration. Neighbourhoods helped each other with mapping methods and strategies. Presentations brought us conversations about cultural spaces, trees from pre-settlement managed lands, and how ecological and social ecologies intersect. It helped us ask: How do we connect people to this place rather than just through conservation and biodiversity? How do you preserve something that is not rightfully yours?

We learned that over 75% of the urban forest is on private lands and how old-growth individuals (defined as being over 250 years old according to provincial definitions), some over 500 years old, persist in parks and neighbourhoods, vibrating with the rich cultural history of the lək'wəŋən territory. Together, we considered what it takes for another species to survive. We have had some fantastic outcomes and deliverables through community-building. We learned about the uniqueness of each neighbourhood and thinking about how we can improve migration corridors and canopy equity. We realized this is not easy to achieve, but we felt it was possible by working together and inviting others to join us.

Wildlife-inclusive city planning and design, which views wildlife habitat and well-being as part of a healthy urban system, requires collaboration across disciplines. Urban policy, planning and design can only adequately address wildlife citizens by considering the views of experts such as arborists, ecologists, Indigenous consultation and land management, and citizen scientists who can advise and provide cultural and technical expertise and biologically relevant data to inform the urban forest strategy and renewal. However, the implementation of the Urban Forest Master Plan (UFMP) priorities also requires the ongoing commitment of the Council and staff leadership to revisit and act upon the UFMP's priority recommendations to demonstrate good governance in urban forestry leadership.

Methods and Methodology

Phase 1 of the project focused on creating an interactive web map, designed to be both accessible and editable by community members. This digital platform enabled users to contribute directly to the mapping effort by drawing polygons or adding points, each accompanied by details explaining the area's significance. These contributions highlighted existing notable locations or suggested potential areas for future park development. Additionally, for those who preferred traditional mapping methods, there was an option to mark areas of significance on paper maps. These physical submissions were then digitized and integrated into the collective online map, ensuring a comprehensive and inclusive approach to data collection. This phase was critical for capturing the community's input and fostering a participatory environment where everyone's voice could contribute to the conservation and enhancement of the Garry oak ecosystem (Matechuk, VCAN Proposal).

GIS (Geographic Information System)

The primary objectives of this phase was to identify areas of significance as recognized by each neighbourhood. This involved a comprehensive collection of data, which was then converted into a format conducive to advanced analytical processes. The transformed data is compatible with GIS (Geographic Information System) software, including QGIS, enabling detailed spatial analysis and visualization (Matechuk, VCAN Proposal).

Deliverables

- Interactive web map (web)
- Video and written tutorial on how to draw polygons or points on google maps. (.pdf)
- Organize, compile, and convert data into format for further analysis and mapping.
- Statistical Analysis - Preliminary Suitable Habitat Analysis (.pdf)

The data was organized and compiled into community mapping layers (.kmz files) that can be connected to QGIS (free) desktop software for further analysis. Further analysis and mapping can explore the correlation and proximity to parks and open spaces, water areas, vegetation, and elevations. Zoning, development areas that have four floors or higher could be examined to tell the story of the seed distribution (for example if an apartment building is blocking seed distribution), sun and wind exposure. Field work, pictures can identify suitable areas for growing. This new community-built data has an opportunity to be the most comprehensive data set to exist to date.

Statistical Analysis - Preliminary Suitable Habitat Analysis

Preliminary statistical analysis of environmental characteristics at mapped Garry Oak Tree locations, Kernel Density Heat Map, Statistical Analysis of Habitat Characteristics, and a Statistical Analysis of Anthropogenic Characteristics.

[Preliminary statistical analysis of environmental characteristics at mapped Garry Oak Tree locations \(.pdf\) \(Cedar Shore Consulting\)](#)

(Appendix “Statistical Analysis”)

Interactive web map and tutorial

An interactive Google Map was created by Landen Matechuk, Cedar Shore Consulting, the GIS consultant. Layers from the City of Victoria’s public tree data were added to the online map.

- Garry oak trees
- Parks and open spaces
- Greenways, and sensitive ecosystems

A video and written tutorial was drafted for adding individual tree points and polygons.

[VCAN Mapping Tutorial \(.pdf\)](#)

See Appendix “Tutorial”

Interactive map publication

For Phase 1 publication, we duplicated the interactive map with a separate login and limited the ability to edit enabling the map to be shared. Many neighbourhoods were eager to continue adding data to the online Google map. Therefore, the original Google map continues to be available to project members

Public website address: <https://tinyurl.com/VCAN-GARRY-OAK-MAP>

(Appendix “Interactive map”)

Organic Maps

Ken Wong from Hillside/Quadra generously supplied the team with a tutorial (.pdf) on how to use the free phone app Organic Maps, including importing and exporting data, which he created. This additional method and tutorial was greatly welcomed by the team, many who are incorporating into future projects.

[Ken Wong's Organic Maps Tutorial \(.pdf\)](#)

(Appendix "Organic Map Tutorial")

Printed Maps

Utilizing the online Google Map and layers, screen captures were taken of parcels and sewn together in Photoshop CC to create a large /jpg image of each neighbourhood. These high resolution files were sent to The Print Lab and printed on their large format printer on photo paper (not waterproof) at 44" wide and varying lengths (depending on size of neighbourhood km²). These maps were collected from the printer and delivered to each neighbourhood rep. Neighbourhood reps then used these analogue maps to mark and apply stickers in a playful and tactile process and then duplicated their findings to the online Google map. We discovered that a tactile map was more accessible to start the mapping process. These maps were returned to each neighbourhood (post wrap up event) and can be used for future community planning discussions. James Bay Neighbourhood suggested using a mylar layer to mark the maps up with pens. This mylar method could also have printed elevations, waterways etc.

(Appendix "Printed Maps")

Ground-truthing

Participants walked and cycled to ground-truth the existence of individual Garry oak trees on private property and larger areas making notes on both smaller printed maps (from smaller .jpg images on home printers) and also the large printed maps. The James Bay neighbourhood, for example, included other native species such as Arbutus.

(Appendix "Ground-truthing")

Speakers

Monthly VCAN Zoom meetings allocated 10-15 minutes for three speakers:

- May 22 with Nature R&D: Anne-Marie Daniels, What's the RUSH Mapping
- June 6 with Cedar Shore Consulting: Landen Matechuk, GIS Consultant
- Sept 25 with Natural Asset Management: Patricia Dijak, Facilitator

(Appendix "Speakers")

Walking Tours

- June 5 Walking Tour: Woodlands (Rockland), behind Government House, with Dave Clark
- July 6 Walking Tour: Kings Park (Fernwood, formerly a residential lot inhabited by pre-colonial Garry oaks) with Ryan Senechal

(Appendix "Walking Tours")

Wrap Up Event and Neighbourhood Reports

The wrap up event was on November 16, 2024. Neighbourhoods were encouraged to send out the digital event invite through their association and social media networks. Neighbourhood representatives brought the large printed maps, and hung them on the walls of the NeighbourSpace (709/711 Douglas Street). Each neighbourhood rep was then provided 3-5 minutes to introduce their methods and describe the three potential areas for future conservation and nature park development. There were several approaches to this idea. Please read the Appendix for each neighbourhood report.

(Appendix "Wrap Up and Reports")

Presentation materials

The wrap event opened up with a PPT slide presentation by Carollyne Yardley, Rockland Neighbourhood. A presentation slide deck was designed, printed (Monk Office Supply), and on display by Jacklyn Jolicoeur, James Bay neighbourhood.

(Appendix "Slides")

Media

The VCAN Community Mapping project received its first media mention via the National Observer website, during an interview with Patricia Dijak about what gives her hope.

“Integrating the benefits of nature”

<https://www.nationalobserver.com/2024/12/04/opinion/benefits-nature-cities>

Event Photos

- May 22 with Nature R&D speaker: Anne-Marie Daniels (online)
- June 5 Walking Tour with Dave Clark (photo)
- July 6 Walking Tour with Ryan Senechal (photo)
- Sept 25 with NAM speaker: Patricia Dijak (online)
- Nov 17 Wrap up Event (photo)

(Appendix “Event Photos”)

Dear Developer: Invitation template

The scale of land use changes in the City of Victoria created a discussion by the VCAN Mapping Team on how start a conversation about the Garry oak ecosystem with market actors like builders and developers. The City of Victoria’s Tree Protection Bylaw (2021) and Urban Forest Master Plan (2013) were created before the “Victoria 2050” Draft OCP (2025) and does not account for increased building footprints and heights. Therefore, there will likely be updates to these documents.

In the meantime, this invitation serves as a starting point for conversation, to create cultural and ecosystem awareness, and to maintain and enhance a healthy canopy and ecosystem through collaboration.

The document is available as a Word (.doc) template. Each neighbourhood can insert their logo, and percentage of canopy cover using data from the included charts.

(Appendix “Dear Developer: Invitation template”)

Expense Report

The project received \$7500 from My Great Neighbourhood Grant (Resilience), City of Victoria.

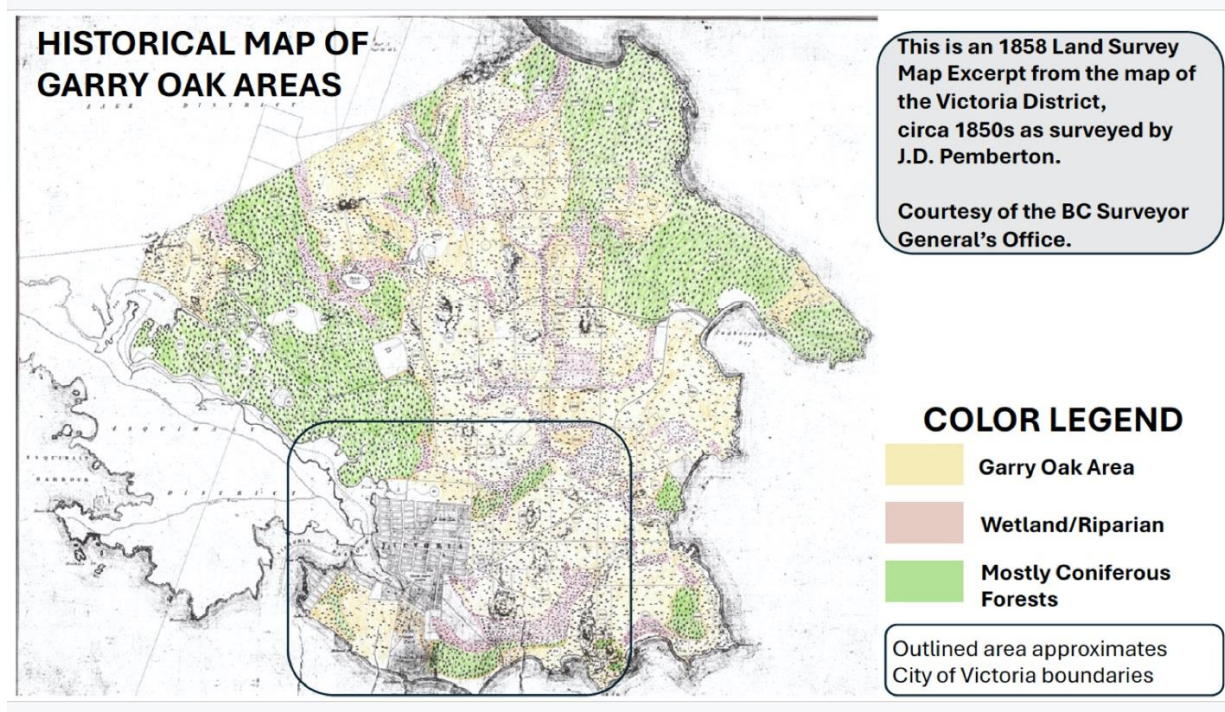
Volunteer hours reported total: 966

Expense report and receipts submitted as a separate attachment (.pdf) to email:

