PLANNING AND COMMUNITY DEVELOPMENT COMMITTEE

Thursday, June 17, 2021

Held Electronically in Accordance with Ministerial Order M192
and Transmitted via the SCRD Boardroom, 1975 Field Road, Sechelt, B.C.

AGENDA

CALL TO ORDER **9:30 a.m.**

AGENDA

1. Adoption of Agenda

PRESENTATIONS AND DELEGATIONS

2. Peter Robson and Sean McAllister, Pender Harbour & Area Residents Association — ANNEX A pp 1 - 37
Regarding Dan Bosch Regional Park, Katherine Lake Trail Proposal, Wayfinding and Beach Access Signage for Pender Harbour and Active Transportation Path

3. Conor Corbett, Diamond Head Consulting — Verbal
Regarding Sunshine Coast Regional District Community Wildfire Protection Plan

REPORTS

4. Community Wildfire Protection Plan — ANNEX B pp 38 - 164
Manager, Protective Services
Sunshine Coast Emergency Planning (Voting - All)

5. Sunshine Coast Housing Needs Assessment Implementation Framework – Housing Action Plan — ANNEX C pp 165 - 167
General Manager, Planning and Community Development
Regional Planning Services (Voting – All)

6. Roberts Creek OCP Amendment Bylaw No. 641.11 and Zoning Amendment Bylaw No. 310.182 for Subdivision of Remainder of District Lot 1312 – Second Reading — ANNEX D pp 168 - 205
Senior Planner
Electoral Area D (Rural Planning Services) (Voting – A, B, D, E, F)

7. Frontage Waiver Application FRW00010 (10584 Wood Bay Ridge Road) — ANNEX E pp 206 - 208
Planner
Electoral Area B (Rural Planning Services) (Voting – A, B, D, E, F)

8. Disc Golf Course Proposal for Welcome Woods and Connor Park — ANNEX F pp 209 - 212
Parks Planning Coordinator
Community Parks Service (Voting – A, B, D, E, F)

9. Update on Private Donation Offer - Delivery of Soil Material at Gibsons Landfill — ANNEX G pp 213 - 214
Parks Superintendent
Community Parks Service (Voting – A, B, D, E, F)

10. Joint Use Steering Committee Terms of Reference — ANNEX H pp 215 - 219
Manager, Recreation Services
School Facilities – Joint Use (Voting – A, B, D, E, F, DoS, ToG)

11.	Regulation and Control of Beach Fires at Roberts Creek Pier Park Manager, Protective Services and Parks Superintendent **Bylaw Enforcement Service (Voting – A, B, D, E, F, SIGD)**	*Report to Follow*
12.	Agricultural Advisory Committee Meeting Minutes of May 25, 2021 **Rural Planning Services (Voting – A, B, D, E, F)**	ANNEX I pp 220 - 221
13.	Electoral Area A (Egmont/Pender Harbour) APC Minutes of April 28, 2021 **Electoral Area A (Rural Planning Services) (Voting – A, B, D, E, F)**	ANNEX J pp 222 - 224
14.	Electoral Area D (Roberts Creek) APC Minutes of May 17, 2021 **Electoral Area D (Rural Planning Services) (Voting – A, B, D, E, F)**	ANNEX K pp 225 - 227
15.	Electoral Area E (Elphinstone) APC Minutes of May 26, 2021 **Electoral Area E (Rural Planning Services) (Voting – A, B, D, E, F)**	ANNEX L pp 228 - 231

COMMUNICATIONS

16.	Andrew McFadyen, Ruby Lake Landholders Association, dated May 17, 2021 Regarding Proposed Expansion of Parking Area and Beach/Picnic Area at Dan Bosch Park	ANNEX M pp 232 - 234
17.	Recreation Sites and Trails BC, Ministry of Forests, Lands, Natural Resource Operations and Rural Development dated May 20, 2021 Regarding Trails Strategy Review – What We Heard Report: Local Governments	ANNEX N pp 235 - 255
18.	Derek Lefler, District Manager, Sunshine Coast Natural Resource District dated May 25, 2021 Regarding Sunshine Coast Natural Resource District - Visual Quality Objectives	ANNEX O pp 256 - 263
19.	Minister Katrine Conroy, Ministry of Forests, Lands, Natural Resource Operations and Rural Development dated June 2, 2021 Regarding Intentions Paper – Modern Forest Policy	ANNEX P pp 264 - 266
20.	Elaine Futterman, Roberts Creek Official Community Plan Committee dated June 7, 2021 Regarding Correspondence to Sunshine Coast Community Forest - Five year Cut Plan	ANNEX Q pp 267 - 268

NEW BUSINESS

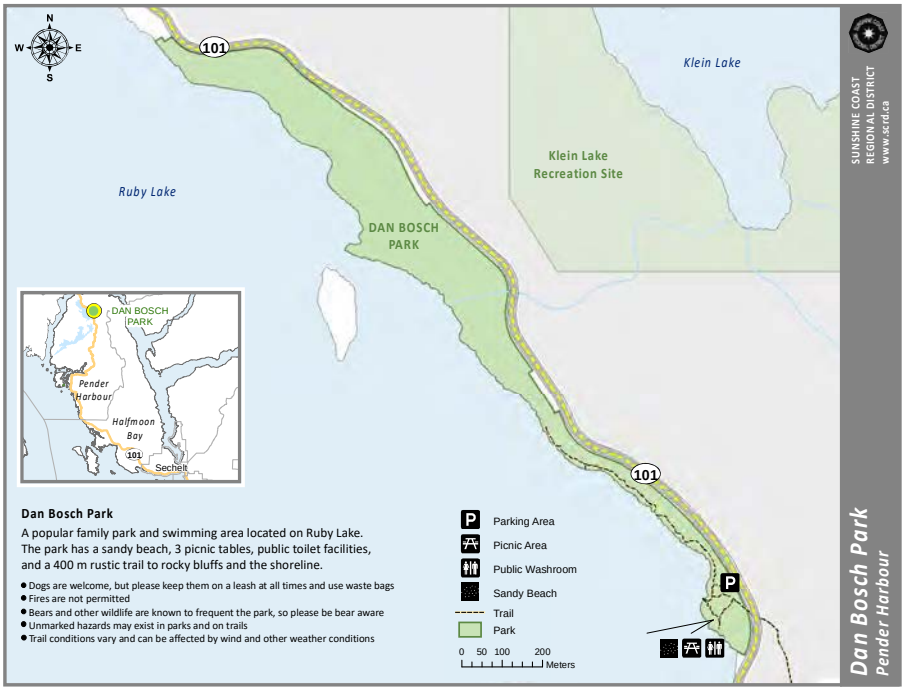
IN CAMERA

ADJOURNMENT

Dan Bosch Regional Park

Proposed SCRD park expansion

Prepared by the Pender Harbour and Area Residents Assn and the Pender Harbour and District Chamber of Commerce



A relatively flat trail runs along the lakeshore for 800 metres.

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Proposed Expansion of Parking and Water Access at Dan Bosch Regional Park

This project is supported by the Pender Harbour and Area Residents Assn, and the Pender Harbour and District Chamber of Commerce.

Objectives:

- 1) To alleviate the serious overcrowding of the beach area in the park. This is especially important safety issue during the Covid epidemic. Last summer, there was little if any social distancing due to the park's popularity. In addition, the small existing beach area is one of the only accessible lake accesses on Ruby Lake, despite only a very small portion of the total park area being utilized.
- 2) To reduce the vehicle and pedestrian safety issues in connection with overflow parking on Highway 101. Cars park along the highway right of way and often on the actual highway causing an extremely dangerous situation. The RCMP should be able to speak to this concern.
- 3) To reduce pressure on the oversubscribed parking and launching facilities at the Ruby Lake boat launch (at base of Ramp Road) by providing a separate launch area for SUPs, kayaks, rowboats and other non-motorized cartop vessels.

Description

The project would involve two phases

Phase 1

Using the existing access off Highway 101, to double parking area (approximately 30 new spaces). This would be done by clearing an appropriate area adjacent to the current parking area and surface it with packed gravel. A new outhouse would be added to increase capacity for visitors.

Summary of costs for Phase 1

Project Costing: 2021/04/13		
Budget Summary		
Project Management	$2,033.00	2%
Labour	$2,802.86	2%
Administration	$240.00	0%
Equipment	$3,503.00	3%
Materials	$35,705.00	28%
Additional Contracts	$63,250.00	49%
Sub-Total	**$107,533.86**	
Contingency	$21,506.77	20%
Project Total	**$129,040.63**	
GST	$6,452.03	
	0	
0	0	$0.00

Phase 2

- Make one or more short paths from the new parking area to the lake. The shoreline could be cleared of woody debris to provide additional beach/swimming areas for family use.
- One of those paths would lead to an area suitable for launching non-motorized watercraft (kayaks, paddleboards, inflatable toys).
- Additional picnic tables would be added where appropriate.

Summary of costs for Phase 2

Project Costing: 2021/04/13		
Budget Summary		
Project Management	$2,113.00	3%
Labour	$2,272.86	3%
Administration	$160.00	0%
Equipment	$2,860.00	4%
Materials	$26,695.00	39%
Additional Contracts	$23,600.00	34%
Sub-Total	**$57,700.86**	
Contingency	$11,540.17	20%
Project Total	**$69,241.03**	
GST	$3,462.05	

Phase 3

- Improvement of existing 700 metre (approx.) waterfront trail to the north end of the park.

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Summary of costs for Phase 3

Project Costing: 2021/05/11		
Budget Summary		
Project Management	$3,398.00	5%
Labour	$16,688.57	26%
Administration	$3,200.00	5%
Equipment	$7,892.00	12%
Materials	$3,485.00	5%
Additional Contracts	$18,700.00	29%
Sub-Total	**$53,363.57**	
Contingency	$10,672.71	20%
Project Total	**$64,036.29**	
GST	$3,201.81	

SCRD Ongoing Maintenance and Costs

- The costs of this project for Phase 1 would be limited to clearing the appropriate areas and levelling and surfacing the expanded areas. With appropriate funding (though outside grants such as the Gas Tax fund), there would be no capital cost to the SCRD, other than perhaps adding an outhouse and a few more picnic benches.

- As the SCRD owns the park area and maintains it, the expansion should have little ongoing budgetary impacts for the SCRD. Existing maintenance personnel would be able to clean/maintain the expanded area.

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Criteria and Timing

- This project could be accomplished in short order as there should be no complications from MOTI or other agencies as this proposal would take place entirely within the existing Dan Bosch Regional Park.
- This project meets requirement of Gas Tax funding as the asset is already owned by the SCRD.
- Meets criteria of "renovation/construction of a capital asset of SCRD providing services on an ongoing basis."
- Meets the criteria that a Regional District must have an established service under which an eligible project can be undertaken.
- Meets Gas Tax Eligible Project Categories 13: Recreational infrastructure—recreational facilities or networks; and 15: Tourism infrastructure—infrastructure that attract travelers for recreation, leisure, business or other purposes.

Potential Obstacles

- As part of the proposed Phase 2 paths, those paths, near where they meet the water may have to be improved to deal with "wet" areas and built with riparian area experts input to avoid environmental damage.
- The Sechelt Nation would have to support the project. However, the parking area was expanded a number of years ago and we presume the Nation was consulted and approved the expansion at that time. We also presume they would have been consulted regarding any important cultural areas.

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Meets SCRD Criteria

- This project clearly fills the objectives of the Area A OCP, most notably under Section (2.6.1)
- (a) To recognize the need for park opportunities at neighbourhood, community, regional and provincial levels to fulfill the recreational needs of residents and visitors.
- (c) To increase public access to the waterfront of both lakes and the ocean, for example, by pursuing the development of road rights-of-way.
- (e) To enhance public access and use of water resources in a manner that minimizes detrimental effects on the environment and adjacent land uses.

Community Benefits

- Reduces illegal overflow parking along Highway 101
- Provides more area for visitors and residents to enjoy the park
- Allows for more social distancing with expanded beach and picnic areas
- Upgrades to vault-type outhouses
- Cartop launch would relieve pressure on the existing, overcrowded and dangerous Ruby Lake boat launch (Hallowell Road) by offering a separate launch for non-motorized kayaks, SUPs and such

Katherine Lake Trail Proposal

May 13, 2021.

Author: Jonathan Paine on behalf of Rotary Club of Pender Harbour with the support of the Pender Harbour and Area Residents Assn and the Pender Harbour Chamber of Commerce.

A. Introduction & Overview

This proposal is for a combination of family accessible and hiking trail around Katherine Lake within the SCRD Katherine Lake Park.

- 5 lakes.
- Katherine Lake is the only one not surrounded by road or private land.
- Proposed loop trail.
- Combination of Family Accessible and hiking trail.

B. Katherine Lake Trail Vision

- Create a continuous loop around the lake.
- Total distance of approximately 1.8 km.
- 400 meters of the trail will be family accessible to all levels of pedestrians including those with mobility issues.
- 1,400 meters of trail completing the loop will be an easy to moderate hike for those more mobile.

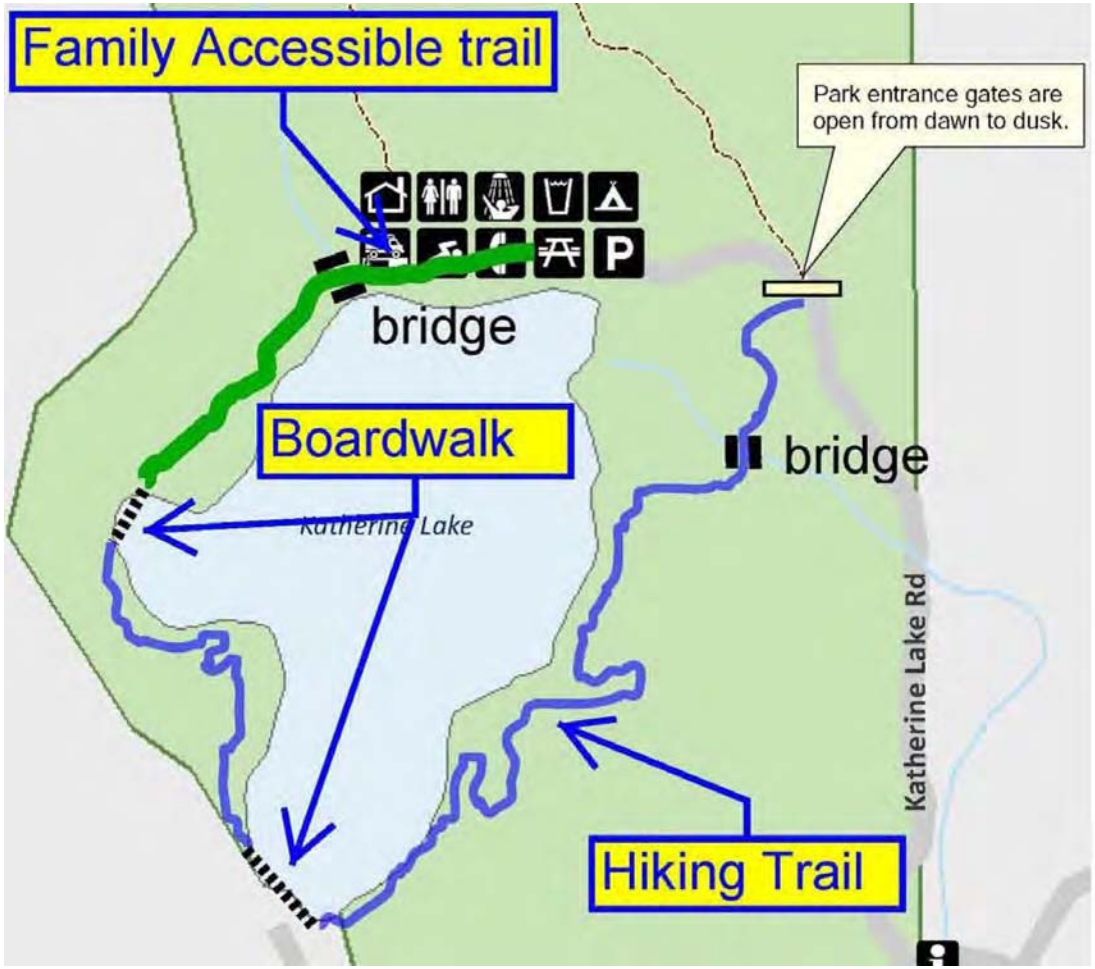
C. Trail Description

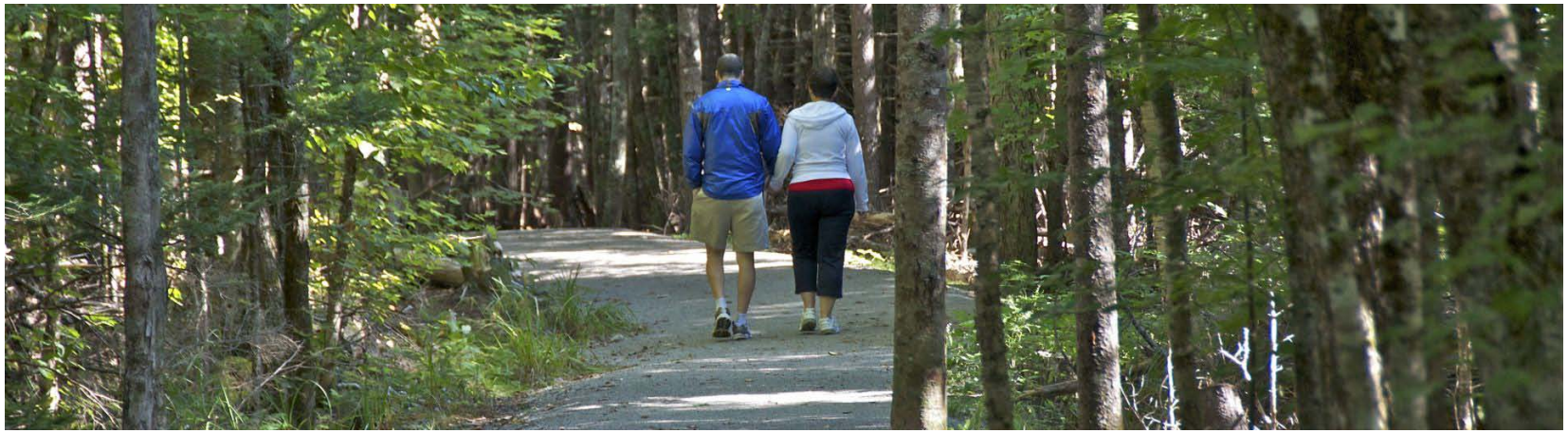
Family Accessible Trail:

- Constructed to a BC Parks Type II standard which includes a gravel surface of 1.25 to 2.0 meters wide with maximum grades of 10%.

- From the existing accessible parking to a picnic table along the west side of the lake, counter clockwise from the campground, terminating at a picnic table with a view over the lake.

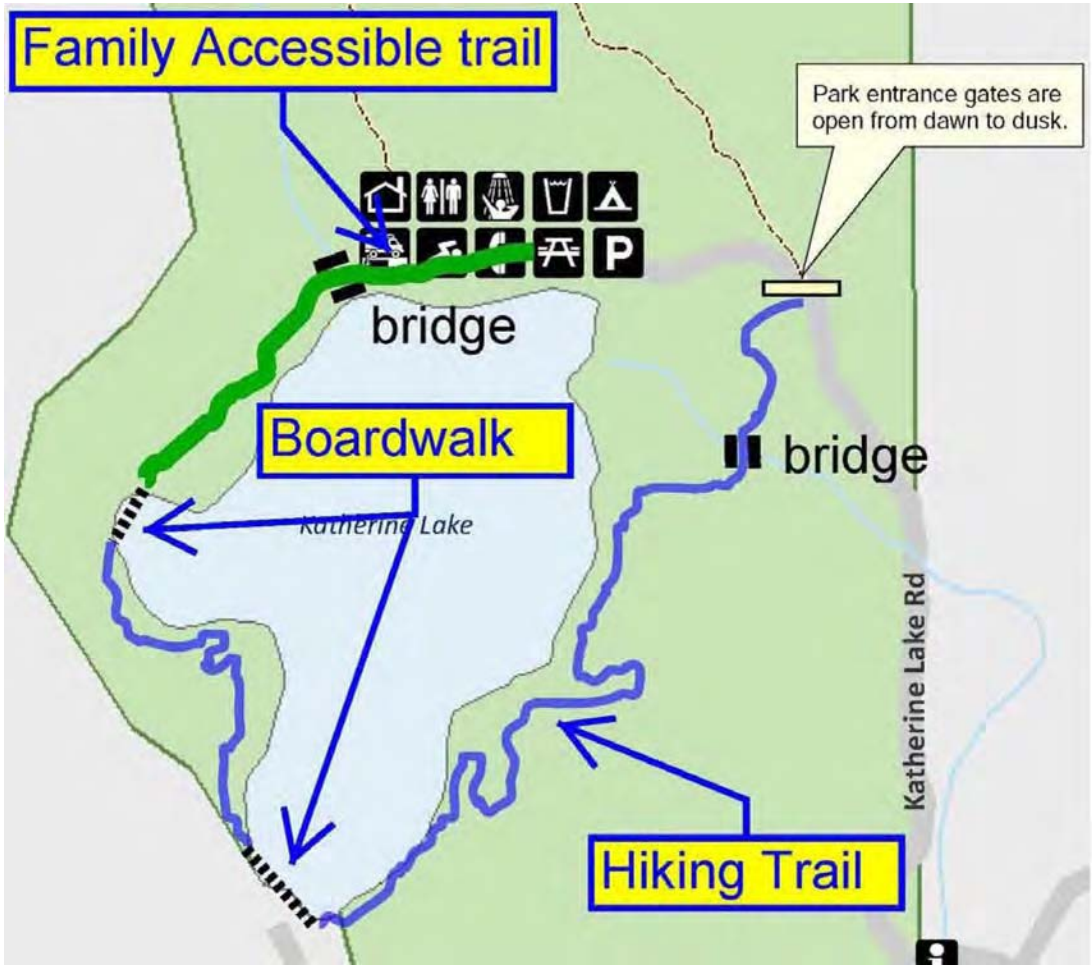
- Construction includes trail and bridge or culverts for the exit creek.





Hiking Trail: Continuing from Family Trail

- BC Parks Type III or Type IV standard: tread width between .5 and .75 meter.
- Combination of boardwalks and forest trail.
- Falconbridge Road: 30 meters of trail and boardwalk will lead around the south side of the lake near the private properties.
- East side of lake: Moderately steep section of trail with switchbacks up and along a bluff will continue north until connecting with an existing lakeside trail and existing viewing float.
- 6 meter bridge across creek leading into Katherine Lake from Garden Bay Lake.
- The trail exits onto the Katherine Lake access road close to the existing park gate with a 300 meter walk back to the viewing pavilion.



D. **Design & Construction Standards and Methods**

- Design and layout by SCRD staff in coordination with volunteers for field layout.

- The trails will be built by a combination of volunteer and contracted manual labour, as well as contracted trail building services.

Family Accessible Trail:

- Machine built trail with gravel surface.

Hiking Trail:

- The layout and alignment of the hiking trail will be a combination of SCRD and volunteers to ensure that the trail stays off private land.

- Hand built to a Type III or IV standard using manual labour and mostly native soil.

- Portions that cross meadow or wetland will require timber boardwalks with some portions floating as required.

E. Signage

- Katherine Lake Loop: Direction and interpretive signs.

- Katherine Lake to Mixal Lake Regional Park (several existing trails): Directional signage.

F. Budget: Trails and Signage combined

Working with the SCRD, the proposed budget for the Katherine Lake Trail and signage combined is approximately $116,000:

	Trail Project	Signage	Combined
Project Management	5,700	3,900	9,600
Labour & Contracts	46,500	1,300	47,800
Administration	4,300		4,300
Equipment	8,300	300	8,600
Materials	15,000	1800	16,800
Additional Contracts (garbage cans, table etc.)	10,200		10,200
Sub-total	90,000	7,300	97,300
Contingency	18,000	1,000	19,000
Project Total	**$108,000**	**$8,300**	**$116,300**

G. Maintenance & Stewardship

- Katherine Lake Loop Trail fully within SCRD park land with a small portion on road right of way.

- Trails will be maintained and cleared of dead falls by SCRD and local trail users in coordination with SCRD.

- The Katherine Lake Trail initiative is being supported by the Pender Harbour Rotary Club to promote tourism, health and an active lifestyle.

H. Neighbours

Disruption to private property owners is always a concern when new projects are proposed. The entire proposed trail is on SCRD parkland except for a small portion of road right of way at the south end. None of the proposed trail is on private property with the nearest private lands being on Falconbridge Road. In order to minimize any conflicts with private property, the proposal does not connect the trail with Falconbridge Road with all trail access from within Katherine Lake Park.

I. Conclusion

The addition of an accessible trail in a natural forest and lake setting will be an asset to the Pender Harbour community as well as the SCRD parks system. The hiking loop adds a feature to both the park and the Pender Harbour area by adding a lake loop to the local trail network.

The new trail will be minimum impact on the existing terrain and ecosystem but allow access to our beautiful coastal forests. The Katherine Lake Trail, with your support, will be an asset to the Pender Harbour areas and will become an iconic part of the Sunshine Coast trail network.

Jonathan Paine
Pender Harbour Rotary Club

Appendix 1 – Accessible Trail

Photo: Looking west from the existing handicap parking the existing trail runs 70 meters to the picnic table.

Photo: From the picnic table looking west, the accessible path requires reduced cross fall and surfacing with gravel down to the playground equipment.

Photo: The accessible path will run on the left (north) of the playground equipment.

Photo: From the playground equipment to the creek requires raising above the water table.

Photo: From the bridge across the creek there is approximately 30 meters of wet area that requires raising above the water table and surfacing with gravel.

Western painted turtle viewed from existing bridge.

WAYFINDING AND BEACH ACCESS SIGNAGE FOR PENDER HARBOUR

Prepared by the Pender Harbour and Area Residents Association, Spring 2021, with support from the Pender Harbour Rotary Club and the Pender Harbour Chamber of Commerce

PROJECT DESCRIPTION

Tourism is Vital

As we all know, tourism is one of the main economic drivers of the Sunshine Coast. It benefits all facets of business: restaurants and grocers, accommodation, retail outlets, adventure tourism and so on.

The Drawback: Lack of Access

One of the biggest drawbacks to tourism in Area A is the lack of access to some of our finest oceanside attractions. Many of our parks and public have zero signage to attract visitors. For example, residents often report talking to visitors who are lost and frustrated while trying to find our spectacular Francis Point Provincial Park, but there is no directional signage in the community. Being unable to find our best oceanfront attractions (other than the Skookumchuck) is clearly detrimental to tourism.

Helping Visitors Interact with our Ocean

With this in mind, PHARA is proposing that select signage be installed at the sites listed herein. Attached maps should help those who may not be familiar with the sites (which is another reason for erecting signs).

First Nations Recognition

The Shíshálh nation would be invited to add their historic names for the areas to the park and access signage.

FRANCIS POINT PROVINCIAL PARK

Location: (N 49.610936. W 124.05752) At the end of Merrill Road off Francis Peninsula Road

Attractions: Easy access to sheltered ocean bay, excellent hiking trails through 81 hectares of forest and along mossy bluffs fronting on the Strait of Georgia. Fantastic views over the Strait. Great picnic spot. Good parking. Outhouse.

Ownership: Private land under lease to the Provincial Government.

Reason for signage: Currently there are no directions signs on highway or at the access to road to park. It is not on a main road. Visitors have been unable to find the park since its inception. Many residents report visitors driving around in frustration trying to find it.

Signage request: Install one sign at the intersection of Francis Peninsula Road and Highway 101 on MOTI right of way. Sign to read: "Francis Point Provincial Park" with a directional arrow. Install second sign at the junction of Merrill Road and Francis Peninsula Road on MOTI right of way. Sign to read: "Francis Point Provincial Park" with a directional arrow.

Wayfinding signage to FP Prov Park

FRANCIS POINT PROVINCIAL PARK

GARDEN BAY MARINE PROVINCIAL PARK

Location: (N 49.646173. W 124.007640) Turn off Highway 101 at Garden Bay Road. Follow until Claydon Road. Left on Claydon to park sign.

Attractions: Overlooks Garden Bay waterfront and boat anchorage. 4.5 km walking trail through forest and along 200 metres of shoreline, swimming, dinghy dock for launching kayaks, canoes, SUPs etc., fishing, picnic tables, outhouse. Good parking.

Ownership: Provincial Government park, signs on MOTI right of way.

Reasons for signage: Park is seldom used as the only signage is at the entrance to the park off Claydon Road, which is not on any main road.

Signage request: Install sign at the junction of Claydon Road and Garden Bay Road on MOTI right of way. Sign to read: "Garden Bay Marine Provincial Park," with a directional arrow.

GARDEN BAY MARINE PROVINCIAL PARK

GARDEN BAY MARINE PROVINCIAL PARK

GARDEN BAY MARINE PROVINCIAL PARK/MOUNT DANIEL HIKING TRAIL

Location: (49.64548° N. 124.00048° W) Access off Garden Bay Road (5223 Garden Bay Rd). Turn left onto Garden Bay Road from Highway 101. Look for pullout/parking area on left side of road a short distance past the road the Pender Harbour Transfer station.

Attractions: Approx one-hour hike to top of mountain. Excellent views all round. Very popular tourist attraction.

Ownership: Provincial Government park, signs on MOTI right of way.

Reason for signage: Access and parking area is very poorly marked. Small trail map sign is poorly visible. Many visitors cannot find the access.

Signage request: Mount Daniel Hiking Trail sign opposite parking area pointing to access, on MOTI right of way. Sign to read: "Mount Daniel Trail" with a directional arrow.

GARDEN BAY MARINE PROVINCIAL PARK/MOUNT DANIEL HIKING TRAIL

GARDEN BAY MARINE PROVINCIAL PARK/MOUNT DANIEL HIKING TRAIL

BAKER BEACH (KWILKWILEM)

- **Location:** 12499 Baker Road. Turn off Highway 101 at Francis Peninsula Road, left on Murdoch, left on Davis Road which becomes Baker Road. Drive to parking area at end of Baker Road.
-
- **Attractions:** Five-acre park. Very pretty setting. One of the few accessible sandy ocean beaches in the harbour. Driftwood logs for lounging. Swimming, picnic benches. Dogs on leash. Wheelchair accessible trails. Good parking.
-
- **Ownership:** SCRD, signs on MOTI right of way.
-
- **Reasons for signage:** Very difficult to find for visitors due to the many turns that must be made to reach the park.
-
- **Signage request**: One sign at the intersection of Warnock Road and Davis Road on MOTI right of way. Sign to read “Baker Beach Park” with a directional arrow.

BAKER BEACH (KWILKWILEM)

BAKER BEACH (KWILKWILEM)

MARTIN COVE

Location: (N 49.6213. W 124.0639) Near end of Francis Peninsula Road. Turn off Highway 101 onto Francis Peninsula Road. Either drive along the length of Francis Peninsula Road or the more direct route: Follow Francis Peninsula Road to Murdoch. Make left onto Murdoch then left onto Francis Peninsula Road. Martin Cove is on the right.

Attractions: Secluded cove with deep walls for scuba diving and established path down to beach. Logs to lounge on. Popular swimming and scuba diving spot with easy entrance to ocean. Kayak, canoe SUP launch site. Underwater sea life includes wolf eel, octopus and nudibranchs. Parking is limited.

Ownership: MOTI right of way

Reason for signage: Currently not marked at all. Visitors may not know it is a public access.

Signage request: Sign on Francis Peninsula Road at entrance to access point. Sign to read "Martin Cove Beach Access" with a directional arrow.

MARTIN COVE

MARTIN COVE

BARGAIN HARBOUR

Location: Turn off Highway 101 at Francis Peninsula Road, proceed over small bridge over Canoe Pass and pull off to the left side of Francis Peninsula Road at the pullout overlooking the ocean (Bargain Harbour).

Attractions: Great views of the bay, steps that lead down to the rocky shoreline, ample parking, scenic rest stop.

Ownership: MOTI right of way.

Reason for signage: The path to the beach is not marked and most people will miss it.

Signage request: Request a beach access sign near the steps to the beach or across road. Sign to read "Bargain Harbour Beach Access" with a directional arrow.

BARGAIN HARBOUR

BARGAIN HARBOUR

OVERALL BEACH ACCESS/OUTDOOR ADVENTURE SIGNAGE

We propose a community beach access, outdoor adventure and attractions sign to alert visitors to these local activities.

Location: Northwest corner of Highway 101 and Francis Peninsula Road, across Francis Peninsula Road from the Pender Harbour Health Clinic. There is a wide undeveloped gravel section of road here, currently used for general parking. In addition, a tourist information highway sign announcing the map could be placed on Highway 101 south of Francis Peninsula Road.

Attraction: A general map on this unused section of MOTI right of way would allow visitors to better locate the main ocean access points as well as other useful information for visitors (i.e. lake access, trailheads and other outdoor activities). This would not only guide visitors but show them some of the excellent activities available in our area and reduce the current confusion on finding these locations.

Ownership: MOTI right of way

Reason for Signage: This map would better provide information about the myriad outdoor opportunities in our area and to provide access information for visitors. Currently there is no such signage at any of the entrances to the Pender Harbour area.

Signage request: A large sign, potentially 4' x 8' be erected in the location noted above. Also, another sign be located on Highway 101 south of Francis Peninsula Road to alert visitors of the map just ahead.

GENERAL WAYFINDING SIGNAGE

NEXT STEPS

We are currently mapping out exact GPS coordinates for these signs. If the project receives SCRD support, we would be asking you to approve staff time for assistance in reviewing, approving and determining a plan to support this important community initiative, and to garner the necessary approvals from MOTI and Provincial Parks on our behalf.

The signs would be designed and built to SCRD (and MOTI) standards and then approved by the SCRD and MOTI. The Pender Harbour and Area Residents Association (PHARA) volunteers would work with the sign makers to produce the signs and would take on installation of the signs or, if the SCRD prefers, they could do the installations themselves.

PHARA has $2,500 in funding (thanks to a 2020 SCRD Grant in Aid). All we are asking is that the SCRD allow staff to spend time to help obtain the necessary approvals.

Active Transportation Path

May 1, 2021

Prepared by the Pender Harbour and Area Residents Association and the Pender Harbour Rotary Club with the support of the Pender Harbour Chamber of Commerce, Spring 2021

Overview

A short section of Garden Bay Road between Hospital Bay and Garden Bay Lake experiences unusually heavy traffic volumes due to multiple feeder roads funneling two way traffic into this "choke" point. The problems are:

- A dangerous, hilly, winding stretch of Garden Bay Road with limited visibility, no shoulders, a steep embankment one side and a drop off on the other side.
- Very busy with truck and other vehicular traffic as they transit to and from commercial businesses, population centres and nearby recreational opportunities.
- The only way visitors to the harbour arriving by boat can access Garden Bay Lake and other recreational opportunities in the area.
- Impossible, or at the very least inadvisable to walk towards Garden Bay Lake, facing traffic, as vehicles coming down the road must hug the right hand side for a blind right hand corner.
- With pedestrian traffic present, vehicles must drive in the oncoming lane to avoid them creating a recipe for disaster..

Lack of a multipurpose path creates a real hazard for tourists and locals who are forced to transit this area.

Problem Area

Solution

Solution

A widened and paved shoulder would facilitate (actually enable) walking and Biking traffic to and from these downtown Garden Bay and Hospital Bay Commercial Areas for inhabitants of residential and recreational areas such as Duncan Cove, Hotel Lake Resort, PODS, Irvines Landing, Garden Bay Lake, Sakinaw Lake, Bear Bay Road, Hammond Road, Katherine Lake Park and Panarama Drive.

Start at Dans Greens/Government Wharf

At Lyons Road Intersection – Looking up the hill

By the autocourt

1st Corner

2nd corner – mid hill

Straight section

Claydon Road Intersection

Hotel Lake Road Intersection – top of hill

Looking at Garden Bay Lake Pump House – proposed new paved path would join existing "ad hoc" dirt path at the pump house

What's Next

It is a relative short 680 linear meters of "widened and paved" shoulder required.

Very rough guess for entire section is $90K with a plus or minus $40K degree of confidence (around $60 per square meter?)

First proposed step is to hire an engineer to design and price (Gas Tax?)

Hopefully MOTI, grants or more Gas Tax could fund the entire project

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Planning and Community Development Committee – June 17, 2021

AUTHOR: Matt Treit, Manager of Protective Services

SUBJECT: **COMMUNITY WILDFIRE PROTECTION PLAN**

RECOMMENDATION(S)

THAT the report titled Community Wildfire Protection Plan be received;

AND THAT the Community Wildfire Protection Plan be accepted by the Board;

AND FURTHER THAT the Community Wildfire Protection Plan be submitted to UBCM;

AND FURTHER THAT the Community Wildfire Protection Plan be referred to other Sunshine Coast local governments as guidance and in support of coordinated action on community wildfire protection.

BACKGROUND

On November 14, 2019, the Board approved the application for a grant (in conjunction with the shíshálh Nation, Town of Gibsons, and District of Sechelt) to fund the development of a Community Wildfire Protection Plan (CWPP).

286/19 **Recommendation No. 9** *Community Resiliency Investment Program Grant Application*

> THAT the staff report titled Community Resiliency Investment Program Grant Application be received;
>
> AND THAT the grant application to the Union of British Columbia Municipalities' Community Resiliency Investment Program for development of a Community Wildfire Protection Plan for the Sunshine Coast Regional District be approved;
>
> AND FURTHER THAT a request for letters of support be forwarded to the Town of Gibsons, District of Sechelt and shíshálh Nation.

Following this resolution, and grant application, a grant was received, and an RFP was issued for the development of a Community Wildfire Protection Plan. The SCRD, in conjunction with the Town of Gibsons, District of Sechelt, and shíshálh Nation selected Diamond Head Consulting to develop the CWPP, which has now been completed.

DISCUSSION

The plan, which includes input from staff representatives of all participating jurisdictions, is now ready to be presented to the Board for approval before it is submitted to UBCM for approval to secure the grant funding for the CWPP. Once the report has been accepted by UBCM, it can form the basis for future grant applications, and those grants could provide funding for the operational work to be conducted to reduce the risk Wildland Urban Interface fires throughout the Sunshine Coast.

The CWPP includes recommendations for action over the next 5 years. These recommendations are focused on local governments only, and do not extend directly to private property owners, etc. Some of the actions, such as amendments to OCPs, would trigger a public participation process at the time the recommendation is advanced. Stakeholder input would strengthen the implementation of some of the actions and would be sought at the time work is advanced.

Timeline for Next Steps

In March 2021, the SCRD applied for regional grant application to the Union of British Columbia Municipalities' Community Resiliency Investment Program to build local wildfire resiliency and assist communities in recovering from the economic impacts of the COVID-19 pandemic through the FireSmart Economic Recovery Fund. Results of the application are expected by June or July, 2021 and staff expect to report back at that time.

In terms of future work undertaken in alignment with the plan, the date of the next intake for other Community Resiliency Investment Program applications is yet to be determined. Further grant applications will be submitted to access those funds once they are available.

Organizational and Intergovernmental Implications

The CWPP represents successful intergovernmental coordination. Staff recommend the report be referred to other Sunshine Coast local governments as guidance and in support of community wildfire protection.

SCRD will continue to coordinate with other local governments of future CWPP-related grant applications or action.

Financial Implications

The acceptance of this plan does not commit SCRD to undertake actions, and provides the opportunity for future grant support.

Submitting the CWPP to UBCM will enable SCRD to access future grant opportunities.

Decisions on specific grant applications, awards and workplan items will require future Board direction through the annual budgeting process or at the time that grants become available.

STRATEGIC PLAN AND RELATED POLICIES

The Community Wildfire Protection Plan meets SCRD Strategic Plan Priorities: Increase Intergovernmental Collaboration and Develop Clime Change Adaptation Strategy.

CONCLUSION

The acceptance of this report, and support of the CWPP by the Board will further work related to reducing the risk of wildland urban interface fires throughout the Sunshine Coast.

ATTACHMENTS

Attachment A - Community Wildfire Protection Plan

Reviewed by:			
Manager		CFO/Finance	X – T. Perreault
GM	X – I. Hall	Legislative	
CAO	X – D. McKinley	Other	

Sunshine Coast Regional District
Community Wildfire Protection Plan

Report by Diamond Head Consulting

April 2021

DRAFT

Community Wildfire Protection Plan for Sunshine Coast Regional District

Final Report Submitted on: April 7, 2020

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Professional Seals:

Add prior to finalization

Professional Acknowledgement

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- Diamond Head Consulting Ltd:
    - Conor Corbett, RPF
    - Matthew Shields, RPF
    - Michael Coulthard, RPBio, RPF
    - Marco Sanelli, GIS Technician
- Geographica Group
    - Nick Zukanovic, GISP

This document would not have been possible without the contributions and support of the project partner staff. These individuals offered guidance and peer review throughout the project:

- Matt Treit, SCRD Manager of Protective Services
- Kim Wilkinson, SIGD Senior Advisor for Stewardship and Policy
- Isabelle House, SIGD Senior Biologist
- Emanuel Machado, Town of Gibsons, Chief Administrative Officer
- Jo-Anne Frank, District of Sechelt, Corporate Officer

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- Tony Botica – Wildfire Prevention Officer – Coastal Fire Centre
- Dana Hicks – Wildfire Prevention Specialist – Wildfire Threat

The project partners acknowledge that this project took place on the Traditional Lands of the Sechelt (shíshálh) and Squamish (Sḵwx̱wú7mesh Úxwumixw) Nations and thanks them for their input on this project.

Finally, we would like to thank the Community Resiliency Investment Program (CRI) and Union of British Columbia Municipalities (UBCM), whose support was critical to the funding and completion of this project.

Executive Summary

The Sunshine Coast Regional District has prepared this Community Wildfire Protection Plan in partnership with the Sechelt Indian Government District, Town of Gibsons, and District of Sechelt. This plan examines wildfire risk in the shared wildland-urban interface of the partnering governments and offers recommendations to improve community preparedness and resilience to wildfire.

The type of development and extensive forested areas that characterize the Sunshine Coast also contribute to its vulnerability to wildfire. Many communities are intimately intermixed within and among the region's forest. A complex geography of inlets, mountains, and islands restrict most locations to only one or two points of access to the wider region in the event of a local emergency. The region is isolated from the rest of British Columbia and relies on marine transportation to service daily needs and, if necessary, evacuation. Much of the infrastructure critical to the functioning of these communities, including water and electrical utilities, fire stations, communications, and community buildings, is located within the wildland-urban interface. Sections 1 through 3 of this CWPP place the study area in context of these factors and identify key values at risk.

The wildland urban interface is the zone where homes and businesses meet the forested landscape. In British Columbia, this has historically been defined by area that have over six structures per hectare that are adjacent to greater than two kilometres of forest. Within this CWPP, the recognized wildland urban interface is 441 km^2 and has been adjusted to account for local geography and important values at risk. In the wildland urban interface, consultants conducted wildfire risk assessments on public land, examining structures and the characteristics of forest vegetation. These assessments were used to map the wildfire risk in relation to known values throughout the wildland urban interface. The analysis shows that much of the study area is characterized by a high wildfire risk, including the areas around communities such as Egmont, Pender Harbor, Halfmoon Bay, West Sechelt, Sechelt Inlet, Roberts Creek, Port Mellon, and Gambier Island. Development in these areas has placed buildings and infrastructure near forests that can sustain fires with moderate to high wildfire behavior. Centrally located areas in the District of Sechelt, the Sechelt Indian Government District, and the Town of Gibsons face moderate or low risk because they are more widely separated from adjacent forests by agricultural land, industrial quarries (SIGD), or intervening residential development. Section 4 of this CWPP describes the results of risk analysis.

There are proactive measures that can be taken to reduce wildfire risk through operational treatments of interface fuels, community planning, and preparedness as well as education to increase public awareness. Twenty four interface areas that pose a substantial risk to urban development and critical infrastructure have been identified. These include public lands that qualify for funding to develop and carry out treatment prescriptions. The management of interface areas that are on private land are generally beyond the jurisdiction of local government. Public education and awareness of wildfire risk and options for mitigation and preparedness is a critical component of this CWPP. The Firesmart program and its resources should be distributed to residents as the foundation for raising public awareness.

Local governments have some ability to mitigate wildfire risk through planning and policies. Creating development permit areas is recommended to reshape interface areas over time. These influence the design of buildings and landscaping and improve the resilience of new structures to wildland fire. Other

actions include review of land use regulations, updating of building and subdivision codes, encouraging neighbourhood FireSmart programs, and providing additional resources for a regional wildfire coordinator. Recommendations to treat interface fuels, improve community planning, and increase public awareness are summarised in Section 5.

Early detection and response are critical to prevent large scale wildfire events. Firefighting resources available to the project partner governments have been inventoried as well as training systems. Water availability is reviewed both for wildland and structural fires. Emergency planning and evacuation is reviewed, and recommendations are made to develop both local and regional evaluation plans. Section 6 provides a summary of recommended suppression response protocol and resources available to these communities.

This Community Wildfire Protection Plan has been developed by the project partners to acknowledge existing and future wildfire risk in our communities. It provides a roadmap for improving the resilience of this area to this natural hazard. Prioritised recommendations are made and framed to access further funding opportunities. The project partners recognize this Plan as a fundamental first step towards improving the resilience of the communities to the impacts of wildfires.

Summary of CWPP Recommendations

This report includes information about the current wildfire threat and risk within the study area and provides many recommendations on what can be done by both local government and private individuals. Some of these recommendations can be implemented with relatively low cost. Others, such as fuel treatments, require more substantial resources and support from the Provincial government and inter-agency cooperation. Recommendations have been prioritized based on how quickly they can be implemented and their relative impact on reducing wildfire risk.

There are funding sources available to help implement many of these recommendations. UBCM manages the Community Resilience Investment (CRI) Program which offers up to 100% funding for a range of wildfire mitigation initiatives. Many of the recommendations made in this report are eligible for CRI funding. Estimated costs for implementing these recommendations are in addition to existing operating budgets.

Number	Action Item	Section in document	Priority	Timeline years	Estimated cost or effort
1	Continuously review the CWPP as a living document and complete an update every 5 years.	1.2	Low	5+	CRI funding eligible
2	Develop a fuel management working group with representatives from the provincial government, regional district, partnering governments, and local First Nations to establish and review prioritization for fuel management.	5.1	High	1-2	80 hours
3	Develop fuel management plans for treating priority interface treatment areas. Target top 3-6 priority areas under local government jurisdiction for prescription development, with a phased approach for next areas	5.1	High	1-2	CRI funding eligible
4	Implement prescriptions developed from the fuel management plan.	5.1	High	2-3	CRI funding eligible
5	Develop a parks forest management plan for SCRD parks that includes objectives for fuel management and strategies for achieving those objectives.	5.1	Medium	3-5	CRI funding eligible
6	Conduct FireSmart assessments for First Nation owned buildings, publicly owned buildings or publicly, provincially and First Nations owned critical infrastructure in the AOI.	5.1	High	1-2	CRI funding eligible
7	Use FireSmart assessments to prioritize retrofitting and fuel management for critical infrastructure in the SCRD in the AOI.	5.1	High	2-3	CRI funding eligible

Number	Action Item	Section in document	Priority	Timeline years	Estimated cost or effort
8	Create a FireSmart Demonstration project for SCRD owned critical infrastructure.	5.1	Medium	2-3	CRI funding eligible
9	Create a FireSmart Demonstration project for District of Sechelt owned critical infrastructure.	5.1	Medium	2-3	CRI funding eligible
10	Create a FireSmart Demonstration project for SIGD owned critical infrastructure.	5.1	Medium	2-3	CRI funding eligible
11	Create a FireSmart Demonstration project for Town of Gibsons owned critical infrastructure.	5.1	Medium	2-3	CRI funding eligible
12	Develop a Regional Fire Smart Coordinator position through the SCRD. Responsibilities of this coordinator are described in Table 18	5.2.2	Medium	1-2	CRI funding eligible
13	Develop FireSmart plan for identified high wildfire risk FireSmart priority areas.	5.2.2	High	2-3	CRI funding eligible
14	Develop FireSmart plan for identified moderate wildfire risk FireSmart priority areas.	5.2.2	Medium	3-5	CRI funding eligible
15	Support homeowners to reduce fuel loading on private land by reducing barriers to debris disposal. This could include providing bins for waste, chipping and disposing of waster, or waiving tipping fees for fuel management debris.	5.2.2	Medium	2-3	CRI funding eligible
16	Conduct a regional study to determine areas for a Wildfire Development Permit Area to apply. This should examine the feasibility and impact on property of applying different buffer distances from areas of high risk fuels or native forest vegetation to determine the DPA extent. Individual OCP amendments will be required for each jurisdictional area.	5.2.3	High	1-2	CRI funding eligible
17	Revise the Egmont/Pender Harbour Official Community Plan to include wildfire as a Development Permit Area.	5.2.3	High	2-3	CRI funding eligible
18	Revise the Elphinstone Official Community Plan to include wildfire as a Development Permit Area.	5.2.3	High	2-3	CRI funding eligible

Number	Action Item	Section in document	Priority	Timeline years	Estimated cost or effort
19	Revise the Halfmoon Bay Official Community Plan to include wildfire as a Development Permit Area.	5.2.3	High	2-3	CRI funding eligible
20	Revise the Hillside/Port Mellon Official Community Plan to include wildfire as a Development Permit Area.	5.2.3	High	2-3	CRI funding eligible
21	Revise the Roberts Creek Official Community Plan to include wildfire as a Development Permit Area.	5.2.3	High	2-3	CRI funding eligible
22	Revise the Twin Creeks Official Community Plan to include wildfire as a Development Permit Area.	5.2.3	High	2-3	CRI funding eligible
23	Revise the West How Official Community Plan to include wildfire as a Development Permit Area.	5.2.3	High	2-3	CRI funding eligible
24	Revise the District of Sechelt Official Community Plan to include wildfire as a Development Permit Area for the District of Sechelt.	5.2.3	High	2-3	CRI funding eligible
25	Develop a community communication and engagement strategy.	5.3	High	1-2	80 hours
26	Establish neighbourhood specific interest groups. Including a local government representative and/or Fire Rescue liaison in these groups will facilitate engagement and education on FireSmart initiatives and keep the focus of the groups on wildfire issues.	5.3	Medium	2-3	CRI funding eligible
27	Representatives from each government should training for Local FireSmart Representatives, Home Partners, FireSmart 101, and Community Champions	5.3	Medium	2-3	CRI funding eligible
28	Develop a FireSmart brochure that focuses on the local context of wildfire in the AOI. Include material on reducing human caused fires.	5.3	High	1-2	CRI funding eligible
29	Provide educational material and promote wildfire awareness during large public events or festivals, as through brochures and pamphlets, scheduled presentations, or information booths.	5.3	Medium	2-3	CRI funding eligible
30	Organize an open house to accompany any FireSmart fuel treatments undertaken by the project partners.	5.3	Medium	2-3	CRI funding eligible

Number	Action Item	Section in document	Priority	Timeline years	Estimated cost or effort
31	Distribute a summary of this CWPP through local government communications channels. Include summary maps for easy reference for community members.	5.3	High	1-2	CRI funding eligible
32	Update the local government websites to contain direct links to important FireSmart resources, such as this CWPP and the FireSmart Begins at Home Manual. If possible, include local FireSmart buildings and landscaping as examples.	5.3	High	1-2	CRI funding eligible
33	Integrate wildfire layers from this report into the GIS open data tools that exist on partnering government websites.	5.3	High	1-2	CRI funding eligible
34	FireSmart projects, including any building changes or vegetation and fuel management, should be showcased on local government websites and potentially with interpretive signage in the field.	5.3	High	1-2	CRI funding eligible
35	Conduct annual spring media campaign to promote reducing human wildfire ignitions.	5.3	High	1-2	CRI funding eligible
36	Consult and coordinate with utility providers to create defensible spaces and reduce risk around all substations.	5.4	Medium	1-2	CRI funding eligible
37	Post wildfire awareness signs at high use camp sites, recreation areas, and high use trail heads during the summer.	5.4	Moderate	1-2	$5,000
38	Create a water availability map for the study area, integrating information from all partnering fire departments.	6.1.2	High	1-2	CRI funding eligible
39	Identify critical water resources on the water availability map. Identify the specific critical resources that should not be used for drafting.	6.1.2	High	1-2	CRI funding eligible
40	Complete evacuation plans for each partnering government.	6.1.3	High	3-5	Non CRI Funding streams available
41	Ensure that all firefighters in all departments receive basic wildfire training, including S100, S185, and ICS100.	6.1.4	High	3-5	CRI funding eligible
42	Ensure that all fire departments are trained in use of Structure Protection Unit deployment.	6.2	High	1-2	Integrate into current training program

Number	Action Item	Section in document	Priority	Timeline years	Estimated cost or effort
43	Conduct cross-jurisdictional meetings and tabletop exercises annually before fire season. Include emergency managers from partnering governments, representatives from local fire departments, and representatives from the BCWS.	6.2	High	1-2	CRI funding eligible

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Section 1: Introduction

1.1 Purpose

The Sunshine Coast Regional District (SCRD), Town of Gibsons, District of Sechelt, and the Sechelt Indian Government District (SIGD) recognize wildfire planning and mitigation as a critical component of emergency preparedness for their communities. The varied geography and forest character of the communities present unique challenges and opportunities for managing wildfire risk in this region. Communities are generally set within the forest and have areas of *intermix* development – where buildings are closely placed within and among trees – and areas of *interface* – where contiguous urban development directly abuts forests. This region where homes and structures are threatened directly by forest fire is the *wildland urban interface*, and generally considered to extend up to two kilometres around urban developments. In recognition of the vulnerability to wildfire, the aforementioned local governments have created a partnership to proactively manage wildfire risk. This partnership has commissioned this Community Wildfire Protection Plan (CWPP) to improve the resilience and protection measures of the partnering communities.

Wildfire risk is a product of the probability of a wildfire occurring combined with the consequences if it did occur.

Wildland urban interface is the area around communities where development is among or abuts forest, and consequently where development faces greater wildfire risk.

The purpose of this CWPP is to define the risk from wildfire to human life, property, critical infrastructure, and identified values, and to provide a framework to proactively reduce this risk. This document identifies necessary measures and actions that will result in:

1. Reduced likelihood of a wildfire entering the community.
2. Reduced impacts and losses to property, critical infrastructure, and other values.
3. Reduced negative economic and social impacts to the community.
4. Future development that is resilient to wildfires.

The mitigation of wildfire risk is an ongoing effort which is achieved through adoption of municipal policy, vegetation management, and community education. Several themes are defined and provide a framework for this CWPP document :

Theme 1: Much of the understanding of the nature of wildfire risk is from other regions, which adds uncertainty to predicting fire behavior and likelihood on the Sunshine Coast.

Theme 2: Climate change is expected to result in higher levels of wildfire risk in the near future.

Theme 3: The project partners can proactively mitigate wildfire risk through the management of interface vegetation and community policy and planning.

Theme 4: Inter agency cooperation between the project partners and provincial agencies is critical to manage wildfire risk.

Wildfire Trends

Wildfires have historically been the most significant natural disturbance in British Columbia. The impacts from wildfires have been increasing throughout the province. Over the past decade there has been an average of 1,692 fires per year in British Columbia, burning an average of 151,000 ha each year (BC Wildlife Service, 2020). Almost half of these fires were a result of human-caused ignitions. Wildfires have cost the province almost 2.6 billion dollars in the last decade in direct costs for suppression and emergency response (BC Wildfire Service, 2020). This does not include the impacts of evacuations and business closures, uninsured losses, public health expenditure for treating smoke inhalation and burns, as well as anxiety and trauma resulting from wildfire events. The 2017 and 2018 wildfire seasons were the worst on record in British Columbia, damaging over 2.5 million hectares; an area equal to 80% of Vancouver Island, or 6.5 times the size of the SCRD's total area. In 2017, several large interface fires resulted in the displacement of 65,000 people under evacuation orders, while many hundreds of thousands suffered from heavy smoke in BC's major urban areas (BC Wildlife Service, 2020).

The trend of increased area burned and fire suppression costs has been documented across North America (Marlon, et al., 2012). This can be in part attributed to climate change, which is contributing to hotter and drier weather in the spring and summer. This is causing vegetation to grow earlier, dry out faster, and remain dry for a longer period (Hope, McKenney, Pedlar, Stocks, & Gauthier, 2016). Since 1985, it is estimated that 50% of the increase in the area burned by wildfire in the western United States has been due to human caused climate change (Abatzoglou & Williams, 2016). Worldwide, the length of the fire season increased by 19% from 1979 to 2013. Research in British Columbia has estimated that the record-setting 2017 fire season was made 2-4 times more likely by climate change (Kirchmeier-Young, Gillett, Zwiers, Cannon, & Anslow, 2019).

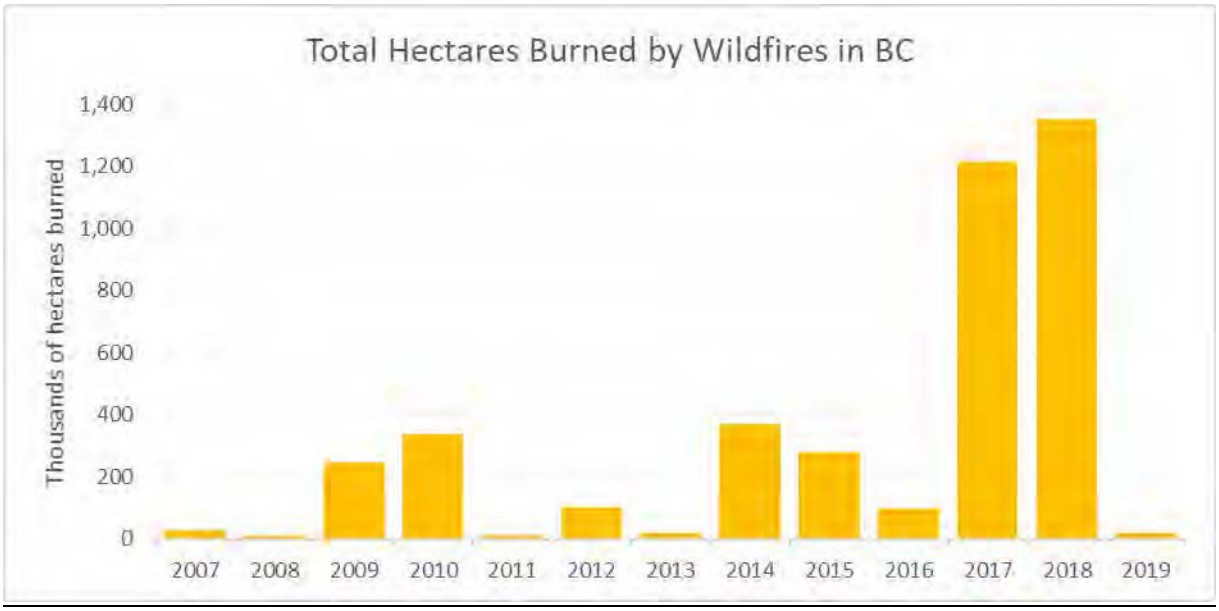


Figure 1 Total area (ha) burned by wildfires in BC by year from 2007 to 2019 (BC Wildlife Service).

Historically, the temperate coast of BC has experienced smaller wildfires, often contained by unfavourable fuel conditions and weather (Lertzmann, et al., 2002; Daniels & Gray, 2006). However, the risk of large wildfires to coastal communities is predicted to increase with longer and more extreme wildfire seasons. *Fuels* are those elements of the forest that can burn, including the forest floor, logs, dead branches and needles, and live foliage of trees. Owing to the coast's optimal growing conditions, fuel loading is often high (Morgan, Bagley, McGill, & Raymond, 2019). Consequently, when wildfire threat is elevated there is potential for extreme fire behavior. While the wet, maritime climate of the region limits wildfire potential for much of the year, the increasingly prevalent dry summer conditions present a window during which the threat of a wildfire is considerable (Halofsky, Conklin, Donato, Halofsky, & Kim, 2018; Agee, Wright, Williamson, & Huff, 2002). This vulnerability has been proven south of the border, with coastal ecosystems in Oregon and Washington experiencing extreme wildfires that are outside the historical coastal fire regime.

Climate change models are predicting that the mean annual temperature will increase by 1.6°C by the 2050s, led by similar summer temperature increases. Precipitation during the summer is expected to decline by 16%, while much more of the winter precipitation in watershed headwaters will fall as rain instead of snow (Pacific Climate Impacts Consortium, 2013). Warmer temperatures and reduced summer precipitation can be expected to increase the length of the wildfire season and the incidence of wildfire in coastal forests (Haughian, Burton, Taylor, & Curry, 2012). Feasible strategies to protect communities from wildfire must focus on the factors that can be changed now. This includes managing fuel in forested areas adjacent to development, enhancing building and neighbourhood design, improving suppression response and capability, reducing human-caused ignitions, and increasing public awareness of wildfire risk through education.

1.2 CWPP Planning Process

CWPP Guiding Principles

The following guiding principles have been developed to help guide and support decision making and prioritize actions to manage wildfire risk. See Figure 2 for an illustration of the CWPP development process.

Guiding Principles	
Public Health and Safety	Public safety is the foremost priority for all wildfire management activities.
Protection of infrastructure	Community infrastructure, including private property, public structures, and facilities, is protected from wildfire.
Sustainable Planning	Growth and development improve quality of life, maintain a healthy environment, and ensure a prosperous future.
Environmental Protection and Enhancement	Ecosystems that support biodiversity and environmentally sensitive features are protected and enhanced.
Interagency Co-operation and Policy	Wildfire management planning, preparedness, prevention, suppression, ecosystem rehabilitation, and education occurs in co-operation with all relevant agencies and neighbouring local governments.
Public Awareness, Education and Advocacy	Public understanding, support and awareness of wildfire risk management is increased through effective education, advocacy, and communication.
Adaptive Management	The effectiveness of wildfire management initiatives is monitored and continuously improved by reviewing actions and decision-making processes.
Financial Responsibility	Wildfire management initiatives are prioritized and implemented adequately within reasonable, sustainable budgets and through innovative partnerships.

CWPP Implementation History and Planning Process

In 1999, the Sunshine Coast Regional Fire Centre mapped the fire hazard for populated areas within the Regional District. This effort was a prelude to greater wildfire management by local government resulting from the 2003 Filmon Report, which called for more provincial investment in community wildfire planning (Filmon, 2003). This project examined fuel loading, topography, weather, fire suppression capacity, land use, and fire history to assign areas of the Regional District a numerical score representing fire hazard. This analysis determined that the risk of wildfire to some areas of the Regional District was high or extreme. This assessment spurred local government to pursue FireSmart initiatives throughout the region's communities.

In recognition of changed conditions over twenty years, the SCRD has worked with the Town of Gibsons, District of Sechelt, and Sechelt Indian Government District to secure a grant through the Community Resiliency Investment (CRI) program which has allowed the development of this Community Wildfire Protection Plan. Receipt of the grant was celebrated with several community open houses, where local fire response and emergency management personnel have explained the FireSmart and community wildfire protection program to the public. The project partners selected Diamond Head Consulting to prepare the Community Wildfire Protection Plan in July of 2020.

A Living Document

Recommendations in this CWPP are designed to be implemented over both short and long timeframes while also acknowledging that wildfire risk will continue to change due to development, climate change and ecosystem dynamics. This plan is intended to be a living document that will be updated every five years.

Recommendation Number	Action Item
1	Continuously review the CWPP as a living document and complete an update every 5 years.

CWPP Consultation Process

This CWPP update was developed in consultation with First Nations and local stakeholders. Stakeholders were engaged and asked to provide feedback at the start of this project. High public interest in the plan has been met with dedicated public engagement in addition to direct stakeholder outreach. This took the form of mostly digital engagement; public open houses were planned, but were not possible due to the COVID-19 public health emergency. The CWPP will be presented at public council meetings and includes recommendations for ongoing engagement at community events.

CWPP Process Model

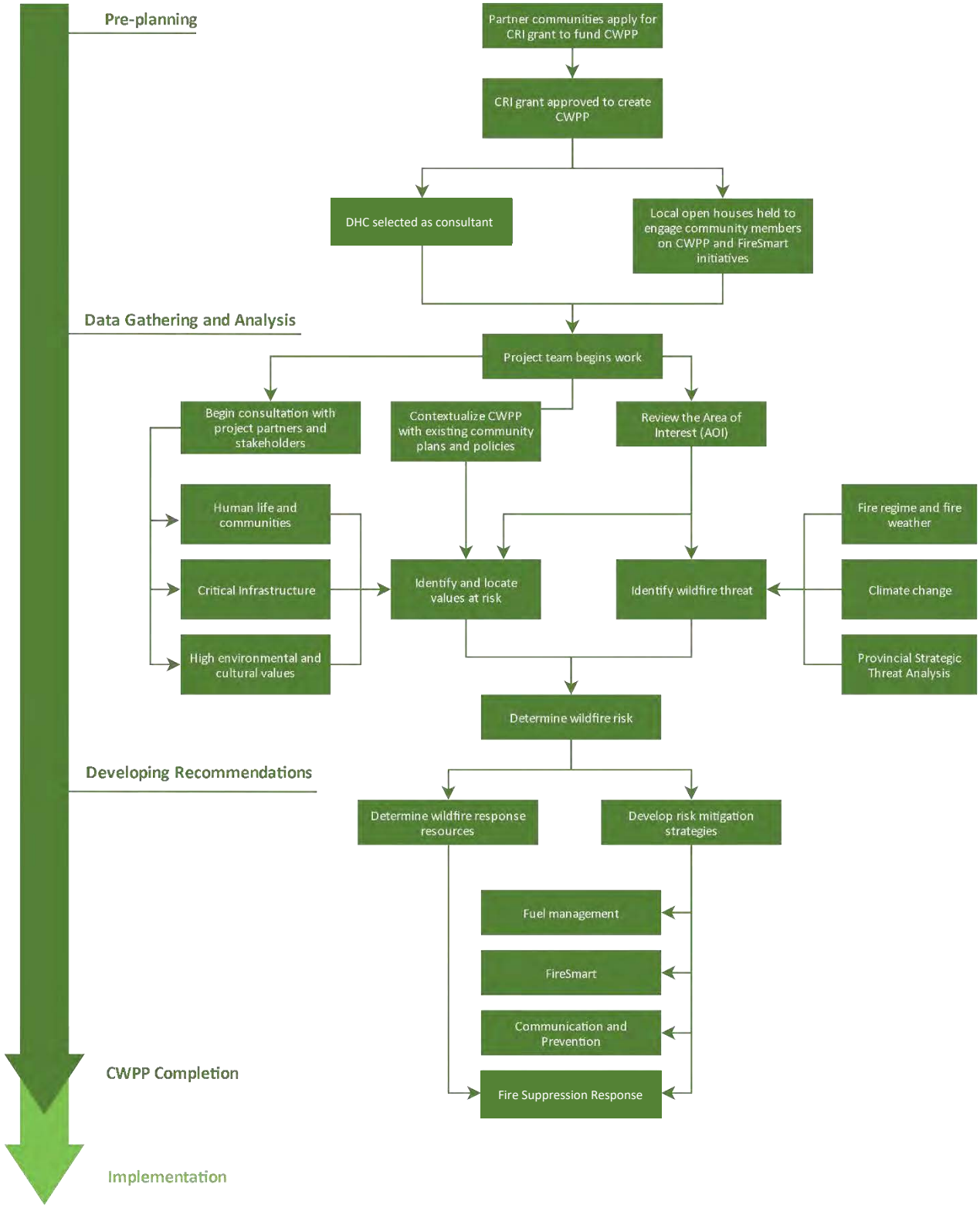


Figure 2. CWPP Planning Process Model

Section 2: Local Area Description

2.1 CWPP Area of Interest

The study area for this CWPP is the *wildland-urban interface* (WUI) within the Sunshine Coast Regional District. This area overlaps the administrative boundaries of the District of Sechelt, Town of Gibsons, and the Sechelt Indian Government District. These are the lands within several kilometers of where urban development reaches a minimum density of six structures per hectare, with adjustments made to account for local geography. The total project study area (Area of Interest or AOI) is 441.1km^2 or 11.7% of the land area of the Sunshine Coast Regional District.

The Regional District is located on the southern mainland coast of British Columbia, between the regional districts of Metro Vancouver and Powell River. The AOI is separated from adjacent communities by the inshore waterways of the Salish Sea. The largest communities are Gibsons, located on the shore of Howe Sound, and Sechelt, located on the isthmus between the Strait of Georgia and the head of Sechelt Inlet. Smaller communities occupy the bays, coves, and islands adjacent to the coast, with little development in mountainous inland areas. The Regional District has a land area of approximately 3,774 km^2 and a population of approximately 30 000 (2016 census).

The Sunshine Coast Regional District is located within the traditional territories of the shíshálh Nation and Skwxwú7mesh Nation. The shíshálh territory encompasses most of the regional district west of Roberts Creek, including the lands and waters around the Sechelt and Jervis Inlets. The Skwxwú7mesh territory encompasses the watershed around Howe Sound, including the area around Gibsons and Port Mellon. Four Indian Reserves of the Skwxwú7mesh and 17 Indian Reserves of the shíshálh are within the project area. These total approximately 442 hectares and are located throughout the project area.

Within the project area there is a mix of land ownership. A total of 21% of the AOI is privately owned and 62% is Crown Land (Table 1, Figures 3 and 4).

Table 1 Broad land ownership within the AOI

Jurisdiction	Area within the AOI (ha)	% of area within the AOI
Private land	18,656	21%
Provincial Crown Land (includes municipal parcels and parks)	54,109	62%

***Note: All tables included in the report and accompanying maps have used UTM area calculations for the highest degree of accuracy. The geospatial data supplementing this report also include area calculations, however these are based on BC Albers. The minor differences between data contained in the tables in this report and the geospatial data is due to these different map projections.**

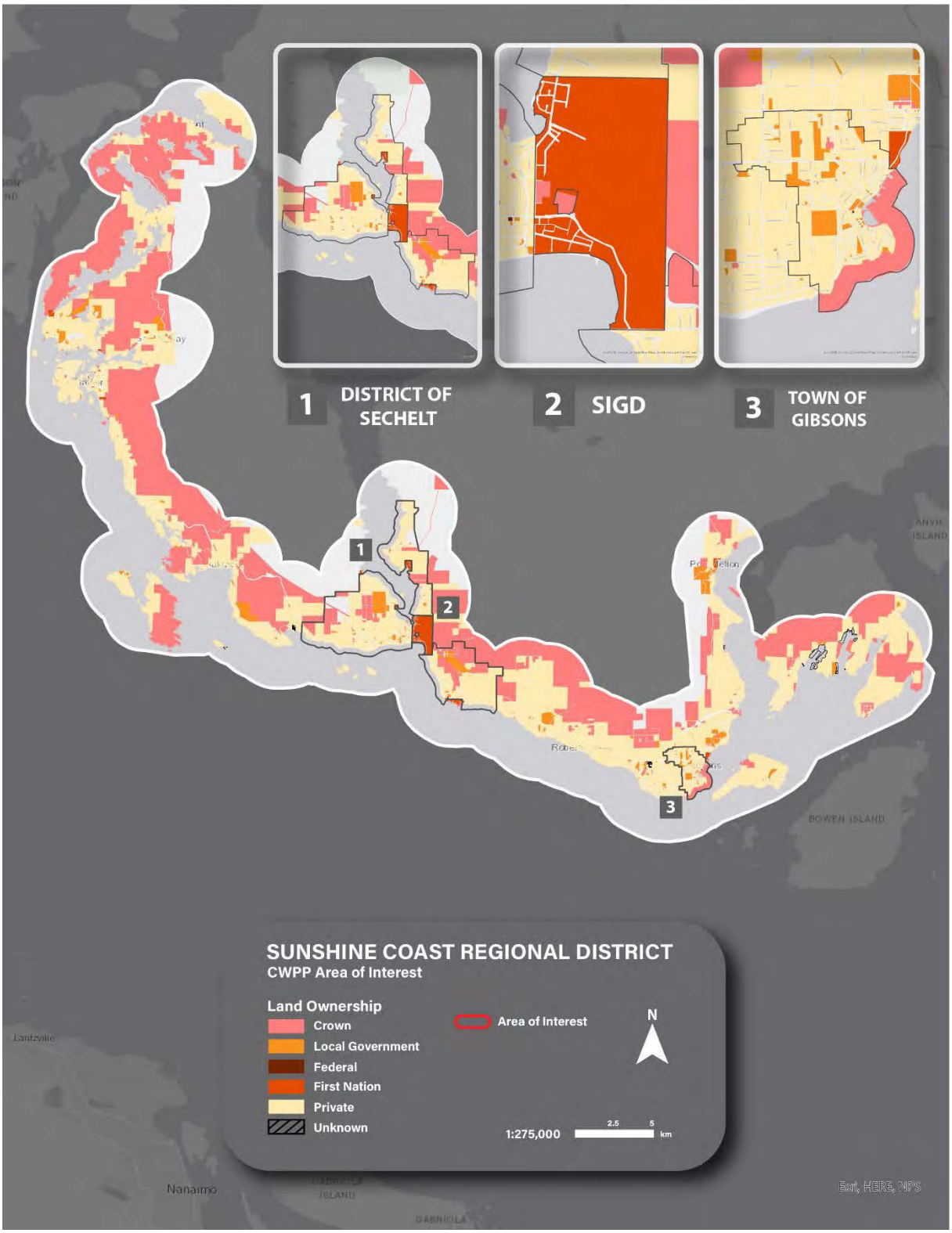


Figure 3. This CWPP AOI showing land ownership.

Table 2 Land ownership with Crown land breakdowns within the AOI.

Jurisdiction	Area within the AOI (ha)	% of area within the AOI
Crown - Community Watershed	7,049	8
Crown - Conservancy Area, Ecological Reserve, Protected Area, Provincial Park	5,921	7
Crown - Forest Management Unit	22,747	26
Crown – Forest Recreation Reserves	113	0
Crown - Local/Regional Park	1,529	2
Crown - Misc. Reserves	1,186	1
Crown - Municipal Parcels	382	0
Crown - UREP (Use, Recreation and Enjoyment of the Public Reserve)	1	0
Crown - Watershed Reserve	3,569	4
Crown Lease - Misc. lease	54	0
Crown Tenure – Community Forest Agreement, Schedule B	9,525	11
Crown Tenure – Woodlot Licence, Schedule A	172	0
Crown Tenure – Woodlot Licence, Schedule B	1,857	2
Federal - Dominion government Block/Federal Parcels	3	0
Federal - Indian Reserve*	440	1
Private	18,656	21
Unknown Ownership/Exceptions	14,154	16

*Sechelt Indian Government District lands are designated as “Federal Indian Reserve” in the spatial data layer referred to for these tables.

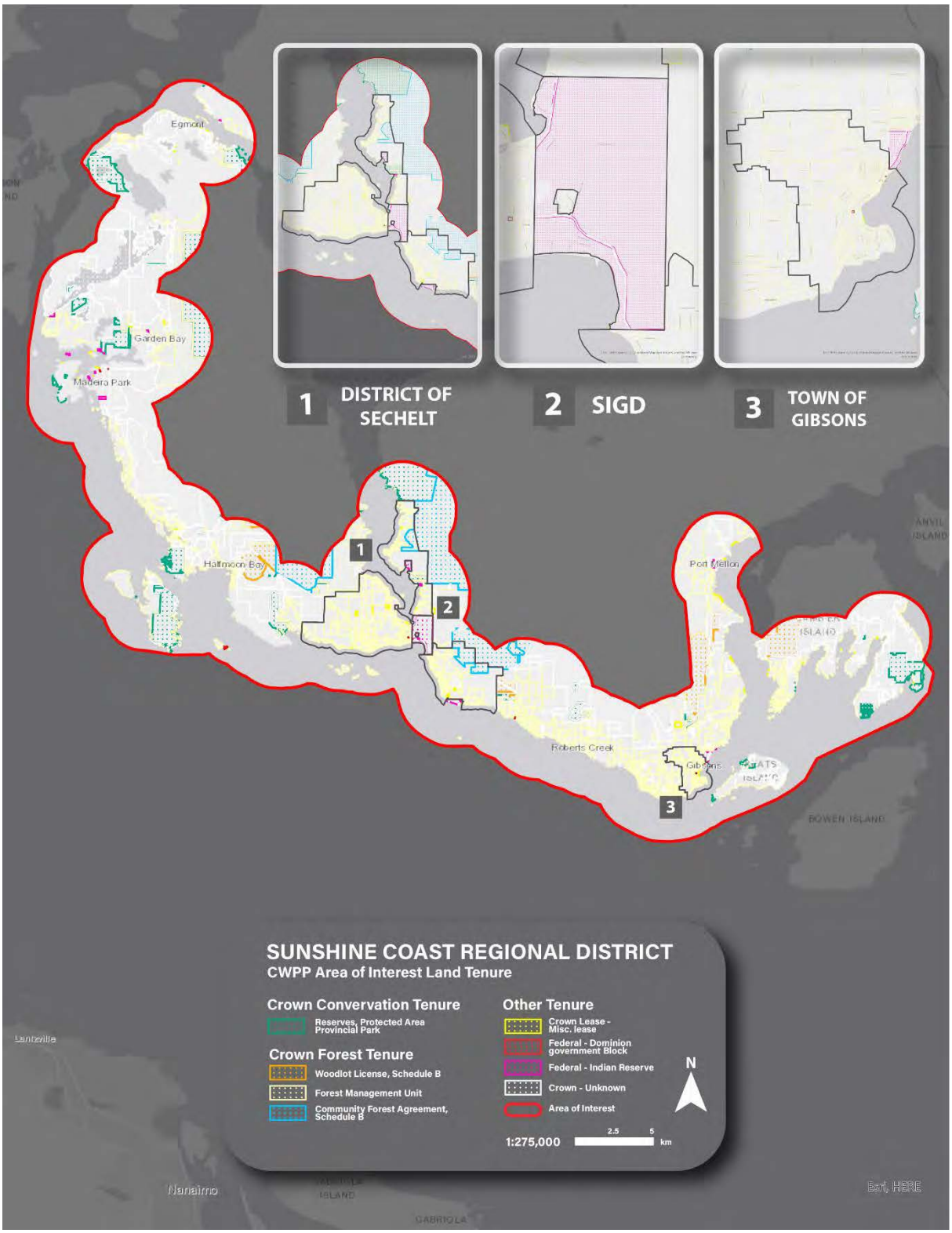


Figure 4. Land tenures in the AOI.

2.2 Community Description

The Sunshine Coast Regional District contains two incorporated municipalities, the Sechelt Indian Government District, and five electoral areas which are directly administered. The Regional District is 3,774 km^2 in area, of which 441 km^2 is within the AOI. The study area is heavily forested, with urban development outside of a few main town centres occurring within a matrix of continuous forest cover. Small areas around Sechelt and Gibsons are used for agriculture. The Provincial Strategic Threat Analysis identifies a relatively small area of 234 hectares as non-vegetated ("non-fuel") land cover within the project area.

While the forest industry has historically been central to the economy of the AOI and remains an economic driver, the region is well-known as a destination for tourism and recreation. Retail trade and government services are the largest employers.

Table 3 Employees by key sectors in Sunshine Coast Regional District (Statistics Canada, 2017)

Sector	Employees
Agriculture, forestry, fishing, and hunting	565
Mining	150
Utilities	50
Construction	1,420
Manufacturing	915
Wholesale trade	295
Retail trade	1,840
Transportation and warehousing	765
Information and cultural industries	360
Finance and insurance	380
Real estate and rental and leasing	280
Professional, scientific, and technical services	1,175
Management of companies	10
Administrative and support functions	800
Educational services	995
Health care and social assistance	1,440
Arts, entertainment and recreation	420
Accommodation and food services	1,145
Other services	635
Public administration	565

2.3 Past Wildfires, Evacuations, and Impacts

There have been 182 wildfires in the AOI since 1920, burning a total area of approximately 11,637 ha. (Table 4). In the past 10 years there have been 49 fires that have burned approximately 152 hectares.

Table 4 Summary of wildfires in the AOI since 1950.

AOI Fires Summary	# of Fires	Area Burned (ha)
Total 1920 – 2019	182	11,637
Average #/year	1.8	116.4
Total 2010-2019	49	152
2010-2019 Average #/year	4.9	15.2

There has been one notable major wildfire in the last ten years in the study area. The Old Sechelt Mine Wildfire occurred in July of 2015, during a period of extreme summer drought and high temperatures. This wildfire was approximately 1 km northwest of homes in Sechelt and required evacuations and the declaration of a state of local emergency. The British Columbia Wildfire Service (BCWS) and the Sechelt Fire Department responded, with BCWS coordinating most of the suppression operations. Although no homes were damaged or destroyed by this wildfire, one contract tree faller tragically lost his life during the wildfire suppression operation. Photo 1 is an aerial photo that illustrates how close this fire came to homes in Sechelt.

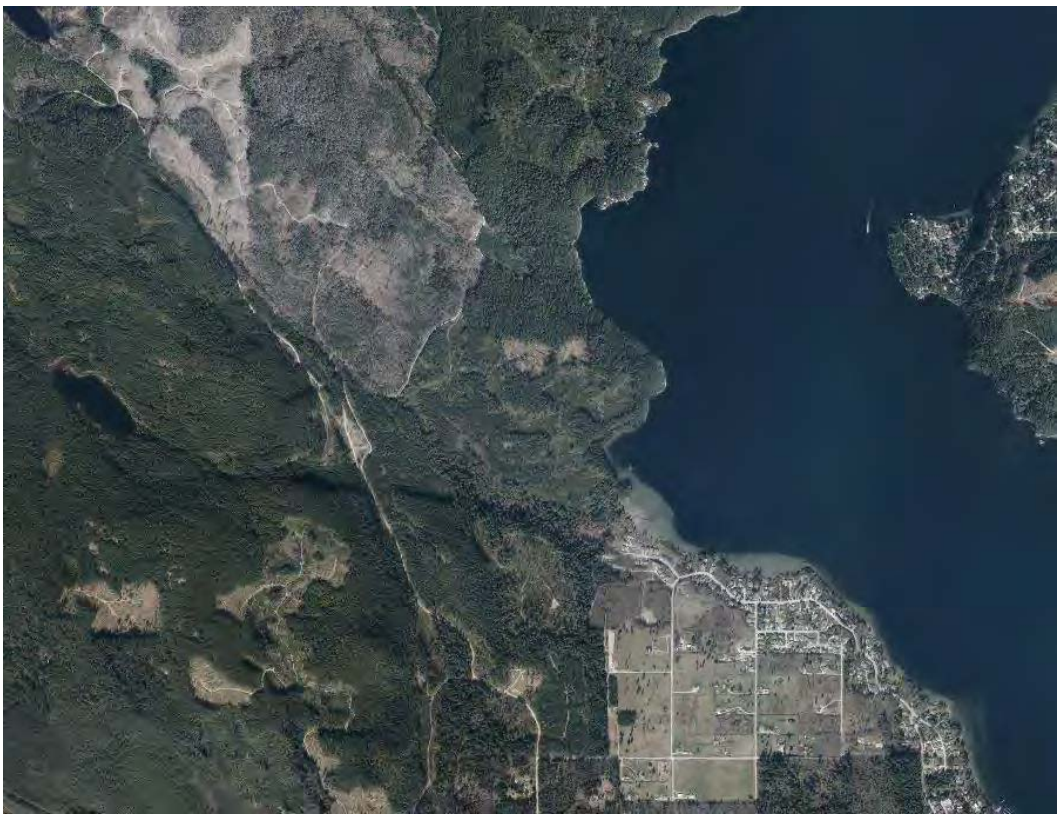


Photo 1. Aerial photo showing portion of the 2015 Sechelt fire (grey forest area in upper left of the photo).

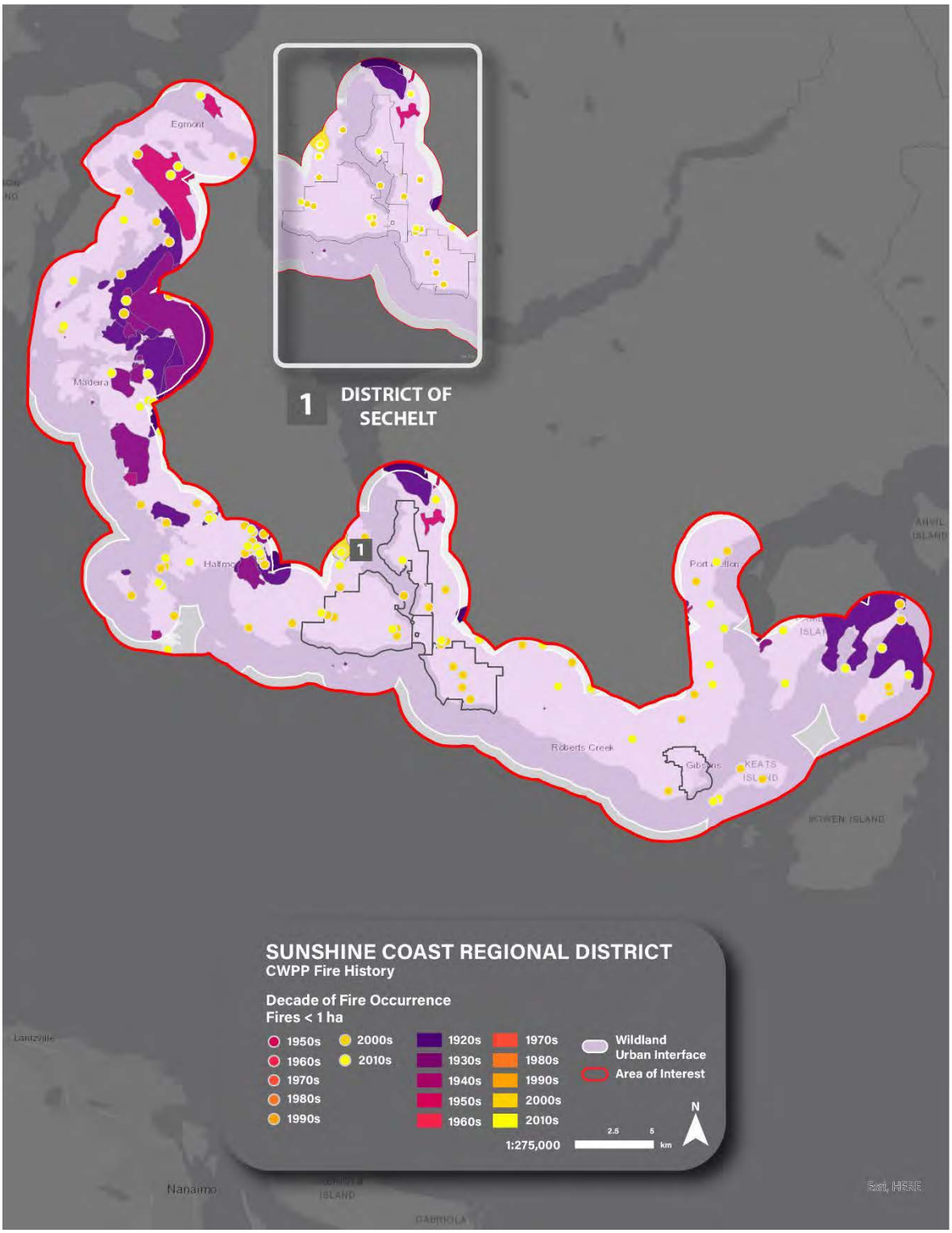


Figure 5. Location of previous wildfire events in the AOI. Polygons represent larger wildfires while points represent smaller fires (<1 ha). Color codes represent fires within different decades. No wildfires in this data set overlap with SIGD or Gibsons.