VCAN Phase 1_invoices.pdf

Appendix

Historical Land Survey Map 1858

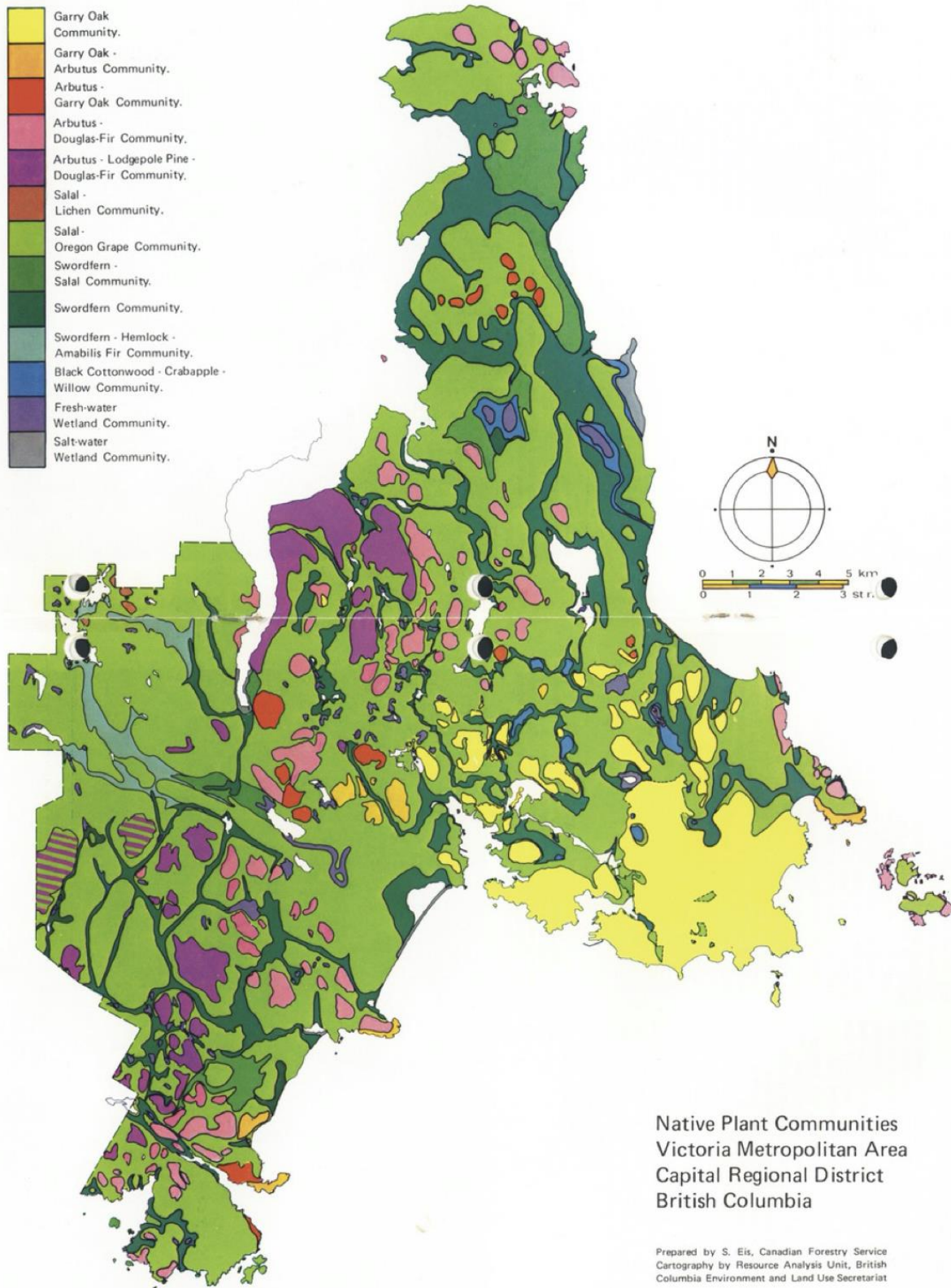


What Remains 1800 -1997

Area	Year: 1800 (Cover in hectares)	Year: 1997 (Cover in hectares)
Victoria	1,460	21
Oak Bay	850	25
Saanich	3,473	192
Central Saanich	740	7
Sidney	30	0
North Saanich	1,040	1
Esquimalt	470	20
Colwood	320	16
Langford	370	105
View Royal	270	39
Metchosin	1,180	49
First Nations	240	37
Total	10,443	512

Garry Oak Ecosystems Recovery Team. <https://goert.ca/about/what-remains>

Native Plant Communities Map



Tutorial

Cedar Shore Tech Consulting (.pdf)

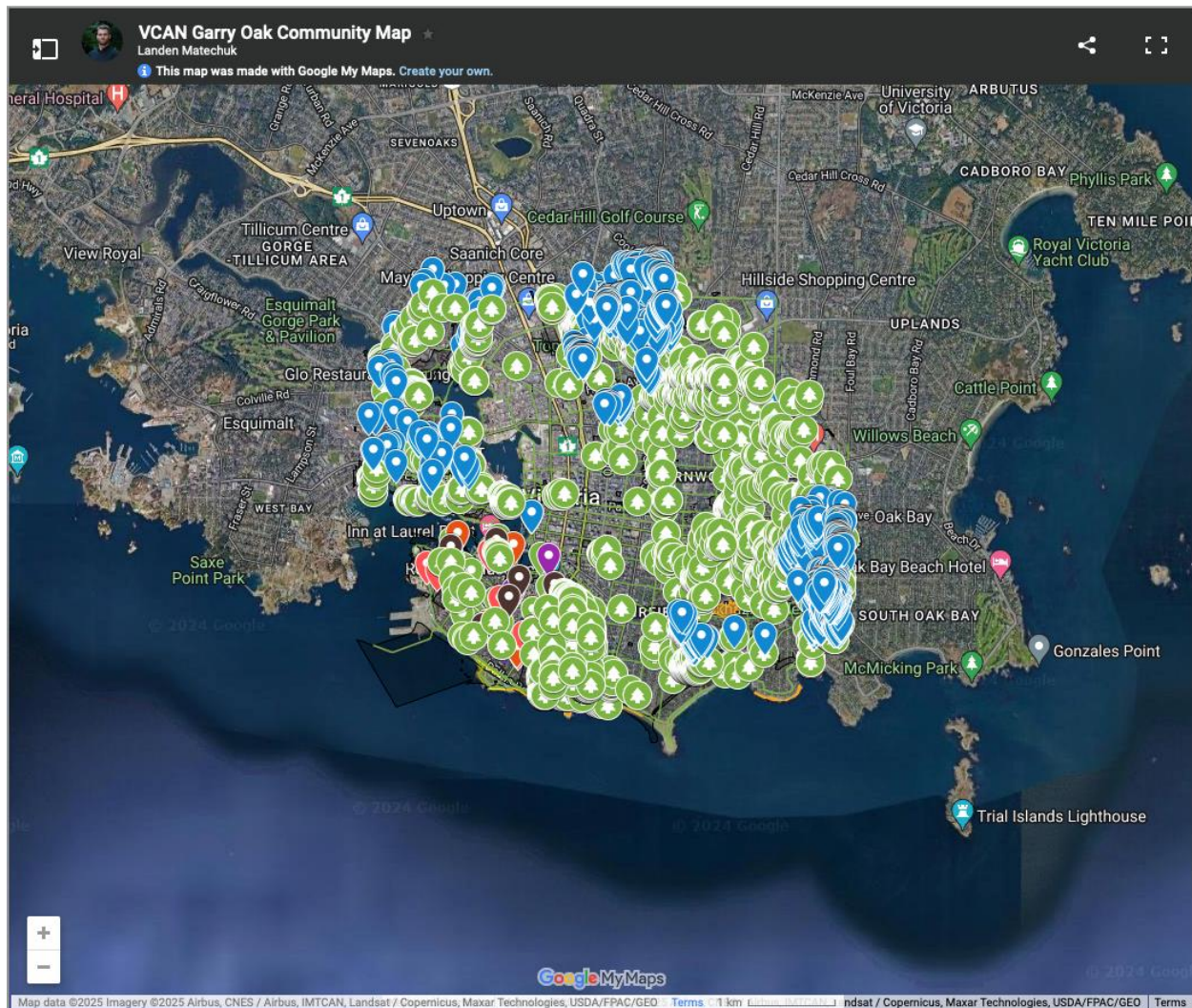
[VCAN Mapping Tutorial \(.pdf\)](#)

Organic Map Tutorial

Ken Wong (Hillside/Quadra)

[Ken Wong's Organic Maps Tutorial \(.pdf\)](#)

Interactive Map



Public website address: <https://tinyurl.com/VCAN-GARRY-OAK-MAP>

(https://www.google.com/maps/d/viewer?mid=1Vr2_7gq4tPb9pTQHIDvbMaY2ee9f9bs&ll=48.42711329212972%2C-123.359630699999998&z=14)

Embed Code to insert into a website:

<iframe

src="https://www.google.com/maps/d/embed?mid=1Vr2_7gq4tPb9pTQHIDvbMaY2ee9f9bs&ehbc=2E312F" width="1040" height="880"></iframe>

Publication address: <https://www.garryoak.info/news/november-24th-2024>

Potential publication addresses

- Victoria Community Neighbourhood Association: <https://thevcn.wordpress.com>
- Rush Initiative: <https://whatstherush.ca>
- Rockland Neighbourhood Association <http://www.rockland.bc.ca>

Statistical Analysis - Preliminary Suitable Habitat Analysis

[Preliminary statistical analysis of environmental characteristics at mapped Garry Oak Tree locations \(.pdf\) \(Cedar Shore Consulting\)](#)