A recent wildfire occurred in 2019 near Port Mellon. Although this fire was smaller than the 2015 Sechelt fire, it came very close to industrial facilities in Port Mellon which include large fuel accumulations from timber processing. BCWS aggressively actioned this fire with airtankers and ground crews to prevent the spread and limited the fire to 3 hectares.

Wildfires in coastal ecosystems are infrequent. They are typically small and with a low intensity. These trends are consistent with the wildfire history in the AOI. There does however appear to be a shift wildfire trends occurring in coastal ecosystems in the broader Pacific Northwest. In 2020, temperate forests in western Oregon experienced catastrophic wildfires that were unprecedented in modern times, leading to 11 deaths and thousands of burned homes (Oregon Department of Forestry, 2020).

Coastal forests have an abundance of fuel, as typical growing conditions are optimal for vegetation growth. When conditions are dry and hot, which is occurring more frequently due to climate change, there greater potential for fires to exhibit extreme wildfire behaviour. The understanding of wildfire behaviour and risk has largely been informed by experiences in areas with frequent wildfires, typically drier interior forests with lower fuel accumulations. There is less experience with managing risk in the heavy fuel loading found in coastal ecosystems because fire is less familiar here. The uncertainty inherent in coastal wildfire risk management must be recognized and carefully considered.

Photo 2. Dense coastal forest intermixed with homes near Sandy Hook Park.

2.4 Current Community Engagement

Wildfire and fire preparedness support and engagement resources are available on the websites for the SCRD, Town of Gibsons, and District of Sechelt. The initiation of this CWPP was accompanied by multiple news releases and public events. However, formal engagement for this CWPP and other accompanying wildfire initiatives have been complicated by the ongoing COVID-19 pandemic. In response, consultation initiatives have shifted to digital media until live events can be safely hosted.

2.5 Linkages to Other Plans and Policies

The intent of this sub-section is to identify the sources and linkages to other relevant documents, plans, or legal requirements that are relevant to the CWPP planning process. The relevance of objectives, strategies, and polices in these documents are discussed,

2.5.1 Affiliated CWPPs

The AOI is separated from other communities by inlets and uninhabited mountainous terrain. No other CWPP study areas border the study area for this CWPP.

2.5.2 Local Authority Emergency Plan

The SCRD runs the Sunshine Coast Emergency Program and acts as the lead agency for emergency management in the AOI. This program acts as an integrated emergency platform for the SCRD, the Town of Gibsons, the District of Sechelt, and the Sechelt Indian Government District.

A comprehensive emergency response and recovery plan has been developed for the four governments. It guides the operations, organization, responsibilities, and coordination for response and recovery from an emergency or disaster within the AOI. It describes the Incident Command (IC) and Emergency Operations Centre (EOC) functions, locations, and activation. The plan also includes hazard specific roles and procedures. Wildfire is one of the specific hazards within the plan. A series of checklists for the EOC director, operations, planning, logistics, and administration are included to ensure the EOC can provide direction and support to the Incident Command during a wildfire event.

2.5.3 Local Government and First Nation Plans and Policies

A variety of local government plans and policies refer to wildfire risk management.

Hazard Risk and Vulnerability Analysis (HRVA)

Hazard Risk and Vulnerability Analyses (HRVA) assess the hazards which threaten a community. Hazards can be natural such as wildfires, landslides, and severe storms, or human-caused such as industrial accidents and engineering failures. Risk is described as a function of the probability of an event occurring and consequences of that event. Risk has been analyzed for a variety of hazards using a table-based scoring system. HRVAs have been completed for the four governments in the study area. An additional HRVA has also been completed for Gambier and Keats Island. The HRVAs found each study area to have a High or Very High risk associated with wildfire.

Sunshine Coast Regional District Official Community Plans

Official Community Plans (OCPs) guide the intensity of land use and economic activity within a municipality or electoral area. Once in effect, other bylaws adopted by the local government must be consistent with the OCP. OCPs can contain provisions regulating development within certain areas or other policies regarding the wildland-urban interface, including controls on development in areas of wildfire risk. Several OCPs in the SCRD are in force within the project area. Policies from each relevant to wildfire are summarized below. None of the policies from these OCPs that describe wildfire impacts or hazards have been implemented through further bylaws. Therefore, none of these plans have a means of enforcing any policy concerning wildfire within their applicable areas.

Egmont/Pender Harbour Official Community Plan

Section 2.1 of the Egmont/Pender Harbour OCP includes an objective related to residential land use to reduce the risk of wildfire hazard in residential areas. Homeowners are encouraged to practice vegetation management and consider using non-combustible building materials.

Elphinstone Official Community Plan

Part B-1 of the Elphinstone OCP outlines local environment and development permit areas. One of the objectives is “to protect development from hazardous conditions in the forms of land slip, erosion, marine processes, flooding and wildfires.” However, wildfire is not identified as a specific development permit area in this OCP.

Halfmoon Bay Official Community Plan

The Halfmoon Bay OCP does not include specific objectives and policies for managing wildfire hazard in Area B. The OCP is focused on the community of Halfmoon Bay but does make some recommendations for the remaining portions of Area B that are outside Halfmoon Bay. Most of this land is crown owned with little residential use and is also covered by the shíshálh Nation Strategic Land Use Plan (discussed separately below). A key policy for development applications in this portion of Area B is a requirement to complete fire hazard assessments.

Hillside/Port Mellon Official Community Plan

The Hillside/Port Mellon OCP covers an area of mostly industrial use. There are no specific wildfire related guidelines within this OCP.

Roberts Creek Official Community Plan

Several sections of the Roberts Creek OCP pertain to wildfire. Section 5.25 describes a goal of the SCRD to reduce the potential for fires in interface areas. This section recommends the review of development proposals in the context of this goal. There is also an objective to ensure “the interface of RESOURCE and those areas which are rural or residential should be considered within the context of interface fire potential, emergency planning as well as potential impacts on residential uses.” There are also several sections in this OCP that specify the importance of maintaining adequate water supply for fire suppression.

Twin Creeks Official Community Plan

The Twin Creeks OCP notes that this area is not within the SCRD fire protection area. An objective of this OCP is to promote the expansion of utilities and services, which includes fire protection. This plan also includes the objective to reduce the threat of property damage from wildfires by encouraging property owners to manage vegetation and coordinate volunteer fire protection.

West Howe Official Community Plan

This OCP notes that certain areas (designated Rural Designation B and Williamsons Landing Residential) lack fire protection. No policies are included that relate to wildfire management.

Towns of Gibsons Official Community Plan

The Gibsons OCP was revised in 2015. This plan emphasizes sustainable growth within the natural environment that surrounds and interfaces with the Town. There is a specific section for policies regarding the natural environment, which includes an objective of reducing risk from natural hazards. However, this does not explicitly identify wildfire as a natural hazard.

District of Sechelt Official Community Plan

The Sechelt OCP was revised in 2011. Part of the vision identified in this plan is that Sechelt is developed in harmony with its unique natural environment. This OCP also identifies natural hazards that must be addressed during development. However, this does not explicitly identify wildfire as a natural hazard.

The District of Sechelt bylaw No. 486 restricts open burning within the District. Open burning for waste disposal is prohibited.

Sechelt Indian Government District Official Community Plan

The SIGD does not have an OCP. Rather, all land use planning has been amalgamated into the Sechelt Nation Land Use Plan, which is discussed below in 2.5.4.

2.5.4 Higher Level Plans and relevant Legislation

Sunshine Coast Landscape Unit Plans

The Sunshine Coast Natural Resource District contains three Landscape Units that overlap with the AOI: the Sechelt, Chapman, and Howe Landscape Units. These plans provide direction for resource management on crown land and include legal objectives for each area. A fundamental goal in these plans is to maintain landscape level biodiversity values. These plans identify and create Old Growth Management Areas (OGMAs), which are used to ensure critical wildlife habitat is preserved. Few industrial activities are permitted inside OGMAs. Most of the OGMAs identified in these plans are located outside of the wildland urban interface. One exception is in the interface area between Gibsons and the forests of Mount Elphinstone, where OGMAs have been identified within 500m of structures.

Strategic Land Use Plan for the shíshálh Nation (Sechelt Nation Land Use Plan)

The Strategic Land Use Plan (SLUP) for the shíshálh Nation reviews values found across the shíshálh Nation territory or *swiya* and discusses how these values should be managed within a long-term management plan. The AOI and the SIGD land overlaps with the territory included in the SLUP. This plan outlines the strategic goals, priorities, and land use zones which will then influence site specific planning in areas of the *swiya* under direct shíshálh administration. As a strategic document, the SLUP does not specifically address wildfire as a forest management or community planning topic, but rather speaks more broadly of forestry in strategic planning. Several goals and priority actions are included that are complementary with those of wildfire management. As a forestry activity, fuel management within the *swiya* must be conducted in collaboration with the shíshálh Nation. This CWPP, conducted in partnership with the SIGD, provides the groundwork for further collaboration.

2.5.5 Ministry or Industry Plans

South Coast Response Fire Management Plan

The South Coast Response Fire Management Plan completed in 2020 integrates wildfire response into larger resource and land management objectives. The focus of this plan is on wildfire suppression response, rather than prevention. The Fire Management Plan identifies and prioritizes values at risk by "themes." These themes identify the response priority and suppression objectives. The 5km WUI zone in this plan, which most of the CWPP study area overlaps, is identified as Very High response priority and is given a corresponding objective of quick detection, full response, and extinguishment.

Forest Development Units and Forest Stewardship Plans

The crown land in the AOI is in the Sunshine Coast Timber Supply Area (TSA), which was last reviewed in 2011 (BC MFLNRO, 2011). A discussion of forest health management for this area is included in the 2017 Coast Timber Supply Areas Forest Health Overview. Forest health issues can increase tree mortality and therefore fuel loading. This paper notes that the highest concern for forest health in the area is root disease (BC MFLNRO, 2015). There are five active Forest Development Units (FDU) in the AOI. These FDUs indicate where a forest licensee is operating. These units are accompanied by individual Forest Stewardship Plans (FSPs) which specify the forest practices obligations. Fuel management and treatments that overlap with these areas may require a review of the relevant FSPs.

The Sunshine Coast Community Forest Agreement (CFA) tenure partially overlaps with the study area. The total area of the CFA is 11,000 hectares, 2,600 of which overlap with the CWPP study area. Portions of this tenure, particularly near Sechelt Inlet Road, are in the wildland urban interface and border private land. Fuel management activities that overlap the CFA tenure will require engagement with the CFA land manager(s) and will benefit from partnerships in planning these activities.

Fuel management*:** reducing wildfire risk by modifying the structure of the fuel. Typically requires a ***fuel management prescription, which identifies the strategies that will reduce wildfire risk, and to ensure other that values are protected. ***Fuel treatment*** is the implementation of the prescription, where the fuel is physically modified using heavy machinery or ground workers.

Parks and Protected Area Management Plans

The AOI contains a wide variety of parks and protected areas, including provincial parks, regional parks, and ecological reserves. There are 10 provincial parks and 6 provincial marine parks. These plans have management plans or mission statements to guide development and management. The only plan that includes a discussion of wildfire is the Garden Bay Marine Park Management Plan, which recommends the creation of a Fire Management Plan to aid in resource conservation.

There are two ecological reserves in the AOI: Ambrose Lake and Frances Point. Ambrose Lake Ecological Reserve Purpose Statement does not discuss wildfire. The Frances Point Ecological Reserve recommends the creation of a Fire Management Plan. The following three tables provide summaries of wildfire management within provincially protected areas within the AOI.

Table 5. Wildfire management in provincial parks management plans for BC Parks located in the AOI.

Park	Management Plan?	Notes
Buccaneer Bay	None found	
Mount Richardson	Purpose statement	No mention of wildfire/fuel/fire
Mount Elphinstone	Purpose statement	No mention of wildfire/fuel/fire
Porpoise Bay	1981 master plan	No mention of wildfire/fuel/fire
Roberts Creek	1981 master plan	No mention of wildfire/fuel/fire
Sargeant Bay	1991 master plan	No mention of wildfire/fuel/fire
Simson	1987 master plan	Trails were created with the secondary purpose of facilitating firefighting access. Also notes to post fire closure signs during high hazard periods.
Skookumchuck Narrows	Purpose statement	No mention of wildfire/fuel/fire
Spipiyus	Purpose statement	No mention of wildfire/fuel/fire

Table 6. Wildfire management in marine parks management plans for marine Parks located in the AOI.

Marine Park	Management Plan	Notes
Garden Bay	1992	Recommends creating fire management plan
Smuggler Cove	1985	No mention of wildfire/fuel/fire
Sechelt Inlets (Piper Point)	None found	
Plumper Cove	1980	No mention of wildfire/fuel/fire
Halkett Bay	1989	Limits campfires

Table 7. Wildfire management in ecological reserves management plans for ecological reserves located in the AOI.

Ecological Reserve	Management Plan	Notes
Ambrose Lake	Purpose statement 2003	No mention of wildfire/fuel/fire
Francis Point (Park and Ecological Reserve)	2008	Recommends creating fire management plan

Regional Parks and Natural Areas

The SCRD owns and manages over 100 regional parks, recreation sites, cemeteries, and community halls. Many of these parks are tenured and licensed out to other entities for operational management, however park planning is conducted by the SCRD Parks department. Parks management is guided by the 2014 Master Plan, which is supplemented by a Wildfire Hazard and Risk Assessment completed in 2007. Wildfire risk mitigation has occurred in these parks in collaboration with the BC Wildfire Service, FLNRO, and local community groups to reduce fuel loading. This work has been focused on small scale fuel reduction alongside trails and trailheads, typically focusing on one site per year depending on resources and capacity. SCRD staff have noted the success of community and agency partnerships, and a desire to expand these activities to other SCRD sites. Recent work has occurred at Baker Beach Park and Beaver Island, and future work is planned for Sprockids Park. Parks staff have identified various forest health concerns have strained resources and led to increased fuel loading in forested portions of SCRD parks.

Section 3: Values at Risk

Wildfires can impact communities in numerous ways. They damage homes, businesses, facilities, and infrastructure and can in the worst cases result in the loss of life. Smoke from nearby wildfires impacts human health and disproportionately affects vulnerable populations of the elderly, people with pre-existing medical conditions, and people with low incomes. In addition to property damage and loss, economic impacts can include reduced tourism activity and compromised health, safety, and success of agricultural production. Wildfires can also disrupt economic activity through evacuations of residents, who often must take leave of their employment. Evacuations and area closures disrupt the movement of goods and services via roads, railways, and utility corridors which are critical to the wider regional economy. Cultural values, including archaeological and modern-day uses of forests by indigenous peoples, may also be impacted.

Wildfires are ecological disturbances with environmental impacts on non-human systems. While many ecosystems are adapted to fire and may require it as part of their life cycle, coastal temperate forests are not. Large wildfires on the coast result in the losses of significant stocks of carbon, valuable habitat, and water retention capacity.

These direct and indirect impacts can be difficult to quantify but cause large cumulative impacts, not all of which can be insured. This section of the report provides an overview of the types of values that can be impacted from wildfire within the AOI.

3.1 Human Life and Safety

Protection of human life is the top priority in the event of wildfire in the urban interface. Provincial practice uses the density of homes and buildings as a proxy for density of population for wildfire planning exercises. Areas with an average density of more than 6 structures per square kilometre are defined as the wildland urban interface (Figure 6).

Table 8 provides a summary of the total area within the AOI by structure density class. The AOI contains urbanized areas of high structure density. It also contains large rural areas where structure density is below the wildland-urban interface threshold. The eastern half of the AOI is more densely urbanized than the western half, with most structures located in the Gibsons to Sechelt corridor. Communities like Sechelt, the Sechelt Indian Government District, and Gibsons are characterized by more discrete transitions between urbanized areas and adjacent forested areas. *Interface* conditions are found where urban areas largely lacking forest vegetation directly abut native forests. However, much of the AOI is characterized by *intermix* development, where houses and buildings have been constructed within and among native forest vegetation. Smaller communities such as Egmont and Port Mellon are typical of this condition.

Development conditions and structure density affect all aspects of fire management response and can strongly influence fire behavior. The connection between communities are built and fire risk is discussed in greater detail in Section 5.

Interface development is where the boundary of urbanized and forested areas is visible at the scale of whole neighbourhoods.

Intermix development is where the boundary of urbanized and forested areas is visible at the scale of single houses or groups of houses.

Table 8 Summary of density

Density Structures/ km^2	Area (km^2)	% of total area
0-6	15,560	20.9 %
6-24	10,846	14.5%
25-100	9,799	13.2%
100-250	4,970	6.7%
250+	1,873	2.5%
No buildings	31,356	42.1 %

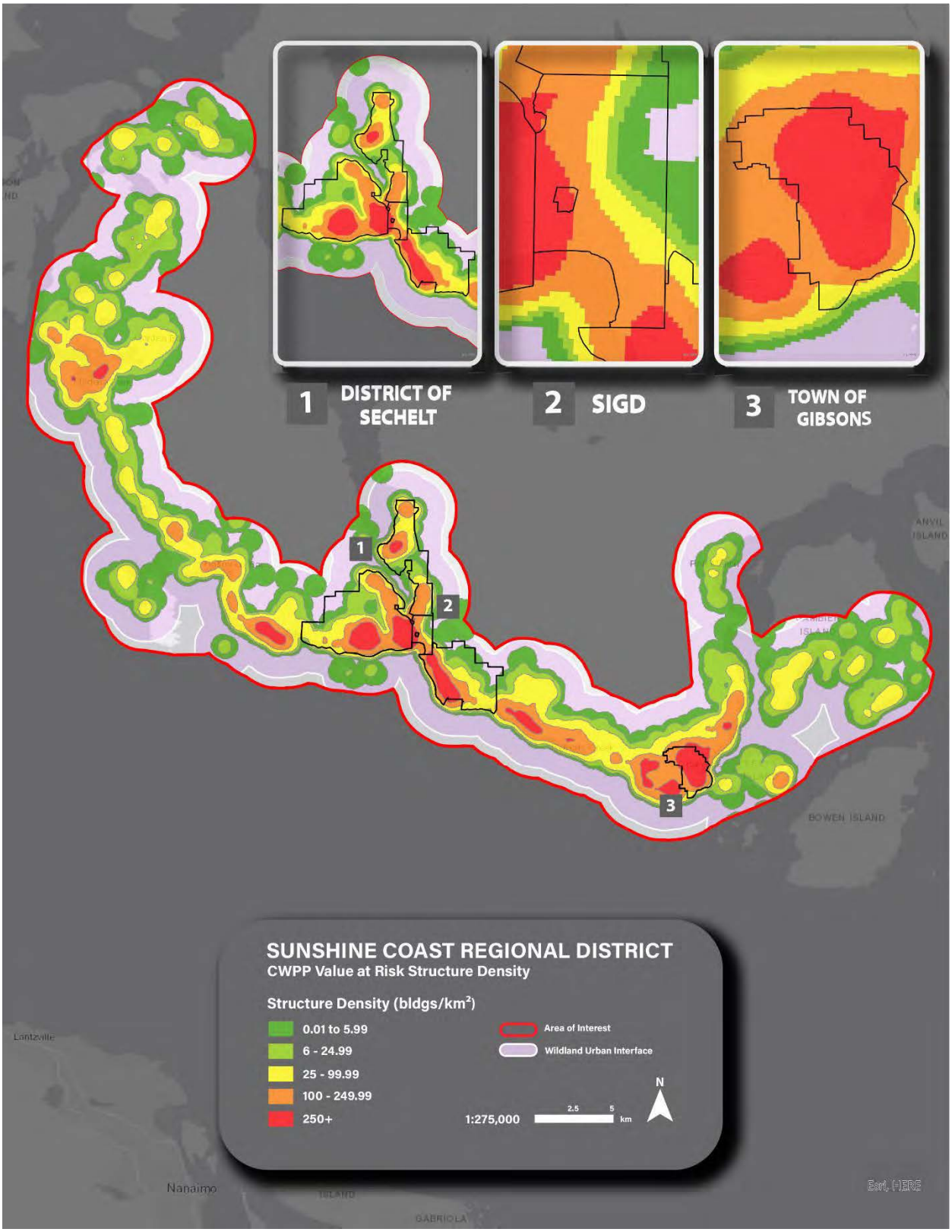


Figure 6. Density of structures.

3.2 Critical Infrastructure

The features and utilities that are considered “critical infrastructure” were identified through consultation with stakeholders. These are features that, if disrupted or destroyed, would cause serious impacts on the functioning of the government and important facilities that the public relies on. These include transmission lines and substations, municipal water supply, waste treatment, hospitals, schools, airports, municipal buildings, and police and fire stations (Figure 7)

3.2.1 Electrical Power

Electricity for the communities within the AOI is provided by BC Hydro. The distribution network is comprised mostly of wooden utility poles with some underground distribution. Wooden poles are vulnerable to wildfire, and in many locations these poles are within 2m of forests.

There are four substations located in the AOI at Gibsons, Sechelt, Pender Harbour, and Port Mellon. These substations connect various transmission lines from the broader mainland network. The transmission line network within the AOI is critical to the functioning of the broader regions outside of the AOI. One transmission line is one of the two critical connections between Vancouver Island to the mainland. One other transmission line provides the only connection between the Powell River area and the provincial network. BC Hydro conducts its own extensive vegetation management program to ensure protection of its network and has practices in place to ensure smooth incident management in collaboration with other stakeholders in the event of an emergency or natural disaster.

Electrical networks can be compromised in the event of a large wildfire. Not only can wildfire involve electrical facilities, but burned trees can also fall on lines and disrupt service. Emergency operations facilities must exist to ensure backup power is available for the continued functioning of this network in an emergency.

Photo 3. Transmission line in the SCRD.

3.2.2 Communications, Pipelines, and Publicly Owned Buildings

There are a variety of municipal buildings that are owned and operated by the four governments in the AOI. Table 9 provides summary of building type, owner, and location. There are several pieces of critical infrastructure that are not owned by local government, but rather provincial or other government agencies. This includes the Sechelt Hospital (formerly St Mary's Hospital), which is the only hospital in the AOI. The Sechelt-Gibsons airport is located on the outskirts of Sechelt and is the only airport in the AOI.

The AOI is ferry accessible, via terminals at Earl's Cove in the north and Langdale in the south, both of which are operated by BC Ferries and are considered part of the provincial transportation network. The north terminal provides access to Powell River, itself another ferry access only community. Powell River is also linked to Vancouver Island via an additional ferry at a separate terminal. The south terminal at Langdale connects the AOI with West Vancouver and forms a critical transportation link with the rest of the mainland. The south terminal at Langdale is larger and is serviced by larger and more frequent ferries than the north terminal. This south ferry terminal is critical to the economic functioning and wellbeing of all communities in the AOI and is the primary evacuation route for residents in case of an emergency.

There are several physical limitations to transportation within the AOI. The Sunshine Coast Highway is the only transportation route. This forms the only regional connection with most communities in the AOI. In some locations there are bypasses and alternative routes, however there is one major chokepoint at Chapman Creek. The sole vehicle crossing of this creek is near Davis Bay Beach on the Sunshine Coast Highway. This bridge is surrounded by forest. If this bridge were compromised, all areas north would be isolated and require servicing or evacuation via the small Earl's Cove ferry.

Several communities within the AOI are served by small secondary highways with no alternate access. This includes Port Mellon, Egmont, Garden Bay, portions of the SIGD, and communities in the Sechelt Inlet. The islands of Gambier, Thormanby, and Hornby are also isolated and accessed by boat only. These islands, as small communities, also have limited fire protection resources.

Fortis BC provides gas to the AOI. The service map for Fortis indicates a pipeline that runs through the AOI, however Fortis does not provide detailed maps to external companies. Fortis BC has its own management practices and emergency procedures for managing emergencies. Underground pipelines are rarely directly involved in wildfire events.

Table 9. List of publicly owned critical infrastructure (non-water) and their UTM coordinates. These have been provided by the project partners.

Type	Name	X*	Y*
BC Ambulance	Station 235	445354	5480162
BC Ambulance	Station 265	425836	5496990
BC Ambulance	Station 268	462771	5473195
BC Hydro	Gibsons Substation	462705	5473065
BC Hydro	Pender Harbour Substation	430288	5499059
BC Hydro	Port Mellon Substation	464524	5485775

Type	Name	X*	Y*
BC Hydro	Sechelt Substation	445509	5480720
BCWS	Sechelt Fire Base	448285	5478462
Communications	Roberts Creek Cell Tower	452914	5475434
Communications	Cell Tower – Cecil Hill (Madeira Park)	427210	5496386
Cultural	shíshálh Nation Longhouse	446229	5480236
Fire Hall	Egmont and District	428384	5511215
Fire Hall	Garden Bay (Pender Harbour Dept)	425684	5498618
Fire Hall	Gibsons #2	461002	5471201
Fire Hall	GIbsons	462773	5473363
Fire Hall	Halfmoon Bay	434515	5484792
Fire Hall	Halfmoon Bay #2	436871	5480845
Fire Hall	Madeira (Pender Harbour Dept)	425805	5496983
Fire Hall	Roberts Creek	452903	5475423
Fire Hall	Sechelt	444974	5480329
Hospital	Sechelt Hospital	445723	5480603
Local Government	Gibsons Public Works	460742	5473840
Local Government	Gibsons Municipal Hall	463065	5472118
Local Government	Pender Harbour Community Hall	426049	5496977
Local Government	SCRD Madeira Park Office	425899	5496689
Local Government	SCRD Admin	448486	5478086
Local Government	Sechelt Indian Government District public works	445748	5481225
Local Government	Sechelt Municipal Hall	444710	5480224
Local Government	shíshálh Nation Admin	445740	5480377
Local Government	shíshálh Nation Admin	445681	5480347
Local Government	shíshálh Nation Admin	445695	5480394
Medical	Gibsons Medical Clinic	461564	5473080
Medical	Pender Harbour Doctors	426115	5495577
Medical	Sumac Place Mental Health Clinic	462629	5473100
RCMP	Gibsons Detachment	462212	5473075
RCMP	Sunshine Coast	444671	5480103
School	Cedar Grove	461103	5471241
School	Davis Bay Elementary	447579	5477028
School	École Chatelach	444293	5480385
School	Elphinstone Secondary	462480	5472897
School	Gibson Elementary	462723	5472697
School	Halfmoon Bay Elementary	435897	5481437
School	Kinnikinnick Elementary	443834	5482361
School	Langdale Elementary	465271	5476394
School	Madeira Park Elementary	425907	5496991
School	Pender Harbour Elementary/Secondary	430170	5499213

Type	Name	X*	Y*
School	Roberts Creek Elementary	453297	5474716
School	SCRD Alternative	444638	5480344
School	SD 46 Admin	453253	5474655
School	SD 46 Admin	463122	5472184
School	West Sechelt Elementary	441871	5480625
Transportation	BC Ferries Earls Cove Terminal	427274	5511640
Transportation	BC Ferries Langdale Terminal	465321	5475781
Transportation	Chapman Creek Bridge	447637	5476690
Transportation	Hospital Bay Wharf	425471	5498148
Transportation	Madeira Wharf	425955	5497185
Transportation	Sechelt-Gibsons Airport	448155	5478699
Transportation	Whiskey Slough Wharf	424611	5496417
University	CapU Sunshine Coast	445176	5480635

**Coordinates are provided in metres, referenced to NAD 1983, UTM Zone 10N.*

3.2.3 Water and Sewage Infrastructure

The water supply in the AOI is complex, and relies on lakes, streams, and ground water to form the bulk of its supply. The SCRD supplies water to most of the residents in the AOI through three different systems: the North Pender Harbour Water Service Area, the South Pender Water Service Area, and the Regional Water Service Area (RWSA). The RWSA comprises the bulk of the RWSA, and the primary source is the Chapman Creek watershed. South and North Pender areas rely on local lakes, and service a much smaller population. The RWSA is comprised of 11 water storage reservoirs located throughout the AOI, as well as one water treatment plant. The water is withdrawn from Chapman Creek, which itself is supplied by the Chapman Creek watershed (discussed below). Water restrictions are common during periods of extreme summer drought, such as 2015, and to a lesser extent 2017 and 2018. When factoring in forecasted population growth, water supply for the RWSA is predicted to become insufficient during peak summer demand, which overlaps with the fire season. This forecasted supply deficit is being addressed through various initiatives to ensure that supply remains adequate for the community.

One exception to the water supply network provided by the SCRD is the Town of Gibsons, which provides water to most of its residents from the Gibsons Aquifer via a system of wells. Water is pumped from the aquifer using wells, which is then stored in reservoirs. A 2017 report identified the water supply as sufficient to meet current and forecasted community needs. However, the Town currently relies on the SCRD for emergency storage, specifically to meet fire flow standards. Current work is ongoing to upgrade water delivery to ensure the system remains adequate in the future. The Upper Gibsons area is not included in the Town of Gibson water system and is supplied with water from the SCRD.

The SCRD manages sewage for property in electoral areas A, B, D, E, and F. The District of Sechelt and the SIGD are on the same sewage system which is run by the District of Sechelt. The Town of Gibsons owns and operates its own sewage system.

Table 10. List of critical infrastructure (water and sewage) provided by the project partners.

Type	Name	X*	Y*
Wastewater	Currant Rd Waste Treatment	433276	5484931
Wastewater	Gibsons Waste Treatment	462742	5471688
Wastewater	Langdale Waste Treatment	465745	5477214
Wastewater	Pender Landing Waste Treatment	423931	5498802
Wastewater	Prowse Road Pump Station	463203	5471855
Wastewater	Sakinaw Ridge Waste Treatment	423130	5500336
Wastewater	Sechelt Water Resource Centre	444985	5481022
Wastewater	Square Bay Waste Treatment	432412	5484654
Wastewater	Woodcreek Waste Treatment	459594	5472340
Water	Chapman Water Treatment Plant	447745	5480957
Water	Cove Cay Reservoir	427457	5511040
Water	Daniel Point Reservoir	423135	5499623
Water	Dogwood Reservoir	426445	5497065
Water	Francis Peninsula Reservoir	424285	5497271
Water	Garden Bay Reservoir	425300	5498798
Water	Gulfview Reservoir	426498	5496400
Water	Hopkins Landing Waterworks	464911	5474932
Water	Hotel Lake Reservoir	423936	5498831
Water	Lily Lake Treatment Plant	425860	5496197

**Coordinates are provided in metres, referenced to NAD 1983, UTM Zone 10N.*

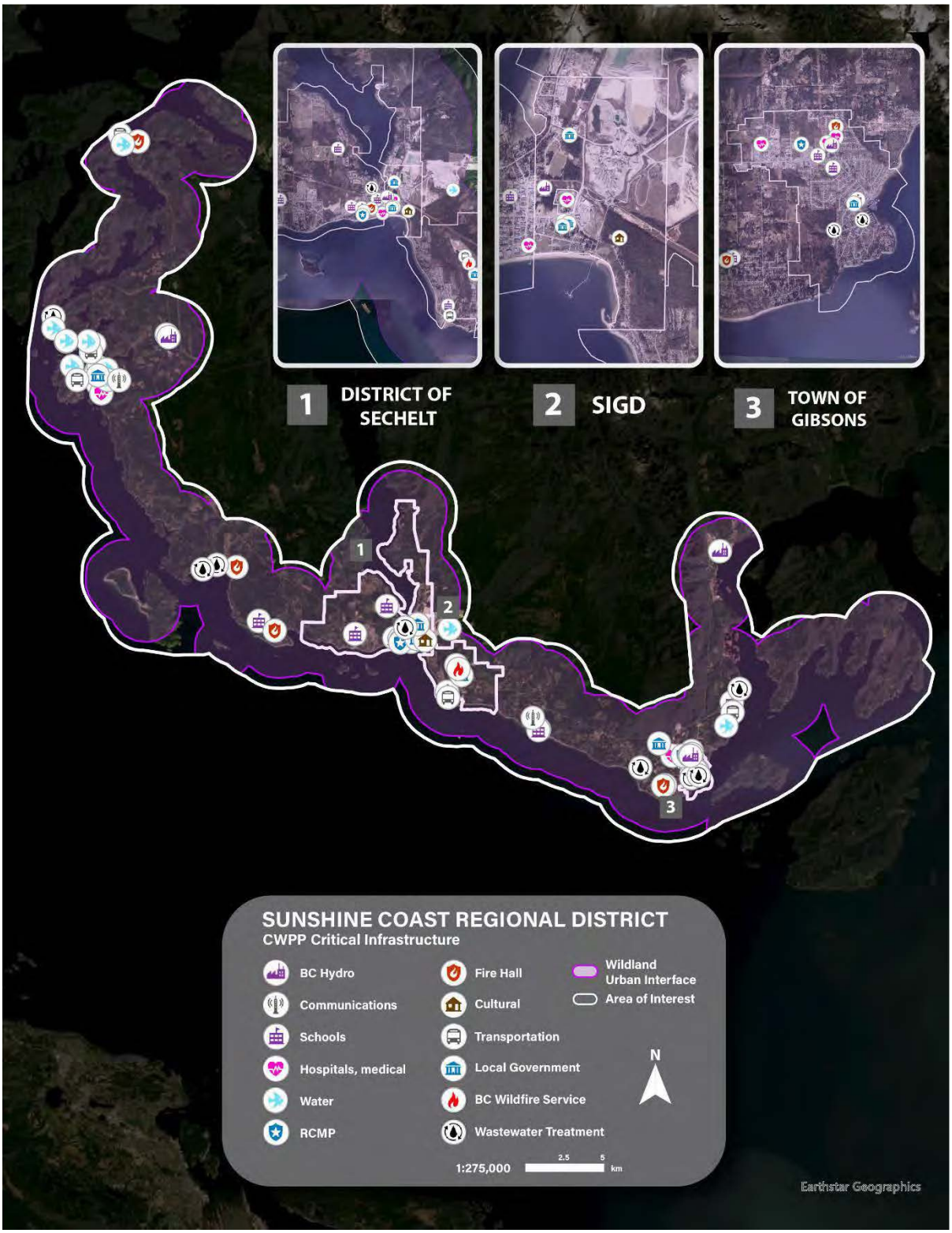


Figure 7. Critical Infrastructure.

3.3 High Environmental and Cultural Values

The intent of this sub-section is to clearly identify and understand where high environmental and cultural values are located within the AOI to effectively determine wildfire risk and identify mitigation activities.

3.3.1 Drinking water supply areas and community watersheds

There are 10 provincially designated community watersheds that overlap the AOI. The Dysart, Milne, Waugh, Laurena, and Fircom Community Watersheds are mostly contained within the AOI, while the remaining watersheds have small overlaps with the AOI. The largest number of homes and businesses rely on the Chapman Watershed, most of which is outside the AOI for this CWPP. Wildfires can cause shifts in landscape processes that can decrease water quality by increasing sedimentation and nutrients downstream and increasing erosion adjacent to watersheds (Emelko & Sham, 2014). There have also been cases where homes and infrastructure have been destroyed or damaged during debris flows that can be attributed to wildfires (Jordan, Turner, Nicol, & Boyer, 2006). The likelihood of debris flow is increased after wildfire to communities downstream, particularly areas of development on alluvial fans.

Table 11. Community watersheds overlapping the AOI.

Community Watersheds	Service Area
Waugh Lake	Egmont
McNeill Lake	Madeira Park-Pender Harbor
Milne	Halfmoon Bay
Dysart	Dysart
Chapman	Sechelt-Davis Bay
Dakota	Port Mellon
McNair	Port Mellon
Fircom (Gambier)	Halkett Bay
Laurena (Gambier)	Brigade Bay
Gambier (Gambier)	Douglas Bay

3.3.2 Cultural Values

Indigenous goals for land management

shíshálh Nation

The shíshálh Nation has a long and rich history of managing its traditional territory, the *swiya*. Colonization disrupted indigenous land management and de-emphasized or ignored traditional cultural values during development and resource extraction. As one of the few nations in British Columbia to re-establish self government over part of the *swiya*, the shíshálh have outlined several goals for land management respecting cultural resources within their traditional territory (A Strategic Land Use Plan for the shíshálh Nation, 2007):

- Ensure that the shíshálh Nation has authority over planning and management of cultural resources in the territory.
- Preserve, protect, and restore sacred, historical, archaeological, and cultural sites and other features and values with significance to the shíshálh Nation.
- Ensure that shíshálh language, concepts, ideas, and values are used in land and resource management.
- Reaffirm and encourage shíshálh cultural use of the land, cultural practices, and learning.

Wildfire planning must integrate these goals into the strategies used to reduce wildfire risk. Partnerships with the shíshálh Nation will be critical to ensure protection of cultural resources.

Skwxwú7mesh Nation

The Skwxwú7mesh have presented a vision for their traditional territory in the *xay temixw* (Sacred Land) Land Use Plan. Like their neighbours, the shíshálh, the Squamish history of land management was disrupted by colonization and is today being reasserted. While the Skwxwú7mesh do not have an area of self government within the AOI, their land use plan sets expectations for how cultural resources will be managed during activities within the forests of their traditional territory. The plan designates a Forest Stewardship Zone, including most of the traditional territory, divided into sensitive areas where special care is needed to protect wildlife and cultural values, restoration areas where natural or cultural values have been compromised by development, and *Kwa kwayx welh-aynexws* (wild spirit places) which should be maintained for their cultural and spiritual use and off-limits to other activities. Wildfire planning within the traditional territory of the Skwxwú7mesh Nation (Howe Sound communities) must occur in collaboration with the Skwxwú7mesh Nation to ensure cultural resources are conserved and protected.

Archaeological values

The Archaeology Branch of the Ministry of Forests, Lands, Natural Resource Operations and Rural Development maintains a spatial database of archaeological and historical sites. These include locations where there is evidence of past human activity. Within the AOI there are 354 recorded sites of which 350 are archeological sites related to aboriginal life during the 14,000 years prior to European contact. They include cache pits, house pits, trails, fishing sites, cooking features, lithics, grave sites and human remains. Due to the sensitive nature of these sites their exact locations cannot be published. Direct activities such as fuel management must ensure that these sites are not disturbed.

3.3.3 High Environmental Values

The BC Conservation Data Centre (CDC) records BC's most vulnerable vertebrate animals and vascular plants, each of which is assigned to a provincial Red or Blue list according to their provincial conservation status rank. Species or populations at high risk of extinction are placed on the Red list and are candidates for formal endangered species status. Blue-listed species are considered vulnerable to human activity and natural events. A total of 12 occurrences of blue-listed species and 8 occurrences red-listed species were identified within the AOI. An additional 3 blue-listed ecological communities and 40 red-listed ecological communities were identified within the AOI. See Table 12 and Table 13 for a summary and details of these species and communities, and Figure 8 and Figure 9 for maps depicting publicly available locations.

Table 12 Recorded known occurrences of Red and Blue listed species that inhabit the AOI (Conservation Data Centre).

Scientific Name	Common Name	Category	B.C. Status
Accipiter gentilis laingi	*Northern Goshawk, Laingi Subspecies*	Vertebrate Animal	Red
Allium amplectens	*Slimleaf Onion*	Vascular Plant	Blue
Ardea herodias fannini	*Great Blue Heron, Fannini Subspecies*	Vertebrate Animal	Blue
Callophrys johnsoni	*Johnson's Hairstreak*	Invertebrate Animal	Red
Cercyonis pegala incana	*Common Woodnymph, Incana Subspecies*	Invertebrate Animal	Red
Chrysemys picta pop. 1	*Painted Turtle - Pacific Coast Population*	Vertebrate Animal	Red
Eumetopias jubatus	*Steller Sea Lion*	Vertebrate Animal	Blue
Nearctula sp. 1	*Threaded Vertigo*	Invertebrate Animal	Blue
Phalacrocorax auritus	*Double-crested Cormorant*	Vertebrate Animal	Blue
Rana aurora	*Northern Red-legged Frog*	Vertebrate Animal	Blue

Table 13 Recorded known occurrences of Red and Blue listed ecological communities found in the AOI (Conservation Data Centre).