Printed Maps





VCAN Mapping Project
Downtown Neighbourhood

Downtown Neighbourhood

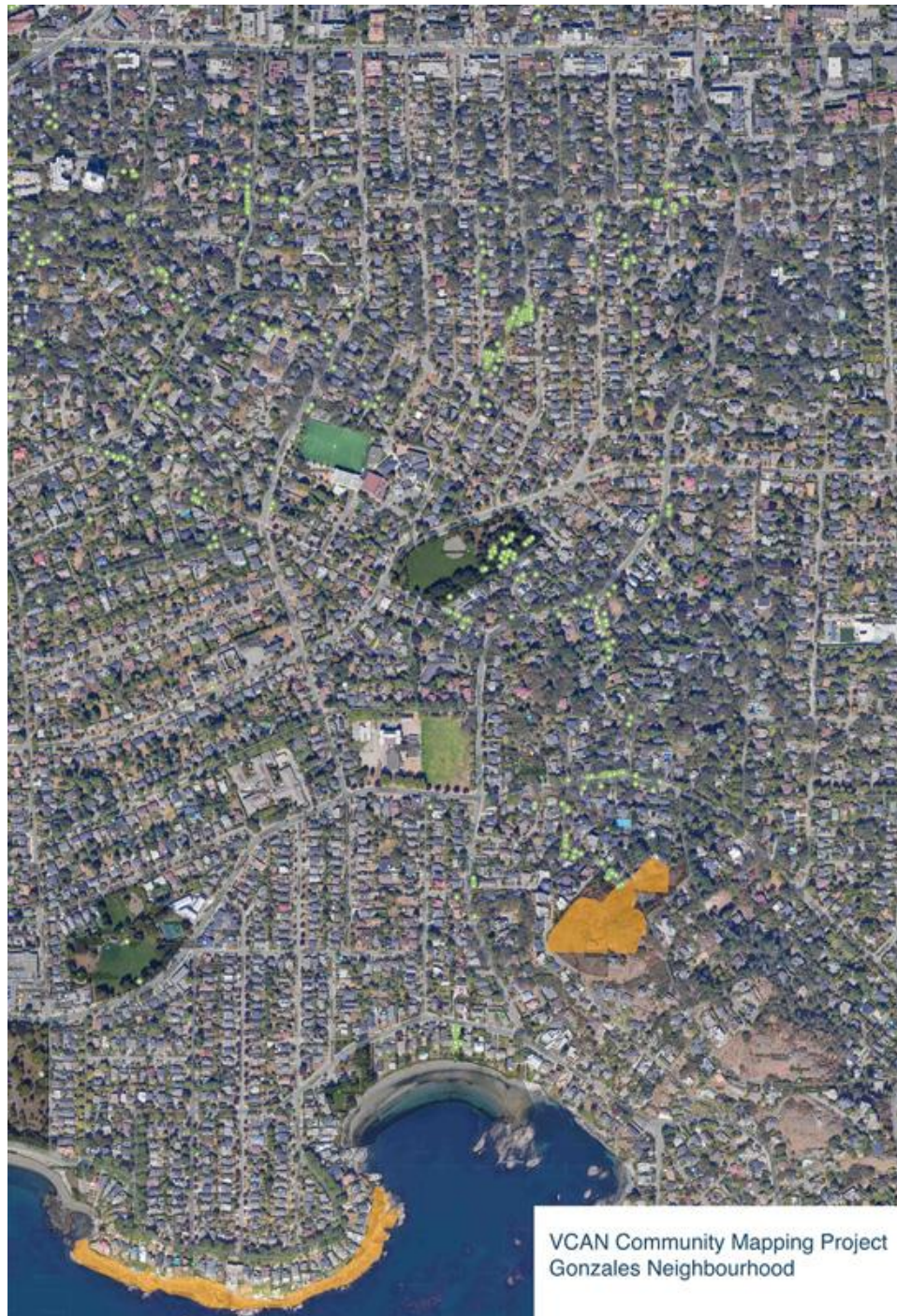


VCAN Mapping Project
Fairfield Neighbourhood

Fairfield Neighbourhood



Fernwood Neighbourhood



Gonzales Neighbourhood

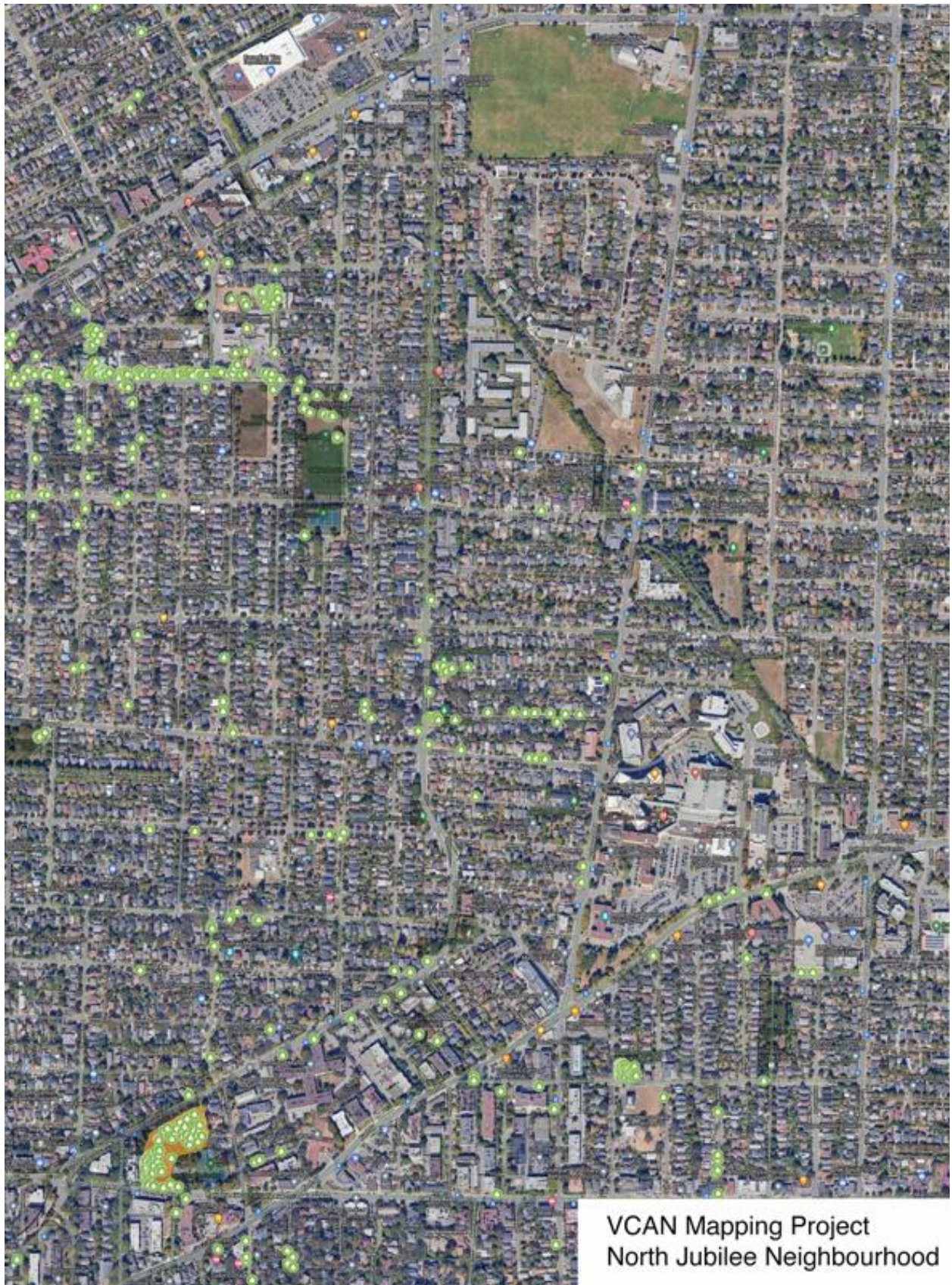


Hillside/Quadra Neighbourhood



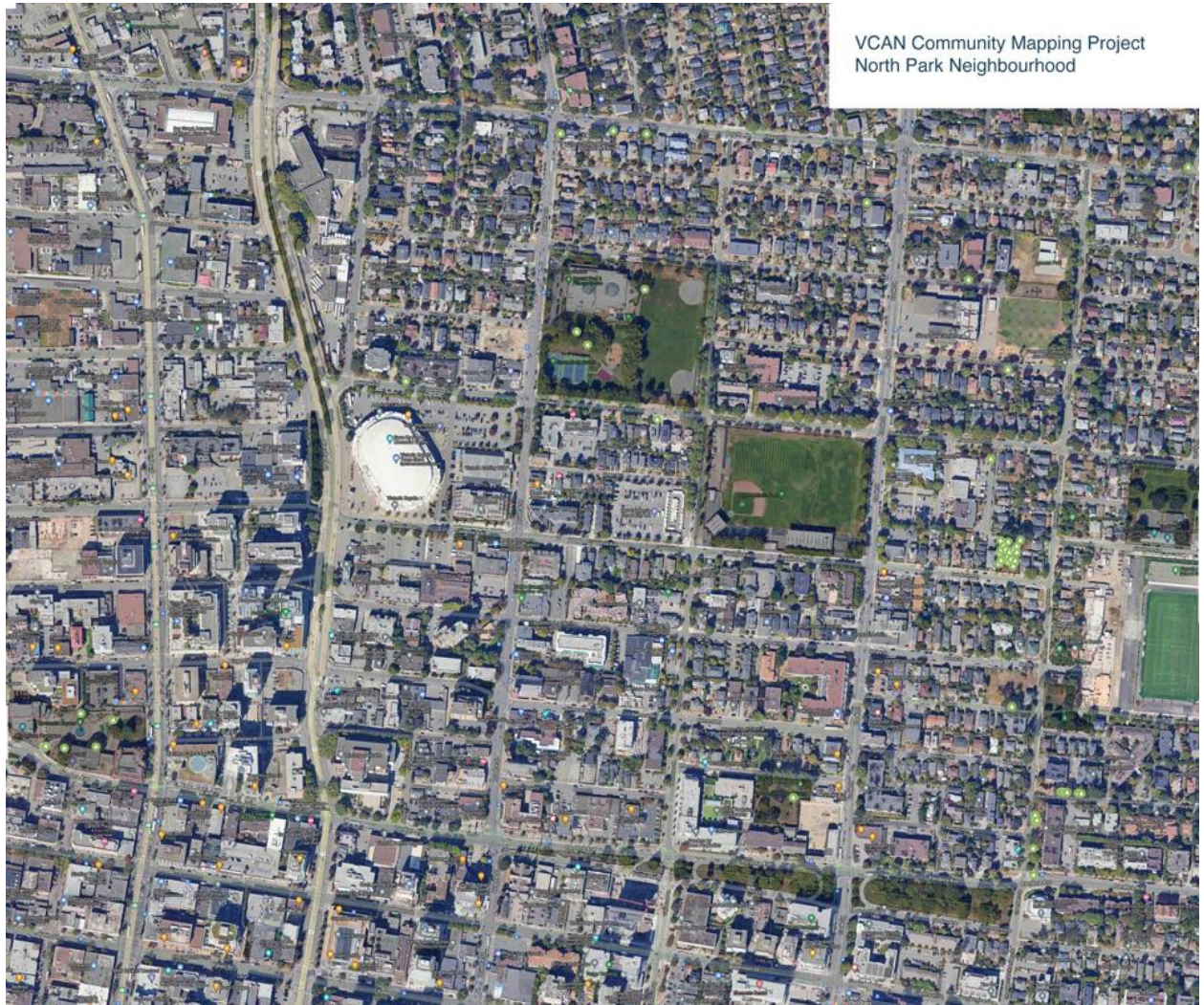
VCAN Community Mapping Project
James Bay Neighbourhood

James Bay Neighbourhood



VCAN Mapping Project
North Jubilee Neighbourhood

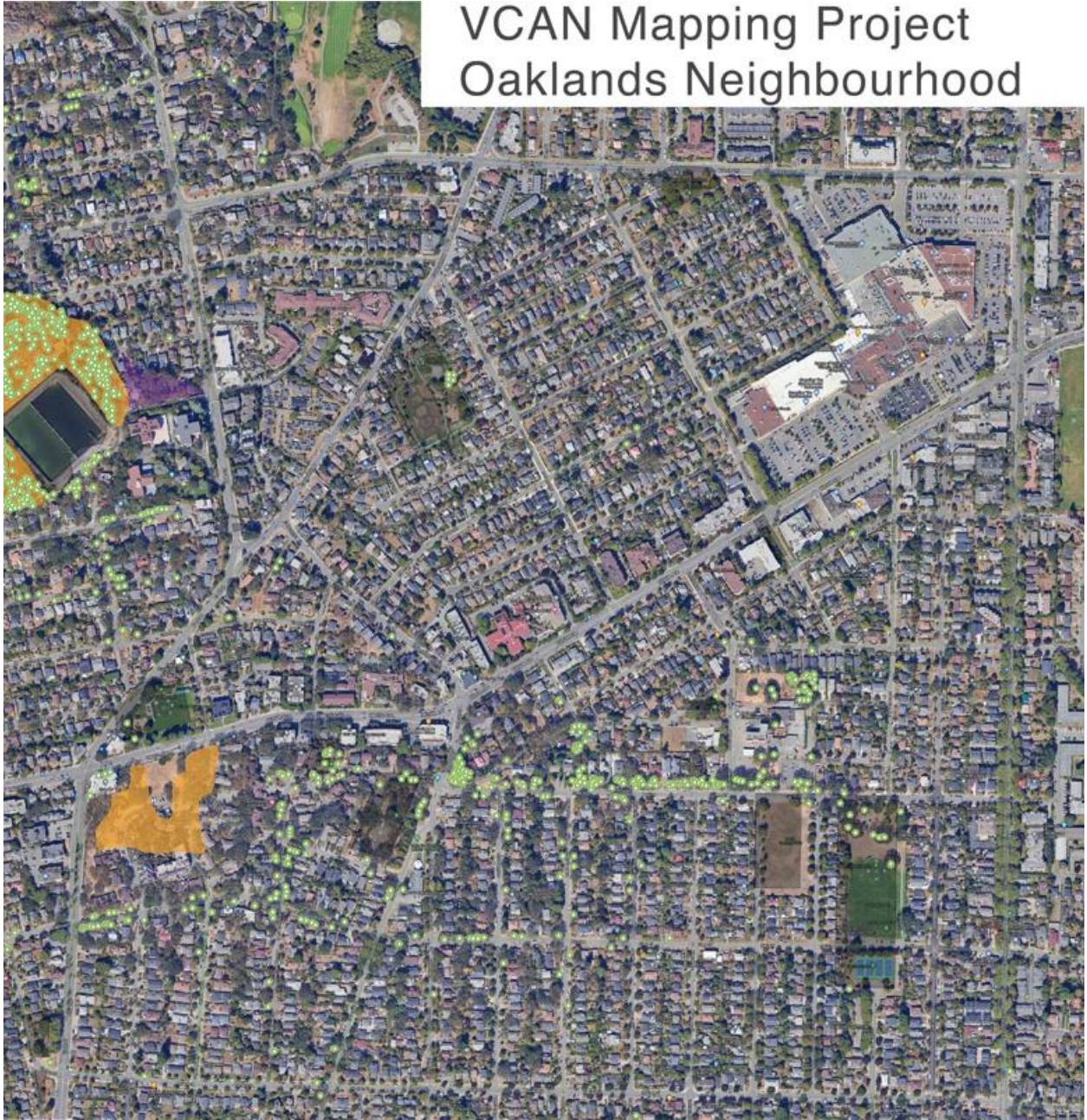
North Jubilee Neighbourhood



VCAN Community Mapping Project
North Park Neighbourhood

North Park Neighbourhood

VCAN Mapping Project Oaklands Neighbourhood



Oaklands Neighbourhood



Rockland Neighbourhood

VCAN Mapping Project
South Jubilee Neighbourhood



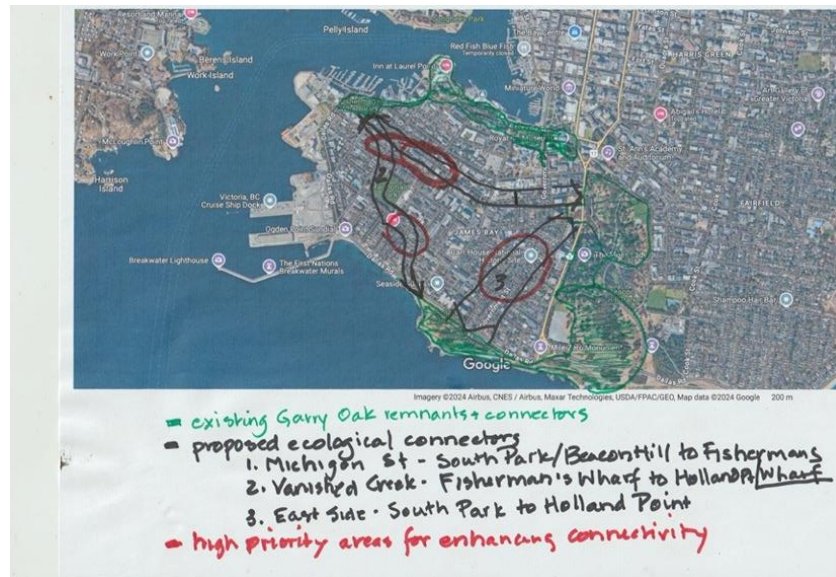
South Jubilee Neighbourhood



VCAN Mapping Project
Vic West Neighbourhood

Vic West Neighbourhood

Ground-truthing



James Bay Neighbourhood: Example of smaller map for fieldwork



James Bay Neighbourhood: Example of large map for fieldwork

Speaker and Presenter Program

May 22 with Nature R&D speaker: Anne-Marie Daniels

What: What's the RUSH Mapping

<https://whatstherush.ca>

When: Wednesday, May 22, 2024, 6:30 pm

Where: VCAN Meeting via Zoom

Event Description

- Review the RUSH website and hope to enter a collaborative partnership to help mapping resilience.
- Feedback loops and connected systems with citizen science tools. Observable, measurable, and replicable collective action with results.
- Publishing location for VCAN Community Map

Attendees

Avery BGCA	Mike Medland, VWCA
Susanne Rautio, GNA	Don Monsour, FGCA
Daniel Powell, FGCA	Susan Westmore, SJNA
Susan Westmore, SJNA	Matt Takach, Hillside / Quadra
Trevor Moat, James Bay	Courtney Miller, NPNA, Land Use Planning Advisor
Carollyne Yardley, RNA	

June 5 Walking Tour with Dave Clark

What: Garry oak meadow walking tour with Dave Clark, retired forester

When: Wednesday, June 5, 2024, 6:30-7:30pm

Where: Government House Woodlands

Event Description:

Dave Clark serves as the Environmental Chair for the Rockland Neighbourhood Association, bringing with him extensive experience in BC wildlife habitat and forestry. As part of his commitment, Dave will graciously lead a guided tour of the Garry oak meadow (Woodlands) located behind Government House in the Rockland Neighbourhood. Notably, Dave assisted in the development of the City of Victoria Urban Forest Master Plan. During this opportune time of the year, the kwetlal (camas) blooms vibrantly. Throughout the tour, Dave will impart valuable knowledge on identifying Garry oaks, observing new seedlings, and contemplating the significance of connectivity and urban wildlife corridors in this region for the VCAN Community Mapping Project.



June 5 Walking Tour with Dave Clark, Woodlands behind Government House

- Three major ecosystems for Garry oak tree (GOT)
 - o Scrubby shallow (can be as old as big ones, “bonsaied” by conditions)
 - o Deep meadow soil
 - o Ocean spray
- Google or Vic Maps

- Properties link and move animals and plants
- ie, links from Beacon Hill, Gonzales Hill, Belmont, Oaklands, Summit Hill, Moss, etc.
- Satellite
- Urban Forest Tree Canopy 2013/2019
- Greenway network
 - Wildlife pathways
 - Pedestrian
- Air photo library

Next steps:

- Create a map with layers
- Organized by neighbourhood
- Data in a format that will provide future analysis
- Connecting corridors
- Open source QGIS embed points

Can join Friends of Government House if interested in restoring the Woodlands.

<https://fghgs.ca/become-a-member/>

Attendees

Carollyne Yardley Dave Clark	Rockland
Sandra Severs and Don Collett	Downtown
Brenda Turner	Oaklands
Matt Takach Rowena Locklin Deirdre Gotto (sub) Al Galuppe (sub)	Hillside-Quadra
Jan Firstbrook	Fernwood
Kathryn Pankowski (sub)	James Bay
Nic Humphries (sub)	Gonzales
Susan Wetmore	South Jubilee
Jen McKillop (sub) Steve Beffort Kevin Poll (sub)	Burnside-Gorge
Landen Matechuk	GIS consultant

June 6 with Landen Matechuk speaker, GIS Consultant

What: Methods and Methodology tools review

When: Wednesday, June 26, 2024, 6:30pm

Where: VCAN Zoom Meeting

VCAN Online Mapping Tutorial 2024.06.24.pdf (supplied to all via email)

- [Link to Map](#)

Attendees

Sandra Severs (DRA) Carollyne Yardley(RNA), Brenda Turner (OCA), Trevor Moat (JBNA), Susan Wetmore (SJNA), Daniel Powell (FGCA), Matt Takach(HQNAC), Rowena Locklin (HQNAC), Dave Clark (Rockland), Susanne Rautio (Gonzales), Jan Firstbrook (FCA), Mike Medland (VWCA), Tyler Akis (FCA)

Guest- Councillor Dave Thompson, Landen Matechuk (GIS Consultant)

July 6 Walking Tour with Ryan Senechal

What: Garry oaks in a Kings Park (Fernwood, formerly residential lot)

When: Saturday, July 6th, 10:30 am to 12:00 pm

Location: Kings Park (Fernwood), 1150 Caledonia Avenue, Victoria, BC V8T 1G1

Map attached: Meet at the Squirrel

Event Description:

Ryan Senechal, arborist/urban forester and Board President of the Garry Oak Meadow Preservation Society will take us on a nature walk at Kings Park, a city park in the Fernwood Neighbourhood (bordering North Park) to discuss how smaller fragments of urban green space can be thought about as locations of conservation for the Garry oak forest to maximize ecosystems services distribution, scaffold urban forest connectivity, and empower community members in stewardship opportunities.



*July 6 Walking Tour with Ryan Senechal
Pre-colonial Garry oaks in a Kings Park (Fernwood, formerly residential lot)*

Ryan Senechal, Bio – Consulting arborist/urban forester – Board President – Garry Oak Meadow Preservation Society – Humber College Urban Arboriculture, UBC MUFL – UBC Faculty of Forestry sessional lecturer (UFOR) – International Society of Arboriculture Test Committee member.

- Cultural spaces. Old growth Garry oaks are here (175, 500 years old).
- Context of cultural integration
 - o Urban indigenous youth, direct connection to ancestors
- Kings Park contains native oak trees that are from pre-settlement managed lands
- This is what old growth trees look like. They were managed through Indigenous (Lekwungen) fire regimes. Rich cultural history of this place.
- Wood core sample is 75 years old (see tight packed rings)
- How do we connect people to this space rather than just conservation and biodiversity?
 - o ecological and social ecologies intersect
- Lot contains previous house (land donated by resident estate), City managed, Garry oak trees added (10 years old), some stewardship.
- Trees are 175 to 200 years old (resistant drilled), one is 500 years old (about 7 mature trees) and 8 new trees.
- Passing on of Indigenous tradition requires these spaces. Temporal connection, needs to be acknowledged in forestry and prioritize for the continuation, passing of knowledge, connection as traditions changing (a stand-alone meadow as connector).
- Requires collaboration and participation in planning and design. Takes collective to be stewarded.
- Concerns about branch failure, ages, abilities, trees, and reluctance to plant larger trees in these spaces disappear.
- Deer assists with fertilization as they have for thousands of years
- More benches, and kwetlal planting and leaf drop, elevated accessible tree platform, signage (interpretive), watering.
- Plan to plant native plants around the 500-year-old tree has not occurred (needs community support and hands in the soil).
- Approach in governance to discuss with City

Goals

- Root system protection
- Platform shade side of tree
- Participation in management
- Volunteer hands in the ground
- Kwetlal food ecosystem regrowth, community gardening
- A single tree has structure for life cycles of many organisms, they have been co-evolving for over 10,000 years. Trees were here before development, and some organisms needs connected canopy. Every tree is important.
- Old stumps provide wood decomposition also important for organisms.
- Balancing public safety.
- Canopy growth is socially important, and dismissing is when we are at our worst.
- Garry oaks not planted on boulevards as much anymore (size, acorns “issue”), even though they are drought resistant, provide dappled shade, tough, and tolerant. Can grow surrounded by concrete (since they can appear to grow out of rocks)
- Look to Capital projects for downtown, etc.
- Laurel Point (see Lekwungen).
- Vernal pools.
- Three major ecosystems for Garry oak tree (GOT)

- Scrubby shallow (can be as old as big ones, “bonsaied” by conditions)
- Deep meadow soil
- Ocean spray

Measures

- Canopy assessment
 - Ecosystem services (measure tree inventory) each neighbourhood
 - Climate adaption, mitigation
 - Housing displacement/affordability
 - Loss of green space vs offset contributions
- When it does not work (ie 18 mature English oaks taken down and replaced with lilacs that are currently not doing well, not providing ecosystem service.
 - Only aesthetic benefits

Participants (to date)

Carollyne Yardley	Rockland
Sandra Severs	Downtown
Brenda Turner	Oaklands
Rowena Locklin Deirdre Gotto	Hillside-Quadra
Jan Firstbrook	Fernwood
Kathryn Pankowski	James Bay
Susanne Rautio	Gonzales
Andrea	North Jubilee
Katie Fillion	North Park

Sept 25 with NAM speaker: Patricia Dijak

What: Natural Assets Management Presentation

When: September 25th

Where: Zoom VCAN Monthly Meeting

Event Description: "NAM Allies" was the group suddenly formed in summer 2024 with a simple request: to ask CRD local gov'ts to sign up for NAM & support principles of:

- Natural Assets Initiative: <https://naturalassetsinitiative.ca/>

- Stewardship Centre for BC: <https://stewardshipcentrebc.ca/>

- Housing, Climate Resilience and Nature based Solutions
- Examples Planning Levels of Community Service
- Levels of Service Targets
- Must be included in the OCP
- Have ecologists involved in urban design
- Sign up for NAM training
- Ask for Form and Character DPAs for all housing
- Ask for 40% Natural/Green Space for new developments
- See screen capture
- Bird friendly design guidelines in DPA (ie MMHI)
- Can send in support as neighbourhood or as VCAN until October 11, 2024
sustainability@victoria.ca
- Question about Hydro and large species trees

Attendees

Avery Stetski Burnside/Gorge, Carollyne Yardley Rockland, Brenda Oaklands, Mike Medland VWCA, Sandra Severs DRA, Don Monsour FGCA, Susanne Rautio GNA, Jon Munn Hillside/Quadra, Daniel Powell FGCA, Rowena Hillside/Quadra, NAC, Trevor Moat James Bay, Tyler Akis Fernwood, Dawn Moorhead DRA

Neighbourhood reports

James Bay

Submitted by Kathryn Pankowski

Volunteer hours

In-neighbourhood meetings, planning & discussions 51

Tree survey 31.5

Data entry and mapping 7

VCAN presentation meeting (inc. prep by Jacklyn) 22

Total 111.5

VCAN Garry Oak Ecosystem Project 2024 - James Bay

What we did

- Gathered a group of 7 volunteers
- Gave an 'eyes on the ground' check to all* the Garry Oaks identified on the City inventory
- Walked every street in James Bay looking for further Garry Oaks (we found 3 on private land and six further oaks on non-City public land).
- Photographed all* the Garry Oaks and arbutus in James Bay, so we have a 2024 visual record; uploaded these to the VCAN map
- Identified existing Garry Oak meadow remnants and stands of native plants; these are all on public land
- Because there are no significant stands of Garry Oaks or significant Garry Oak meadowlands remaining on private land in James Bay, we adopted the strategy of identifying potential ecological corridors which could provide connectivity between remaining sites on public land. We identified one existing corridor which could be enhanced but needs no further land purchases, and three potential corridors, where land purchase and habitat restoration along the route could enhance connectivity.
- We also discussed ideas for preserving and enhancing existing Garry Oak ecosystems in James Bay and strategies for land purchase.