Scientific Name	Common Name	B.C. Status
Abies grandis / Berberis nervosa	Grand Fir / Dull Oregon-grape	Red
Abies grandis / Tiarella trifoliata	Grand Fir / Three-leaved Foamflower	Red
Carex macrocephala Herbaceous Vegetation	Large-headed Sedge Herbaceous Vegetation	Red
Leymus mollis ssp. mollis - Lathyrus japonicus	Dune Wildrye - Beach Pea	Red
Picea sitchensis / Rubus spectabilis Dry	Sitka Spruce / Salmonberry Dry	Red
Picea sitchensis / Rubus spectabilis Very Dry Maritime	Sitka Spruce / Salmonberry Very Dry Maritime	Red
Picea sitchensis / Rubus spectabilis Very Wet Maritime	Sitka Spruce / Salmonberry Very Wet Maritime	Red
Pinus contorta / Sphagnum spp. CDFmm	Lodgepole Pine / Peat-mosses CDFmm	Red
Pseudotsuga menziesii / Berberis nervosa	Douglas-fir / Dull Oregon-grape	Red
Rhododendron groenlandicum / Kalmia microphylla / Sphagnum spp.	Labrador-Tea / Western Bog-laurel / Peat-mosses	Blue
Thuja plicata / Rubus spectabilis	Western Redcedar / Salmonberry	Red
Thuja plicata / Symphoricarpos albus	Western Redcedar / Common Snowberry	Red

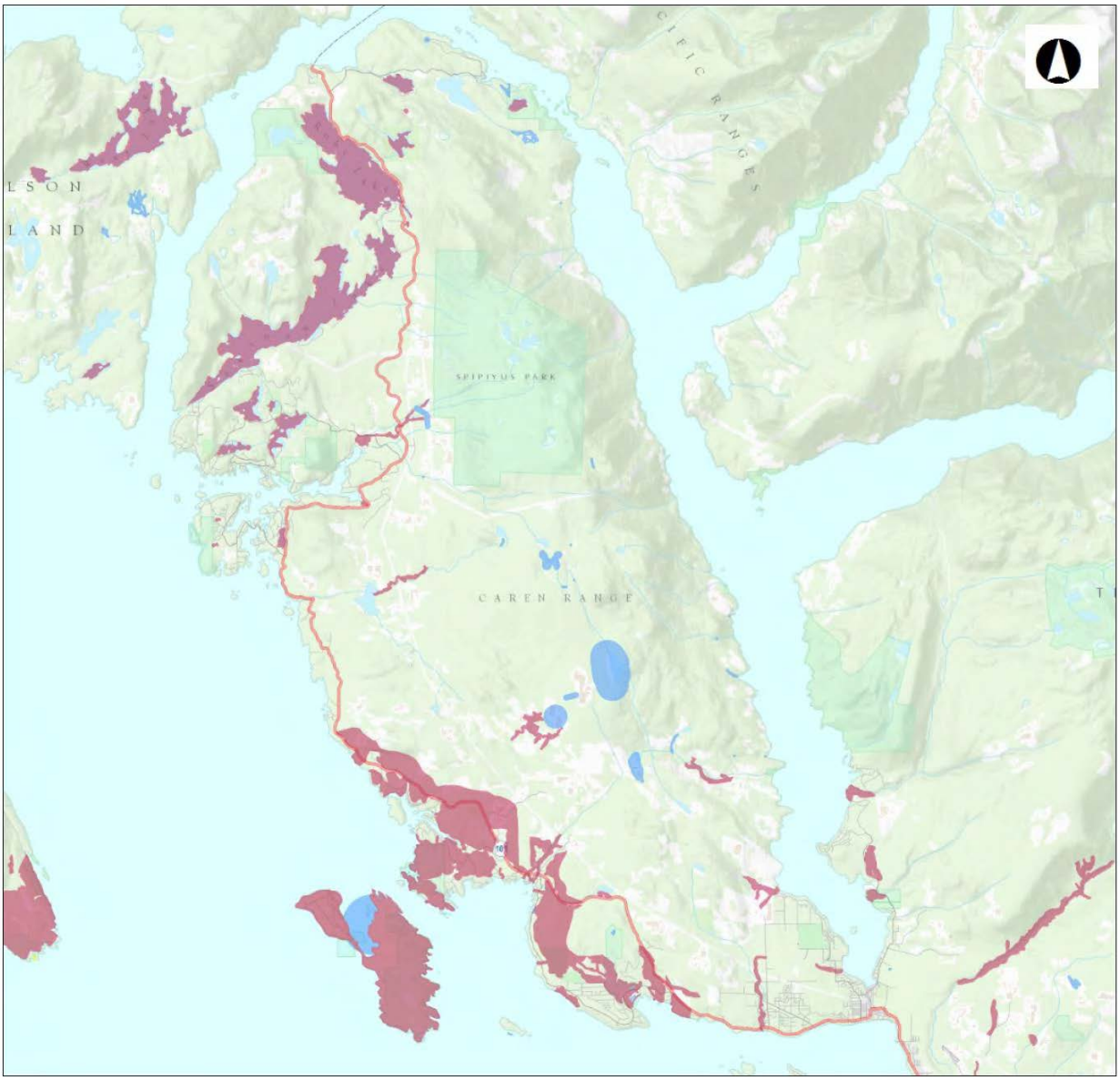


Figure 8. Location of provincially Red- and Blue-listed species in the west project area. (BC Conservation Data Centre)

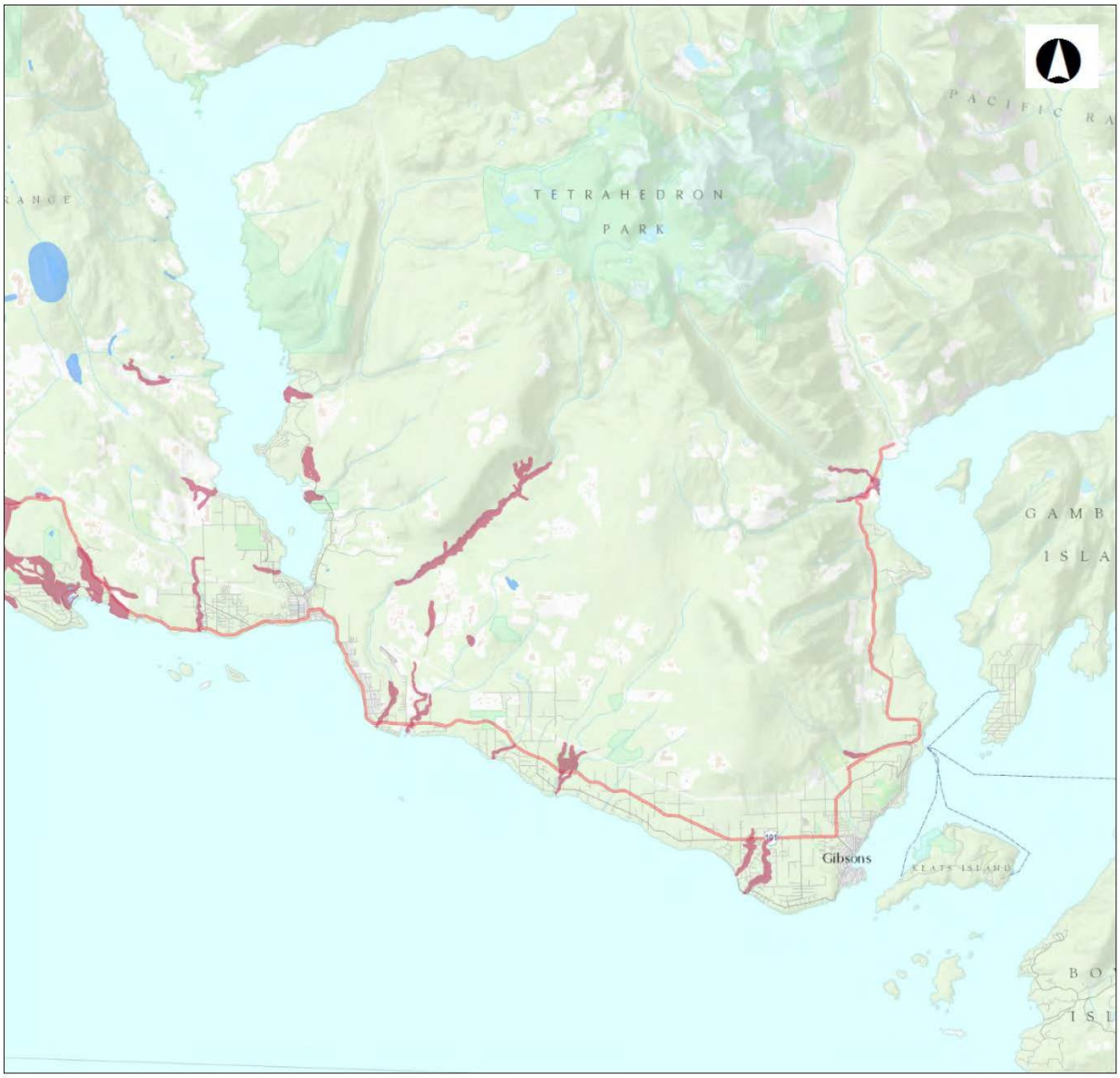


Figure 9. Location of provincially Red- and Blue-listed species in the east project area. (BC Conservation Data Centre)

In addition to provincial designations, two species listed under federal wildlife legislation have designated critical habitat within the project area. One, the Western Painted Turtle, is also red-listed provincially. The other is the Marbled Murrelet (*Brachyramphus marmoratus*), a tree-nesting seabird that favours old forest habitats. Other federally listed species may be found in the project area based on habitat requirements but have no designated critical habitat within the AOI.

The impacts of fuel treatments to these plants, animals and ecosystems should be taken into consideration when prescribing fuel treatments across the study area. Details regarding the management requirements of these species can be found on the Conservation Data Centre Website (https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/conservation-data-centre).

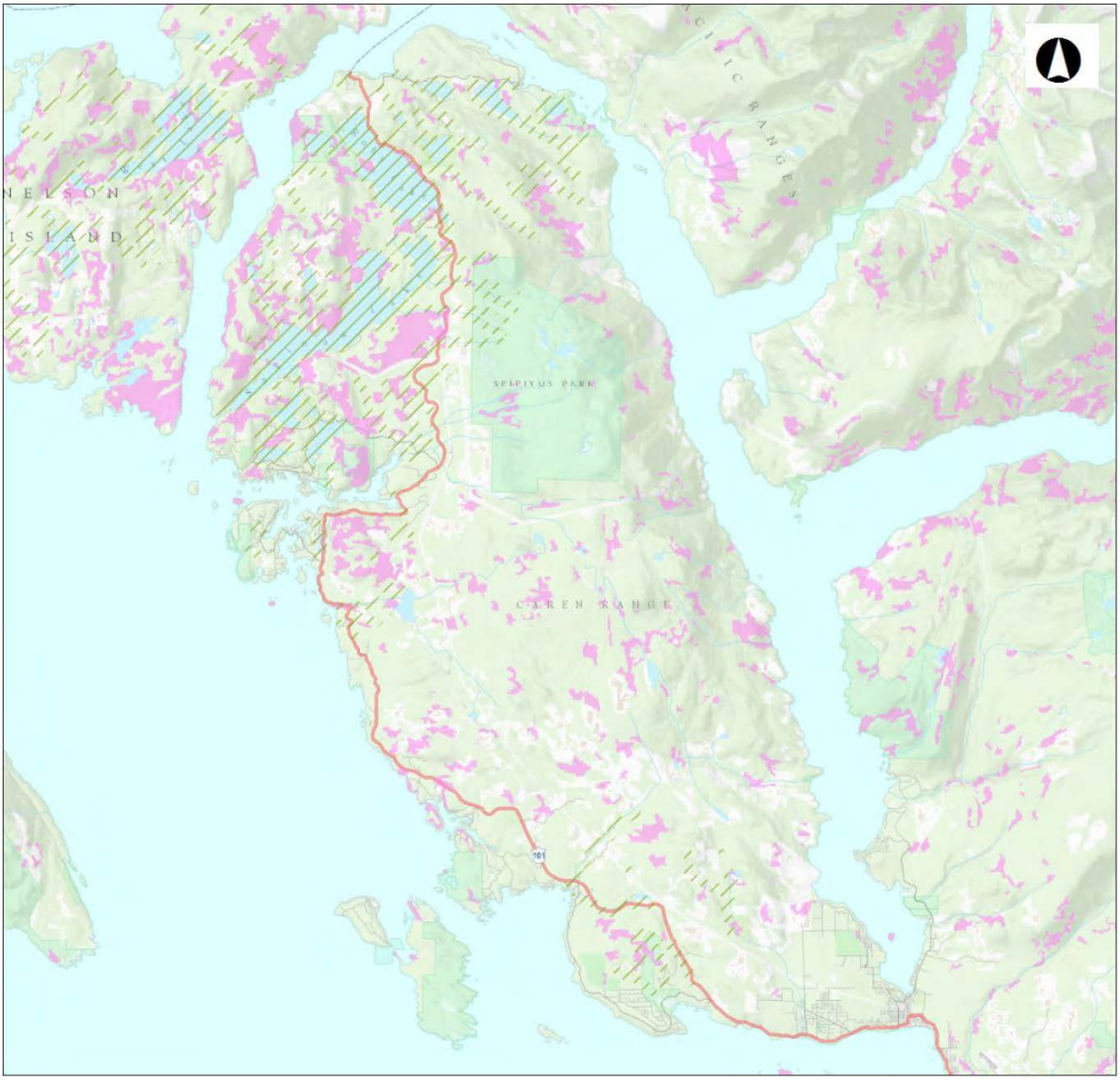


Figure 10. Critical habitat for federally listed wildlife in the west project area. Designated habitat is pink and proposed is green stripe. (BC Conservation Data Centre)

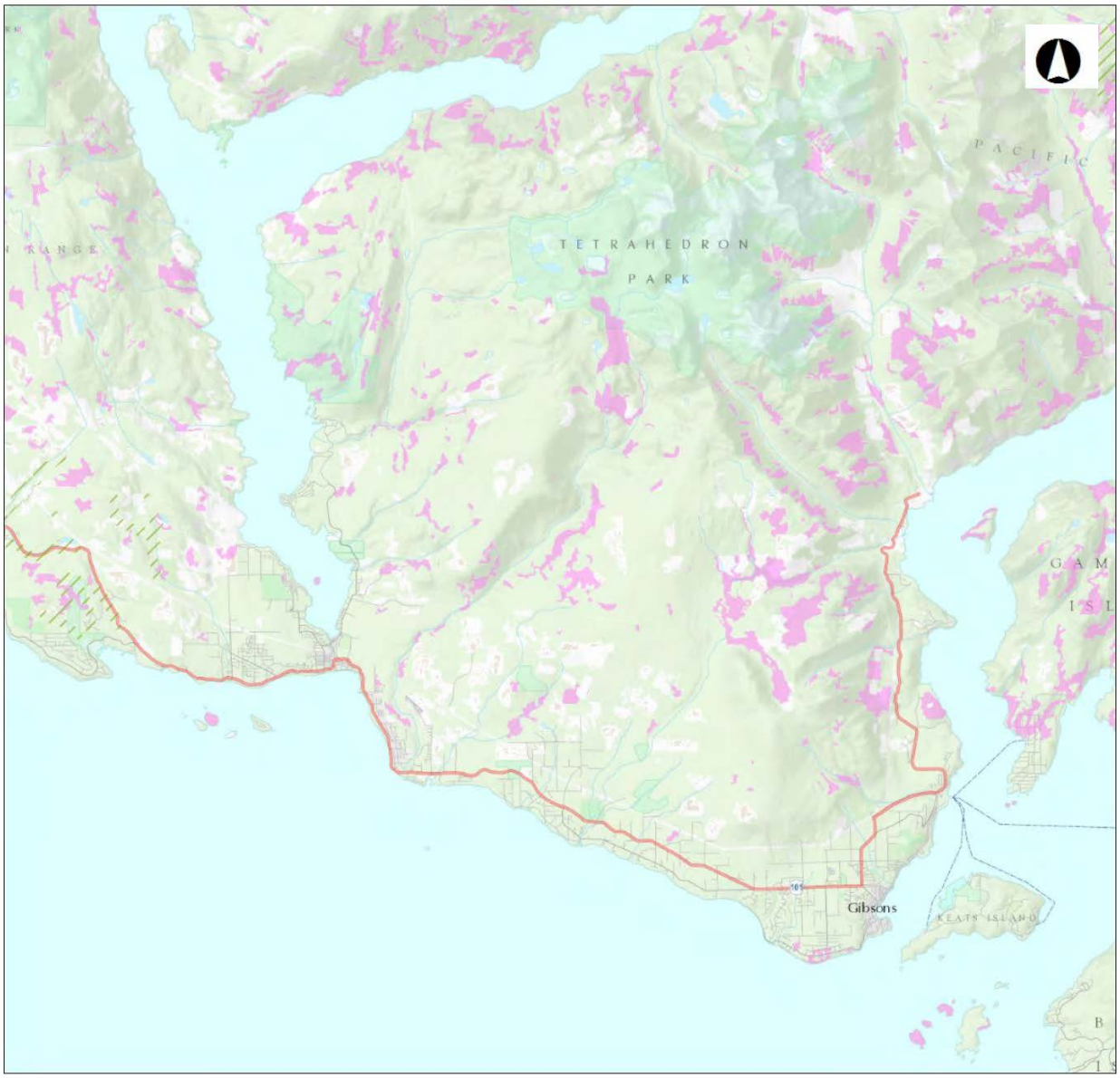


Figure 11. Critical habitat for federally listed wildlife in the east project area. Designated habitat is pink and proposed is green stripe. (BC Conservation Data Centre)

3.3.4 Other Resources Values

The AOI is in the Sunshine Coast Timber Supply Area (TSA), and the crown land within the AOI overlaps with this TSA. Most of the timber harvesting land base occurs in more remote locations of the Sunshine Coast outside the AOI. The Howe Sound Pulp and Paper corporation in Port Mellon is a large pulp mill inside the AOI. Forestry operations do occur within the AOI and many forests in the interface have regrown after harvesting.

A large open-pit gravel mine is within the Sechelt Indian Government District. This 250 hectare pit supplies construction aggregate to the Lower Mainland, Vancouver Island, and Washington state. An open conveyor belt transports material from the pit to the load out facility on the shoreline, crossing patches of forest, residential areas, and the Sunshine Coast Highway.

3.3.5 Hazardous Values

The intent of this sub-section is to identify hazardous values that pose a safety hazard to emergency responders.

The Sechelt Landfill is operated by the SCRD and is the main waste disposal facility in the AOI. The landfill has procedures in place to prevent accidental ignition during waste disposal. This facility receives municipal, residential, and industrial waste of various types. There is also a transfer station in Pender Harbour and a recycling depot in the Town of Gibsons.

There are large-scale industrial operators in Port Mellon with high concentrations of woody debris on site. The Howe Sound Pulp and Paper Mill and a nearby log sort require outdoor storage of combustible material as part of their operations. These facilities typically have procedures and response plans in place to prevent and mitigate these hazards. The Howe Sound Pulp and Paper Mill has a private fire department capable of responding to hazardous materials incidents and industrial fires within the mill property.

Gas stations can be found throughout the AOI, and all are potentially hazardous due to the storage of large quantities of fuel on site. Many are located within a few hundred metres of forest vegetation.

Section 4: Wildfire Threat and Risk

Wildfire threat is a term that reflects the potential fire behaviour that a natural area could produce. The factors that contribute to this include fuel loading and distribution, slope, aspect, and weather conditions. The term wildfire risk is a measure of the likelihood of a wildfire occurring, its potential behavior and the consequences of it impacting human lives, structures, and infrastructure.

Wildfire threat is a ranking of potential fire behavior based on fuel conditions, weather conditions, slope, aspect, and other biophysical factors.

Wildfire risk is a measure of the probability of a wildfire occurring combined with the consequences or impacts it would cause.

4.1 Fire Regime, Fire Weather, and Climate Change

4.1.1 Fire Regime and Fire Weather

The Biogeoclimatic Ecosystem Classification (BEC) is used to describe ecosystems by vegetation, soil, and climate. Ecosystems are classified at the largest scale into BEC zones. Most of the AOI is in the Coastal Western Hemlock (CWH) BEC zone, with a small area of Coastal Douglas-fir (CDF). The CWH zone is generally wet but can have short hot and dry summer seasons. The CDF is one of the mildest climates in Canada characterised by longer fire seasons with warm and dry summers. In the AOI, it is limited to outermost portions of the coast between Garden Bay and Sechelt, where the rainshadow effect of Vancouver Island is strongest.

The BEC zones within the study area are further broken down into subzones, which reflect more specific climates (Table 14). These subzones are associated with different natural disturbance regimes. In the AOI, the climate is drier and warmer closest to sea level, with increased moisture further north/east and up slope. Most of the study area is in the CWHdm (dry maritime) and CWHxm (very dry maritime) subzones, which are ecosystems with warm, dry summers and mild winters with little snow. These are the dominant subzones in the study area. These forests transition at higher elevations to the wetter climate of the CWHvm2 (very wet maritime, montane variant) which are cooler and receive substantial amounts of precipitation as snow in the winter.

Table 14. Climatic characteristics of the biogeoclimatic zones within the project area (Green & Klinka, 1994)

Biogeoclimatic Zone	Range	Annual Precipitation (mm)	Summer Precipitation (mm)	Annual Snowfall (cm)	Avg. Annual Temperature (°C)
CDF	Max	1263	272	92	10.5
	Min	636	105	17	8.8
CWHxm	Max	2721	565	234	10.7
	Min	1100	160	26	7.8
CWHdm	Max	2412	525	177	10.3
	Min	1367	280	45	8.7
CWHvm2	Max	2850	681	605	No Data
	Min	2760	550	552	

All ecosystems are influenced by periodic disturbances that vary in size, severity, and frequency. Examples of common disturbances include wildfire, windthrow, ice and freeze damage, water, landslides, insect, and disease outbreaks as well as human caused events such as logging. Historically, agents of disturbance were viewed as unhealthy and a threat to the integrity of the forest as a timber resource. Today, forest professionals recognize the role of periodic disturbance in maintaining healthy and diverse forests and ecosystems.

All biogeoclimatic subzones have been separated into natural disturbance types (NDT) according to the Forest Practices Code Biodiversity Guidebook. These NDTs are classified based on the size and frequency of natural disturbances that occur in those ecosystems as per the following:

- NDT 1 Ecosystems with rare stand-initiating events
- NDT 2 Ecosystems with infrequent stand-initiating events
- NDT 3 Ecosystems with frequent stand-initiating events
- NDT 4 Ecosystems with frequent stand-maintaining fires
- NDT 5 Alpine Tundra and Sub-alpine Parkland ecosystems

Table 15. Summary of the biogeoclimatic zones within the AOI by Natural Disturbance Type

Biogeoclimatic Zone	Natural Disturbance type	Area (ha)	Percent of total area (%)
Costal Douglas-Fir	NDT 2 - infrequent stand-initiating events	10,179	14
Coastal Western Hemlock – Very Dry Maritime (CWHxm)	NDT 2 - infrequent stand-initiating events	43,379	58
Coastal Western Hemlock – Dry Maritime (CWHdm)	NDT 2 - infrequent stand-initiating events	18,430	25
Coastal Western Hemlock – Very Wet Maritime, montane variant (CWHvm2)	NDT 1 - rare stand-initiating events	2,416	3

The subzones in the study area are mostly classified as NDT 2 - Ecosystems with infrequent stand-initiating events. These forests generally experienced infrequent wildfires (the mean fire return interval is 200 years) of moderate size (20 to 1000 hectares). Researchers using charcoal dating and other techniques have suggested historic fire return interval throughout the wetter forests of the coast was substantially longer than 200 years, and may have been longer than 600 or 700 years, implying that fire was not the dominant natural disturbance across large areas within and adjacent to the study area (Daniels & Gray, 2006; Lertzmann, et al., 2002). While fire was rare in coastal rainforests, occasional large fires could occur during periods of extreme drought. In general, fires were patchy or limited in area with unburnt islands throughout. This would result in forests of relatively even age and size trees, with mature trees growing singly or in small patches that had survived previous fires. Veteran survivors of large fires are typically found scattered throughout the forest.

Photo 4. Air photos of burned area NW of Sechelt. This illustrates the uneven and patchy impact of wildfire in ecosystems in the AOI.

Wildfire can substantially alter the physical and biological characteristics of an ecosystem. It can change the structure and species composition of a forest, remove some or all the forest floor organic layer, and alter the chemical properties of the soil (Agee, 1993). In ecosystems where natural wildfires are frequent, they help to prepare seed beds, recycle nutrients, alter plant succession, maintain a diversity of age classes (seral stages) across the landscape, control insect and disease outbreaks as well as reduce fuel accumulations (United States Forest Service, 2006). On the coast, large fires in recent history have been caused by human activities. Forest stands in many areas of coastal British Columbia originate after several hot, dry years between the 1880s and 1920s, during which land clearing, lumbering, railways, camping, and mining activities provided many sources of ignition (Parminter, 1978).

Human intervention in the forest, both deliberate and unintentional, has impacted the fire regime in this area. Improved timber utilization, growing opposition to slash-burning in expanding urban areas, and effective fire suppression have supported subdued fire behavior since the major fires of the early 20th century. While there are still many ignitions in the interface owing to campfires, recreation, and other human causes, most are extinguished by local Fire Departments or unsuitable weather conditions before they can become wildfires.

Urban development in the forest interface has impacted forest stands by altering soils and groundwater, and opening stands to new wind and sun exposure (Zipperer & Pouyat, 1995). Historic logging has created more homogeneous forests with less size and age diversity, which may be more susceptible to severe fire (Spies, et al., 2014). Warmer, drier conditions caused by climate change in combination with higher fuel loads is increasing the risk associated with the interface of these temperate rainforests.

Fire Weather Rating

Fire Weather Rating is the use of weather measurements to assess likely fire behavior for a defined forecast period. The BC Wildfire Service monitors Fire Weather Ratings throughout the province. Fire Weather Ratings are an essential component in most fire prediction models and are used to help determine a community's landscape level wildfire threat.

Table 16 summarizes summer temperature and rainfall statistics from the nearest Environment Canada station with 30-year weather, which is located at the Powell River Airport. This data represents the average temperature and precipitation during wildfire season. For reference, also provided is weather data from the 2018 wildfire season from the Sechelt Airport. 2018 was one of the busiest fire seasons throughout BC, and this reference weather data shows the temperatures and drought associated with a busy fire season.

Table 16. Weather statistics for the months of May to Sept (1980-2010)

Weather Attribute	May	Jun	Jul	Aug	Sep
30-year Daily Average High (°C)	16.5	19.4	22.1	22.3	18.7
2018 Daily Average High (°C)	19.7	18.9	24.9	24.2	17.3
30-year Average Rainfall (mm)	76.6	67.6	37.5	45.3	54.7
Rainfall in 2018 (mm)	9.8	52.1	2.8	2.4	118.1

Table 17 provides a summary of the average number of days rated as moderate, high, and extreme in the fire season (May to Sept) at fire weather stations inside or adjacent to the study area. This has been calculated from data over the past ten years.

Table 17. Average number of moderate, high, and extreme rated fire danger days over the past ten years (May to Sept)

Weather Station	Average # of Days as Moderate	Average # of Days as High	Average # of days as Extreme
Sechelt (EC)	41	36	10
Elphinstone	33	17	1
McNabb	34	20	3

4.1.2 Climate Change

Climate change will result in changes to temperature and precipitation, with impacts to both forest health and wildfire risk. The Pacific Climate Impacts Consortium predicts warmer temperatures year-round, with the greatest increase occurring in the summer. The estimated summer increase is predicted to be 2.0 °C by the 2050s, and 3.1 °C by the 2080s (Pacific Climate Impacts Consortium, 2013). Precipitation is expected to increase by 10% annually, although summer seasonal precipitation will *decrease* by 10%. The summer weather conditions are therefore expected to be slightly warmer and slightly drier on the Sunshine Coast, consistent with predictions for a longer wildfire season. Patterns observed in other parts of BC and North America suggest that hotter, drier conditions are likely to result in an overall increase in wildfire frequency in the study area (Kirchmeier-Young, Gillett, Zwiers, Cannon, & Anslow, 2019; Taylor, Régnière, St-Amant, Spears, & Thandi, 2010). Warmer temperatures in spring and fall will extend the duration of the fire season, placing values at risk throughout more of the year (Abatzoglou & Williams, 2016).

Climate change will continue to have negative impacts for forest health (Spittlehouse, 2008). Climate change affects forest health by creating maladaptation between trees and sites, which can create conditions for outbreaks of insects and diseases. More frequent or prolonged droughts are likely to reduce tree health and vigor, also increasing susceptibility to pathogens and pests (Woods, Heppner, Kope, Burleigh, & Maclauchlan, 2010; Sturrock, et al., 2011). Declining forest health tends to increase forest fuel loading by increasing the amount of fuel in the stand. Health impacts were directly observed by the project team during field inspections of interface forests. Trees located on drier sites were showing signs of drought stress and mortality, and fuel build-up from tree morbidity (i.e. decline or dieback, but not death) was observed in many areas.

The impacts that climate change is having on wildfire in the study area are uncertain. The predicted weather trend is for longer, hotter, drier summers, which would result in higher potential wildfire for activity within the study area. There is a poor understanding of wildfire behaviour in coastal fuel types, and fire return intervals have been long. Traditionally, wildfire has been uncommon in coastal fuels due to the moist climate. However, this moist climate creates high volumes of foliage and woody material which are potential fuels. Climate change and its impacts on forest health and weather patterns is expected to result in an increase in wildfire size, intensity, and frequency in the AOI.

Figure 12. Climate change impacts on wildfire risk.

4.2 Provincial Strategic Threat Analysis (PSTA)

The PSTA is a high-level analysis conducted at the Provincial level and is intended to be used as a starting point for an assessment of local wildfire threat. It includes several spatial layers, including wildfire threat and fuel typing. The CWPP involves updating this at a local scale, by integrating local weather and updating the fuel typing for the public land in the AOI. The original PSTA spatial data is provided below. This is an interpretation of fuel type mapping, historical fire data and weather, and topography. The PSTA includes information and maps that describe fuel types, historical fire density, and the potential for embers to land in an area (spotting impact), head fire intensity, and a final calculated wildfire threat score (Figure 13).

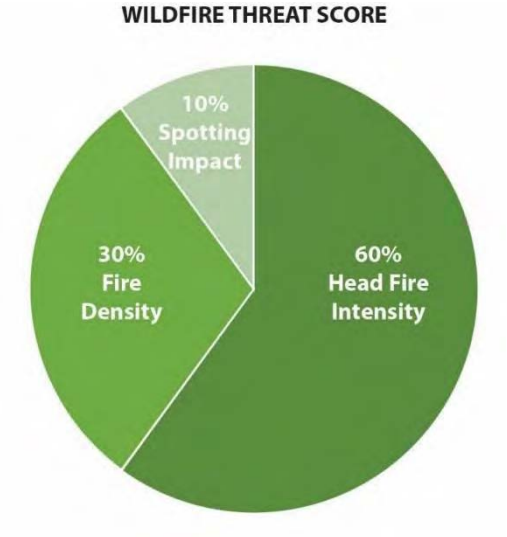


Figure 13. Input factors and contributing weights to the final PSTA score.

The 10 Fire Threat Classes represent increasing levels of overall fire threat (i.e. the higher the number, the higher the threat). PSTA Threat Class 7 is a threshold and the most severe overall threat classes are Class 7 and higher. Areas of the province that fall into these higher classes are most in need of mitigation. Areas rated as Class 7 or higher are locations where the fire intensity, frequency and spotting can be severe enough to potentially cause catastrophic losses in any given wildfire season, where those ratings overlap with significant values at risk. Areas rated as Class 6 are also considered to be particularly prone to wildfires, are susceptible to crown fires (head fire intensity greater than 10,000 kW/m), and are most likely to be affected by spotting impacts.

The PSTA mapping for the AOI appears fragmented because the analysis cannot be published for private land. This analysis was completed at a coarse scale with poor input data. The PSTA identified the majority of the public land area assessed as a moderate threat (Table 18).

Table 18. Summary of wildfire threat on public owned lands

PSTA Threat Rating (class)	Area (ha)	% of area
Extreme (9-10)	428	0.5%
High (7-8)	2,048	2.7%
Moderate (4-6)	19,712	26.6%
Low (1-3)	4,870	6.5%
No Data (Private Land)*	16,799	22.6%
Water	30,550	41.1%

*There is a minor discrepancy between private land area likely due to different provincial layers being updated at different times.

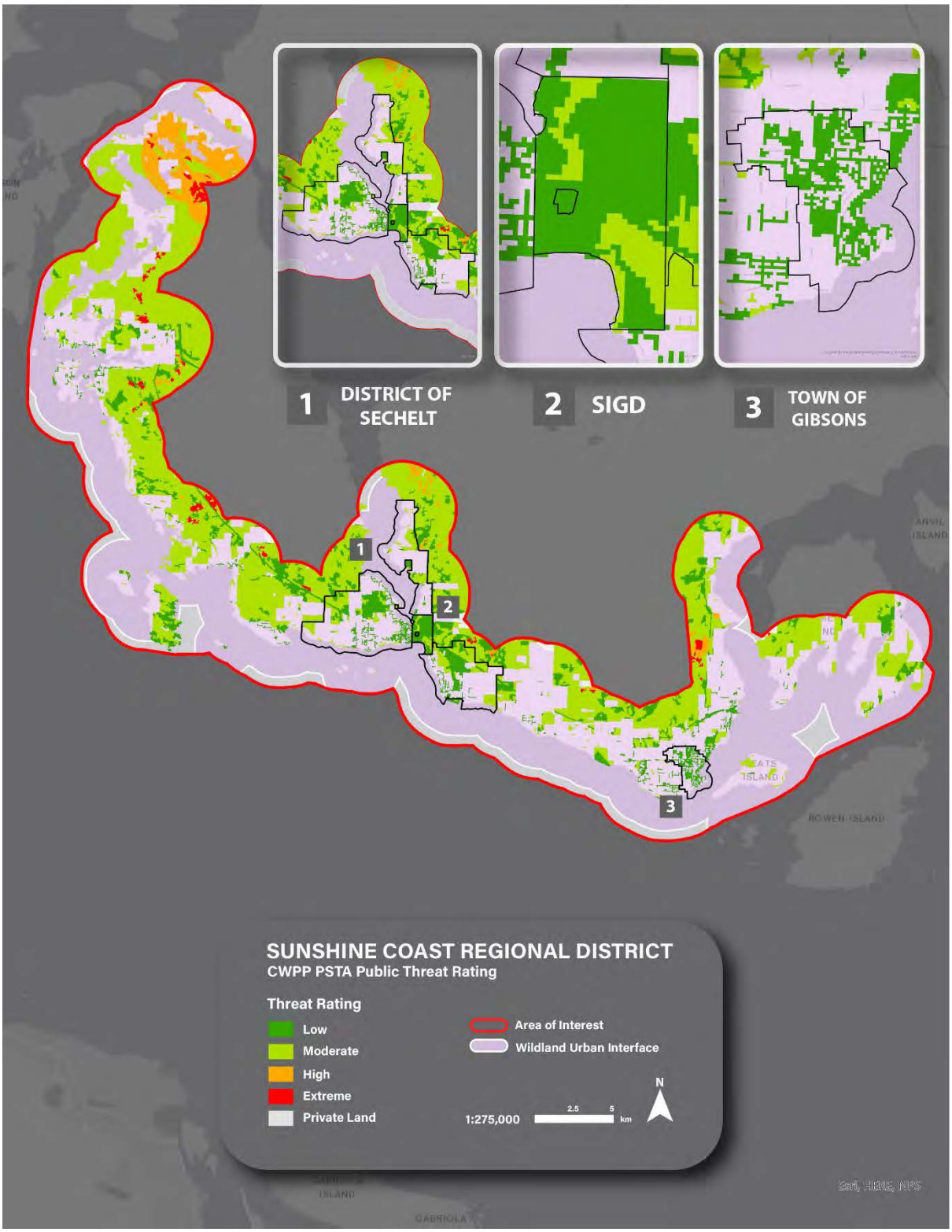


Figure 14. Provincial Strategic Threat Analysis threat rating for public owned lands

Provincial Wildfire Threat Analysis - Limitations

The PSTA is a generalized and coarse analysis completed at a province wide layer with a 50m pixel size. This tool is useful for higher level wildfire analysis however lacks detail that is required for a localized analysis of wildfire risk. A key component of this CWPP is refining this PSTA data into a refined wildfire risk map which incorporates locally derived data and ground truthing for verification. This map has a higher detail and combines wildfire threat with the proximity to values. This process is detailed in Appendix 1.

4.2.1 Fire History

The BCWS wildfire data include wildfire polygon data for 1920-2020, and wildfire ignition data for 2000-2020. The wildfire history in the study area is characterized by mostly small wildfires that are easily suppressed, with the occasional large wildfire (>1000 ha). Larger wildfires appear to be relatively frequent prior to the 1950s, with large fires occurring several times per decade. However, since 1950 there has only been one notable large fire, the previously (2.3) discussed Sechelt fire in 2015. This is likely due to a combination of factors. After 1950, the wildfire service effectively suppressed most wildfires due to technological advances in wildland firefighting techniques. Furthermore, broadcast burning was a frequent technique in the forest harvesting industry to dispose of post-harvest debris, which led to more frequent human caused fires.

Since 1920, the most common type of wildfires in the AOI have been lower-intensity surface fires. These wildfires tend to consume mostly ground and surface fuels and reduce fuel loads in the forest without causing major mortality to the overstory trees. However, these fires are relatively infrequent and small on the coast and have not resulted in any significant reduction in landscape fuels. Wildfires have been lower in severity, frequency, and size than is typical of most Natural Disturbance Type 2 ecosystems. There is no apparent reason for this decrease, although it may be partially attributed to human intervention in the natural disturbance regime due to forest harvesting as well as effective wildfire suppression.

4.3 Local Wildfire Threat Assessment

Field crews completed assessment of fuel conditions and wildfire threat assessments in January and February of 2021. These site visits were focused on areas in the wildland urban interface. The goal of these site visits was to assess the wildfire threat, ground truth the PSTA fuels data, and identify feasible potential fuel treatment areas. Sites were identified to be assessed in advance using desktop analysis which considered the following:

1. PSTA Wildfire Threat – Areas of High and Extreme wildfire threat
2. Structure Density – Areas near higher structure densities
3. Critical Infrastructure – All critical infrastructure was visited.
4. Crown and Municipal Land – Only publicly owned land was visited.
5. Locally identified areas – Areas specifically highlighted by local government staff and stakeholders were visited.

A total of 99 wildfire threat plots and 207 walkthrough assessments were conducted for the study area. See Figure 14 is a map that illustrates wildfire threat and provides a summary of the threat scores. Appendix 1 provides a detailed summary of the technical process for determining this local wildfire threat score.

Local Wildfire Risk Summary

Wildfire Risk is a measure of the probability of a wildfire occurring, combined with the consequences of that wildfire. The probability of wildfire is measured by the wildfire threat, which is a combination of fuel conditions, weather, and terrain. The consequence of a wildfire is determined by the location and value that could be impacted. The measure of wildfire risk is fundamentally spatial and contextual. The highest risk areas are those with a high wildfire behaviour potential and which are adjacent to communities and critical infrastructure. Field assessments for the CWPP focused on areas of high to extreme wildfire behaviour potential within 500m of identified values. A detailed description of the technical process to determine wildfire risk is summarized in Appendix 1.

The overall wildfire risk in the AOI is high. The potential wildfire behaviour within the study area is generally moderate or high, with scattered forests posing an extreme threat. There is an extensive interface area is widely distributed throughout the study area. There is a high likelihood that wildfire could occur within this wildland-urban interface posing a high risk to property and life. The following subsections describe wildfire risk conditions on lands within each of the project partners' jurisdiction.

Photo 5. The study area is dominated by conifer fuel types and variable topography. Wildfire risk is driven by the proximity of values to forests with high wildfire behaviour potential, which are often conifer forests on steep slopes.

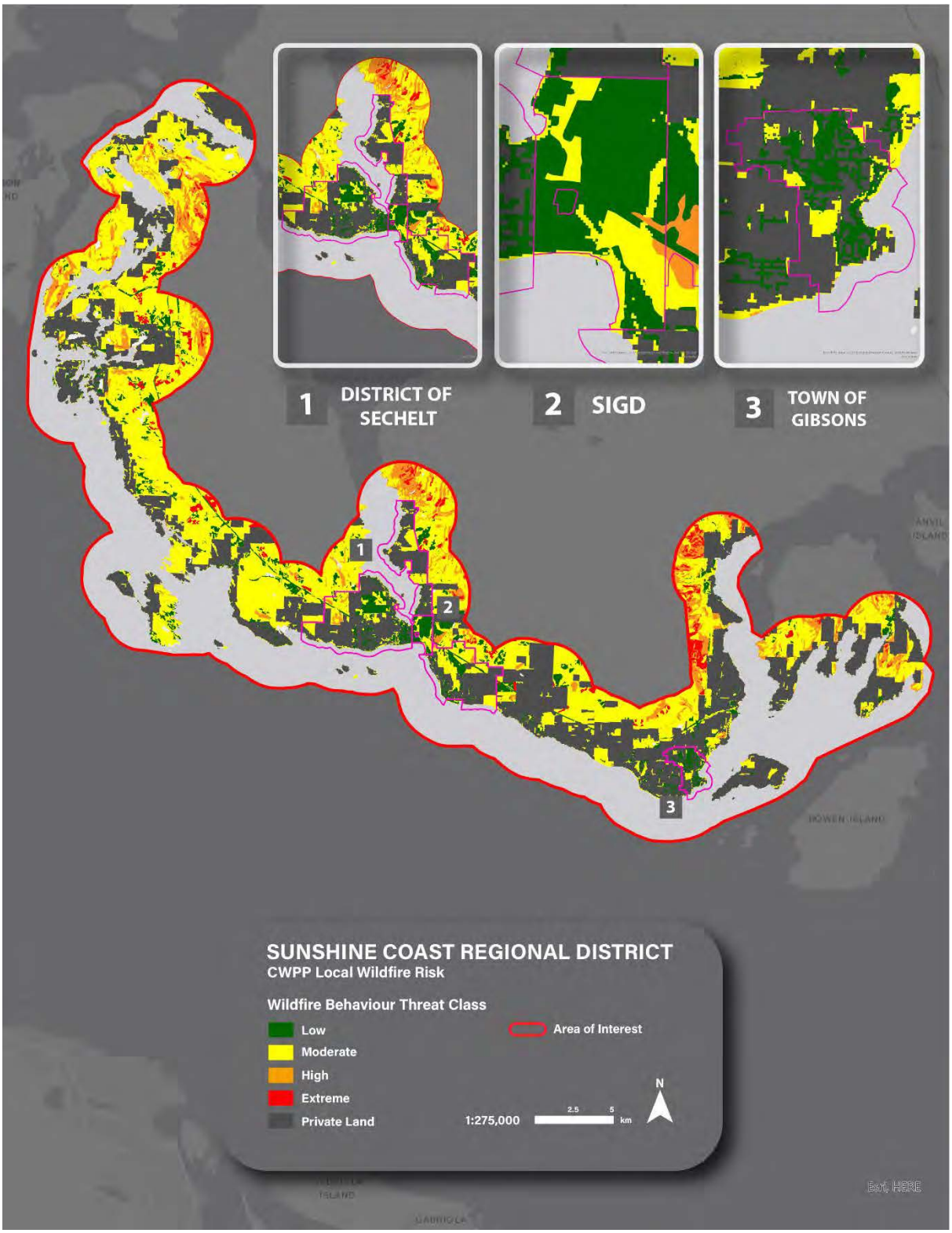


Figure 15. Wildfire behaviour threat map

Wildfire Risk in the Sunshine Coast Regional District

Most of the identified high wildfire risk areas are within the administrative boundaries of SCRD Electoral Areas. The wildfire risk is higher in the areas northwest of Sechelt, with the highest wildfire risk in Pender Harbour. Overall wildfire risk is high in Egmont and Halfmoon Bay. Roberts Creek similarly has a high wildfire risk, albeit it is the lowest relative to other SCRD portions of the study area. Port Mellon has high to extreme wildfire behaviour potential, however this is largely driven by the steep slopes rather than dense fuel accumulations.