* For the purposes of this project, we excluded Beacon Hill Park from our inventory.

What we learned

- There is a substantial group of Garry Oaks in South Park and smaller groupings on the grounds of the RBCM, in Centennial Park by the Inner Harbour, and in Fisherman's Wharf Park. Other trees are singletons: on City property these consist of three large isolated trees and a number of young trees planted on boulevards. There are also three Garry Oak singletons on private property, all located along the eastern side of James Bay, within two blocks of Beacon Hill Park.
- While many of the Garry Oaks on the City inventory look healthy, some of the young boulevard trees are suffering drought stress and/or breakages. Several of the trees in South Park have died. The large Garry Oak at Croft and Simcoe has damaged bark near the base, due to a combination of constant use by dogs from the nearby pet-friendly highrise and physical damage as it is in a small tree pit in a busy sidewalk.
- Important Garry Oak ecosystem remnants in James Bay (all on public land):
 - Beacon Hill Park, which has a large number of Garry Oaks and extensive Garry Oak meadows. It is well protected and most of the Garry Oak areas have been designated as ecologically sensitive.
 - South Park, which has a stand of Garry Oaks and a meadow remnant. At one

point South Park School parents and students installed a small native plant demonstration garden in the park, which may or may not still be maintained. The park does not have an ecologically sensitive designation and is currently leased (the whole thing? part?) to the school board as a playground for South Park School. A playground and paved basketball court fill part of the north side of the park, while the south side is in a more natural state.

o Holland Point Park, which, while it has no Garry Oak trees, has extensive Garry Oak meadow remnants, with displays of camas, fawn lilies, and other native wildflowers. Thickets of alder, willow, Nootka rose, and snowberry provide excellent cover for wildlife and food for butterfly larvae and other insects. This area is not designated as ecologically sensitive (except for a small area of cliff bank).

- Other ecologically significant areas include:

- o Fisherman's Wharf Park. As well as having a small grove of young Garry Oaks, the extensive rain garden is planted with native shrubs, which offer food and cover to wildlife.

- o The RBCM Native Plant garden

- o Community gardens and areas with large numbers of mature private gardens. Densely planted, organically managed gardens often create biodiversity hot spots. Many James Bay community and private gardens include native plants, borders designed to support pollinators, or both.

Current connectivity

- Beacon Hill Park, South Park, and Holland Point Park form a continuous band of Garry Oak ecosystem or remnants thereof along the eastern and about a third of the southern perimeter of James Bay.

- In the far northwestern corner, Fisherman's Wharf provides a habitat-rich area in the eastern half, as well as a few young Garry Oaks elsewhere in the park.

- There are the 'bones' of an ecological connector running along the Inner Harbour, which could be enhanced to serve this function more effectively, but does not require additional land in the public domain. This connector runs from Beacon Hill Park/St. Ann's, through the RBCM grounds and native plant garden, the green space around the Legislature, Confederation Park, Quadra Park, Centennial Park, Peter Pollen Park (current plans are for some Garry Oak meadow restoration here), Redfern Green, wild shoreline below and to the west of the World Mark building, and between World Mark, and Fisherman's Wharf Park.

- Within the interior, residential areas of James Bay, the situation is pretty dire. There are a few isolated Garry Oak trees, many on boulevards, and no Garry Oak meadow habitat. The largest 'interior' park, Macdonald Park, is devoted to playing fields. There are a few smaller parks, which provide some open space but are not managed for ecosystem enhancement. Ecosystem services and habitat are provided mainly by larger, older private gardens, many of which we can realistically anticipate will be bulldozed and paved over in the next few decades.

Proposed ecological connectors

These connectors are broad pathways that link existing ecosystem assets and incorporate as many existing green spaces and Garry Oaks along the route as possible.

- Fisherman's Wharf Park to Holland Point Park. This connector, along with the Inner Harbour route, completes a circle route of connectivity around James Bay. It roughly follows a line from Fisherman's Wharf Park, along Michigan, Montreal, Niagara, and

Lewis Streets. The line passes near Macdonald Park, Todd Park, Lewis Park, several community gardens, and the majority of the young boulevard Garry Oak trees. Much of the route also follows the path of a buried creek which flowed from near Niagara and San Jose/Oswego into the Inner Harbour at Fisherman's Wharf.

- South Park to Fisherman's Wharf Park. This connector links South Park/Beacon Hill/St. Ann's with Fisherman's Wharf Park via an inland route centred along Michigan Street, which is quiet and tree-lined. It provides connectivity with Irving Park and the New Horizons pollinator garden en route.
- South Park to Holland Point Park. This connector links South Park with Holland Point Park by a route roughly parallel, but a few blocks away from Beacon Hill Park. It links the large City oak at Marifield, the oaks on private property (as well as several large arbutus), and Carr House, which is likely to remain a green spot for the foreseeable future.

We have marked the areas along these routes where protected green space is most lacking on the VCAN map.

Things to do:

Protect the Garry Oaks and meadows we have:

- Develop a tree stewardship program, where people take on providing supplementary water and keeping an eye on individual Garry Oaks, especially the more recent plantings on boulevards.
- Protect the base of the tree at Croft and Simcoe
- Advocate for better protection and ecological enhancement of Holland Point Park and South Park
- Educate the public about Garry Oak ecosystems on a neighbourhood level; help people read the landscape they are in:
 - guided walks
 - Add a page on Garry Oaks and their presence/absence in each neighbourhood to all community association websites

Enhance existing parks and public greenspaces where possible (i.e. where it doesn't interfere with other uses) with more Garry Oak ecosystem plants and better habitat for native wildlife.

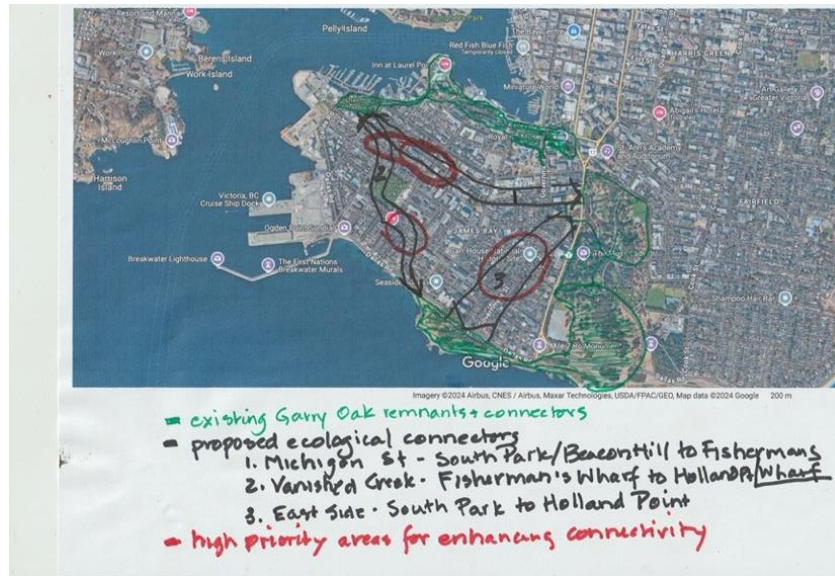
- Identify areas on City land where native trees could be planted and advocate for their Planting

Can Garry Oak meadow restoration be added to community gardens types which can be made in parks by community members?

- Could we do a 'mini-meadow makers' program with Satinflower, akin to their meadow maker program, but geared specifically to adding small meadow patches into corners of the urban landscape?

Raise awareness of and protect the urban forest generally:

- Urge the City to make public stats for canopy cover (not just number of trees planted) on a neighbourhood and block by block basis, updated regularly - or gather them ourselves.
- Document and map significant canopy trees in each neighbourhood
- Start a champion tree program to raise awareness



James Bay Neighbourhood: Small (8"x11") Maps for Fieldwork



James Bay Neighbourhood: Large Maps for Fieldwork

Quadra Hillside

Prepared by Ken Wong

Hours: 80 (includes 75 emails)

Additional documentation: [Ken Wong's Organic Maps Tutorial \(.pdf\)](#)

We used the free phone app Organic Maps to do outdoor mapping of oaks in the Quadra-Hillside neighbourhood for the citywide VCAN Garry oak mapping project. This app is simple to use. It can be run offline after downloading a neighbourhood map, so it doesn't eat up data or require wifi. It is well-suited for this purpose.

I first loaded city of Victoria's 5,125 oaks located on public lands (parks, boulevards) into the app to avoid double-counting. I mapped the seven oaks on my property and then walked or cycled every street in Quadra-Hillside to map the oaks. Some I could walk right up to the oak trunk to mark and save the GPS waypoint. Mostly I had to estimate an oak location from a distance so as not to trespass. For larger private spaces like the Spencer Castle condos property, Wilderness Co-op and Josette place I enlisted Anne and Deirdre to go in and count. After 28 years in the neighbourhood I can say that I have seen almost every Garry oak, arbutus and Douglas fir in Quadra-Hillside.

We mapped about 500 private and some public oaks in school grounds and city lots using Organic Maps, and I sent the file on to be incorporated into the larger data. Attached is a pdf step-by-step tutorial on using Organic Maps, including importing and exporting data, which I created. Let me know if you would like more information.

For the project we were asked to identify three areas of significance for oaks on private land and likely corridors linking significant oak habitat. We came up with these:

- 1) three contiguous city-owned lots that are undeveloped to the east of Smith Hill reservoir (CRD-owned) at 1318, 1322 & 1330 Summit Avenue;
- 2) SJ Willis school grounds (SD 61 owned) south of the school, which is noted as ecologically sensitive on the city of Victoria map;
- 3) the CRD right of way south of Smith Hill reservoir that is behind the back yards of 1274, 1280 & 1290 Topaz Avenue;
- 4) a corridor linking Summit Park and Topaz Park along Summit Ave;
- 5) a corridor linking Summit Park north with Peacock Park (Saanich) along Highview St, which is noted for having the largest Garry oak in the city of Victoria, according to city tree tour guide, behind 1230 Finlayson (nw corner) on the boulevard;
- 6) a corridor linking Summit Park south with Ryan St Greenway in Oaklands, along The Rise and through Cridge Centre property, also a private area with a significant oak population noted as ecologically sensitive by the city.

Rockland

Project Management

Prepared by Carollyne Yardley

Hours: 524 hours

Rockland 1297 emails

Prepared by Dave Clark

Hours: 20

Working in Apple Photos with the .jpg image from which the wall map was produced, I used markup to delineate what I thought might be the outer reaches of the canopy of Garry oaks, based on landscape position, colour, tone and texture. Each “polygon” can represent a single oak tree or a continuous stand of many oaks.

I then took a black and white print of that image and cycled the streets to either confirm, delete, modify and add new canopy delineations.

Those changes were incorporated onto the original jpg image, again using markup.

The red polygons on the current image represent a high probability of Garry oaks.

To estimate tree numbers to better align with the information collected by other neighbourhoods, a separate observer viewed the colour photo with polygons on a computer display and then put the red dots within the polygons on a black and white paper copy to come up with an approximate GO tree count for Rockland.

For a subsample of the total area (the western section of Rockland) the red dots on B&W paper copy were checked by cycling the streets, and the actual count as viewed from the street was recorded.

In the course of this second round of direct observation, additional Garry oaks , unobserved in the first round, were added. Within the subsample the estimated count (red dots) only twice overestimated the number of oaks in a polygon (by 1 each time), but underestimated the number of trunks in large stands considerably.

Map Display

Foam core and Mylar purchased at Monk Office/Island Blueprint for about \$40; used spray adhesive to attach map to foam core and used bulldog clips to temporarily attach mylar.

Wax pencils and dry-erase markers can be used to add and delete information in different colours.

Add:

Greenways

AAA bike routes

Other native and heritage trees

Government House

Next steps

Location information for almost 400 Garry oaks at Government House was collected in the 1990s and will be added to the digital map.

The Summit Park team created a tutorial on their method of using a GPS device and waypoints to digitize the locations of each individual oak tree. Rockland could start to implement this method to incrementally improve our confidence in the metrics of oak distribution across the neighbourhood.

Additional information on selected individual trees could be collected or estimated:

diameter at breast height (dbh)

Height

Vigour

This type of information on individual trees might be used to train or evaluate tree identification and measurement predictions generated from LiDAR and Multi-spectral scanning information.

Other native trees could be included:

Other neighbourhoods recorded the locations of other trees of note, such as arbutus and Douglas -fir.

Rockland could do this and consider locating arbutus, Douglas-fir, big-leaf maple, giant sequoia (soon to be native, but we have 150 year head start with these planted specimens)

Heritage trees could be included:

Reference: "Trees of Greater Victoria: A heritage" Chaster et al. 1988

Native trees

- Government house
- Oregon ash (p. 65)
- Trembling aspen (p. 66)
- Western hemlock opposite 1041 St Charles
- Monterey cypress Moss at Rockland
- Western white birch - city trees along Richardson

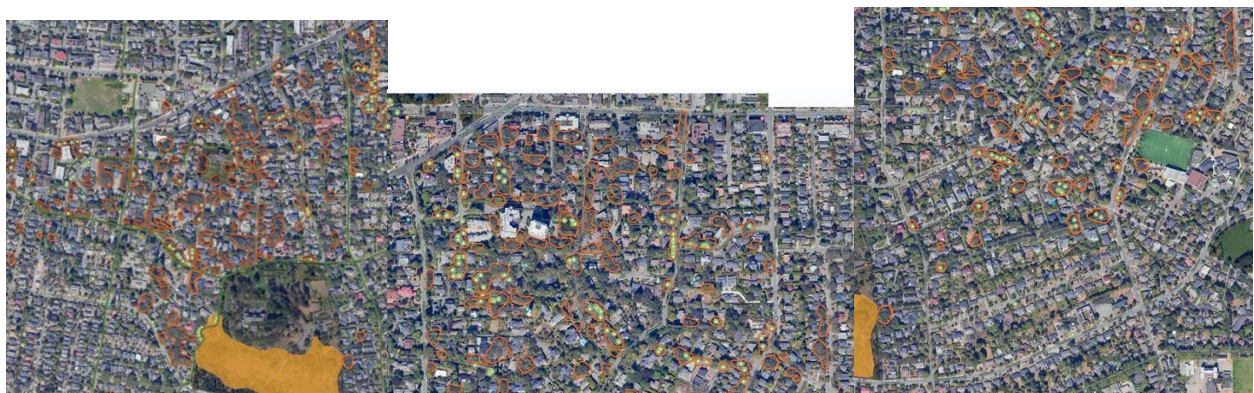
Non natives

An additional 60+ Rockland trees are listed in the publication. Saanich placed all their heritage trees (as listed in the book) in a schedule of their Tree Protection Bylaw, and those trees get an additional level of consideration.

Results:

Estimated canopy closure of Garry oaks within Rockland (including City trees)

Current Rockland tree count may be an underestimate by half.



Working maps for field work

Downtown

Prepared by: Sandra Severs

Hours : 20 hours

Outline: Currently there are approximately 8 Garry Oaks at Centennial Square on city owned land and a small collection of three or four north of Red Fish Blue Fish. The attached map, provided by the City shows the ownership structure of the foreshore.

In terms of future planting sites, two possibilities seem promising.

1) The future development of the Goldrush Buildings, aka Northern Junk, might provide an opportunity to petition the city to consider planting Garry Oaks on the walkway towards the Johnson Street Bridge. Currently there are some green spaces on city-owned land that might provide a large enough area to plant multiple trees. These trees would connect with trees planted in Vic West on western approach to the bridge.

2) The other possibility would be the redevelopment of the Y lands on Quadra Street, PARC Seniors redevelopment, and Christ Church Cathedral redevelopment, which could connect to the Garry Oak canopy in Pioneer Square.



Fernwood

Prepared by: Jan Firstbrook

Hours: 20 + hours.

2 volunteers were involved in the mapping project for roughly 20 hours. (not counting workshops and tutorials). Walking throughout the neighbourhood resulted in 3 areas of significant corridors of Garry Oaks on rocky hilly slopes.

The areas that were noted were along Scott St. north of Bay towards Oaklands, Vining St. and Belmont St. and Pembroke St and Forbes St. One property near Belmont and Pembroke St. had 8 large trees in the yard. These corridors link both Jubilee and Oakland neighbourhoods with corridors of Garry Oaks. Approximately 50 Garry Oak trees were identified on private property.

Due to difficulty using the digital map, a plasticized large map was used to pinpoint the exact location of the Garry Oaks identified using small stars.

Not all Garry Oak trees were identified in Fernwood but rather the clusters of trees in certain hilly areas. This project was beneficial as it increased the awareness of the ecosystem.

The gathering of all the Victoria CAN members was very inspiring and allowed us to visualize the ecosystem and how we can enhance it as a group.

This map will be posted in the Fernwood Community Association building and will be used for education and consideration when discussing land use decisions.

Identifying Garry Oaks in Fernwood will continue and additional trees will be added to the map, both digitally and manually on the big map.

North Jubilee

Prepared by Andrea

Hours: 15

We identified three areas in North Jubilee. The Spirit Garden and Begbie Green would be good places to add more native plants. At the intersection of Fort and Richmond, the RJH green space could be a spot for more Garry Oak trees.

Begbie Green is an area of interest where we'd like to get some interested neighbours to help with a placemaking My Great Neighbourhood Grant putting in some large planter boxes with seating to create more space for native plants, socialization, but mainly for stopping traffic from going down the wrong way on a one-way street.



North Jubilee Neighbourhood: Printed Maps for Fieldwork

Gonzales

Prepared by

Hours 31

Abstract

The Gonzales Neighbourhood Association (GNA) participated in the VCAN led proposed park project in the summer and fall of 2024. The purpose of the project was to nominate 2 or 3 areas in the Gonzales neighbourhood to be protected should the funding and political will materialize. The number one criteria for locations to be nominated was based on remaining Garry Oak trees in the neighbourhood. The GNA nominated 3 areas to be protected:

1. the highest priority location for protection is a private property in Queen Anne Heights that contains 100 mature trees, 50 of which are Garry Oak, and represents perhaps the last untouched large property left in this historic neighbourhood;
2. the second location was any property on the south side of Earle Street that occurs on either side of Hollywood Park (this area was originally a large wetland that covered much of the neighbourhood prior to being drained); and
3. the last nomination is any property abutting Pemberton Park; the purpose of which to enlarge the park and create a more usable habitat for wildlife and place of refuge for people.

Purpose

The city of Victoria is rapidly densifying and the need for green space for people to use is of great importance and will become even more so as potential lots are developed. Garry Oak trees which used to cover the majority of the greater Victoria are also quickly disappearing and the remainder need to be protected before there are none left. This is not hyperbole; this is a reality.

The VCAN project was meant to encourage neighbourhoods and politicians to consider what Victoria could possibly look like in the coming years based on input from the residents who live there.

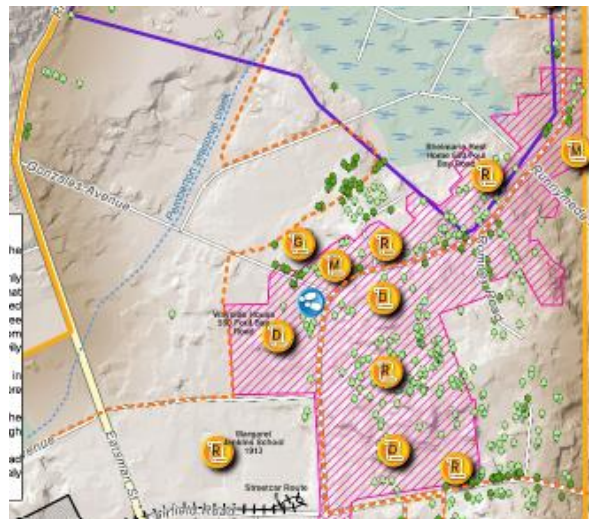
Methodology

The GNA has been working on a community map for the last 4 years. Layers that are in the map that pertain to this project are remaining Garry Oak trees and clumps of remaining trees. It was also useful to have determined that Earle street was once a wetland and that houses in this area seem to have more problems with drainage than the rest of the neighbourhood. Because of the work on this map and inviting biologists to public sessions in the creation of the map, the GNA is proposing that the area in blue below be recognized as an ecological corridor. It contains the highest number of trees and is a natural wildlife corridor from Gonzales Hill through Queen Anne Heights onto the Lieutenant Governor's house.

The third nominated area, Pemberton park, is in this area.



The map below shows the remaining Garry Oak trees in the vicinity of the proposal ecological corridor. The dark green trees are on city property; the light green trees are on private property. The pink shaded area in the picture is the proposed Heritage Conservation area that was part of the 2002 Gonzales Neighbourhood plan that was never enacted and is the location of the **first nominated area**.



The **second nominated area** lies in the historic wetland as seen on this map:



Residents of Gonzales were invited to comment and become involved in this project through the GNA facebook page and e-mail distribution. As well there has been much consultation over the years with the general public on our mapping project.

See <https://www.gonzalesna.ca/gna-mapping-videos> for a summary of what has occurred so far.

Results

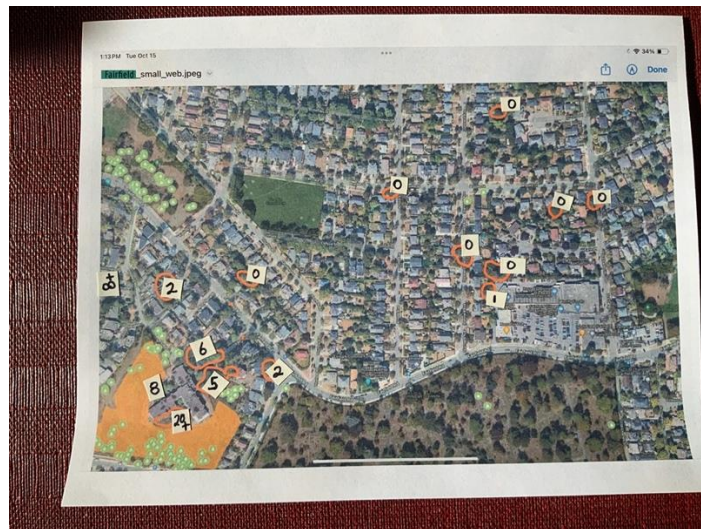
Creating and completing the Garry Oak layer was done in the summer of 2024 to help facilitate this project. It took a volunteer roughly 15 hours to walk the neighbourhood looking for trees and accessing hard to get at backyards. He also digitized this information which took 3 hours. In addition it required the work of 5 to 7 volunteers to review the information and create the list in consultation with those interested from the general public. This information was conveyed to members at the GNA Annual General Meeting in November 2024. When including the volunteer time attending the public information sessions arranged by Carollyne, the total time people from Gonzales contributed to this project was 35 hours.

Fairfield

Prepared by Astrid

Hours 31.5

Worked with an aerial view of streets, and ground truthed. Shared a story tells a story of a memory of a tree. Realized how much that one tree gave to her. She went back to the school from youth and another school was built. But the tree is still there; the wisest teacher on that property. And, it was a Garry oak tree. All the acorns and shade that it gave to us and how important it is for mental health. Still getting energy from this one trees. Rooting for the trees.