Due to their isolation and lack of formal fire protection, the three inhabited islands in the study area are vulnerable to the impacts of wildfire. South Thormanby island has a moderate to high wildfire risk, most of which is found in Simson Provincial Park. The remainder of the island, which is private land, is heavily forested, and the entire populated portion of the island can be considered intermix with no discrete wildland urban interface.

The wildfire risk on Keats Island is similar, as most of the island is private with intermix fuels and development. Gambier is the largest and most populated island and is mostly publicly owned. The wildfire risk on Gambier is high due to the density of values and intermix fuels, as well as high risk fuels found adjacent to private lands.

Photo 6. Air photo of Port Mellon which has areas characterized by high wildfire risk due to the prevalence of coniferous fuels and intermix-type development.

Wildfire Risk in the Sechelt Indian Government District

The overall wildfire risk to the SIGD is moderate. This area is mostly developed, with small amounts of natural forest inside the SIGD jurisdictional boundaries. The south of the district has important values in the interface, including residences and important cultural values. Development in the SIGD is more typical of interface than intermix conditions.

Photo 7. Communication towers and power lines considered critical infrastructure that are intermixed with fuels adjacent SIGD land.

Wildfire Risk in the Town of Gibsons

The overall wildfire risk in the Town of Gibsons is low. There is little wildland urban interface or intermix areas in the Town boundaries as it is surrounded by developed or agricultural land. The publicly owned natural areas within the Town pose a moderate wildfire risk, but these areas are discontinuous with the larger landscape forests of the adjacent SCRD electoral areas.

Wildfire Risk in the District of Sechelt

The wildfire risk in the District of Sechelt is high. The District has extensive interfaces with the landscape forests to the west, east, and north. There are areas of high and extreme wildfire threat within 500m of structures in all these areas. There is critical infrastructure located in the interface in the eastern portion of Sechelt, adjacent to the airport. Neighbourhoods that are high risk are Wilson Creek, Selma Park, East Porpoise Bay, and West Sechelt.

Photo 8. Interface values and forest near Wilson Creek.

Wildfire Risk Projections

The wildfire risk assessment conducted for the AOI is a summary of the current conditions, however predicted climate change impacts should be considered. Climate change is expected to result in hotter, drier summers, which is expected to increase wildfire risk. A prediction of the future wildfire risk conditions has been completed using weather data from the years 2017-2019. This includes two fire seasons, 2017 and 2018, which were extremely hot and dry. The result of this analysis shows the wildfire behaviour potential throughout the AOI is significantly greater. This analysis is depicted in Figure 16.

This climate change wildfire risk projection is a simplified analysis that assumes that the 2017 and 2018 values represent the future weather patterns. The accuracy of this projection is uncertain, however this projection is illustrative of the potential changes in wildfire risk that may result from climate change in the AOI.

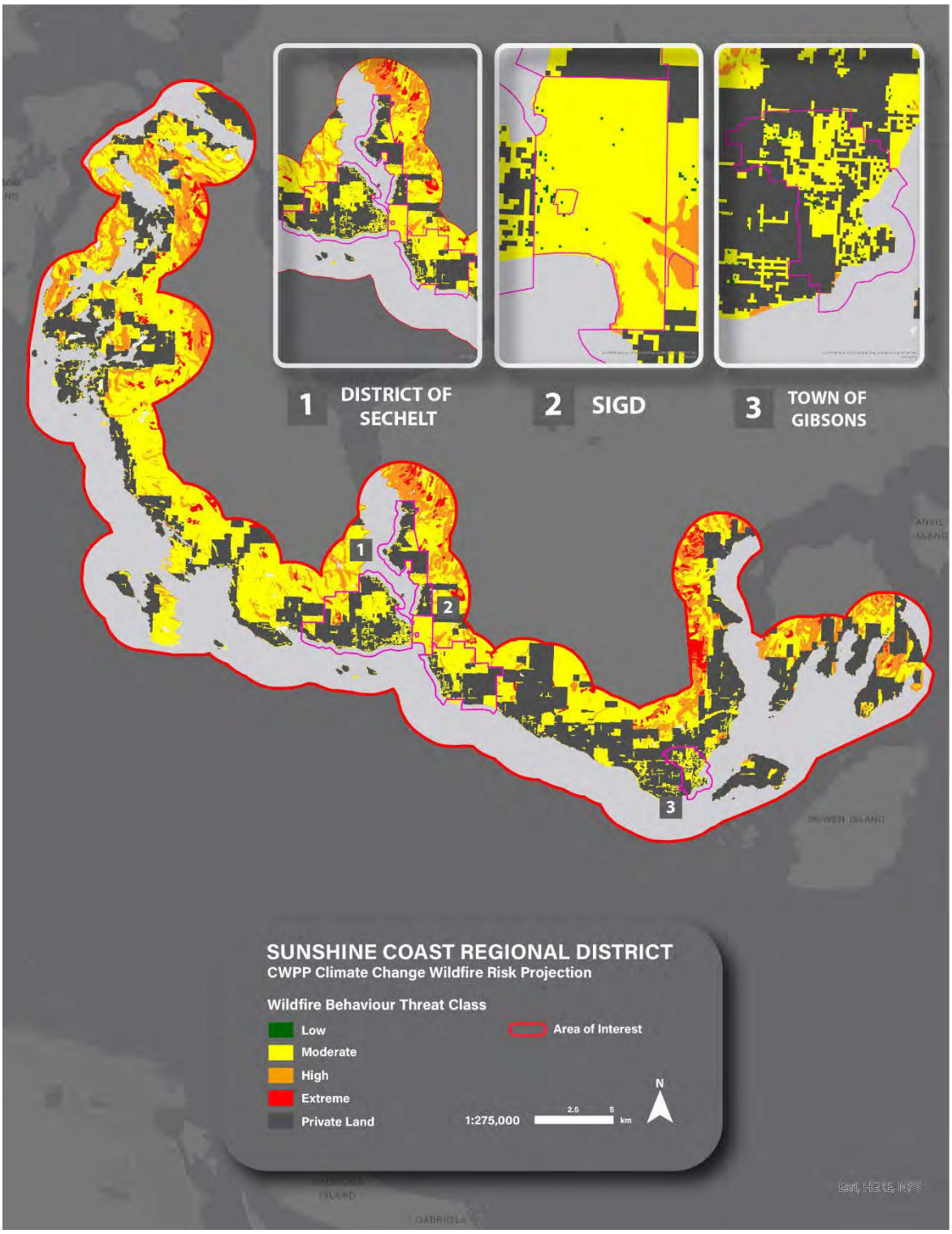


Figure 16. Future wildfire risk projection.

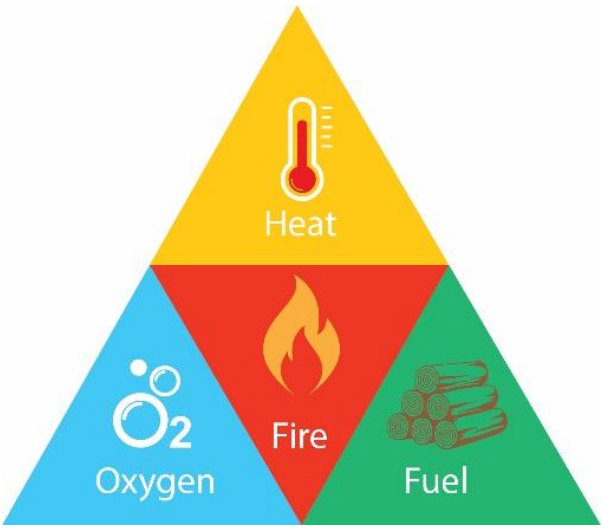
Section 5: Risk Management and Mitigation Factors

This section identifies strategies that can be implemented to reduce the risk of wildfire to communities and critical infrastructure. These strategies have been identified through the analysis of wildfire threat and risk, stakeholder consultation, and a review of best management practices. The recommendations vary in scope, implementation cost, timeline, and the party(s) responsible. These recommendations are organized into the following categories:

1. Fuel Management (5.1)
2. Planning and Preparedness (5.2 and 6)
3. Communication and Education (5.3)

5.1 Fuel Management

For fire to occur, there are three factors required: fuel, oxygen, and heat. The behavior of wildfire is determined by fuel condition, terrain slope and aspect. Of these factors, the only one that can be modified is fuel.



The determination of wildfire threat and risk has identified areas of high wildfire threat adjacent values. These highest risk areas on public land were visited in the field. The areas that were confirmed to pose a high risk have been identified as priority areas where fuel prescriptions should be considered. For all prioritized treatment areas, options have been explored to partner and cooperate with other interest groups for the operational treatment, maintenance, and improving access.

Fuel treatments are completed through three phases:

1. Identify areas for fuel treatment within a Community Wildfire Protection Plan or other high level strategic plan.
2. Develop a detailed Fuel Management Prescription which identifies objectives and strategies to reduce wildfire risk.
3. Operational implementation of the Fuel Management Prescription.

This CWPP is a critical first step to identify and prioritise candidate areas for fuel treatment in the interface. The process from initial identification of a treatment area to implementation on the ground is typically a multiyear process.

Interface Fuel Treatment Areas

Areas on public lands that were identified as high risk and are located within 100m of moderately dense interface communities were visited in the field. Fuel plots were established in representative areas to determine wildfire threat. Assessments of the fuel condition were completed following the provincial assessment system using the 2012 Wildfire Threat Assessment Guide. This is the provincial standard for field assessments of fuel hazard in the WUI and is used to plan fuel hazard mitigation works. Fuel types are scored under this system which is used to help prioritise the areas for fuel hazard mitigation funding under the Community Resilience Investment Program (CRI). A total of 99 field assessments and worksheets were completed.

The fuel component of wildfire threat is driven by the density and continuity of fuel on the forest floor, in the canopy, and the ladder fuels that connect the two. The highest threat fuel types are composed of dense coniferous trees with high vertical and horizontal continuity, with high fuel loading on the forest floor in the form of dead logs and branches.

Interface fuel treatments change the composition of a forest to reduce the wildfire threat, and thereby the wildfire risk. This involves reducing the overall fuel load and disrupting both the vertical and horizontal continuity to create fuel strata gaps. The overall objective of the fuel treatment prescriptions is to change the fire behavior potential of these stands from a crown fire to a surface fire under the most dangerous weather conditions (the 90th percentile weather conditions). This allows suppression resources to be able to act on the wildfire and defend the adjacent values. The detailed strategies for reducing fire behavior potential are detailed in a fuel management prescription, which is developed by a Registered Professional Forester with wildfire management experience. Potential strategies include tree thinning, spacing, pruning, surface debris removal, or creating fuel gaps. Treatment areas should be linear adjacent to the values at risk, a target of at least 100m wide and located up against man made and natural fuel breaks when possible.

Surface fire is where only fuels in contact with ground are involved in a wildfire.

Crown fire is where tree crowns, including foliage and branches, are involved in a wildfire. Crown fire can be *passive*, meaning only single tree crowns or groups of trees are involved, or *active*, meaning fire is readily spreading between tree crowns.

Many of the interface treatment areas are located partially on SCRD managed parks. Maintenance of these fuel treatments will therefore ultimately become part of SCRD regular parks management. SCRD has completed fuel management activities before, however not at the scale proposed in this CWPP. Completion of these treatments will require consultation with SCRD parks staff, and maintenance of these treatments may impact parks planning and capacity. Furthermore, in areas not designated for fuel treatment the goals of parks maintenance may dovetail with the goals of fuel reduction. For example, removing dead and downed trees near facilities for hazard reduction also reduced fuel loading. It is recommended that SCRD Parks develop a new parks management plan that integrates wildfire management objectives outlined in this CWPP. Integrating fuel management goals explicitly into the management of SCRD parks presents an opportunity to reduce wildfire risk during daily operations of the local government. Proactively identifying and managing areas of concern, for examples areas with signs of increasing mortality, will reduce future fuel loading and wildfire risk.

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Photo 9. Forests with tree mortality in Cliff Gilker Park.

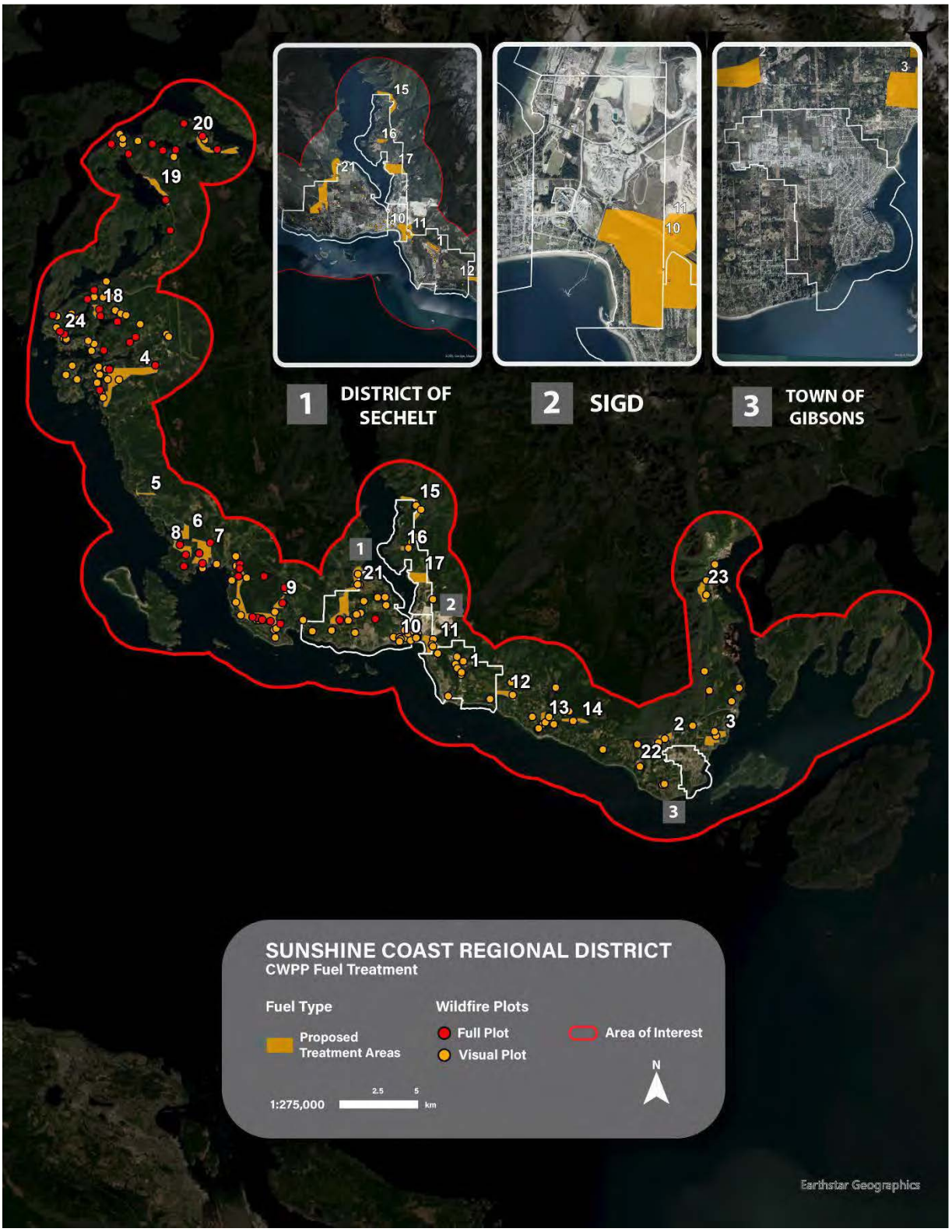

Figure 17. Fuel treatment area map.

Table 19 Fuel treatment summary table

Treatment Polygon ID	General Location	Jurisdiction	Wildfire Behaviour Potential			Priority	Fuel Type	Area (ha)	Treatment Rationale
			Moderate	High	Extreme				
1	Sechelt	Crown	14.6			High	C5	18.62	Adjacent Airport, BCWS office, SCRD office. PSTA based on inaccurate fuels, which have been corrected. Treatment can make use of the adjacent low fuel BC Hydro ROW to increase mitigation. Overlaps Sunshine Coast Community Forest tenure.
2	SCRD-Gibsons	Unknown-Crown	23.3	1.5		High	C5	27.34	Homes directly adjacent conifer fuel types. Treatment to increase protection by integrating with BC Hydro ROW.
3	SCRD-Gibsons	SCRD	54.3	13.0	1.1	Medium	C5	77.40	Soames Hill Park, steep conifer fuels. Homes within 100m of portions of park in all directions.
4	SCRD-Pender	Unknown-Crown	189.3	42.8	0.1	Medium	C5	241.59	Treatment to protect homes and highway within 100 m of treatment area. Conifer fuels on steep terrain. Portions of extreme PSTA threat to east. Treatment area also contains a communications tower with very limited access. Options to further net down treatment area to just include critical infrastructure.
5	SCRD	Unknown-Crown	12.8			Low	C5	13.65	Treatment to protect homes and highway within 100m. Conifer leading stand with good access through adjacent cutblock.
6	SCRD-Secret Cove	Unknown-Crown	33.8			High	C5	33.88	Three polygons have been broken up as they are fragmented by private land. May be lumped together in prescription. Treatment of conifer fuels to protect adjacent homes within 100m.
7	SCRD-Secret Cove	Unknown-Crown	118.3			High	C5	124.29	Three polygons have been broken up as they are fragmented by private land. May be lumped together in prescription. Treatment of conifer fuels to protect adjacent homes within 100m.
8	SCRD-Secret Cove	Crown-SCRD	53.0	0.5		High	C5	53.70	Three polygons have been broken up as they are fragmented by private land. May be lumped together in prescription. Treatment of conifer fuels to protect adjacent homes within 100m.
9	SCRD-Halfmoon Bay	SCRD-Crown-BC Parks	205.8	17.3		High	C5	241.70	Homes within 100m along entire treatment area. Boundaries delineated using structure density layer. Mix of jurisdiction, majority SCRD and Crown. BC Parks land has lower threat and may be netted out, multiple riparian areas in the BC Park portion of TU. C5 leading fuels throughout, field work identified mortality and declining trees throughout. Prescribed burn potential in his area, although might be difficult with overlapping values.

Treatment Polygon ID	General Location	Jurisdiction	Wildfire Behaviour Potential			Priority	Fuel Type	Area (ha)	Treatment Rationale
			Moderate	High	Extreme				
10	SIGD	SIGD	28.9	3.4		High	C5	45.44	Mostly C5, interfaces with private homes and critical infrastructure and high cultural value (longhouse). Could be combined with TU 11 to form one large treatment unit, however this will require partnership with crown.
11	Sechelt	Crown	13.3	14.2		High	C3	32.18	Continuous with TU 10, lots of volatile C3 fuel surrounding critical infrastructure. Relatively flat with mechanized potential.
12	SCRD-Roberts Creek	Crown-BCP arks	31.5	8.3	0.6	High	C5	42.22	PSTA inaccurately identified portions of this as D1/2, but fieldwork corrected this to volatile C3. interfaces with some private homes and highway.
13	SCRD-Roberts Creek	BC Parks	34.5			Low	C5	36.70	Adjacent highway, could build off adjacent golf courses to create a larger fuel break from landscape forests.
14	SCRD-Roberts Creek	Unknown-Crown	27.1			Low	C5	30.21	Interfaces with private land, C5 leading fuels. Build off BC Hydro ROW to increase area of mitigation.
15	SCRD-Sechelt Inlet	Crown-BC Parks	29.5	14.4		Medium	C5/M 1	43.97	Surrounds relatively isolated private homes up Sechelt Inlet. Mostly conifer leading fuels. Overlaps Sunshine Coast Community Forest tenure.
16	Sechelt	Crown	14.7			Medium	C5	14.74	Interfaces with private land, conifer leading fuels. Overlaps Sunshine Coast Community Forest tenure.
17	Sechelt	Crown-BC Parks	66.2	0.8		Medium	C5	72.81	BC Parks Porpoise Bay. Flat with conifers throughout. Treatment to protect adjacent private land and campsites. Overlaps Sunshine Coast Community Forest tenure.
18	SCRD-Garden Bay	SCRD	23.9	2.4	0.2	High	C5	38.06	Katherine Lake Park, conifer stands throughout. Interfaces with private lands. PSTA inaccurately typed portions as D1/2, corrected to C5. Potential as demonstration forest.
19	SCRD-Sakinaw Lake	SCRD	44.1	9.3	0.5	High	C5	56.15	Dan Bosch Park. Surrounds Sunshine Coast Hwy, borders two proposed WRR treatments north and south. Treatment here will greatly improve protection of critical route in AOI
20	SCRD-Egmont	Crown-BC Parks-SCRD	95.3	1.3		High	C5	99.25	Builds off treatment area that is currently in implementation stage around Egmont Road. Egmont identified as a High risk community on WUI Risk Class Maps. Difficult terrain with gullies and steep slopes.
21	Sechelt	Crown-First Nation	131.4	38.1	0.2	High	C3/C5 /M1	185.2 3	Fuel break between west sechelt and landscape forest. Recent fire in 2015 was in this area. Protects homes along boundary and community. Mix of fuels, with portions of volatile C3. Excellent access.

Treatment Polygon ID	General Location	Jurisdiction	Wildfire Behaviour Potential			Priority	Fuel Type	Area (ha)	Treatment Rationale
			Moderate	High	Extreme				
22	SCRD-Elphinstone	SCRD	7.5	0.3		Low	C5	8.09	Interfaces with private land, homes directly back onto treament area. C5 fuel, good access.
23	SCRD-Port Mellon	Crown-SCRD	29.5	3.7	3.9	Low	C3/C5 /D1	43.73	C3 and C5, overlaps with BC Hydro ROW. Portions of D1/2 will be netted out. Good access.
24	SCRD-Pender	SCRD	10.0	5.6		Medium	C5	15.60	Interfaces with private land, conifer leading fuel. Field work noted significant fuel loading due to tree failure, hazard not captured in PSTA. Good candidate for prescribed burn.

Photo 10: Example of stand condition before fuel mitigation treatment

Photo 11: Example of stand condition post fuel mitigation treatment

Fuel Management near Critical Infrastructure

Several of the identified critical infrastructure values are vulnerable to wildfire. There are several facilities that are critical for supplying clean water that are located within forested areas with reservoirs that are often in high-risk areas such as at the top of slopes. Many of these are within natural forested areas and do not have a suitable defensible space between them and the adjacent forest areas. It is recommended that a detailed assessment be completed of these facilities and fuel treatment prescriptions be developed. These should ensure that there is at minimum a 30-metre fuel-free space around each of them.

Photo 12. Critical Infrastructure surrounded by conifers with no fuel free zone.

Fuel Treatment Implementation and Funding Opportunities

Fuel treatments on local government land are eligible for funding to develop prescriptions for fuel treatment and operational implementation through the Community Resiliency Investment Program. Treatments on crown land are managed through the Wildfire Risk Reduction program, coordinated through the Ministry of Forests, Lands, Natural Resource Operations and Rural Development. Most proposed treatment areas identified in this report are on a mix of land ownership, overlapping both local government and crown land. Projects that include a mix of local and crown land are eligible for funding from CRI, as long as they are adjacent to community structures and they extend no further than one kilometer from the structure density class of greater than six.

Community Resilience Investment Program (CRI)

This CWPP was funded through the UBCM Community Resiliency Investment (CRI) program. This program includes a variety of funding categories, including Education, Planning, Training, and Fuel Management activities. The available funding ranges from $50,000 annually for low-risk communities, to $150,000 annually for higher-risk communities. The amounts can be increased based on the number of partners involved. It is estimated that the SCRD CWPP partnership could be eligible for $600,000 annually through CRI grants. The SCRD, composed of electoral areas, may be eligible for further funding per electoral area for larger collaborative projects. The project partners can apply for funding through this program for several of the initiatives and recommendations within this CWPP, including interface fuel treatment. Applications for 2022 funding grants will be due in late 2021.

First Nations Emergency Services Society of BC

The First Nations Emergency Services Society of BC (FNESS) is a program that helps First Nations to develop and sustain safer communities. Most of the FNESS program funding is conducted in partnership with CRI. Regional applications to CRI which include the SIGD will likely involve FNESS coordination. SIGD is also eligible to apply for FNESS funding independently of the municipal project partners. Most recommendations in this report that are specific to SIGD are eligible for FNESS funding, including interface fuel treatment.

Wildfire Risk Reduction Program

As of 2019, the provincial government is taking leadership for fuel mitigation on provincial crown lands through the Wildfire Risk Reduction (WRR) program. This program operates at the scale of BC's natural resource districts and focuses on vulnerabilities to critical infrastructure and high-risk communities. Subsequently, treatment units identified in this CWPP may differ from those identified strategically at the WRR level. Treatments that are exclusively on crown land are administered by the WRR program, however treatments that are on a mix of local government and crown land are eligible for CRI funding and can be managed by local government. WRR representatives have been consulted on several treatment areas identified in this CWPP to support future partnerships and efficiencies in treatment.

5.2 FireSmart Planning and Activities

This section provides recommendations to mitigate the risk of wildfire to existing and planned developments. These are consistent with the guidance of the FireSmart Begins at Home Manual (BC Wildfire Service, 2019). Private landowners have a large responsibility to play in managing the risk to life and property from wildfire. Recent changes to the CRI program recognize the importance of actions on private lands to mitigate community risk. Private landowners can increase community safety by choosing FireSmart building materials and landscaping as well as through general emergency preparedness.

During a wildfire, homes are ignited as a result of:

- Sparks or embers landing and accumulating on vulnerable surfaces such as roofs, verandas, eaves, and openings. Embers can also land on or in nearby flammable materials such as bushes, trees or woodpiles causing a fire close to a structure.
- Extreme radiant heat from flames within 30 m of a structure that melts or ignites siding or breaks windows.
- Direct flame from nearby flammable materials such as bushes, trees, or woodpiles.

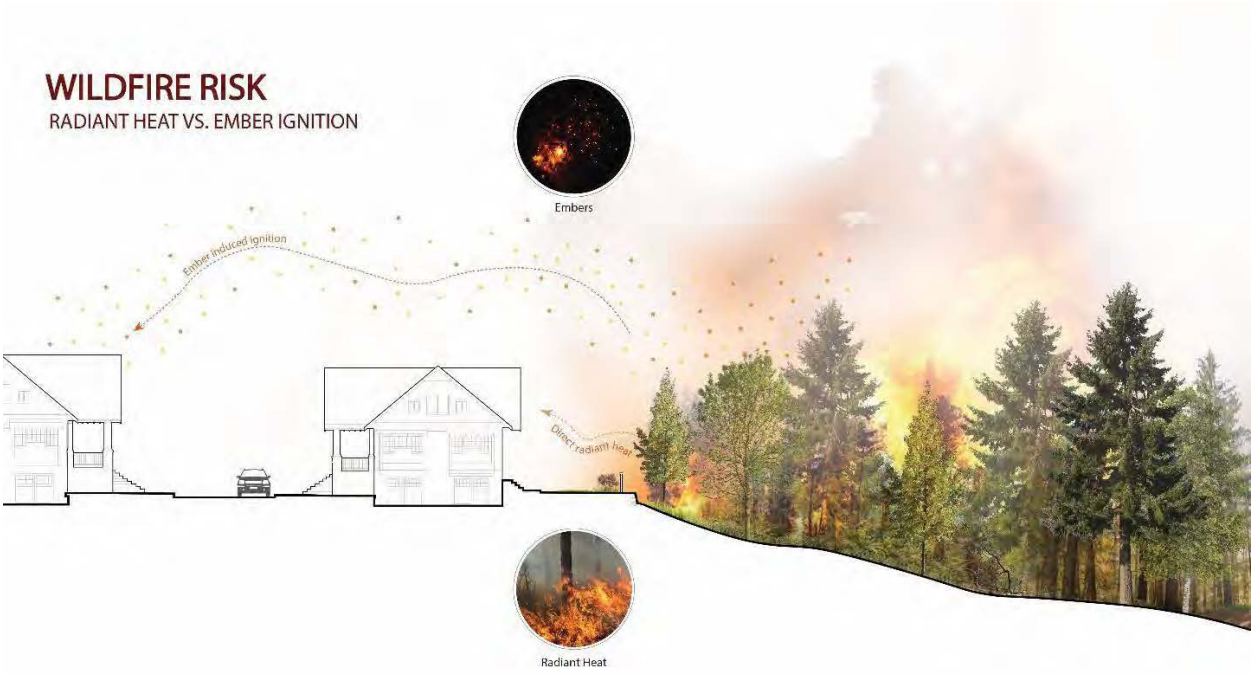

Figure 18. Wildfire risk to homes. During a wildfire, homes are at risk from radiant heat as well as embers carried by winds.

FireSmart assessments divide the area around the home into three “priority zones”, which radiate out from the structure. The fire resistance of homes in the interface can be improved by achieving FireSmart standards for building materials, ignition sources and combustible fuels within each of these zones. If a wildfire does threaten the area, suppression capability is improved with good access to the interface area, defensible spaces around values, and a good water supply.

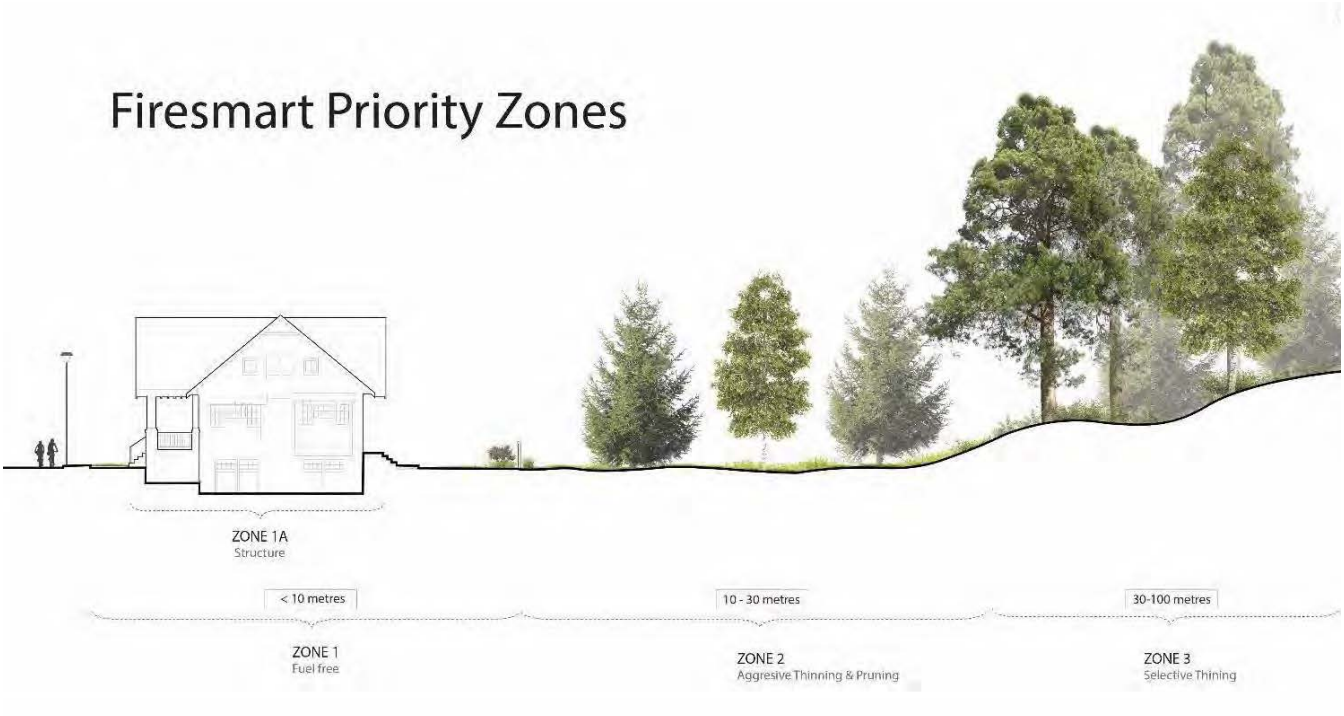

Figure 19. FireSmart Management Zones

Zone 1 is the area within 10 m of the home or building. In this area people and structures are at risk from radiant heat from a wildfire. It has been shown through analysis of recent large-scale wildfires that the most important factors in protecting structures are the exterior construction materials and immediate landscaping next to homes (Westhaver, 2017). The structure itself is sometimes considered on its own as the Home Ignition Zone (1A), or area where wildland fire exposes the home to direct flame. The use of non-combustible or fire-resistant building materials is emphasized, along with landscaping plans that reduce the potential for direct exposure of the home to radiant heat or flame.

Zone 2 includes the area from 10 m to 30 m from a structure. Wildfire taking hold in this area may still subject the building to radiant heat and may produce an ember shower onto the building. Fuels are generally treated aggressively in this area to prevent a crown fire from establishing and reduce the intensity of radiant heat and ember production. Treatments may include removal of ground fuel, thinning of trees, and lift pruning of those retained.

Zone 3 includes the area from 30 m out to around 100 m. People and structures are at risk from ember transport associated with a wildfire in this area. Treatment of fuels in this area generally includes stand thinning and aims to prevent a crown fire but is generally not as aggressive as treatments in Zone 2.

5.2.1 FireSmart Goals and Objectives

The overall goal of FireSmart is to encourage private land holders to adopt and conduct FireSmart practices to reduce the fuel hazard and minimize possible damages to their property from wildfire. Specific objectives include:

1. Reduce the potential for an active crown fire to move through private land.
2. Reduce the potential for ember transport through private land and structures.
3. Create landscape conditions around properties where fire suppression efforts can be effective and safe for responders and resources.
4. Treat fuels adjacent to structures to reduce the probability of ignition from radiant heat, direct flame contact, and/or ember transport.
5. Implement measures to structures and assets that reduce the probability of ignition.

5.2.2 Key Aspects of FireSmart for Local Governments and First Nations

FireSmart is an easy-to-understand communications and technical resource for local governments seeking to mitigate wildfire risk on private lands. FireSmart is presented as a set of best practices for landholders in the wildland-urban interface, showing how building surfaces and design intersect with neighbouring vegetation and fuel loads to create wildfire risk. FireSmart programming is typically voluntary, unless aspects of FireSmart design or assessment are enforced by local governments through the development permitting process. As most structures at risk and much of the potential fuels for a wildfire are located on private lands, FireSmart emphasizes community engagement, citizen initiative, and the importance of regular property maintenance. Education and engagement lead by local governments is critical in the successful adoption of FireSmart practices by private landowners. Public support for wildfire risk reduction on private land encourages residents to cooperate with each other for the mutual benefit to the neighbourhood.

There are a variety of ways to support FireSmart activities on private land, although private landholders will generally only access these if they have an awareness of the wildfire risk on and adjacent to their property. Education and outreach are key first steps to enabling private landowners to reduce wildfire risk. The project partners should distribute wildfire awareness and FireSmart information through their communications channels. These should include:

- This CWPP document
- http://www.bcwildfire.ca/Prevention/FireSmart.htm
- https://www.FireSmartCanada.ca/
- https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/wildfire-status/prevention/prevention-home-community/bcws_homeowner_FireSmart_manual.pdf

Other FireSmart resources are focused on local governments themselves, to build support and understanding of wildfire risk among public administrators. These are available for local governments to:

- Update or develop a CWPP.
- Develop policies and practices for FireSmart design in public projects.
- Conduct FireSmart risk assessments on public buildings and critical infrastructure.

- Amend high-level strategic community plans to accommodate wildfire risk analysis.
- Train employees in fire management and emergency response.
- Collaborate across jurisdictions on wildfire matters.

Funding can often be supplied through CRI for these activities. Table 20 provides a summary of FireSmart activities that are eligible for CRI funding.

Table 20. FireSmart practices and activities

Category	CRI-Eligible Activity
1. Education	• Develop and/or promote local FireSmart educational activities and tools. Refer to BC FireSmart Resources for FireSmart materials that are currently available. • Develop and/or promote education for the reduction of human-caused fires • Encourage active participation in Wildfire Community Preparedness Day • Organize and host a community FireSmart day, FireSmart events and workshops, and wildfire season open houses • Apply for FireSmart Canada Community Recognition
2. Planning	• Develop or update a CWPP • Develop policies and practices for design and maintenance of FireSmart publicly owned land and First Nations land, such as parks and open spaces • Develop policies and practices for design and maintenance of FireSmart publicly owned buildings • Conduct site visits and FireSmart and/or risk assessments for publicly owned lands, First Nation lands and publicly owned buildings
3. Development considerations	• Amend Official Community Plans, Comprehensive Community Plans and/or land use, engineering and public works bylaws to incorporate FireSmart policies • Revise landscaping requirements in zoning and development permit documents to require fire resistant landscaping • Establish Development Permit Areas for Wildfire Hazard in order to establish requirements for the exterior design and finish of buildings1 • Include wildfire prevention and suppression considerations in the design of subdivisions (e.g. road widths, turning radius for emergency vehicles, and access and egress points) • Amend referral processes for new developments to ensure multiple departments, including the fire department and/or emergency management staff, are included
4. Interagency co-operation	• Develop and/or participate in regional or local FireSmart planning tables • Participate in multi-agency fire and/or fuel management tables
5. Emergency planning	• Develop and/or participate in cross-jurisdictional meetings and tabletop exercises, including seasonal readiness meetings • Review structural protection capacity (i.e. Fire safety assessments)
6. Cross training	• Cross-train fire departments to include structural fire and interface wildfire training (e.g. S-100) • Provide or attend training for Local FireSmart Representatives and community champions • Support professional development to increase capacity for FireSmart activities

[1] Local governments should refer to Changes for Local Governments Under Section 5 of the Building Act: Appendix to Section B1 of the Building Act Guide (Revised February 2017) for information on the use of development permits for wildfire hazard.

Category	CRI-Eligible Activity
7. FireSmart Demonstration Projects	• Undertake FireSmart Demonstration Projects for publicly owned buildings or publicly and provincially owned critical infrastructure. This may include: o Replacing building materials (i.e. siding or roofing) with fire-resistant materials o Replacing landscaping with fire-resistant plants as outlined in the FireSmart Guide to Landscaping
8. FireSmart Activities for Private Land	• Planning for private land (only with private property owners' consent) o Develop FireSmart Community Plans for specific areas o Conduct FireSmart home and property assessments • Offer local rebate programs to home owners on private land and First Nations land that complete eligible FireSmart activities on their own properties • Provide off-site debris disposal for private land owners who have undertaken their own vegetation management, including: o Provide a dumpster, chipper or other collection method o Waive tipping fees • Provide curbside debris pick-up

Personnel is Policy – The Role of a FireSmart Coordinator

Navigating all the aspects of FireSmart can be challenging for local government and private landowners. Local governments often lack the capacity and expertise to support private landowners in reducing the wildfire risk on their property. There are funding options available to private landowners through government grants, however accessing these grants requires local government support. In an area the size of the AOI, with multiple constituent governments and multiple electoral areas, supporting FireSmart initiatives will be challenging. A Regional FireSmart Coordinator position is recommended to be created to manage FireSmart initiatives on behalf of the partnering governments. This position would create new capacity for FireSmart programs and support private landowners that need assistance accessing resources. The primary responsibilities of this coordinator are summarised in Table 21.

Table 21. Primary responsibilities of the Regional FireSmart Coordinator

FireSmart Activity Category	Role of FireSmart Coordinator
1. Education	• Develop and conduct a public education program, including meetings or information sessions, public signage, and social media. • Distribute FireSmart materials (such as pamphlets and brochures, building design guidelines and wildfire awareness and prevention) through community partners and online.
2. Planning	• Support neighbourhoods to apply for FireSmart Canada Neighbourhood Recognition, including by supporting facilitation and FireSmart events and demonstration projects. • Complete FireSmart assessments for critical infrastructure.
3. Development considerations	• Provide in-house capacity to comment on wildfire issues within a development permit process.
4. Interagency co-operation	• Coordinate FireSmart initiatives between electoral areas, local governments, and the SIGD.
5. Emergency planning	• Provide comment on wildfire issues during emergency plan and response preparation.
6. Cross training	• Attend Local FireSmart representative training, with an aim to qualify as a facilitator for this program.
7. FireSmart Demonstration Projects	• Coordinate retrofits and vegetation management for critical infrastructure.
8. FireSmart Activities for Private Land	• With homeowners' consent: o Conduct Home Ignition Zone Assessments for residential properties or homes. o Develop FireSmart Neighbourhood Wildfire Risk Assessment for neighbourhoods. o Coordinate local rebate programs for residential properties or homes. o Coordinate vegetative debris disposal.

FireSmart Activities for Residential Areas

There are limited opportunities for government to reduce wildfire risk on private land. These include assessment and planning, with no physical actions eligible for grant funding. Property owner consent is required for any assessments or plans conducted by local government.

Grants are available for rebates for homeowners that adopt and conduct FireSmart practices to mitigate wildfire risk. The requirements for these grants are strict and are limited to 50% of the total cost to a limit of $500 per property. Details of these requirements can be found in Appendix 2 of the Community Resiliency Investment Program 2020 program guide. This rebate also requires local government support, as assessments are required for a home to be considered eligible.

One challenge that has been noted during field work and during stakeholder consultation is the limited options for debris disposal available to homeowners. Some communities, such as Egmont, have limited access to transfer stations. Similarly, the District of Sechelt bylaw no. 486 limits backyard burning for waste disposal. Local government can support fuel management on private land by providing support for debris management. This could include dumpsters available for green waste in high risk neighbourhoods, or waiving tipping fees on certain days at disposal facilities.

5.2.3 Identify Priority Areas within the Area of Interest for FireSmart

FireSmart planning and outreach to communities should focus on neighborhoods at greatest risk. A number of these neighborhoods that have been identified are built adjacent to large tracts of forests that have moderate to high fire behavior potential. Table 22 provides a summary of the neighborhoods at highest risk. These should be a priority for Firesmart initiatives and educational outreach .

Table 22 Summary of FireSmart priority areas.

Area ID	Wildfire Risk Rating (E/H/M/L)	FireSmart Y/N	FireSmart Canada Recognition Received Y/N	Recommended FireSmart Activities
Egmont	H	N	N	A comprehensive FireSmart plan is recommended for all areas. This should include communications and engagement goals, educational outreach, coordination with the BCWS, and FireSmart assessments. A committee made up of representatives from the local government, Fire Department, BCWS, First Nations, and homeowners should guide the development of this plan.
Madeira Park	H	N	N	
Secret Cove	H	N	N	
Halfmoon Bay	M	N	N	
West Sechelt	H	N	N	
East Porpoise Bay	H	N	N	
Selma Park	M	N	N	
Wilson Creek	M	N	N	
Roberts Creek	M	N	N	
Gambier Island	H	N	N	
Keats Island	M	N	N	
Thormanby Island	M	N	N	

Wildfire Development Permit Area

The *Local Government Act* of British Columbia empowers local governments to designate Development Permit Areas (DPA) where special regulations apply to the design and construction of buildings and communities. The Regional District, Town of Sechelt, and Town of Gibsons each use multiple DPAs to protect against various hazards and environmental impacts. Creating a DPA to address wildfire hazard is an effective way to reshape a community in favor of FireSmart principles. Over time, new construction and subdivision under the DPA will improve the resilience of structures to wildland fire and reduce the likelihood of interface fire occurring. Properties within a DPA will face additional regulatory burden when they redevelop, but this oversight is justified by the public interest in preparing homes in the interface for wildfire. As a major policy initiative requiring an amendment to the Official Community Plan, the introduction of a Wildfire Hazard DPA should be the subject of genuine and sustained public engagement.