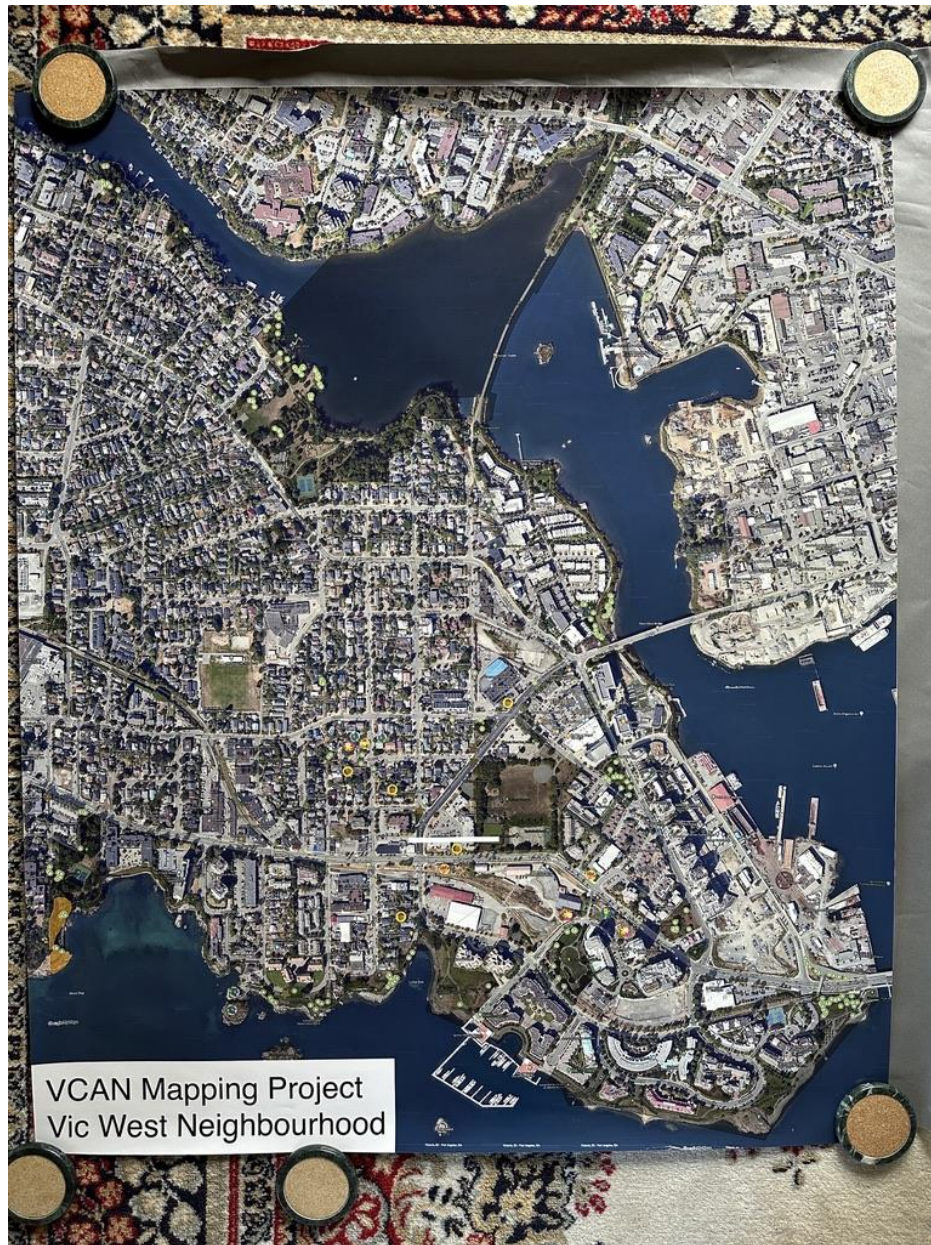


Fairfield Neighbourhood: Smaller Map for Fieldwork

Vic West

Hours 31.5

Worked with an aerial view of streets, and ground-truthed. Wants to plant more trees. Was surprised how many Garry oak in area and excited. Bayview and roundhouse. Would be nice to have more plantings too. Like to see one on high point.



Vic West Neighbourhood: Printed Maps for Fieldwork

Burnside / Gorge

Hours 31.5

Developments to ask for Garry oak ecosystem services

- Sandman Hotel Victoria re-development
- Potential Park - South side of Chown Place. They do have plans to maintain Garry oak meadow in the development process but seeking assistance for maintenance of trees and planting suggestions (intel via project discussion January 25th, 2025).

Other areas of note for plantings

- Sumas Park, Cecilia Ravine, end of Louis and Harriet Road, and end of Washington and Harriet roads.

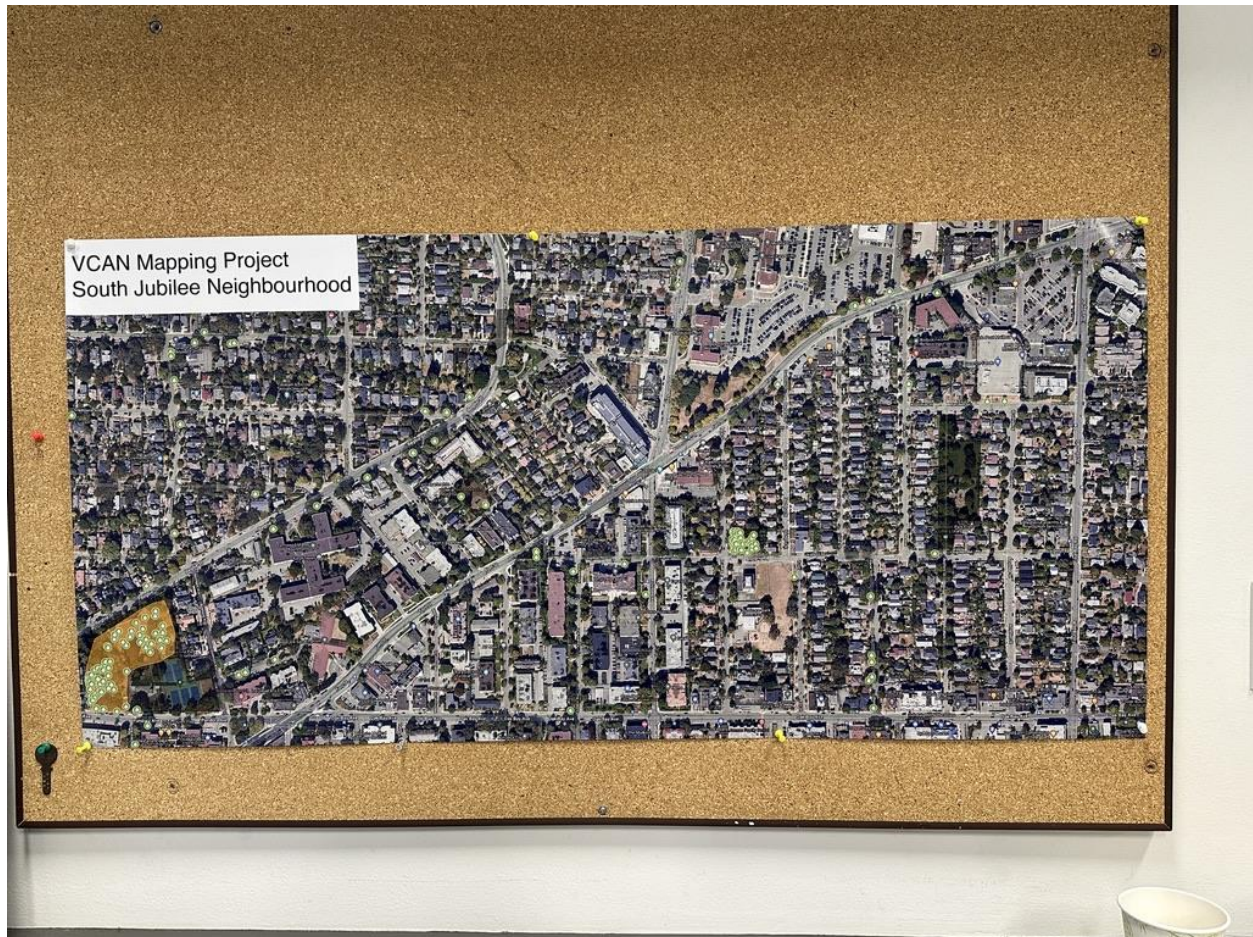


Burnside/Gorge Neighbourhood: Printed Maps for Fieldwork

South Jubilee

Hours 25

Sensitive ecosystems in the South Jubilee area include the Bank Street School property.

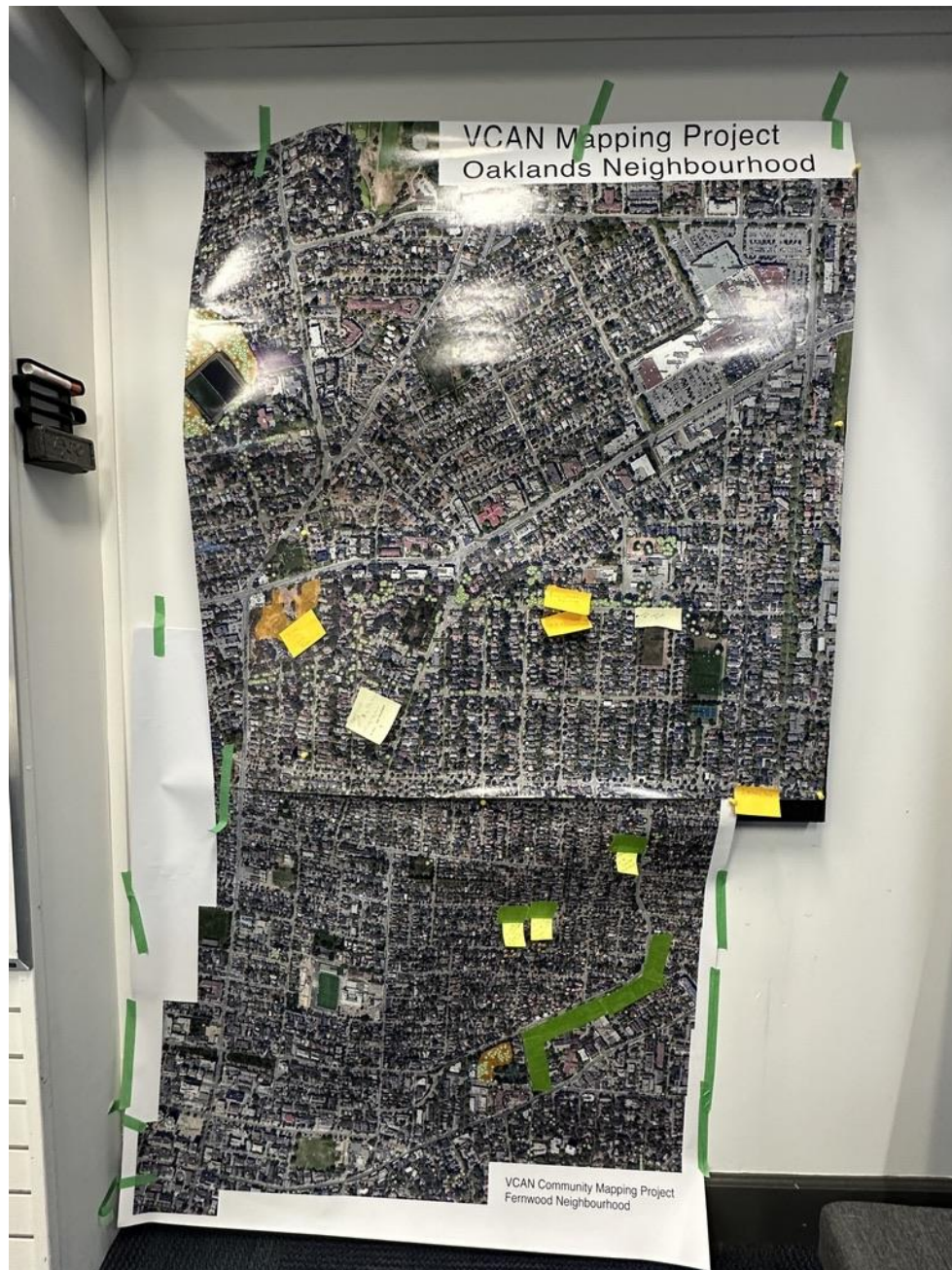


South Jubilee Neighbourhood: Working Maps for Fieldwork

Oaklands

10 hours

Sensitive ecosystems include the Cridge Centre where they have over 400 Garry oak trees on property.



Oaklands Neighbourhood: Printed Map for Fieldwork

North Park

We learned that the last of the urban forest in the North Park Neighbourhood is at Central Park, next to the Crystal Pool. The neighbourhood park has three Garry oak trees. Small pocket park next to First Metropolitan United Church (where daycare is located) would be nice to conserve for nature park.