This Community Wildfire Protection Plan identifies significant areas of high wildfire risk within the jurisdictional boundaries of the Sunshine Coast Regional District and District of Sechelt. These two governments should investigate implementing a Wildfire Hazard DPA under the "protection from natural hazards" provision in the *Local Government Act*. The Sechelt Indian Government District and Town of Gibsons contain fewer areas of high wildfire risk and may not receive the same level of benefit from introducing such policy at this time. However, the following information is of interest to all partner governments, as future wildfire risk may increase or administrative boundaries may be altered. While some of the governments in the AOI have policies related to wildfire in the Official Community Plans, no policies have been made enforceable through further bylaws.

Table 23. Existing development policies related to wildfire in the SCRD and District of Sechelt.

Administrative Area	Existing Development Policy for Wildfire
Sunshine Coast Regional District	None of the existing building, subdivision, or zoning bylaws have provisions specific to wildfire hazard or wildfire planning. **Egmont/Pender Harbor Official Community Plan** Homeowners are encouraged to practice vegetation management and consider using non-combustible building materials. **Elphinstone Official Community Plan** Wildfire is identified as a hazardous condition, but no DPA has been implemented to address it. **Halfmoon Bay Official Community Plan** Within the Portion of Area B outside the core community of Halfmoon Bay, development applications may be required to submit fire hazard assessments. **Hillside/Port Mellon Official Community Plan** No specific policies or guidelines. **Roberts Creek Official Community Plan** Several sections reference wildfire hazard or risk. Development proposals may be reviewed with respect to "interface fire potential". **Twin Creeks Official Community Plan** Policy focuses on future expansion of the SCRD fire protection area to include Twin Creeks. Homeowners are encouraged to manage vegetation and coordinate volunteer fire protection.

	West Howe Official Community Plan The plan observes that some areas lack formal fire protection. No policies concern wildfire management.
District of Sechelt	None of the existing building, subdivision, or zoning bylaws have provisions specific to wildfire hazard or wildfire planning. **District of Sechelt Official Community Plan** Wildfire is not identified as a natural hazard within the OCP.

Development Permit Areas have two core components: a map, indicating the properties to which the DPA applies, and design guidelines, which describe the requirements that must be met during development. A third component, professional reliance, can be required to quantify the risk and help guide appropriate design measures.

The DPA map will be adopted by amendment to the Official Community Plan and must show the properties within the DPA. Many communities with existing wildfire hazard DPAs distinguish their mapping between areas of high and extreme risk, and provide guidance tailored to this risk. This approach is supported by Community Wildfire Protection Plans, which provide high-level maps of wildfire risk using provincial classifications. Often, wildfire threat mapping is used to identify the DPA extent, as CWPP risk mapping reflects the current distribution of structures in the interface and may not account for future land use or density under an Official Community Plan. Another approach to mapping the DPA is to identify all properties within a buffer distance of the forest interface. Buffer distances of 100 or 200 metres are commonly used to help address the risk of ember spotting from a nearby wildfire into a neighbourhood.

Development design guidelines must be developed that will ensure that new buildings and landscapes are planned as per FireSmart principals. The guidelines should address:

- Landscaping design.
- Building materials and testing standards.
- Development layout and subdivision servicing, including building setbacks and location, and requirements for accessory structures.
- Management of on-site vegetation and fuels.
- Standards for assessing the wildfire risk to the proposed development.
- Recommendations for ongoing maintenance by the property owner.
- Reporting requirements, including risk assessment by a qualified professional and post-construction implementation reporting.

Typically, municipalities adopt in whole or part, existing guidelines and standards from the fire protection engineering discipline (see National Fire Protection Association, 2017; National Fire Protection Association, 2018) or FireSmart (see BC Wildfire Service, 2019) to ensure DPA requirements reflect best practices.

The DPA must provide clear instruction as to when and where requirements apply, and under which conditions variances are allowed. Additional resources are required for local planning departments to administer and evaluate DPA applications. For these reasons, many other BC municipalities rely on professionals, typically a qualified Registered Professional Forester, to evaluate wildfire risk and to

determine appropriate mitigation measures for a proposed development. Some municipalities also require a post-construction assessment to be completed by a qualified professional to verify that mitigation measures have been implemented prior to the issuance of an occupancy permit.

Preparing to introduce a wildfire DPA is a significant undertaking and requires community support. Despite the challenges, regulating development is one of the only ways local governments can increase wildfire resilience on private lands. Over time, such a program will reduce the social cost burden or uninsured losses of unprotected development in the interface, reduce structural fuel involvement in interface fires, and improve the success of fire suppression response.

Table 24. Regulatory considerations for implementing a Wildfire Hazard Development Permit Area in the Sunshine Coast Regional District and District of Sechelt.

Administrative Area	Wildfire DPA (OCP Approach)	Amendments to other bylaws
Sunshine Coast Regional District	Amendments required to each **Official Community Plan** (7). Applies to all development applications (building, rezoning, subdivision) within the DPA area.	Amendments to the **Zoning Bylaws** (2) could enable consideration of wildfire risk during rezoning or new construction, but application may be inefficient or unfair. Amendments to the **Building Bylaw** would not enable increased oversight for landscape design. Amendments to **Subdivision Servicing Bylaw** could enable consideration of wildfire risk during land subdivision, but will not enable regulation of exterior renovations or single-lot redevelopment.
District of Sechelt	Amendments required to the **Official Community Plan**. Applies to all development applications (building, rezoning, subdivision) within the DPA area.	Amendments to the **Zoning Bylaw** could enable consideration of wildfire risk during rezoning or new construction, but application may be inefficient or unfair. Amendments to the **Building Bylaw** would not enable increased oversight for landscape design. Amendments to **Subdivision and Development Control Bylaw c**ould enable consideration of wildfire risk during land subdivision, but will not enable regulation of exterior renovations or single-lot redevelopment.

5.3 Community Communication and Education

Approximately 20% of the study area is privately owned. This CWPP does not assess wildfire risk on private land which can be high due to fuel accumulations and structures built under outdated building codes. It is critical that private landowners are aware of the wildfire risk associated with living in interface or intermix communities. Increasing awareness of the wildfire risk is the first step towards encouraging homeowners to implement FireSmart principles (as discussed in Section 5.2) on their properties.

Public engagement is one of the most challenging aspects of community wildfire planning. Wildfires are typically understood as low probability events and are often disregarded despite their potentially catastrophic consequences. To be effective, an engagement strategy is required that makes use of multiple resources and opportunities. The overall objectives of this strategy are to:

1. Improve knowledge of the wildfire risk in the AOI.
2. Encourage the public to consider themselves as partners in wildfire risk mitigation.
3. Provide knowledge of the tools and resources available to the public to reduce wildfire risk.

A communications strategy can be implemented as a phased process. The first phase is to provide a summary of wildfire risk (such as the figures and content in this CWPP) that can be distributed to the public. This provides groundwork for a communications program tailored to the communities at highest risk. Once priority areas for FireSmart or fuel mitigation are identified, individual communication initiatives can be rolled out based on need and capacity. An effective communications program requires varying levels of effort. Over time, our understanding of wildfire risk may change and new areas may be developed. Developing a suite of communications for wildfire awareness and ensuring effective distribution is a complex and involved process. It may be best achieved as a specific staff role. It may also cross over and share responsibilities with the Regional FireSmart Coordinator position proposed in Section 5.2.2.

Supporting Wildfire Risk Awareness

The cornerstone of an effective communication strategy will be publicly available resources describing the extent and nature of wildfire risk across the AOI. Public communications must refer to wildfire resources, be widely accessible to the general public, and be actively maintained. This CWPP contains an analysis and summary of wildfire risk for the communities of the AOI and should be made publicly available. However, this document is unlikely to be read in full by the public. Messages of importance wildfire risk can be gleaned and provided in more accessible summary formats such as slide presentations, brochures, or informational videos by the project partners.

One of the most important components of this CWPP to make available to the public is the wildfire risk map. This map can be reproduced at a larger scale, presented at public spaces, printed in brochures, or displayed online. Homeowners can refer to the wildfire risk maps to understand the risk associated with their communities. The Regional District currently offers a customizable geographic information system for viewing property, environmental, and planning information at *maps.scrd.ca.* Adding wildfire risk

information from this CWPP to this existing resource would be an effective way to distribute this information to the public.

Other GIS tools may be appropriate for sharing this information with the public, industry, and developers for more targeted engagement. Web mapping applications that combine multimedia and geospatial information, such as ArcGIS StoryMaps, are becoming more common and easy to use. These digital tools combine text, interactive maps, videos, and other multimedia content, making it easy to highlight important content from this plan and present in an accessible, intuitive format.

Developing a Communications Strategy

A communications strategy may be one or multiple documents. It should lay out a step-by-step strategy for increasing public awareness of wildfire risk and of available resources to the public for risk mitigation. A communications strategy will identify several key messages for increasing public awareness of wildfire and FireSmart initiatives. These messages should be used to focus and correctly scope all government communications on wildfire within the AOI, including printed and digital media and during in-person or online events.

Table 25. Potential key messages for a wildfire communications strategy

Potential Key Messages for Public Communications
• The communities of the AOI are set intimately within and among the forest, making them vulnerable to wildfires. • The wildfire risk in coastal forests during the fire season is real and considerable, particularly during hot, dry years (such as 2017 and 2018). • Climate change and urban development are increasing the wildfire hazard associated with interface development. • Private landholders have a large role to play in protecting life and property by adopting FireSmart practices for building and landscape maintenance and by being knowledgeable about local emergency plans. • There are resources to support private landholders and neighbourhoods in becoming more FireSmart. • Government can help reduce wildfire risk by strategically managing forest fuels on public land within and adjacent to communities.

A key message to emphasize is that the public plays a critical role in wildfire risk mitigation. Local and provincial government will lead wildfire risk mitigation for public land and assets, but private landowners must play their role in mitigating the wildfire risk on privately held land. There are resources available to landowners in reducing the risk on private land, and it is the role of local government to direct and coordinate private access to these resources.

With key messages developed, the project partners should identify whether public outreach will be general or whether it will focus on specific high risk communities. While all residents of the AOI have an interest in wildfire management and response, it may be cost effective to focus these efforts in communities that are at the highest risk of a wildfire.

The final phase of engagement is to prepare an outreach program to spread information about wildfire to their communities. Identification of target audiences for outreach can assist in deciding *when* and *how* to conduct public engagement.

Table 26. Potential methods of public outreach for wildfire communications

Potential Methods of Public Outreach for Wildfire Communications
• Establish neighbourhood specific interest groups as discussed in section 5.2.3. Including a local government representative and/or Fire Department liaison in these groups will facilitate engagement and education on FireSmart initiatives and keep the focus of the groups on wildfire issues. • Develop a public wildfire information brochure tailored to the AOI. Provide information from this CWPP to provide local context. • Provide educational material and promote wildfire awareness during large public events or festivals, as through brochures and pamphlets, scheduled presentations, or information booths. • Organize an open house to accompany any FireSmart fuel treatments undertaken by the project partners. • Update the local government websites to contain direct links to important FireSmart resources, such as this CWPP and the FireSmart Begins at Home Manual. If possible, include local FireSmart buildings and landscaping as examples. • Explore online means of presenting the information contained in this CWPP in an engaging format, such as ESRI's StoryMaps or *maps.scrd.ca*. • FireSmart projects, including any building changes or vegetation and fuel management, should be showcased on local government websites and potentially with interpretive signage in the field.

5.4 Preventing Wildfire Ignition

Sources of wildfire ignition can be human- or lightning-caused. Lightning ignitions are difficult to predict or manage. Human caused ignitions, however, can be prevented and are the source of about one half of all wildfires in BC. The most common sources of human caused fires include:

- Campfires
- Industrial activity
- Discarded cigarettes and matches
- Vehicles
- Railways
- House-related fires
- Power lines
- Vandalism.

Predicting and preventing human caused ignitions is a high priority for wildfire mitigation. Road-side ditches and medians that contain grasses should be mowed periodically throughout the fire season. This will reduce fuel loading (standing cured grass) and reduce the ignition potential associated with vehicles, heavy machinery, and cigarettes during the fire season. Signs should be posted at camp sites, recreation areas, and high use trail heads during the summer showing the fire danger rating and emphasizing the need to fully extinguish campfires and not discard cigarettes.

There is also ignition potential from the numerous residences that back up against the interface. Private residents adjacent to wildland (grass or forested) should be reminded (e.g. through public bulletins or media notices) of common risks of ignition in these forested landscapes. A social media campaign in the late spring and early summer should be considered to encourage awareness of wildfire risk and the public's role in preventing ignitions.

Trees can potentially fall on power lines, which can pose a fire risk. Risk is managed primarily by utility companies with regular assessments and tree hazard mitigation programs. The project partners should continue dialogue with BC Hydro to ensure they are removing hazardous trees from forested natural areas that could strike the power lines.

5.5 Summary of Recommendations

Table 27 Summary of recommendations discussed in Section 5.

Number	Recommendation	Section
2	Develop a fuel management working group with representatives from the provincial government, regional district, partnering governments, and local First Nations to establish and review prioritization for fuel management.	5.1
3	Develop fuel management plans for treating priority interface treatment areas. Target top 3-6 priority areas under SCRD jurisdiction for prescription development, with a phased approach for next areas.	5.1
4	Implement prescriptions developed from the fuel management plan.	5.1
5	Develop a parks forest management plan for SCRD parks that includes objectives for fuel management and strategies for achieving those objectives.	5.1
6	Conduct FireSmart assessments for First Nation owned buildings, publicly owned buildings or publicly, provincially and First Nations owned critical infrastructure in the AOI.	5.1
7	Use FireSmart assessments to prioritize retrofitting and fuel management for critical infrastructure in the SCRD in the AOI.	5.1
8	Create a FireSmart Demonstration project for SCRD owned critical infrastructure.	5.1
9	Create a FireSmart Demonstration project for District of Sechelt owned critical infrastructure.	5.1
10	Create a FireSmart Demonstration project for SIGD owned critical infrastructure.	5.1
11	Create a FireSmart Demonstration project for Town of Gibsons owned critical infrastructure.	5.1
12	Develop a Regional Fire Smart Coordinator position through the SCRD. Responsibilities of this coordinator are described in Table 21	5.2.2
13	Develop FireSmart plan for identified high wildfire risk FireSmart priority areas.	5.2.2
14	Develop FireSmart plan for identified moderate wildfire risk FireSmart priority areas.	5.2.2
15	Support homeowners to reduce fuel loading on private land by reducing barriers to debris disposal. This could include providing bins for waste, chipping and disposing of waste, or waiving tipping fees for fuel management debris.	5.2.2
16	Conduct a regional study to determine areas for a Wildfire Development Permit Area to apply. This should examine the feasibility and impact on property of applying different buffer distances from areas of high-risk fuels or native forest vegetation to determine the DPA extent. Individual OCP amendments will be required for each jurisdictional area.	5.2.3
17	Revise the Egmont/Pender Harbour Official Community Plan to include wildfire as a Development Permit Area.	5.2.3
18	Revise the Elphinstone Official Community Plan to include wildfire as a Development Permit Area.	5.2.3
19	Revise the Halfmoon Bay Official Community Plan to include wildfire as a Development Permit Area.	5.2.3
20	Revise the Hillside/Port Mellon Official Community Plan to include wildfire as a Development Permit Area.	5.2.3

21	Revise the Roberts Creek Official Community Plan to include wildfire as a Development Permit Area.	5.2.3
22	Revise the Twin Creeks Official Community Plan to include wildfire as a Development Permit Area.	5.2.3
23	Revise the West How Official Community Plan to include wildfire as a Development Permit Area.	5.2.3
24	Revise the District of Sechelt Official Community Plan to include wildfire as a Development Permit Area for the District of Sechelt.	5.2.3
25	Develop a community communication and engagement strategy.	5.3
26	Establish neighbourhood specific interest groups. Including a local government representative and/or Fire Rescue liaison in these groups will facilitate engagement and education on FireSmart initiatives and keep the focus of the groups on wildfire issues.	5.3
27	Representatives from each government should training for Local FireSmart Representatives, Home Partners, FireSmart 101, and Community Champions	5.3
28	Develop a FireSmart brochure that focuses on the local context of wildfire within the AOI. Include material on reducing human caused fires.	5.3
29	Provide educational material and promote wildfire awareness during large public events or festivals, as through brochures and pamphlets, scheduled presentations, or information booths.	5.3
30	Organize an open house to accompany any FireSmart fuel treatments undertaken by the project partners.	5.3
31	Distribute a summary of this CWPP through local government communications channels. Include summary maps for easy reference for community members.	5.3
32	Update the local government websites to contain direct links to important FireSmart resources, such as this CWPP and the FireSmart Begins at Home Manual. If possible, include local FireSmart buildings and landscaping as examples.	5.3
33	Integrate wildfire layers from this report into the GIS open data tools that exist on partnering government websites.	5.3
34	FireSmart projects, including any building changes or vegetation and fuel management, should be showcased on local government websites and potentially with interpretive signage in the field.	5.3
35	Conduct annual spring media campaign to promote reducing human wildfire ignitions.	5.3
36	Post wildfire awareness signs at high use camp sites, recreation areas, and high use trail heads during the summer.	5.4
36	Consult and coordinate with utility providers to create defensible spaces and reduce risk around all substations.	5.4

Section 6: Wildfire Response Resources

This section provides a summary of the suppression response protocol to be adopted and resources available to the communities as well as recommendations for improvement.

Wildfire Detection and Reporting

The BC Wildfire Service is responsible for wildfire detection. Fires are located using a lightning locator system, aerial patrols, and public observation. In urban centers, a wildfire is most likely to be detected and reported quickly by the public. Wildfire awareness signs should be posted at strategic locations (major transportation corridors, recreation areas and high use trail heads) that specify how to report a wildfire.

All wildfires should be reported to the Provincial Forest Fire Reporting Center in Victoria through their toll-free phone number 1-800-663-5555 or *5555 on a cellular phone. The agent will then collect as much information as possible regarding the fire including:

- The exact location of the fire
- The estimated size
- The type of fuel burning
- The speed and direction of spread
- The colour of the smoke
- The location of any structures or lives at risk from the fire

Contact details as well as the requirement for this information should be included in any public education campaigns. 911 can also be used to report wildfires, however this will require an operator redirect to the reporting centre in Victoria.

6.1 Local Government and First Nation Firefighting Resources

6.1.1 Fire Departments and Equipment

The two types of firefighting scenarios that are commonly described include structural and wildland. The BCWS is responsible for actioning and managing wildland fires. Local fire departments are responsible for structure or vehicle fires in their response area. Wildland interface fires involve both structural and wildland fuels, adding complexity to fire behavior and the suppression response. Interface fires require a coordinated and unified incident command between the BCWS and the responsible local fire department. It is critical that there be strong relationships between local fire departments and the BCWS. This requires training and inter-agency exercises, as well as formal mutual aid agreements. The existing resources for fire suppression in the AOI are described in the following sections.

Local Fire Departments

There are several fire departments that provide fire protection in the study area. These fire departments have their own unique histories and their response areas do not directly correlate to the legal boundaries of the local governments.

The Sechelt Fire Department provides fire protection to the District of Sechelt and the Sechelt Indian Government District. This department is comprised of 4 full time staff and a large volunteer auxiliary. This fire department responded to the 2015 Old Sechelt Mine fire and supported the BCWS in their operations. The Sechelt Fire Department is operated independently of the SCRD.

The Gibsons and District Volunteer Fire Department (GDVFD) have a similar structure to the Sechelt Fire Department, comprised of 4 full time staff with a large pool of volunteer firefighters. However, the GDVFD falls under the umbrella organization of the SCRD. The response area is comprised of the Town of Gibsons, as well as portions of Electoral Areas E and F of the SCRD.

The remainder of the SCRD is serviced by 4 other fire departments. Most of these fire departments are staffed by one full time chief and supported by a pool of volunteer firefighters. The Egmont and District Fire Department is staffed solely by volunteers. The Roberts Creek, Halfmoon Bay, and Egmont and District fire departments fall under the governance of the SCRD, while the Pender Harbour Volunteer Fire Department is operated independently.

There are several areas within the SCRD that are not covered by local fire protection. Port Mellon is the largest and most populous area on the mainland that does not have fire protection. The large industrial pulp and paper operation in Port Mellon has its own fire protection and firefighters – this department has no public service area but may respond outside the mill precinct under mutual aid agreements or other internal policies. Thormanby, Keats, and Gambier islands all lack formal fire protection. These islands are isolated, with access limited to infrequent water taxis for pedestrians. Residents of these islands have worked to establish communal equipment and training sessions for residents to ensure their communities have some local fire protection capabilities.

British Columbia Wildfire Service

The BCWS maintains a fire zone office at a facility near the Sechelt Airport. There are 3 crews based there in the core wildfire season, with several officers also operating out of this office on a fulltime basis.

6.1.2 Water Availability for Wildfire Suppression

Water is the single most important resource required for suppression activities. Wildfire suppression strategy and tactics revolves around access to water for pumping, helicopter bucketing, and skimming by airtankers. Most often natural water sources are used for wildfire suppression. Local fire departments usually rely on networks of fire hydrants for suppression of structure fires.

Water delivery is complicated in the SCRD. There are a variety of water systems used for drinking water, which also supply the hydrant networks. Many of these systems operate independently, as discussed in section 3.2.3. Overall, the established water infrastructure network is extensive, with only more isolated homes and structures lacking hydrant coverage. The capacity of independent water systems does vary, and not all systems may be able to sustain prolonged use for wildland firefighting. Most local fire departments are aware of deficiencies in hydrant coverage within their local response areas. A map of these areas should be produced for the entire AOI and provided to all fire departments. A copy of this map should also be provided to local planners to ensure that hydrant coverage is included in development applications. Rural areas are often where new urban development occurs. A water system adequate for use in firefighting should be included as a requirement for new developments. This may require input from the local fire department to review the water system's capabilities.

The ocean provides a close resource for aerial firefighting by helicopters and airtankers. The use of natural fresh water sources for on the ground wildfire suppression can be challenging in the AOI. Typically, many fresh water sources have major variation in levels throughout the year. Summer droughts, such as in 2017 and 2018, can result in critically low water levels. This can cause water shortage for wildfire suppression. It is recommended that a map of critical water such as lakes and perennial streams be produced. This map should identify critical water resources that should not be used for drafting or pumping, as well as sources that are adequate for use in summer drought. This map should be distributed to all local fire departments and the BCWS.

6.1.3 Access and Evacuation

There are two dimensions to access and evacuation for the AOI. The first is connectivity between the AOI and the Lower Mainland and Vancouver Island. The second is connectivity among the various communities inside the AOI. At both this regional and local level, the AOI and its constituent communities are isolated with limited access for evacuation.

The only public access to the AOI is via two ferry terminals located at the northern and southern ends of the peninsula. The main ferry terminal is located at Langdale in the south of the region, where scheduled service typically runs 8 sailings per day between the Langdale and the Lower Mainland's Horseshoe Bay terminal. The ferry capacity on this route is 1,500 passengers and crew, and 360 standard vehicles. The sailing duration is typically 40 minutes. The secondary route connects Earl's Cove, in the northern limit of the AOI, with the Qathet Regional District to its north. The ferry on this route typically runs 8 sailings per day and has a capacity of 450 passengers and 125 vehicles. The sailing time is typically

50 minutes. Public access to the Qathet Regional District is also dependent on ferries, with its primary route linking the region to Vancouver Island.

Although large evacuations from wildfire are rare in BC, they are not unknown. The largest evacuation in recent memory occurred in 2017, when a population of 24,000 from Williams Lake and outlying areas were put under evacuation order. Within the AOI, in the event of a large wildfire which requires a regional evacuation, the primary evacuation route is the Langdale ferry to Metro Vancouver. A coordinated evacuation of several thousand residents would be a major undertaking and would require provincial support from various agencies. Furthermore, the terminal and surrounding road capacity would also require coordination from the SCRD to ensure efficient ferry loading. It is recommended that the SCRD and partnering communities develop a large-scale regional evacuation plan to address these challenges.

The intra-region connectivity within the AOI is also limited. The Sunshine Coast Highway (Hwy. 101) is the only thru route between all communities, and for most of the communities is the only access route. This highway is mostly single lane, and capacity may be limited for a large-scale evacuation of any community. The northern communities are the most reliant on the Sunshine Coast Highway for evacuation, while the communities south of Sechelt do have other secondary route options. It is recommended that evacuation plans be completed for each community, prioritizing the most isolated communities first. These plans should then be integrated into the broader regional evacuation plan. Several treatment areas (Section 5.1) have been recommended adjacent to Hwy 101 to improve its safety in the event of a wildfire.

6.1.4 Training

Early response time to an ignition is critical to controlling its spread. Local fire departments will often be first responders to interface fires to attempt to contain fire spread. Although BCWS is ultimately responsible for wildfire management, the initial response by the local fire departments can be critical for early containment.

Most of the local fire departments in the study area have training programs in place for wildland fire operations (Table 28). However, the basic standard training for firefighters in each department varies. Local fire departments should ensure that all firefighters receive basic wildland fire training. This is provided through the S100 Basic Fire Suppression and Safety course, as well as the S185 Fire Entrapment Avoidance course. Firefighters should also receive basic Incident Command System training through the ICS100 course. The ICS system is used by the BCWS to organize firefighting resources during an incident, and basic ICS100 training will ensure local fire departments will be able to effectively integrate into the BCWS structure. This training will ensure effective and streamlined response to a wildfire, either as an independent fire department or as part of BCWS led wildfire management.

Table 28. Local fire training standards and recommended courses.

Fire Department	Current Wildfire Training Minimum	Additional Training Recommendation
Pender Harbour	S100, ICS100, ICS200, ICS300	S185
Gibsons & District	S100, ICS100	S185
Roberts Creek	S100, S185, ICS100	None
Sechelt	S100, S185, ICS100	None
Halfmoon Bay	Partial S100 and ICS100	100% S100, ICS100, and S185
Egmont	Partial S100 and ICS100	100% S100, ICS100, and S185

In addition to formal training courses, wildfire exercises should be conducted by local fire departments as part of their regular training. The focus of these exercises should be inter-agency cooperation. These exercises should include multiple fire departments and the BCWS. Wildland and structural firefighters have different expertise, and wildland urban interface fires require a background in both. Interagency exercises create opportunities for knowledge sharing and to effectively train all agencies in mutual aid scenarios. Facilitating partnerships between fire agencies through training exercises lays the groundwork for effective suppression in the event of an interface wildfire.

6.2 Structure Protection

This section discusses the SCRD and project partners capacity for protecting structures in the event of an interface fire. Successful structure protection is dependent on the building materials and vegetation immediately around the structure. In many large wildland urban interface fires, firefighters must conduct structure triage, a process where structures are categorized for their resilience to interface wildfire. Firefighters will focus their efforts on the structures that are most likely to survive the fire. This is done to maximize the total number of protected structures. Homes that require too many resources and effort may be sacrificed to ensure successful protection of the more resilient structures. The resilience of a structure is increased by adopting the FireSmart principles as discussed in 5.2.

The fire departments in the study area have most of the training necessary for interface wildfire suppression. These departments are well resourced for their mandate of structure protection, and these resources are also useful for wildland fire suppression. Local fire departments also have a small amount of structure protection equipment, including sprinklers. The District of Sechelt Fire Department owns a Structure Protection Unit (SPU), which can be made available to the other departments for an interface incident. SPUs can protect 30-35 structures and contain a large array of sprinklers and accessory equipment that is used to protect values during an interface wildfire.

The fire departments in the SCRD are overall well equipped to respond to an interface wildfire. The SPU operated by the Sechelt Fire Department is a critical resource for interface wildfire suppression, and its central location in Sechelt is ideal for deployment. It is recommended that all departments in the study area receive training in deployment and operation of this SPU. This could be integrated into the interagency training exercise discussed in 6.1.4.

6.3 Summary of Recommendations

Table 29 Summary of recommendations discussed in Section 6.

Number	Recommendation	Section
37	Create a water availability map for the study area, integrating information from all partnering fire departments.	6.1.2
38	Identify critical water resources on the water availability map. Identify the specific critical resources that should not be used for drafting.	6.1.2
39	Complete evacuation plans for each partnering government.	6.1.3
40	Ensure that all firefighters in all departments receive basic wildfire training, including S100, S185, and ICS100.	6.1.4
41	Ensure that all fire departments are trained in use and deployment of Structure Protection Unit.	6.2
42	Conduct cross-jurisdictional meetings and tabletop exercises annually before fire season. Include emergency managers from partnering governments, representatives from local fire departments, and representatives from the BCWS.	6.2

Appendix 1 Local Wildfire Threat Process

This section provides a summary of the local wildfire threat assessment, including field reviewed fuel characteristics, proximity of fuel to the community, local fire spread patterns, topographical considerations, and local factors. The local wildfire threat assessment process involves:

1. Verification of local fuel types to develop a fuel type map
2. Assessment of the proximity of fuels to the community
3. Assessment of fire spread patterns
4. Consideration of topography
5. Stratification of the WUI based on relative wildfire threat
6. Classification of wildfire risk areas

A 1.1 *Fuel Type Attribute Assessment*

Fuel typing falls into sixteen national benchmark fuel types that are used by the Canadian Fire Behaviour Prediction System (Canada, Canadian Wildland Fire Information System, 2018). This system divides fuels into 5 major groups and 16 more specific fuel types. These groups are used to describe fuels according to stand structure, species composition, surface, and ladder fuels, and the organic (duff) layer. The current Canadian Forest Fire Behavior Prediction (FBP) System does not include coastal forests in their fuel type descriptions (Perrakis & Eade, 2015), therefore the fuel type that most closely represents forest stand structure was identified.

Different fuel types are associated with different levels of wildfire behaviour potential. Therefore, accurate fuel typing is a critical input to the wildfire behaviour and threat assessment mapping. Conifer fuel types typically have the highest wildfire behaviour potential and are the most likely to support continuous crown fire and spotting potential. Different conifer fuel types have different crown fire and spot fire potential. See Table 30 for a breakdown of area by fuel type and crown fire spot potential.

C3 and C5 - Conifer Fuel Types

There are 7 possible conifer dominated fuel types (Figure 20), only 5 of which are typically encountered in British Columbia. Two of these fuel types, C3 and C5, are commonly found in the AOI. Both characterize second growth mature stands. C3 includes a higher density stand with lower crown heights, while C5 is lower in density and has higher crown heights.

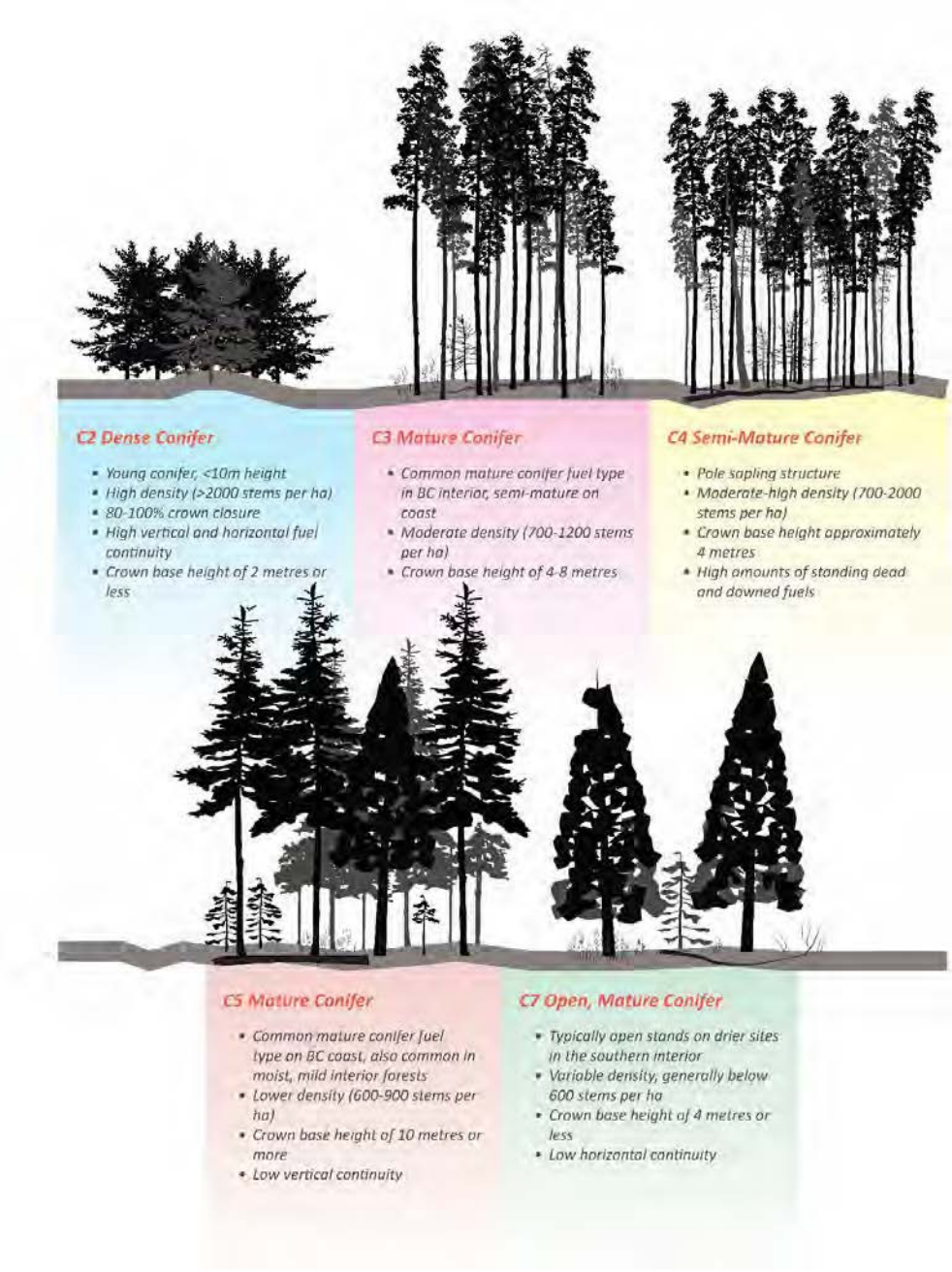

Figure 20. Characteristics of the seven conifer fuel types. C3 and C5 are most prevalent within the AOI.

Fuel type M-1/2 – Mixed stands

This fuel type is found throughout the study area, often around riparian areas or areas historically disturbed. They are characterized by stands comprised of a mix of coniferous and deciduous species. The conifer component in these stands is mostly a mix of Douglas-fir, western redcedar and western hemlock. The deciduous component varies and includes bigleaf maple and red alder. In a few locations, the broad-leaved evergreen tree arbutus contributes to the deciduous component of the stand. Fire behaviour potential in these stands increases with and is highly dependent on the number of coniferous trees present.

Photo 13. Example of a stand classified as M2 fuel type

Fuel type D-1/2 - Deciduous

This fuel type consists of stands that are generally moderately stocked and dominated by deciduous trees. Within the AOI, there is little area classified as this fuel type. These stands occur primarily in areas that have historically been disturbed. They can include a small amount of conifer trees, usually in patches or as single trees. Dead and down round wood fuels are a minor component of this fuel complex. During the summer months, the principal fire-carrying surface fuel consists chiefly of deciduous leaf litter and cured herbaceous material. Areas dominated by shrubs are also included in this type. These are dense plant communities with few trees and a variety of shrub species. These deciduous stand and shrub communities will all have a relatively low fire behavior potential.

Photo 14. Example of deciduous fuels in rear. Isolated conifers can be found in deciduous stands.

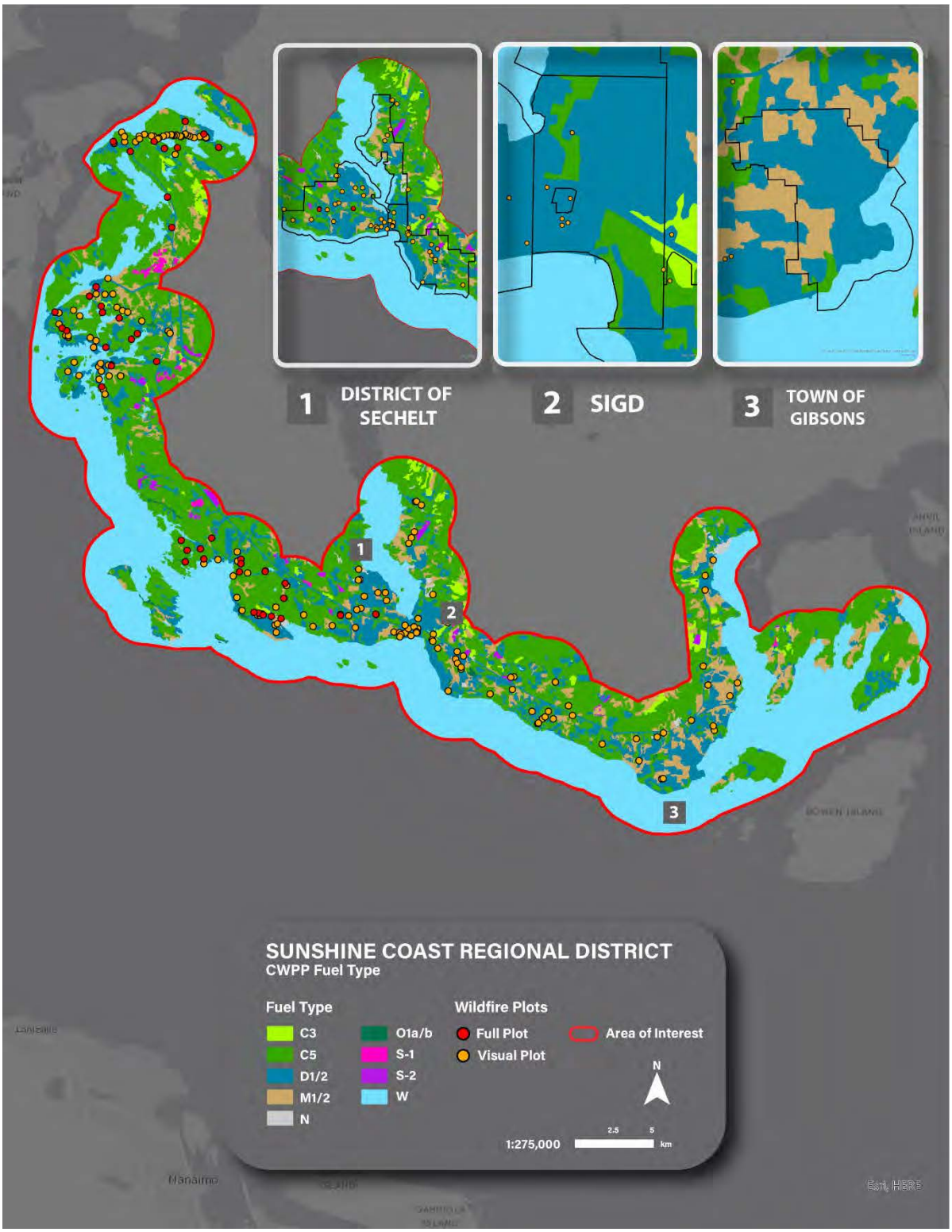

Figure 21. Updated fuel type map for the AOI.

Fuel types were provided in the Provincial Strategic Threat Analysis (PSTA) dataset. This fuels layer is conducted at a landscape level, and typically appears coarse when viewed at a small scale. The PSTA fuels data is derived from existing provincial data and algorithmic interpretation of orthophotos. When examined at a local scale for a CWPP, errors are evident. These are often due to recent disturbance, such as logging or land clearing for development. Another source of error is very fine differences in fuel types that are difficult to capture in a large scale analysis, such as selection cut harvesting, or tree mortality from disturbance.

An updated fuel types layer is required to provide an accurate fire behaviour and wildfire threat map. The following process was used to update the fuel type layer, which has been developed in consultation with the BCWS fuels specialist (Dana Hicks, pers communication):

1. DHC reviewed the fuel type layer with latest ortho imagery. Identified obvious errors at this scale. This included areas identified as forest but have recently been cleared. Recent harvesting not captured by VRI was typed as S-3, given the likely levels of slash post-harvest in this region of the South Coast. In some areas the VRI-derived fuel type was classified as grass or slash, but the polygon in the aerial imagery is clearly treed. These were classified using air photo interpretation and referencing the nearest treed polygons.

2. Areas were identified for ground truthing. This focuses on areas adjacent values and communities as priorities.

3. Field work was conducted to ground truth the fuels layers. Polygons adjacent to values were visited by forester and the accuracy of fuel typing layer confirmed. Where errors were encountered, the fuel layer was updated and representative photos were taken.

4. Finalize the spatial fuels layer.

Below is a summary table showing the total area for each fuel type in the AOI.

Table 30 Fuel Type Categories and Crown Fire Spot Potential.

Fuel Type Classification	Total Area (ha)	% of area	Crown Fire Spot Potential
C2	0	0	High
C3	1080.9	1.5%	Moderate
C4	0	0	High
C5	27015.9	36.3%	Low
C7	0	0	Moderate
D1	9840.5	13.2%	Very Low
M2	4874.3	6.6%	Low
01b	173.1	0.2%	Low
S1	84.7	0.1%	
S3	774.5	1%	Low
Non-Fuel Areas	30562	41.1%	N/A

A 1.2 *Proximity of Fuel to the Community*

Fuel closest to the community usually represents the highest hazard. To capture the importance of fuel proximity in the local wildfire threat assessment, the WUI is weighted more heavily from the value or structure outwards. Fuels adjacent to the values and/or structures at risk receive the highest rating followed by progressively lower ratings moving out.

The local wildfire threat assessment process subdivides the Wildland Urban Interface (WUI) into 3 areas (Table 31):

1. Areas within 100 meters of the WUI (WUI 100)
2. Areas from 101 to 500 meters from the WUI (the WUI 500)
3. Areas 501 to 2000 meters from the WUI (the WUI 2000).

Table 31 Proximity to the Interface

Proximity to the Interface	Descriptor*	Explanation
WUI 100	(0-100 m)	This Zone is always located adjacent to the value at risk. Treatment would modify the wildfire behaviour near or adjacent to the value. Treatment effectiveness would be increased when the value is FireSmart.
WUI 500	(101-500m)	Treatment would affect wildfire behaviour approaching a value, as well as the wildfire's ability to impact the value with short- to medium- range spotting; should also provide suppression opportunities near a value.
WUI 2000	(501-2000 m)	Treatment would be effective in limiting long - range spotting but short- range spotting may fall short of the value and cause a new ignition that could affect a value.
	>2 000 m	This should form part of a landscape assessment and is generally not part of the zoning process. Treatment is relatively ineffective for threat mitigation to a value, unless used to form a part of a larger fuel break / treatment.

* Distances are based on spotting distances of high and moderate fuel type spotting potential and threshold to break crown fire potential (100m). These distances can be varied with appropriate rationale, to address areas with low or extreme fuel hazards.