Event Photos



June 5 Walking Tour with Dave Clark, Woodlands behind Government House



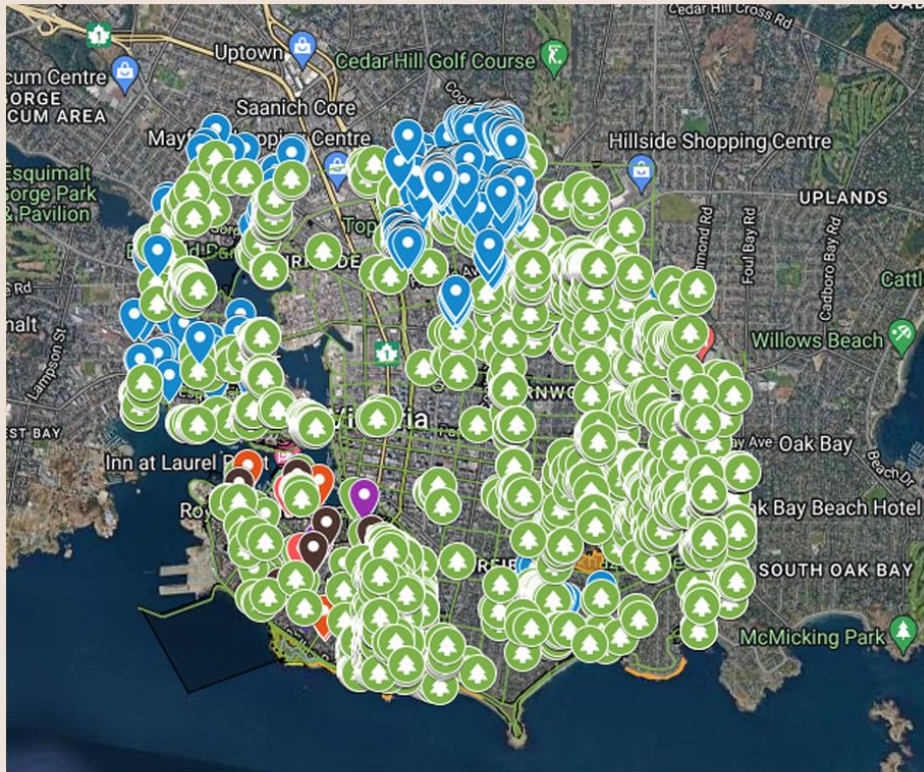
*July 6 Walking Tour with Ryan Senechal
Pre-colonial Garry oaks in a Kings Park (Fernwood, formerly residential lot)*



Wrap up event at Neighbourhood Space, 709 Douglas Street.



VCAN Mapping Team at Wrap up event, Neighbourhood Space, 709 Douglas Street.



VCAN COMMUNITY MAPPING PROJECT

<https://thevcn.wordpress.com>

1 pm to 4 pm

Discussion:

1:30 pm to 2:30 pm

16 NOVEMBER 2024

NEIGHBOURSPACE
709/711 Douglas Street, Victoria
(across from the Conference Centre)

///// My Great Neighbourhood Grant funded by



Dear Developer: An Earthly Invitation template

[Word document online \(download\)](#)

INSERT NEIGHBOURHOOD NAME OR BANNER

Dear Development Team,

The X Land Use Committee (LUC) and the City of Victoria are located on the traditional territory of the ləkʷəŋən speaking people known today as the Songhees and Xwsepsum Nations. The LUC represents a neighbourhood comprised of X% of tenants and Y% of residents living in multi-unit housing and considers several key factors such as how a development will impact residents' well-being, the environment, and biodiversity in the neighbourhood.

Earthly Invitation: The X LUC is asking you to assist with the recovery of the Garry oak ecosystem (GOE), recognized by the BC Government as an “ecosystem at risk.”

The urban forest of the City of Victoria *is* the Garry oak ecosystem (GOE), known in ləkʷəŋən language as the Kwetlal food system, which was dominant in Victoria before European settlement due in large part to thousands of years of ləkʷəŋən agroecological management. The Garry oak (GO), a long-lived keystone species, emerged after the glacial retreat around 10,000 years ago, and currently supports over 1,645 plants, insects, amphibians, reptiles, birds, and mammals, making its preservation urgent. GO and associated ecosystems have a unique local genetic adaptation that would be difficult to re-introduce if lost. GO is highly adapted to severe droughts and heat, including on rocky outcrops with shallow soil, and is of great importance in a changing climate for biodiversity and human health. In Canada, the GOE is unique to this region, some parts of the Gulf Islands and a few spots on the mainland (crd.bc.ca).

The scale of recent land use changes necessitates your assistance. With 75% of our urban forest on private land, there's not enough public land to meet our essential canopy targets. The City of Victoria's 2019 survey of urban forest canopy showed a city-wide average of 28%. The percent of canopy cover in the X neighbourhood is Z%. Collaboration and support from you and elected officials are essential. Traditional approaches to urban planning frequently devalue the crucial cultural, social, and environmental components of the GOE in the urban density discussion.

Developers must adhere to the City of Victoria Tree Protection Bylaw (TPB 21-035), yet there is room for improvement. Old-growth, pre-colonial settlement trees greater than 250 years of age persist and replacement is needed to establish the next generation. Between 2020 to 2023, only 68 replacement trees on private property were native species, compared to 354 introduced/exotic species, resulting in a 1:5 ratio (City of Victoria Open Data). In addition, plantable space is a variance, and not attached to legislation. Therefore, we ask for you to dedicate a minimum of 15% contiguous plantable space at every development site and consider planting native plants and trees as a tangible act of connecting with the territory. This will help achieve the minimum tree targets set forth by TPB 21-035 to maintain and steward a healthy canopy cover for the ecosystem over the next 30 years. The survival of the Garry oak ecosystem depends on your assistance.

Thank you for considering this invitation.

CITY OF VICTORIA 2019 TREE CANOPY ESTIMATES BY NEIGHBOURHOOD

Neighbourhood	Neighbourhood Area (Ha)	2019 Tree Cover (Ha)	Percent of city-wide canopy
Burnside	237	34	6%
Downtown	77	7	1%
Fairfield	297	92	17%
Fernwood	175	56	10%
Gonzales	136	53	9%
Harris Green	24	4	1%
Hillside/Quadra	166	57	10%
James Bay	236	63	11%
North Jubilee	63	19	3%
North Park	56	12	2%
Oaklands	173	54	10.5%
Rockland	128	60	11.5%
South Jubilee	38	11	2%
Victoria West	157	36	6%
Total	1963	558	100%

GARRY OAK ECOSYSTEM - WHAT REMAINS

Area	Year 1800 (Ha)	Year 1997 (Ha)
Victoria	1,460	21
Oak Bay	850	25
Saanich	3,473	192
Central Saanich	740	7
Sidney	30	0
North Saanich	1,040	1
Esquimalt	470	20
Colwood	320	16
Langford	370	105
View Royal	270	39
Metchosin	1,180	49
Indian Reserves	240	37
Total	10,443	512

Source: GOERT, <http://goert.ca>

HISTORICAL MAP OF GARRY OAK AREAS

This is an 1858 Land Survey Map Excerpt from the map of the Victoria District, circa 1850s as surveyed by J.D. Pemberton.

Courtesy of the BC Surveyor General's Office.

COLOR LEGEND

- Garry Oak Area
- Wetland/Riparian
- Mostly Coniferous Forests

Outlined area approximates City of Victoria boundaries

CITY OF VICTORIA

City of Victoria Tree Protection Bylaw
<https://www.victoria.ca/media/file/tree-protection-bylaw-21-035>

ENVIRONMENTAL ORGANIZATIONS

Garry Oak Meadow Preservation Society (GOMPS)
<https://www.garryoak.info>

Garry Oak Ecosystem Recovery Team (GOERT)
<https://goert.ca>

Native tree species: Garry oak, arbutus, shore pine, maritime juniper, pacific yew, pacific dogwood, western redcedar, bigleaf maple, cascara, black hawthorn, and Douglas fir.

NURSERY SUPPLIERS OF GARRY OAK

(List compiled February 2025)

Dinter Nursery
 Lots of stock available. 3-to-7-gallon size. 2205 Phipps Road, Duncan, BC
 250-748-2023
<https://dinternursery.ca/ornamental-trees>

Garry Oak Meadow Preservation Society Nursery
 Lots of stock available. 1-to-2-gallon size. 5920 Patricia Bay Highway, Saanichton, BC
Grow.oaks@gmail.com

Satinflower Nurseries
 Garry oak waitlist. Native plants available. Development site consultations for GOE resume Fall 2025. Short consultations at nursery still available.
 747 Haliburton Rd, Saanich and 4286 Metchosin Rd, Metchosin. 778-679-3459
<https://satinflower.ca>

Garry Oak Meadow Native Plant List
<https://goert.ca/wp/wp-content/uploads/GOERT-Gardeners-Handbook-2011.pdf>

Bibliography

Acker, Maleea. *Gardens Aflame: Garry Oak Meadows of BC's South Coast*. New Star Books. 2012.

Baker, Shanna. "Coastal Oaksapescapes: A story in pictures about an iconic and culturally important ecosystem in evolution." *Hakai Magazine*. <https://hakaimagazine.com/videosvisuals/coastal-oaksapescapes/>.

Beckwith, Brenda R. "Colonial Eden or Indigenous Cultivated Landscape: Reconstructing Nineteenth Century Camas Meadows on Southern Vancouver Island." *Proceedings of the Third Annual Meeting of the B.C. Chapter of the Society for Ecological Restoration*, April 27-28, 2002, University of Victoria, British Columbia.

Bryce, Cheryl. "Meegan. Online On Land." *Open Space*. 2019 <https://vimeo.com/405250132>. Accessed 6 July 2023.

"Call it kwetlal, not camas: How to decolonize your garden" CHEK News. <https://cheknews.ca/call-it-kwetlal-not-camas-how-to-decolonize-your-garden-1152676/> Accessed 16 May 2023.

"Capital Regional District. Garry Oak Ecosystem Information Sheet." https://www.crd.bc.ca/docs/default-source/es-harbours-pdf/may19-2021-ecosysteminfosheetsgarryoak.pdf?sfvrsn=79a94ccd_0. Accessed August 18, 2023.

Cavers, M. (2009). "Victoria's Own Oak Tree": A Brief Cultural History of Victoria's Garry Oaks after 1843. *BC Studies*, 163, 65-75.

"City of Victoria. Open Data Portal." <https://opendata.victoria.ca>. Accessed 20 March 2024.

"City of Victoria. Trees and Urban Forest." <https://www.victoria.ca/parks-recreation/trees-urbanforest>. Accessed 15 June 2023.

"City of Victoria. Tree Protection Bylaw." <https://www.victoria.ca/parks-recreation/trees-urban-forest/tree-protection-bylaw>. Accessed August 15, 2023

"City of Victoria. Urban Forest Master Plan (2013)." <https://www.victoria.ca/media/file/urbanforest-master-planpdf>. Accessed 15 August 2022.

Corntassel, Jeff. "An interview with Cheryl Bryce: Decolonizing Place for Indigenous Food and Land Sovereignty" *Borders in Globalization Review*, Vol. 5, No. 01, 2023. *University of Victoria*.
<https://doi.org/10.18357/bigr51202421805> Accessed 13 September 2024.

"Garry Oak Ecosystems Recovery Team (GOERT). Key Publications." goert.ca/keypublications.
Accessed 15 June 2023.

———. What Remains. <https://goert.ca/about/what-remains/> Accessed 15 June 2023.

Garry Oak Meadow Preservation Society. <http://www.garryoak.info> Accessed 15 June 2024.

Lea, Ted. (2006). *Historical Garry oak ecosystems of Vancouver Island, British Columbia, pre-European contact to the present*. *Davidsonia*. 17. 34-50.
https://www.researchgate.net/publication/285313724_Historical_Garry_oak_ecosystems_of_Vancouver_Island_British_Columbia_pre-European_contact_to_the_present. Accessed January 25, 2024.

"Restoring British Columbia's Garry Oak Ecosystems: Principles and Practices." Garry Oak Ecosystem Recovery Team. Victoria, 2011. <https://goert.ca/wp/wp-content/uploads/GOERT-Restoring-BC-GOE-2011.pdf>

"The Garry Oak Gardener's Handbook: Nurturing Native Plant Habitat in Garry Oak Communities." *Garry Oak Ecosystem Recovery Team*. Victoria, 2009. <https://goert.ca/wp/wp-content/uploads/GOERT-Gardeners-Handbook-2011.pdf>



Urban forest residents, City of Victoria. 🌿❤️