WUI threat classes of High or Extreme are depicted in Figure 15. These are identified through a combination of both wildfire behaviour and proximity to communities or values. High WUI Threat Class areas are those with High or Extreme wildfire behaviour and are within 500 m of a value or community. Extreme WUI Threat Class areas are those with High or Extreme wildfire behaviour and are directly adjacent a value or community.

A 1.3 *Fire Spread Patterns*

Initial Spread Index (ISI) is a rating of the expected rate of spread of a fire. ISI and wind speed and direction data is recorded at local BCWS weather stations and are used to understand the predominant summer fire spread patterns. This data is illustrated as an ISI Wind Rose (Figure 22). This rose shows the frequency of counts by wind direction with the frequency of the ISI values during that time period.

During fire season, the prevailing winds are westerlies, with strong southeasterly winds common. The highly variable topography has significant influence on predicting winds, as does the adjacent large inlets that are found east of the AOI. Therefore, landscape winds should not be used to guide wildfire management without consideration of local topography. Historical wildfires do not show a consistent pattern in spread, but rather have spread patterns determined by slopes and aspect.

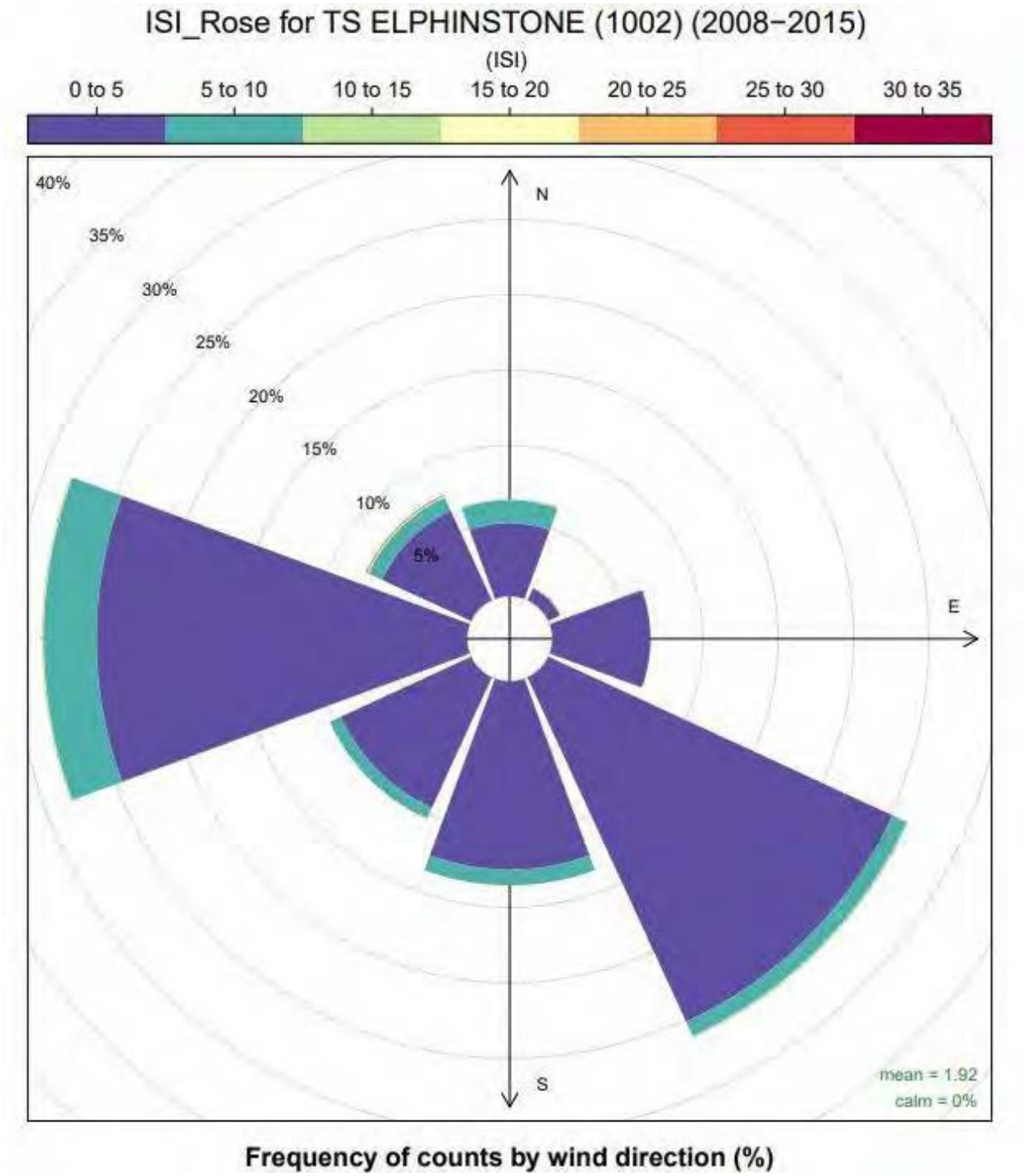

Figure 22. Initial Spread Index (ISI) Rose from TS Elphinstone Weather Station. (BC Wildfire Service, 2019). The color of each bar signifies the ISI, and the length corresponds the frequency of that ISI with the windspeed direction.

A 1.4 *Topography*

Steep slopes significantly increase wildfire spread through increasing radiant and convective heat. Aspect on steep slopes will also affect wildfire spread, as south facing slopes will be much warmer and drier than other aspects. Areas with steep, vegetated slopes below them are at higher risk than flat areas with similar fuel loading.

Most of the AOI is moderately to steeply sloped, with few flat areas. Broadly speaking, moderate slopes rise from the adjacent inlets or Strait of Georgia, with steep gullies and peaks found throughout. The slopes in the AOI mostly rise from west to east.

Table 32 Slope percentage and fire behaviour implications.

Slope Percent Class	Fire Behaviour Implications
<20%	Very little flame and fuel interaction caused by slope, normal rate of spread.
21-30%	Flame tilt begins to preheat fuel, increase rate of spread.
31-45%	Flame tilt preheats fuel and begins to bathe flames into fuel, high rate of spread.
46-60%	Flame tilt preheats fuel and bathes flames into fuel, very high rate of spread.
>60%	Flame tilt preheats fuel and bathes flames into fuel well upslope, extreme rate of spread.

Development is concentrated along the water front and the parallel Sunshine Coast Highway. However, given the varied topography and heavy intermixed development throughout the study area, even communities near the water can have steep vegetated slopes below them increasing wildfire behaviour potential.

Table 33 Slope position of value and fire behaviour implications.

Slope Position of Value	Fire Behaviour Implications
Bottom of Slope/ Valley Bottom	Impacted by normal rates of spread.
Mid Slope - Bench	Impacted by increase rates of spread. Position on a bench may reduce the preheating near the value. (Value is offset from the slope).
Mid slope – continuous	Impacted by fast rates of spread. No break in terrain features affected by preheating and flames bathing into the fuel ahead of the fire.
Upper 1/3 of slope	Impacted by extreme rates of spread. At risk to large continuous fire run, preheating and flames bathing into the fuel.

A 1.5 *Local Wildfire Threat Classification*

The areas that have a high wildfire threat include fuel types that are dominated by conifer tree species and on steep slopes. These areas have high fuel loading that with both winds and the effects of slope will burn at a high intensity. Conifer dominated fuel types constitute almost 40% of the study area.

Update the following tables with final GDB

Table 34 Wildfire behavior category based on fire intensity

Wildfire Behavior Threat	Total Area (ha)	% of area
Very Low		
Low		
Moderate		
High		
Extreme		
Private		

A 1.6 *Local Wildfire Risk Classification*

The 2012 wildfire risk methodology was used to determine wildfire risk. This method intersects the updated wildfire threat with the proximity to values to determine wildland urban interface threat class, which represents wildfire risk. This highlights areas of High or Extreme wildfire threat, and classifies their risk based on stratified distances. Areas of very low, low, or moderate wildfire threat are dropped from this analysis. Area of High wildfire risk are within 500m of a value and pose a high or extreme wildfire threat. Areas of Extreme risk are directly adjacent a value and pose a high or extreme wildfire threat.

Table 35. Wildland Urban Interface Threat Class

Wildfire Behavior Threat	Proximity of High or Extreme Threat to Value	Total Area (ha)
Low	>2,000m	
Moderate	500 – 2,000m	
High	Within 500m	
Extreme	Directly adjacent	

A 1.7 *Summary of Fire Risk Classes*

The above table summarizes the total area by WUI threat class. This the total area of high wildfire threat that is adjacent values. This is summarized in Figure 15, which shows the spatial distribution of the areas of highest wildfire risk.

Appendix 2 Wildfire Threat Assessment Worksheets and Photos

Worksheets and photos submitted separately.

Appendix 3 Description of Terminology

Area of Interest (AOI) The geographic study area for a Community Wildfire Protection Plan, within which the extent of the boundaries of the *Wildland Urban Interface* are determined.

Community Wildfire Protection Plan A plan adopted by a local government or First Nation to identify wildfire threat and risk throughout the study area, examine policy and planning responses, and assess emergency response capacity while providing action item recommendations for building community resilience, supported by the provincial government through the Community Resiliency Investment Program.

Crown fuels Forest fuels occurring in the above the level of the ground, on tree stems or in tree canopies, including live and dead branches attached to trees, bark, and foliage.

Fire Weather Rating Those elements of a forest that can burn, including organic material on the forest floor, logs, dead branches and

Forest fuels Those elements of a forest that can burn, including organic material on the forest floor, logs, dead branches and needles, shrubs and herbs, and the bark, wood, and foliage of live trees.

Fuel management Coordinated action to reduce wildfire risk by modifying the structure and density of forest fuels. In British Columbia, this work typically requires the preparation of a *fuel management prescription* by a qualified forest professional.

Fuel management prescription A document that identifies fuel management strategies to reduce wildfire risk in a defined area, while also ensuring other values are protected.

Fuel treatment The implementation of a fuel management prescription, which may involve the physical modification of fuels by heavy machinery or ground workers.

Interface A pattern of urban development where contiguous development directly abuts native vegetation.

Intermix A pattern of urban development where buildings are closely placed within and among trees.

Landscape Unit Plan A plan prepared by the provincial government that provides objectives for resource management within a defined area, including policies related to forest biodiversity and wildlife habitat.

Official Community Plan A local government plan for an electoral area(s) or municipality, mandated by provincial legislation, that shows how land use will be planned and how local government will meet other provincial policy objectives. Official Community Plans may also include additional policies based on local needs and interests.

Provincial Strategic Threat Analysis A high level analysis of wildfire threat and risk prepared by the Province of British Columbia for public lands and accompanying classifications of severity.

Suppression Actions taken in response to fire to control the spread of the fire or reduce it in area or severity.

Surface fuels Forest fuels found on top of the organic layer of the soil and below the crowns of trees, typically including understorey vegetation, dead branches, needles, and logs..

swiya The traditional territory of the shíshálh Nation, which includes most of the Area of Interest..

Wildfire A form of natural landscape disturbance involving the combustion of vegetation.

Wildfire risk The probability of a wildfire occurring combined with the consequences or impacts it would cause.

Wildfire season The period of the year during which wildfires generally take place due to weather and fuel conditions.

Wildfire threat A ranking of potential fire behavior based on fuel conditions, weather conditions, slope, aspect, and other biophysical factors.

Wildland Urban Interface (WUI) The geographic area where homes and buildings meet continuous areas of natural vegetation.

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AND HAVSUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Planning and Community Development Committee – June 17, 2021

AUTHOR: Ian Hall, General Manager, Planning and Community Development

SUBJECT: **Sunshine Coast Housing Needs Assessment Implementation Framework – Housing Action Plan**

RECOMMENDATIONS

THAT the report titled Sunshine Coast Housing Needs Assessment Implementation Framework – Housing Action Plan be received;

AND THAT amendments to Planning Procedures Bylaw No. 522 to define and prioritize affordable housing development applications be prepared;

AND THAT public information regarding opportunities for developing secondary suites and other affordable housing forms be produced;

AND FURTHER THAT information regarding:

a) Renewal of land use bylaws to support affordable housing development; and
b) An inventory of unutilized or underutilized land suitable for affordable housing development be brought to the 2022-2026 Financial Planning process.

BACKGROUND

Staff have been directed to explore, through intergovernmental dialogue, how current SCRD services can be used to implement recommendations of the "Sunshine Coast Housing Needs Report Implementation Framework" (see Annex A, here) presented to the Board in March 2021.

A Board dialogues was held on April 13 and an intergovernmental dialogue on May 11, 2021. This report summarizes results and provides recommendations for action.

DISCUSSION

Analysis

Recommended SCRD Affordable Housing Strategies:

1. As soon as possible, bring forward amendments to Planning Procedures Bylaw No. 522 to define and triage affordable housing development applications, for Board consideration.

2. Promote information about secondary suites and other affordable housing forms; seeking intergovernmental coordination where it makes sense.

3. Continue to pursue opportunities to support a regional housing coordination position and to involve the Housing Action Table (currently in progress).

4. Aligned with SCRD's Strategic Plan, develop and apply a social equity lens for plan review, policy development, etc.

5. As a potential future project, conduct a land inventory to identify any unutilized or underutilized land that could be suitable for shelter, supportive, or rental housing developments (e.g., land owned by the provincial or federal governments, SCRD, school districts, churches).

6. Renew, streamline and harmonize and modernize land use bylaws (explore single rural Official Community Plan and single zoning bylaw; potential for area or neighbourhood character statements or plans, development of appropriate density target ranges, through a high-quality public participation process. This update should consider:
    a. A mechanism for ensuring that planning accurately accommodates known housing need
    b. Creates development opportunity for a broad range of housing types
    c. Pre-zoning of unutilized/underutilized land and around village centres
    d. Inclusionary zoning, housing agreements, and possibilities for an affordable housing reserve
    e. More permissive policy respecting development of secondary suites, lock-off suites and garden suites where supported by servicing
    f. How covenants can be used to restrict secondary suites to long-term rental for a set period of time following development
    g. Modernizing/clarifying subdivision requirements by zone rather than by subdivision districts
    h. Opportunities to promote housing security in mobile home parks

Organizational and Intergovernment Implications

The work described in these strategies would involve partnerships (intergovernmental and with the Housing Action Table and other housing stakeholders), and public participation.

There is synergy with the scope of activities proposed in the "Planning Enhancement Project" for which Development Approvals Program Fund grant support has been sought (result expected in Q3) and with the results of the Regional Growth Baseline research project to be completed this year.

Pursuing these strategies, especially number 6, would be a significant and bold undertaking.

Financial Implications

Strategies 1 and 2, if directed by the Board, can be added to the current workplan/actioned within existing approved resources in the next 2 quarters.

Strategies 3 and 4 are already in progress using approved resources. No decision or direction is required at this time.

Temporary/incremental resources would be required for strategies 5-6. This would follow SCRD's past approach for plan and bylaw renewal. For context, interjurisdictional research indicates that a total project cost of over $1M, portions of which may be grant-eligible, based on

a project duration of 18-24 months might be representative of requirements. If directed, staff can prepare information for the 2022 annual budget process.

CONCLUSION

Recent Board and intergovernmental dialogues focused on how SCRD should take action affordable housing resulted in some recommended strategies. Staff have prepared recommendations to advance the strategies.

Reviewed by:			
Manager	X - D. Pady	CFO/Finance	X – T. Perreault
GM		Legislative	
CAO	X – D. McKinley	Sustainable Development	X – R. Shay

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Planning and Community Development Committee – June 17, 2021

AUTHOR: Yuli Siao, Senior Planner

SUBJECT: **ROBERTS CREEK OFFICIAL COMMUNITY PLAN AMENDMENT BYLAW NO. 641.11 AND ZONING AMENDMENT BYLAW NO. 310.182 FOR SUBDIVISION OF REMAINDER OF DISTRICT LOT 1312 – SECOND READING**

RECOMMENDATIONS

1. THAT the report titled Roberts Creek Official Community Plan Amendment Bylaw No. 641.11 and Zoning Amendment Bylaw No. 310.182 for Subdivision of Remainder of District Lot 1312 – Second Reading be received;

2. AND THAT Roberts Creek Official Community Plan Amendment Bylaw No. 641.11 and Zoning Amendment Bylaw No. 310.182 be forwarded to the Board for Second Reading;

3. AND THAT Roberts Creek Official Community Plan Amendment Bylaw No. 641.11 and Zoning Amendment Bylaw No. 310.182 is considered consistent with the SCRD's 2021-2025 Financial Plan and 2011 Solid Waste Management Plan;

4. AND THAT a Public Hearing to consider the Bylaws be arranged;

5. AND FURTHER THAT Director _____ be delegated as the Chair and Director _____ be delegated as the Alternate Chair for the Public Hearing.

BACKGROUND

An application was received to amend the Roberts Creek Official Community Plan (OCP) and rezone a 40.45-hectare parcel known as the remainder of District Lot 1312 to facilitate a future subdivision on the south portion (14.32 ha) and donate the north portion (26.13 ha) to the SCRD as community amenity contribution in the form of a land gift.

The proposed bylaws received first reading by the Board on March 28, 2019. The application was referred to the Roberts Creek and Elphinstone Advisory Planning Commissions and the Roberts Creek OCP Committee in April 2019, and again in May 2021 with updated information and analysis. Preliminary public consultation was conducted by the applicant in coordination with the SCRD during November and December of 2020.

Table 1 - Application Summary

Owner / Applicant:	1312 Lands Inc. / Jim Green
Legal Description:	District Lot 1312 Group 1 New Westminster District except Plan EPP72892 and EPP77565
Electoral Area:	D – Roberts Creek
Parcel Area:	Total: 40.45 ha

OCP Land Use:	Existing: Resource	Proposed: South ≈14.32 ha – Rural North ≈26.13 ha – Parks
Zoning:	Existing: RU4 (Rural Forest)	Proposed: South ≈14.32 ha – RU1 (Rural) North ≈26.13 ha – PA1 (Park & Assembly)
Subdivision District:	Existing: Z (minimum 100 ha)	Proposed: South ≈14.32 ha – F (minimum 1 ha) North ≈26.13 ha – J (minimum 25 ha)
Application Intent:	To create 12 new minimum 1-ha lots on the south side of the extended Porter Road and donate an approximately 26-ha remainder of the parcel on the north side to the SCRD as a community amenity contribution in the form of a land gift.	

CURRENT CONDITIONS AND PROPOSED USES

The subject property is within Roberts Creek, adjoining the boundary with Elphinstone. Presently the south 1/3 of the parcel is partially cleared, while the northern 2/3 contains a variety of mature regrowth trees. There is a 90-m elevation gain from the southwest corner of the parcel to its north boundary. The property is traversed by Higgs Brook and Smales Creek. The headwaters of Cornwallis Creek and an unnamed watercourse referred to as Stream 5 are present at the south extent of the property (Figure 2).

The subject property has a history of forestry and a network of trails used by the public in trespass, including those for equestrian purposes. An SCRD trail statutory right-of-way (SRW), a BC Hydro right-of-way containing transmission lines, and a leased area for a telecommunication tower with access driveway are located on the property. Access to the 3.33-ha SCRD Park northeast of the parcel is by means of the SCRD trail SRW, as well as by other informal trails utilized by the community (Figure 1).

The applicant is applying for OCP and zoning changes for the remainder of DL 1312. The proposal involves extending Porter Road eastwards beyond Sullivan Road, bisecting the parcel into a subdivision of 12 rural residential lots of approximately one hectare each on the south side (total 14.32 ha) and a donation of lands (26.13 ha) on the north side to the SCRD as an in-kind community amenity contribution in the form of a land gift, as shown in Figure 2.

Figure 1 – 2018 Aerial of subject property, featuring infrastructure, park and trails

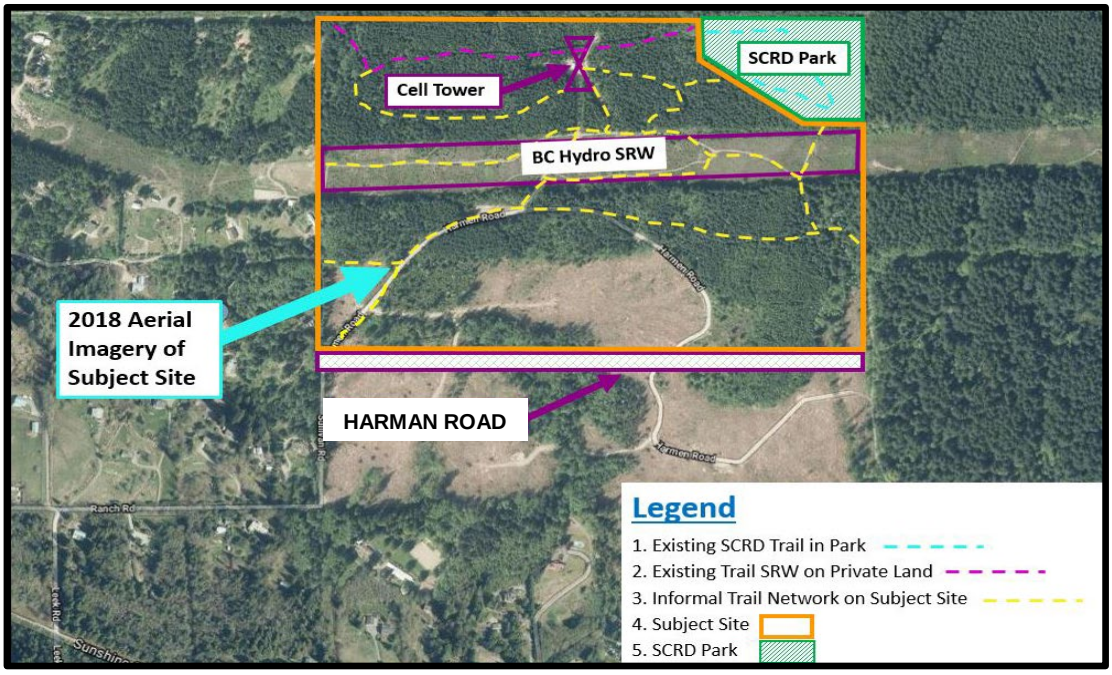
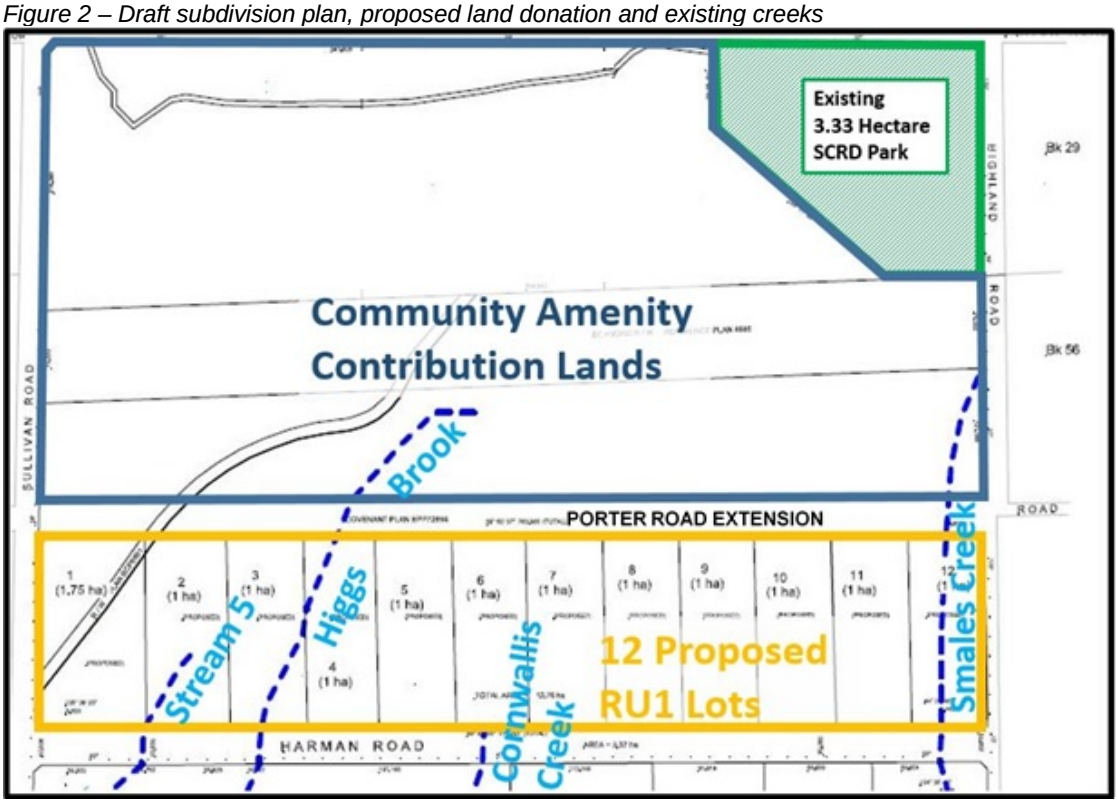


Figure 2 – Draft subdivision plan, proposed land donation and existing creeks



DISCUSSION

Land Use Designation Context

In 2001, Provincial legislative change removed the Forest Land Reserve (FLR) designation that previously encumbered on the subject parcel. In response to this change, the SCRD adopted *Zoning Amendment Bylaw No. 310.83, 2003* to establish RU4 (Rural Forest) Zone and Subdivision District to Z (100 hectare minimum parcel size) for several former FLR parcels in order to introduce forest management uses and mitigate development pressures on these lands. The OCP land use designation for these lands was established as Resource.

The proposed rural residential subdivision on a portion of the subject property would be the first of its kind in the former FLR lands since the SCRD adopted the above wide-spread land use amendments. The intent of these land use provisions was to discourage residential uses in these areas at the time when the FLR designation for these lands was removed. This was an expedient measure that generalized all former FLR lands and imposed the same land use regulations to prevent residential development without formal planning processes being conducted to examine areas that may have merit for consideration of such uses.

Planning Analysis

Roberts Creek Official Community Plan

The parcel is within the Resource land use designation (Figure 3), and is the southernmost parcel designated as such within the OCP. It is also one of such designated parcels closest to the Sunshine Coast Highway (620 m). Parcels to the west are designated Rural. Areas to the south are designated Agricultural and are within the Agricultural Land Reserve (ALR). Parcels to the east are within the Elphinstone OCP area, such as DL1313 which is designated as Park and Rural Forest within the Elphinstone OCP.

The OCP establishes a 100-ha minimum parcel size for subdivisions within the Resource designation, and Section 19 states that the Resource land use designation is for land "…where the potential exists for resource activities such as the establishment, management, and harvesting of the forest cover for timber and other forest products and values, as well as educational opportunities in holistic forestry and ecology", and residential uses are not compatible and will not be a permitted use. However, within the Resource designation, smaller parcels ranging from 1.75 ha to 2 ha exist to the northwest of the subject lands.

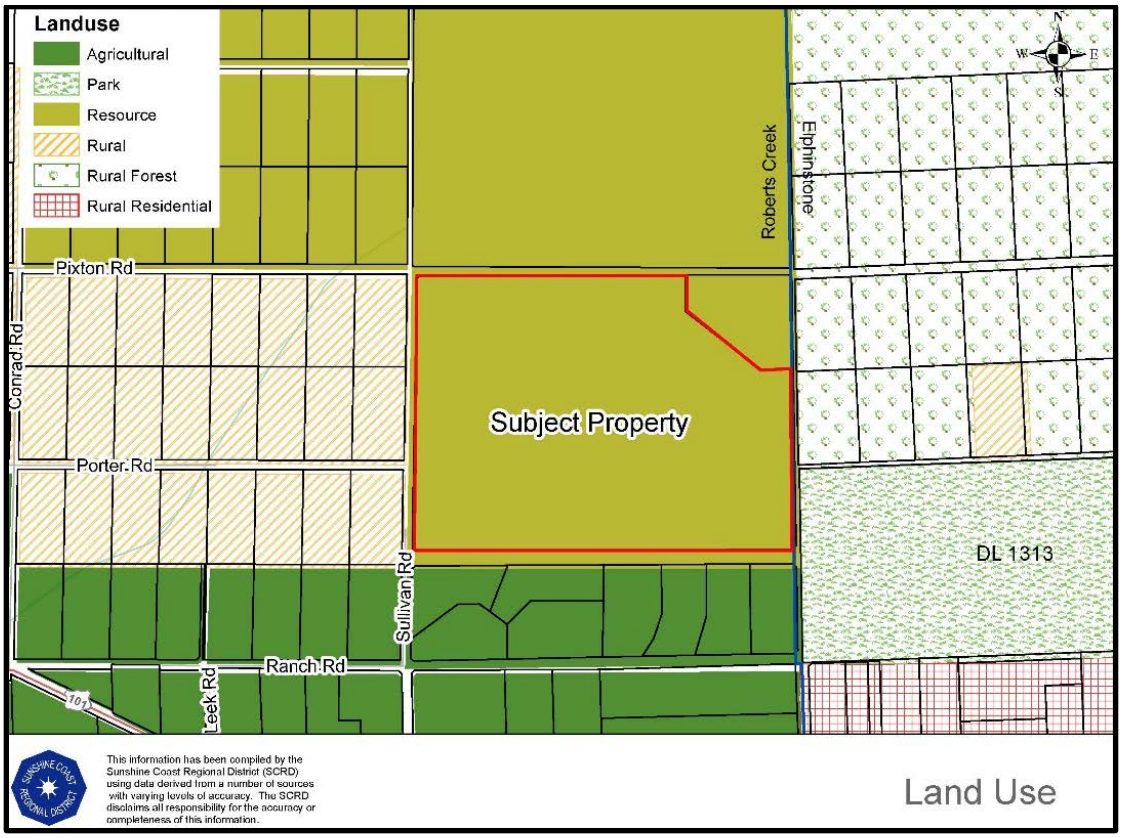


Figure 3 –OCP Land Use Map (Includes Roberts Creek and Elphinstone)

The proposal to re-designate the southern 1/3 of the parcel to Rural Residential could blend in with existing rural and agricultural uses to the west and south, and increase the supply of such rural acreages for residential, agricultural and home-based business uses.

The proposed donation of the northern 2/3 of the parcel to the SCRD could create a buffer to contain further expansion of rural residential development to the north. There are potential uses (to be further discussed later in this report) that can be considered for the donated lands, such as environmental conservation, outdoor recreation and public utilities. The proposed Parks designation for this portion of the parcel would be suitable for these potential uses. In this regard, the proposal could help to achieve several overall goals of the OCP as outlined in Part 3, such as environmentally responsible use of land, maintaining rural atmosphere, providing parkland and recreational opportunities.

<u>Zoning Bylaw No. 310</u>

The subject parcel is currently zoned RU4 (Figure 4) which permits forest management, one single family dwelling and ancillary uses to forest management such as log booming, log sorting, storage and wood processing. Parcels to the north and west are zoned RU1 (Rural One). The parcels to the south are zoned AG and to the east are AG and RU5A (Rural Forest A). The proposal to rezone the southern 1/3 of the parcel to RU1 would implement the proposed OCP Rural designation and make zoning consistent with adjacent parcels to the west.

As shown in Figure 5, the subject parcel and parcels to the west and east, with the exception of DL1313, are within Subdivision District Z (100 hectare minimum for subdivision purpose); however, adjacent parcels to the east, west and south, with the exception of DL 1313, are already of parcel sizes ranging from 1.75 to 2.0 hectares. The proposed minimum parcel size of one hectare to facilitate a subdivision on the south 1/3 of the parcel is balanced by the north 2/3 un-subdividable portion, resulting in an average density that is generally compatible with the density in this area and is sensitive to the rural character of the area.

The proposed land donation of the northern 2/3 of the parcel is to be rezoned to PA1 (Park and Assembly). This zone would be consistent with the proposed OCP designation of Parks as discussed above, and would be suitable for potential uses of the lands such as environmental conservation, outdoor recreation, assembly and public utilities. The Subdivision District for this portion of the parcel is to change to the J District with a minimum parcel size requirement of 25 ha, which would prevent its future subdivision.

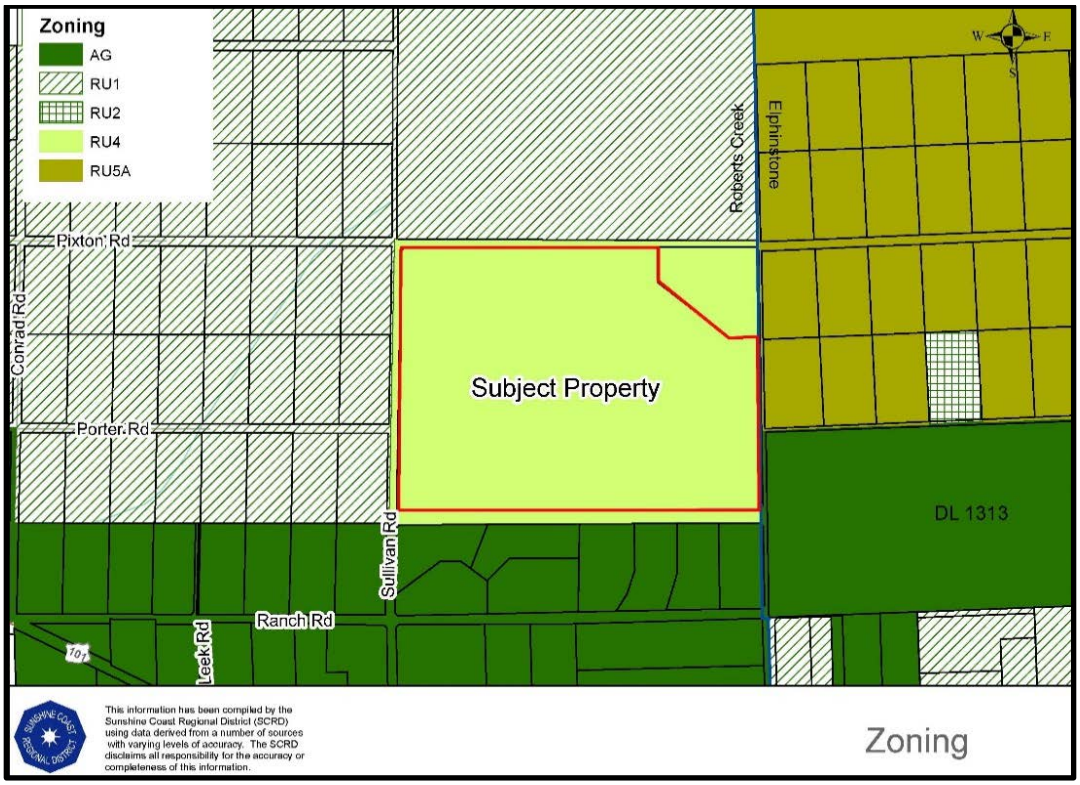


Figure 4 – Zoning Map

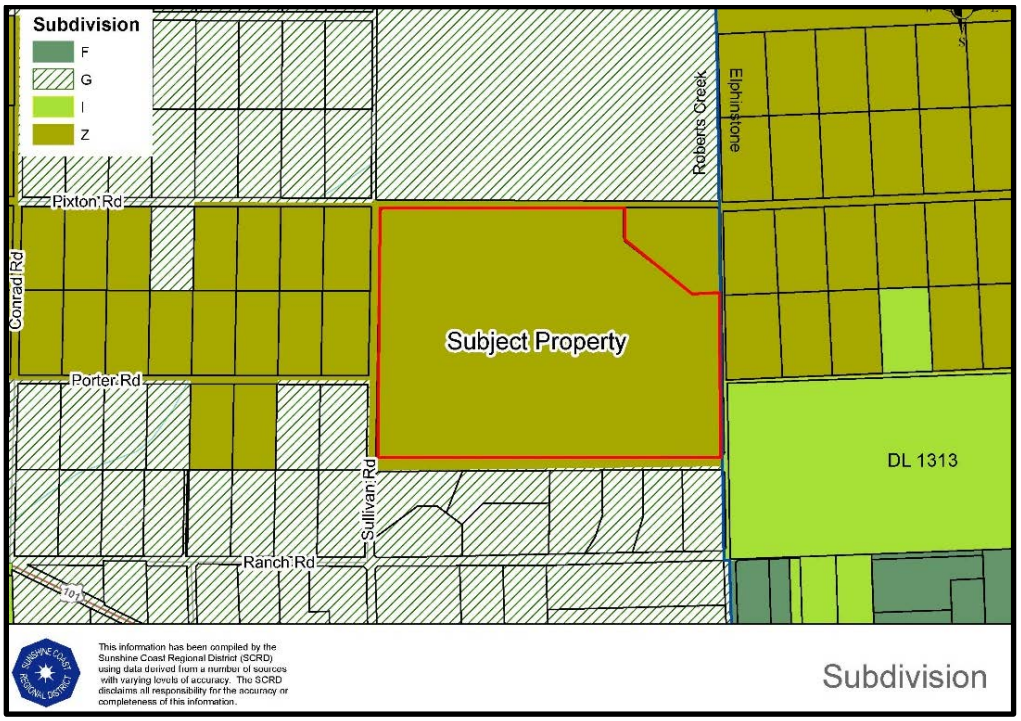
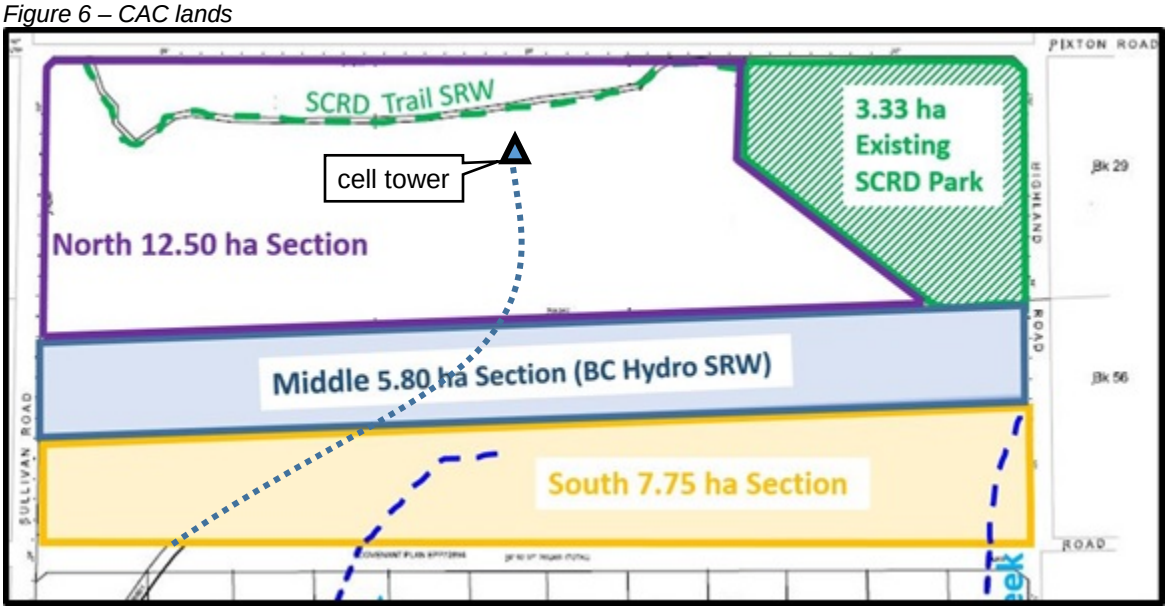


Figure 5 – Subdivision District Map

Community Amenity Contribution (CAC)

The 26.13-ha northern 2/3 of the parcel is offered by the applicant to the SCRD as a community amenity contribution (Figure 6). The lands are bisected by a 5.8-ha BC Hydro Statutory Right-of-Way with existing transmission lines approximately 778 m long and 75 m wide, leaving a 12.5-ha north section and a 7.8-ha south section, both forested. There is also an existing leased area for a telecommunication tower and associated access driveway.

Figure 6 – CAC lands



There is an existing trail network consisting of an SCRD trail statutory right-of-way (SRW, 0.5 km, green line) and other informal trails (4.1 km, yellow line) on these lands with connections to the SCRD park located to the northeast (Figure 7). The SRW is open for public use and forms a part of the draft route concept for Phase 2 of the regional Suncoaster Trail. The other trails are on private lands and have been used by the public in trespass.

Figure 7 Trail network

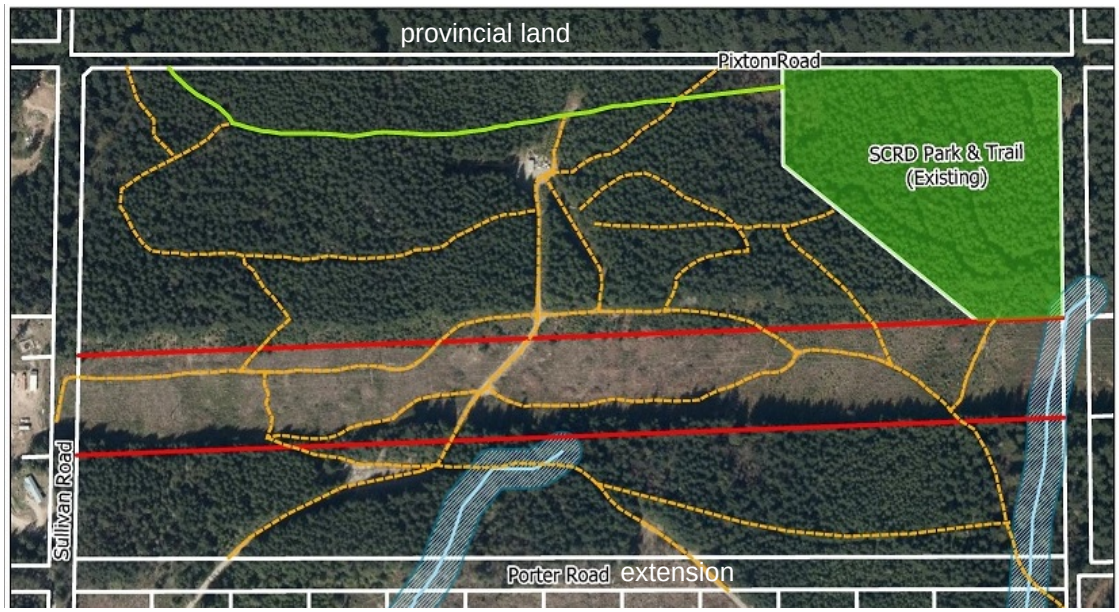


Figure 8 Trail photo

Potential Uses and Benefits of the CAC

Accepting the proposed community amenity contribution lands would have implications for the SCRD and require future Board decisions to determine the use of the lands. A plan regarding the use, development and management of these lands that may include an appraisal, a cost-benefit analysis and administrative consideration of stewardship of the lands by various SCRD functional services (e.g. infrastructure, park, recreation) would be required, should the SCRD accept the land donation.

Access

The parcel would be accessible for vehicles, fire and emergency vehicles and pedestrians through the proposed extension of Porter Road across the entire length of the current parcel. The applicant proposes to construct this road with a 20-m right of way width and similar standards as Harman Road to provide access to both the subdivision to the south and the CAC lands to the north. This road will be built to MOTI standards and maintained by MOTI. The applicant would also upgrade connected access roads (e.g. Leek Road) in the surrounding areas if required by MOTI. Pedestrian accessibility to this area would be enhanced by trail connections on both sides of the property to be constructed by the applicant (Figure 10).

Water Infrastructure

The SCRD Utility Division has reviewed the CAC proposal and identifies potential benefits for public work projects on these lands, such as future groundwater exploration or water storage. Land access is typically a challenge in utility capital projects and securing land ownership for future public works would present long-term value. In 2020, groundwater exploration test wells were drilled in various locations on the lower Sunshine Coast. This included one on Harman Road near the southeast extent of the proposed development. The tests indicate that there is potential to access a productive bedrock aquifer in this area. Bedrock groundwater exploration is inherently hit-and-miss, therefore securing access to a large parcel of land for future test wells would greatly increase the likelihood of successfully developing water supply in this location. This would contribute to meeting SCRD's long-term water supply targets (2050) and would enhance system resiliency through supply redundancy.

Due to the central location and elevation of the site, it could be suitable for potable water storage through construction of one or more storage reservoirs which would benefit fire protection for Electoral Areas D, E, and F. Additional assessments are required to determine if and when this site would be beneficial for water storage purposes.

Natural Assets

As indicated by a qualified environmental professional in an ecological assessment of these lands, the forested areas of the lands have a wealth of wildlife, vegetation, biodiversity and natural features that are in healthy condition and worth preserving, and can form a natural buffer between the upland forests and the lower rural settlement areas that can serve the function of wildlife corridor, carbon storage, storm water absorption and aquifer recharge (Attachment C). These benefits could be reduced if logging continues on these lands, making them more prone to erosion, storm water runoff, and degradation of the eco-system.

Telecommunication Tower

The existing lease for the telecommunication tower and access driveway is in place until November 2025 at which time it could be discontinued or alternatively transferred with the proposed land donation to the SCRD. If transferred to SCRD, it could continue to serve the community's communication and emergency response needs while generating revenue for the SCRD. Revenue could offset some of the costs of managing the land.

BC Hydro Corridor

The corridor provides a fire break between the north forested lands and the south settlement areas.

Long-term Planning

There may be other possible uses which could be unveiled by in-depth studies of the lands and community needs. Before uses and development of these lands are determined, or alternatively if the lands are not put to any particular use in the interim, they can be held as a nature reserve for environmental conservation. As the Sunshine Coast community continues to evolve, these lands may have potential to meet future community needs.

Should the SCRD not accept this land donation, as a condition of adopting the proposed bylaws, these lands could be covenanted as a nature reserve to protect the existing eco-system, prevent further logging and serve as a buffer along the rural settlement fringe of this area.

Development and Design Considerations

The subject lands are not served by the SCRD water system and there are no plans to extend service into the area. Water will need to be provided on each lot of the proposed subdivision. The adjacent parcels on the south side of Harman Road are served by on-site wells, all meeting minimum flow standards.

Several Development Permit Areas with geo-technical and stream riparian assessment requirements are identified on these lands. A Development Permit to address these requirements will be required to facilitate the subdivision application.

With the properties on the south side of Harman Road being within the ALR, best practices in the Ministry of Agriculture's *Guide to Edge Planning* suggest that a vegetative landscape buffer with a minimum width of 7.5 m and plant maturity height of 6 m be covenanted and planted along such an edge to limit conflicts with farming. It is also encouraged that new residential traffic be directed to roads not abutting farms.

To achieve these best practices along the ALR edge, the applicant has proposed a 7.5-m vegetative covenant area along the entire Harman Road frontage for the proposed subdivision. The proposed Porter Road extension would provide vehicular access to the CAC lands and the 12 lots of the subdivision, and can divert non-farm related traffic from Harman Road.

Figure 9 Illustrative lot layout and road design

In order to enhance multi-modal transportation for future and existing residents in the area, the applicant has proposed to work with the SCRD and Ministry of Transportation and Infrastructure (MOTI) to construct a gravel standard walking trail approximately 330 m in length on the unconstructed road allowance of Sullivan Road between Ranch and West Reed Roads (Figure 10). This walking trail would reduce walking distances from the west side of the subject site to public transit Line #90 on the Sunshine Coast Highway from approximately 800 m to 400 m (10 to 5 minutes), and further link to the existing trail in the Sullivan Road allowance south of the Highway which connects to transit Line #1 and a beach access via Lower and Gulf Roads. Pedestrian linkage from the east side of the subject site to public transit and the beach is proposed to be provided by a statutory right-of-way trail connection to Highland Road to be constructed by the applicant and a number of existing trails.

MOTI advises that some road upgrades may be required to improve sightlines and grades at the intersection of Leek Road and Highway 101 to support traffic from the subdivision development. The applicant has indicated that this requirement will be met if the development proceeds.

Recognizing that the subject site adjoins forested lands, the applicant proposes to register a covenant on all new lots to ensure best-practices (e.g. Fire Smart) will be carried out on future homes with regard to potential wildfire risks. Such standards typically include special cladding and roof materials that are more resistant to the spreading of fire and the removal of fuel material from the ground.

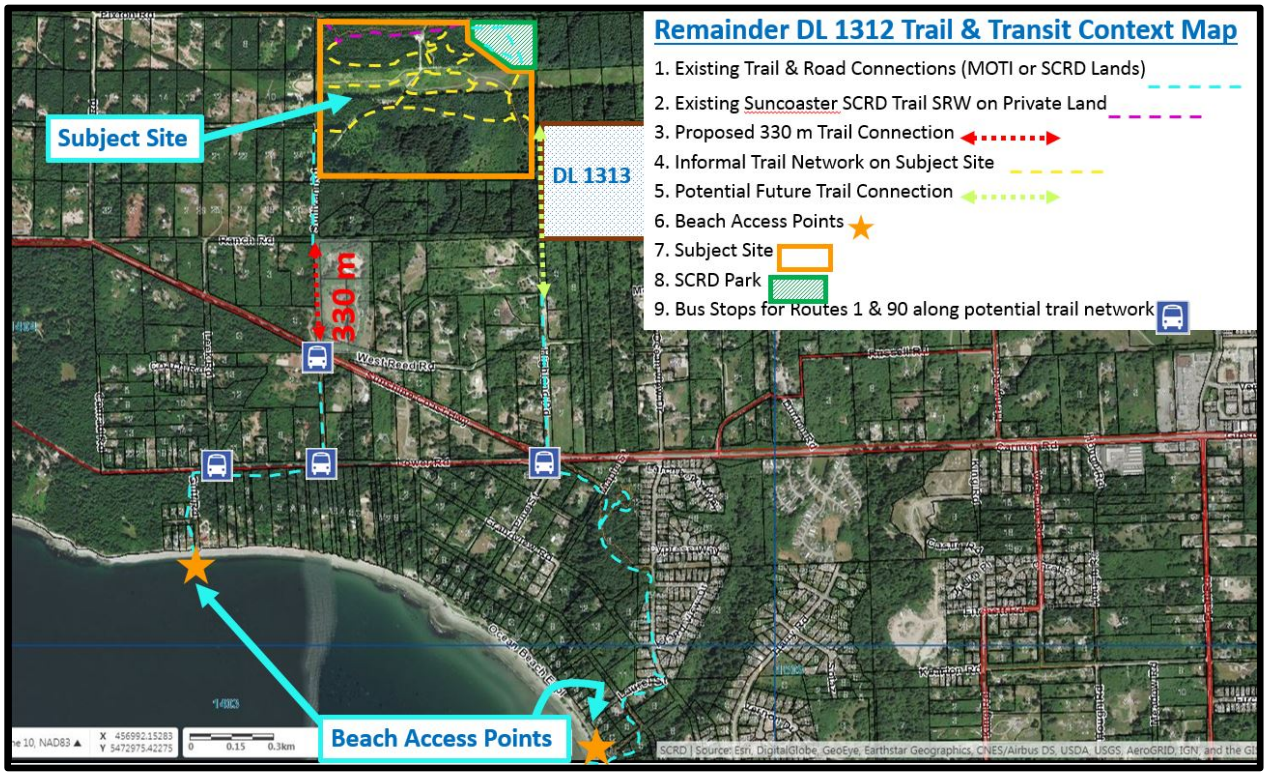


Figure 10 – Trail & transit

Agency Referrals

As per Board direction, the application has been referred to Sḵwx̱wú7mesh Nation, Ministry of Transportation and Infrastructure (MOTI), Vancouver Coastal Health (VCH), Roberts Creek Fire Department, Agricultural Land Commission (ALC), School District 46 (SD46), BC Hydro, Areas D and E APCs and Roberts Creek OCP Committee for comment. Comments received are as follows. The applicant indicates that the development will comply with all technical requirements of all agencies.

MOTI	The Ministry has no objection to the proposal in principal. The applicant is advised that some road upgrades may be required to improve sightlines and grades at the intersection of Leek Road and Highway 101 to support the additional traffic from the subdivision development. The Ministry will require an application for subdivision be submitted before we are able to provide further details as to what road improvements may be required.
VCH	VCH will provide detailed recommendations upon reception of a subdivision application referral. The subdivision will be required to meet criteria set out in the VCH Subdivision Guideline.
Roberts Creek Fire Dept.	The subject lands are within SCRD fire protection area. The fire department has to bring water to the area in the event of fire as there are no fire hydrants.

	Improving Sullivan Road condition and extending Porter Road to the east end of the proposed development area would give fire apparatus access between the residential area and the forest. Encouraging developers to follow Fire Smart Canada guidelines on building exteriors and landscaping and the installation of residential sprinkler systems would enhance fire protection.
ALC	Recommends that the SCRD review the Ministry of Agriculture's *Guide to Edge Planning* which provides detailed recommendations related to buffering, setbacks, and neighbourhood design.
SD46	Interest not affected
BC Hydro	1. BC Hydro holds a right of way registered against title to the Property. Accordingly, BC Hydro must approve and execute the subdivision plan if a road dedication is occurring. 2. The property owner will require separate written approval from this office for any intended use or development on BC Hydro's right of way area before construction takes place. Please submit any such applications to this office. 3. No building encroachment is permitted within BC Hydro's right of way area. 4. BC Hydro requires that open spaces or parks be assigned a lot number so that Hydro's registered rights are retained for such areas.
Roberts Creek APC	Does not support the proposed bylaws.
Elphinstone APC	Recommends accepting the proposed land donation and bylaws subject to effective storm water management of the lands.
Roberts Creek OCP Committee	Recommends against the proposed bylaws.

Preliminary Public Consultation Summary

Preliminary public consultation was conducted by the applicant in coordination with SCRD staff. Among comments received, 21 residents expressed concerns or opposed to the proposal while 17 expressed support. The following is a summary of key points of the comments.

Key points of comments in support of the application:

- Past subdivision of lands south of Harman Road by the applicant has brought about improvements to drainage, surface and corners of Sullivan Road and Ranch Road. Similar improvements on adjacent roads are expected to be brought by the proposed development.

- Harman Road is a spacious, well-constructed road which has excess capacity to handle much more traffic to existing and future developments in this area.

- A riparian area assessment was undertaken to provide protection of streams on the property.

- The new lots can create opportunities for rural residential agriculture, contribute to local sustainability and housing supply.

- The proposed land donation is a generous contribution of land to the community for public works, recreation and environmental conservation.

- There appears to be abundant ground water supply in the area.

- The proposed rural residential subdivision would help to create a sense of neighbourhood in this area yet with a balance in density and sensitivity to the rural character and may bring about expansion of SCRD refuse collection service to the area.

Key points of comments opposing the application:

- There are concerns about noise, traffic, construction activities and negative impact on roads, traffic safety at intersection with the Highway, fire protection, rural character, wildlife habitat, storm water runoff and water supply to be brought by the proposed development.

- The proposal is regarded as inconsistent with the OCP and a precedent for suburban sprawl.

- The proposed land donation should not be accepted as a condition for application approval.

- The proposed land donation is perceived as undesirable and a liability to the SCRD.

Organization and Intergovernmental Implications

Pursuant to Section 477 (3) (a) (i, ii) of the *Local Government Act* an amendment to the Official Community Plan requires a review of the bylaw in conjunction with the local government's financial and solid waste management plans. Relevant departments have reviewed the bylaw. It was determined that the bylaw to change the land use designation of the subject parcel from "Resource" to "Rural" and "Parks" has no impact on either plan. It is therefore recommended that Roberts Creek Official Community Plan Amendment Bylaw No. 641.11 be considered consistent with the 2021-2025 Financial Plan and 2011 Solid Waste Management Plan of the Sunshine Coast Regional District.

However, should the SCRD accept the proposed land donation, there would be financial implications for the SCRD and the Financial Plan may need to be amended.

The subject parcel is outside the current boundaries for the SCRD's curbside collection services for garbage and food waste. An amendment to the service area map within SCRD Bylaw 431 would be required in order to provide these services. This process can take upwards of one year after initiation as this type of amendment requires approval from the Inspector of Municipalities.

Timeline for Next Steps

If the Board gives the proposed bylaws second reading, a public hearing will be arranged. Comments received from the Public Hearing as well as recommendations for any conditions will

be incorporated into a staff report to the Planning and Community Development Committee for consideration of possible third reading and adoption of the proposed bylaws.

Communications Strategy

Information on this application will be posted on the SCRD website. The Public Hearing will be advertised in the local newspaper and notices will be sent to property owners within 100 metres of the subject parcel.

STRATEGIC PLAN AND RELATED POLICIES

N/A

CONCLUSION

The application presents an opportunity to evaluate the pros and cons of the proposed development in light of the objectives and policies of the Roberts Creek OCP and in the context of the subject location and current conditions of the Sunshine Coast.

Analysis of this report indicates that the development could be integrated into the rural setting without negative impacts and many technical concerns of the development can be addressed.

The application also presents an opportunity to consider a land donation that may have community benefits.

Staff recommend second reading of the bylaws and a Public Hearing to gather further community input.

ATTACHMENTS

Attachment A – OCP Amendment Bylaw No. 641.11

Attachment B – Zoning Amendment Bylaw No. 310.182

Attachment C – Environmental report of DL 1312

Reviewed by:			
Manager	X – D. Pady	CFO/Finance	X – T. Perreault
GM	X – I. Hall	Legislative	
CAO	X – D. McKinley	Solid Waste	X – R. Cooper

ATTACHMENT A

SUNSHINE COAST REGIONAL DISTRICT
BYLAW NO. 641.11

A bylaw to amend *Roberts Creek Official Community Plan Bylaw No. 641, 2011.*

The Board of Directors of the Sunshine Coast Regional District, in open meeting assembled, enacts as follows:

PART A – CITATION

1. This bylaw may be cited as *Roberts Creek Official Community Plan Amendment Bylaw No. 641.11, 2019*.

PART B – AMENDMENT

2. *Roberts Creek Official Community Plan Bylaw No. 641, 2011* is hereby amended as follows:

    a. Map 1 and Map 6 are amended by re-designating portions of District Lot 1312 Group 1 New Westminster District except Plans EPP72892 and EPP77565 from "Resource" to "Rural" and "Parks" respectively, as depicted on Appendix 'A', attached to and forming part of this bylaw.

PART C – ADOPTION

READ A FIRST TIME this	28TH	DAY OF MARCH ,	2019
PURSUANT TO SECTION 475 OF THE *LOCAL GOVERNMENT ACT* CONSULTATION REQUIREMENTS CONSIDERED this	####	DAY OF MONTH,	YEAR
READ A SECOND TIME this	####	DAY OF MONTH,	YEAR
CONSIDERED IN CONJUNCTION WITH THE SUNSHINE COAST REGIONAL DISTRICT FINANCIAL PLAN AND ANY APPLICABLE WASTE MANAGEMENT PLANS PURSUANT TO THE *LOCAL GOVERNMENT ACT* this	####	DAY OF MONTH,	YEAR
PUBLIC HEARING HELD PURSUANT TO THE *LOCAL GOVERNMENT ACT* this	####	DAY OF MONTH,	YEAR
READ A THIRD TIME this	####	DAY OF MONTH,	YEAR
ADOPTED this	####	DAY OF MONTH,	YEAR

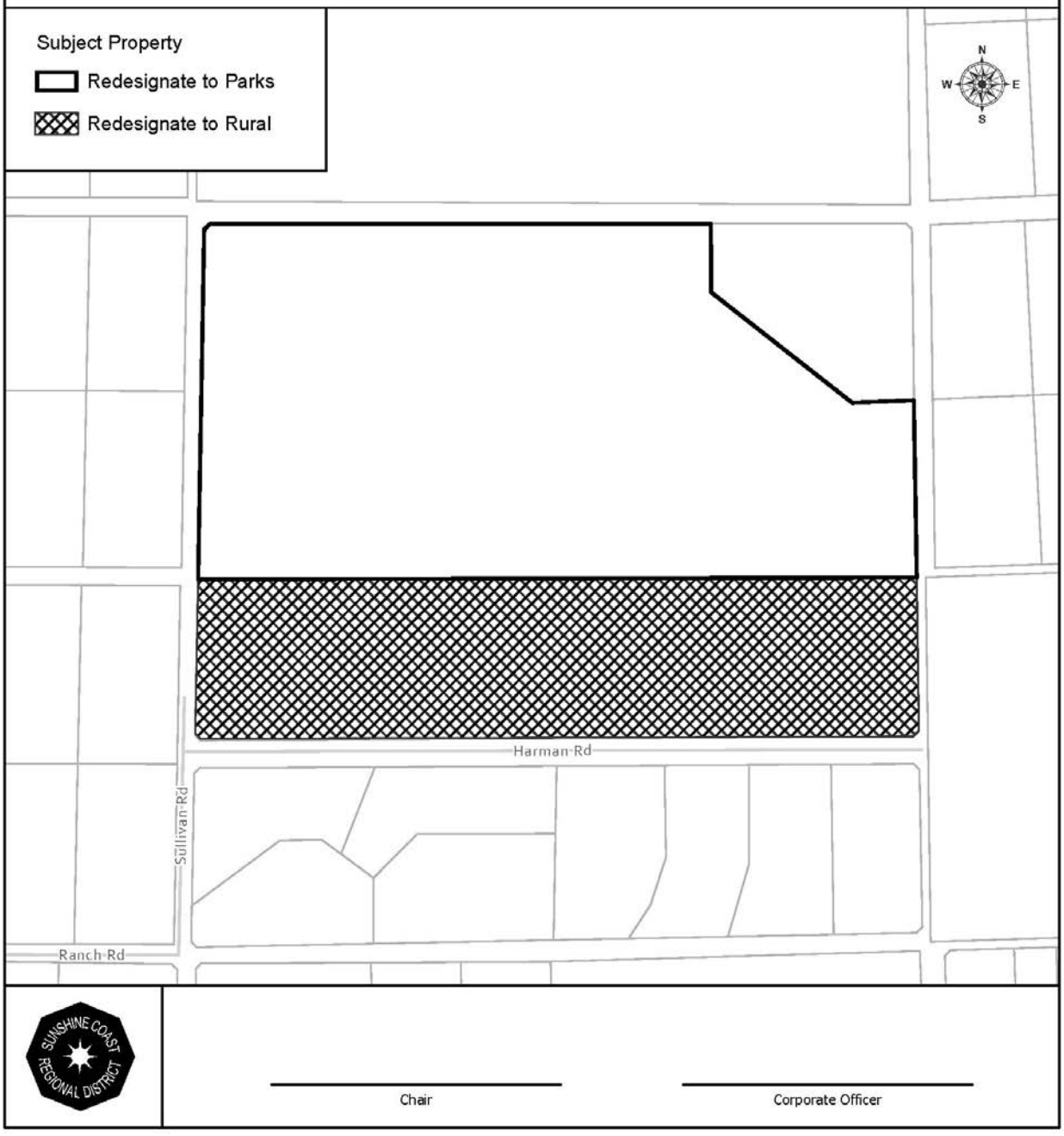
Corporate Officer

Chair

APPENDIX A TO BYLAW NO. 641.11

Appendix A to
Roberts Creek Official Community Plan Amendment
Bylaw No. 641.11, 2019

Amend the Land Use Designation of parts of DL 1312 Group 1 New Westminster District, Except Plans EPP72892 and EPP77565 from Resource to Rural and Parks



ATTACHMENT B

SUNSHINE COAST REGIONAL DISTRICT
BYLAW NO. 310.182

A bylaw to amend *Sunshine Coast Regional District Zoning Bylaw No. 310, 1987*

The Board of Directors of the Sunshine Coast Regional District, in open meeting assembled, enacts as follows:

PART A – CITATION

1. This bylaw may be cited as *Sunshine Coast Regional District Zoning Amendment Bylaw No. 310.182*, 2019.

PART B – AMENDMENT

2. *Sunshine Coast Regional District Zoning Bylaw No. 310, 1987* is hereby amended as follows:

   a. Rezone portions of District Lot 1312 Group 1 New Westminster District except Plans EPP72892 and EPP77565 from RU4 (Rural Forest) to RU1 (Rural Residential One) and PA1 (Park and Assembly) respectively on Schedule A, as depicted on Appendix 'A', attached to and forming part of this bylaw.

   b. Re-designate portions of District Lot 1312 Group 1 New Westminster District except Plans EPP72892 and EPP77565 from Subdivision District Z to Subdivision District F and J respectively on Schedule B, as depicted on Appendix 'B', attached to and forming part of this bylaw.

PART C – ADOPTION

READ A FIRST TIME this	28TH	DAY OF MARCH ,	2019
READ A SECOND TIME this	####	DAY OF MONTH ,	YEAR
PUBLIC HEARING HELD PURSUANT TO THE *LOCAL GOVERNMENT ACT* this	####	DAY OF MONTH ,	YEAR
READ A THIRD TIME this	####	DAY OF MONTH ,	YEAR
APPROVED PURSUANT TO SECTION 52 OF THE *TRANSPORTATION ACT* this	####	DAY OF MONTH ,	YEAR
ADOPTED this	####	DAY OF MONTH ,	YEAR

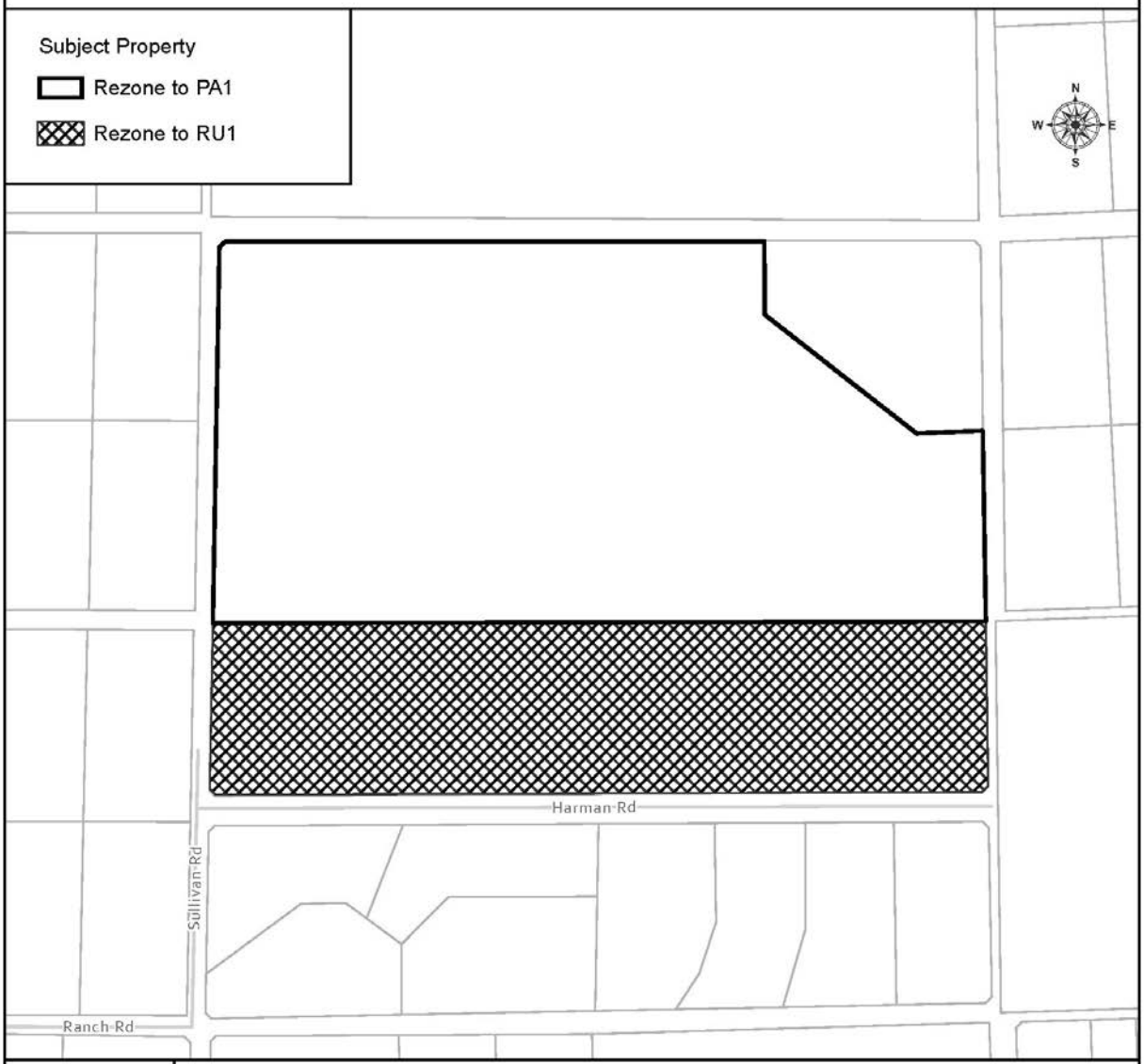
Corporate Officer

Chair

APPENDIX A TO BYLAW NO. 310.182

Appendix A to Sunshine Coast Regional District
Zoning Bylaw Amendment Bylaw No. 310.182, 2019

1. Amend the Zoning Land Use of parts of DL 1312 Group 1 New Westminster District, Except Plans EPP72892 and EPP77565 from RU4 to RU1 and PA1



SUNSHINE COAST REGIONAL DISTRICT

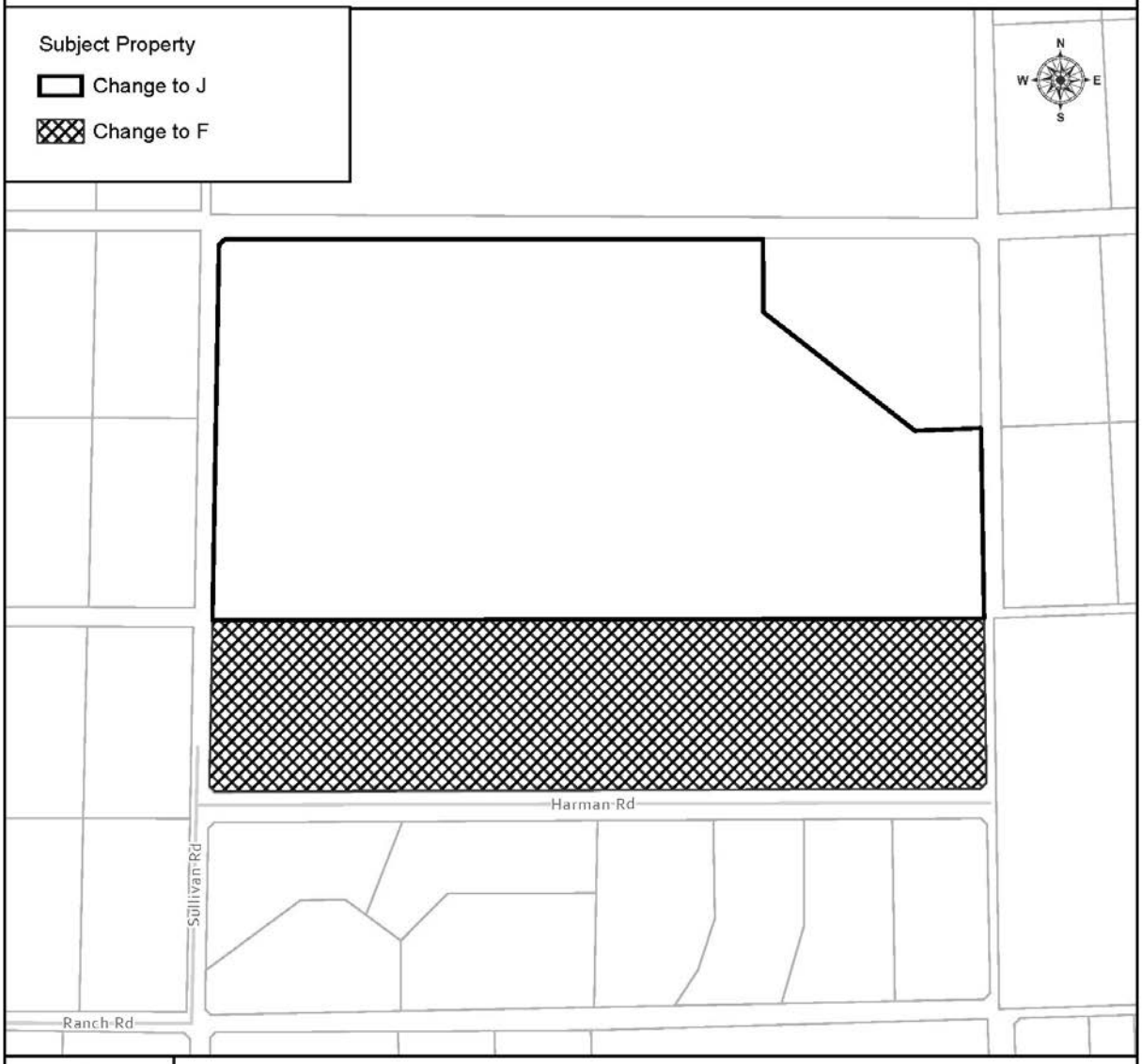
Chair

Corporate Officer

APPENDIX B TO BYLAW NO. 310.182

Appendix B to Sunshine Coast Regional District
Zoning Bylaw Amendment Bylaw No. 310.182, 2019

1. Amend the Subdivision District of
a) Southern part of DL 1312 Group 1 New Westminster District, Except Plans EPP72892 and EPP77565 from Z to F.
b) Northern part of DL 1312 Group 1 New Westminster District, Except Plans EPP72892 and EPP77565 from Z to J.



SUNSHINE COAST REGIONAL DISTRICT

Chair

Corporate Officer

Cam Forrester & Associates Ltd.
6231 Sunshine Coast Highway
Sechelt, BC V0N 3A7
phone/fax: 604.885.7112
cam_forrester@telus.net

MEMO

TO: Jim Green

FROM: Cam Forrester, RPF

SUBJECT: DL 1312

DATE: April 29, 2021

CC: Yuli Siao, SCRD

Introduction

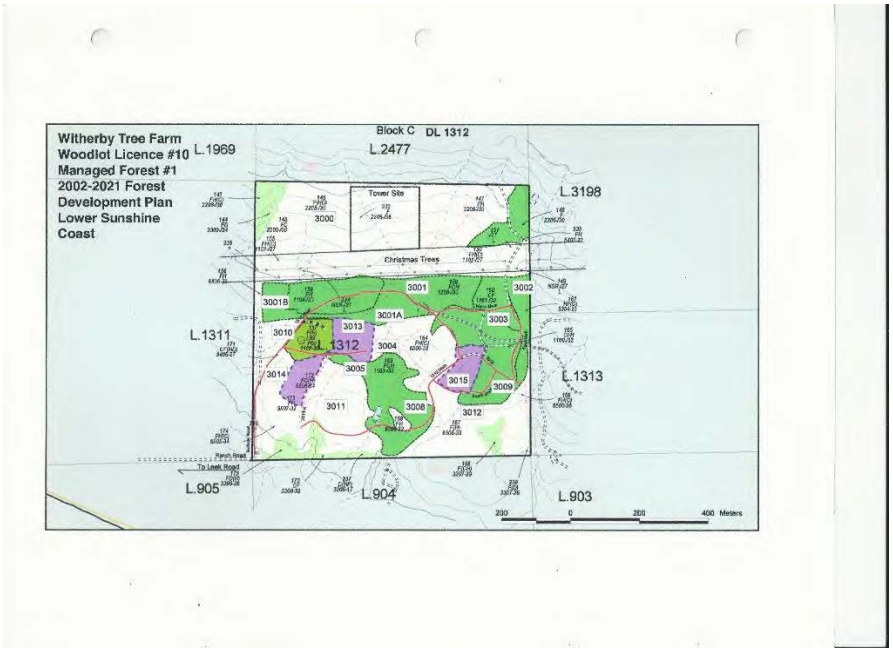
The current owners of Remainder District Lot 1312 in Roberts Creek are applying to have OCP and zoning changes to allow subdivision of 12 new 1 hectare lots on the south side of Porter Road and in turn donating the remainder parcel (26 ha) north of Porter Road to the SCRD as a Community Amenity Contribution.

With characteristic passion and forceful activism, local organized and ad hoc environmental groups have long represented opposition to industrial forestry and clear-cut practices. They have directed focus to the unique, diverse, and important biological components of the Elphinstone landscapes. The purpose of this memo is to provide a set of natural history observations throughout the 26-hectare land gift area, and to describe significant environmental features, indicators of environmental health and to offer opinions on linkages related to adjacent landscape and urban interface environmental objectives.

Figure 1. Remainder DL 1312 - general location.

Forest History

The 60-70-year-old forests in the northern portions of DL 1312 originate from logging and planting in the 1950s and 1960s on stands that had themselves originated from fires in the early 1900s. The forest stand composition is mainly Douglas-fir, with western redcedar, western hemlock and a scattering of planted exotics and non-native conifers. The aspect is southerly with slopes ranging from 5-40%. Soils are typically deep glacial origin with hardpan layers at 50-100cm. Several headwater streams originate in or traverse the property. (See 'Hydrology' below) There is a BC Hydro transmission right-of-way that runs east west in the lower third of the remainder parcel and land gift area. There is also a cell tower with road access in the northwest. DL 1312 was previously part of the iconic woodlot, Witherbee Tree Farm (Woodlot Licence #10), established by Thomas Wright, in the 1950s.



This forest cover map from the last Witherbee Tree Farm Woodlot Development Plan presents stand age, crown cover, height, and species composition for DL 1312. The interpretation is for current stands to be mainly Douglas-fir and approximately 50-70 years old.

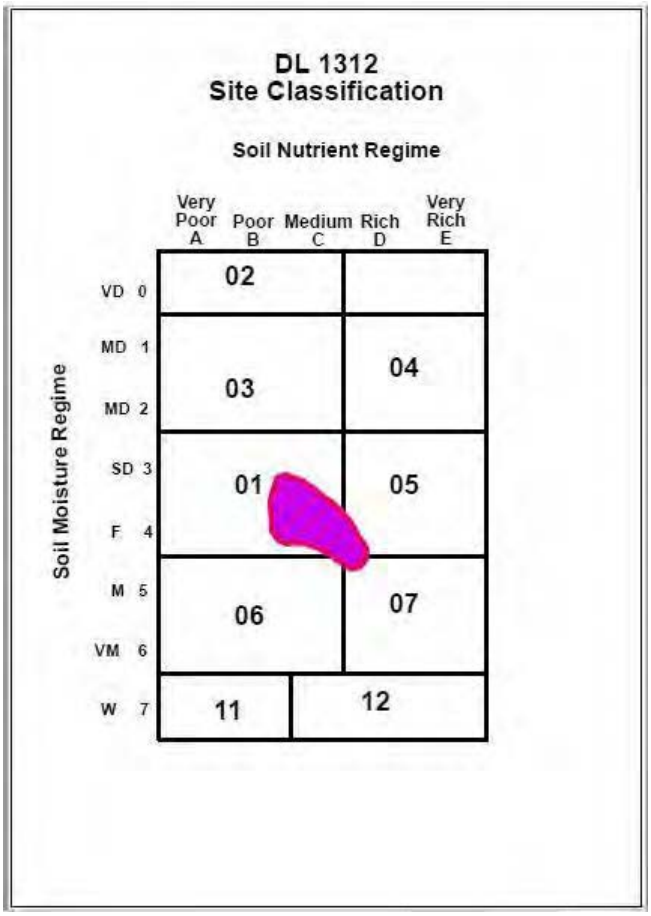
Figure 2. Forest Cover

Mr. Wright was a prominent academic and industry forester in BC from the 1940 through to the 1970s. Bill Wright, Tom's son, continued to operate the Tree Farm until it sold in the 2000s. Land use designations have changed over time, and forest reserve or woodlot status no longer applies to this parcel. It is now zoned as Rural 4 Rural Z, land use designation Resource, which allows one dwelling and anticipates the predominant use will be forest management and harvesting. Depending on the prerogative of future owners, that flexibility could result in clear-cut logging some or all the area. The environmental observations in this memo lend weight to the case for maintaining this young and growing forest in a land gift, which avoids the possibility of it being logged.

Terrestrial ecology - Site Classification

Using the BC biogeoclimatic ecosystem classification system[1] to classify the terrestrial ecology (site vegetation based on regional climate and soil moisture/nutrient regimes) of Lot 1312, the site falls within the Coastal Western Hemlock, Dry Maritime subzone (CWHdm). The CWHdm is common at low elevations regionally and throughout the lower Sunshine Coast. The CWHdm has warm, relatively dry summers and moist, mild winters with little snowfall. Growing seasons are long, and feature only minor water deficits on zonal (well drained) sites.

Figure 3. Generalized location of DL 1312 soil moisture and soil nutrient regime and site series classification using the BC Biogeoclimatic Zone Classification System for the Coastal Western Helock dry maritime subzone (CWHdm**).**



The site aligns with the Field Guide[2] site description - "Forests on zonal sites are dominated by Douglas-fir, western redcedar and western hemlock. Major understory species include salal, red huckleberry, step moss, Oregon beaked moss, lanky moss, and flat moss. Less common species include dull Oregon grape, vine maple, bracken, and swordfern."

Classifying the site with a finer filter for topography, and the plant communities that express soil moisture and nutrient conditions, the site is dominated by the zonal site ecology with a minor matrix of slightly richer wetter sites (Figure 1). What this means is that the tree canopy is predominantly dominated by planted Douglas-fir, western red-cedar and naturally regenerated western hemlock with an understory ranging from light to heavy salal, depending on the amount of light reaching the forest floor. Areas of moss dominated understories also are common in shaded microsites. See Table 1[3] for a summary of indicator plants common to the site.

[1] Green, R., Klinka, K A Field Guide for Site Identification and Interpretation for the Vancouver Forest Region, LMH 28, 1994..
[2] Green, R., Klinka, K., A Field Guide for Site Identification, and Interpretation for the Vancouver Forest Region, LMH 28, 1994. P. 47
[3] Adapted from Green, R., Klinka, K., A Field Guide for Site Identification, and Interpretation for the Vancouver Forest Region, LMH 28, 1994. P. 49 – further inventory work required for specific plant occurrence and numbers.

Table 1. General plant occurrence (Low, Medium, High) on the DL 1312 dominant site series.

	Scientific name	Site Series			Common Name
TREE LAYER		**05**	**01**	**07**	
	THUJA PLICATA	H	H	H	WESTERN RED CEDAR
	TSUGA HETEROPHYLLA	H	H	H	WESTERN HEMLOCK
	PSEUDOTSUGA MENZIESSII	H	H	H	DOUGLAS-FIR
	ACER MACROPHYLLUM	L	-	L	BIG LEAF MAPLE
	ALNUS RUBRA	L	L	M	RED ALDER
SHRUB LAYER	GAULTHERIA SHALLON	L	M	M	SALAL
	VACCINIUM PARVIFOLIUM	L	M	M	RED HUCKLEBERRY
	MAHONIA NERVOSA	M	M	-	DULL OREGON-GRAPE
	ACER CIRCINATUM	M	-	H	VINE MAPLE
	RUBUS SPECTABILIS	-	-	H	SALMONBERRY
	VACCINIUM ALASKAENSE	-	-	L	ALASKAN BLUEBERRY
HERB LAYER	PTERIDIUM AQUILLINUM	L	L	L	BRACKEN
	POLYSTICHUM MUNITUM	H	L	H	SWORD FERN
	DRYOPTERIS EXPANSA	L	L	M	SPINY WOOD FERN
	TIARELLA TRIFOLIATA	L	-	M	THREE-LEAFED FOAMFLOWER
	ATHYRIUM FILIX-FEMINA	L	-	M	LADY FERN
	BLECHNUM SPICANT	-	-	L	DEER FERN
	CORNUS CANADENSIS	L	-	-	BUNCHBERRY
	LYSICHITUM AMERICANUM	-	-	L	SKUNK CABBAGE
MOSS LAYER	HYLOCOMIUM SPLENDENS	M	H	M	STEP MOSS
	PLAGIOTHECIUM UNDULATUM	M	H	M	FLAT MOSS
	RYTIDIADELPHUS LOREUS	L	M	M	LANKY MOSS
	PLAGIOMNIUM INSIGNE	L	-	L	COASTAL LEAFY MOSS
	LEUCOLEPIS MENZIESII	-	-	M	PALM TREE MOSS
	KINDBERGIA OREGANA	-	-	M	OREGON BEAKED MOSS
	KINDBERGIA PRAELONGA	-	-	L	FEATHER MOSS

Canopy Gaps – diversity islands.

Although the Douglas-fir leading overstory and zonal CWHdm site is well represented regionally, there are identifiable pockets and features that add complexity and diversity to the DL 1312 site plant/animal communities.
For example, the minor occurrence of richer wetter sites or root rot centres with gaps in the tree canopy and penetrating sunlight result in microsites with more prolific plant numbers, species and vigour. This includes red-alder, bitter cherry and vine maple, and a shrub understory with productive salmonberry and luxurious sword fern. These sites represent biological islands and edges of vertical complexity made up of shrub and deciduous and conifer tree foliage that in turn support increased insect activity and foraging habitat for songbirds and mammals that are favored by small openings.

During the songbird breeding season (April – mid-August), species suited to this edge habitat may nest in or adjacent to the openings, while making foraging feeding forays into the openings. It would also be common to observe perching songbirds and possibly raptors sunning themselves in the radiant warm environment.

These gaps are also characterized by natural decline and mortality in shorter lived deciduous species such as red alder and bitter cherry. As the adjacent Douglas-fir stands grow in height, they create more shade in the gaps, which selects against the shade intolerant deciduous species. Dying trees are colonized by decay fungi and in turn by bark beetles and other insects. These conditions attract foraging Picidae

(woodpeckers), who inadvertently assist the decay and decline of deciduous trees by tearing away loose bark, excavating holes, and generally allowing weather and additional fungal infections to weaken the tree. Once dying parts of the trees are shed (bark, limbs, and trunk), and hit the ground, they represent nutrient inputs to the site as they decompose and are recycled into the site.

These sites may also be good examples of inter-species nutrient sharing. Recent studies have shown that micro-nutrients and carbohydrates are shunted across networks of soil fungal mycorrhiza from declining individuals to healthy thriving trees. We may be witnessing the slow process of individual trees passing on their tissue energy and nutrient stores for the overall benefit of the surrounding forest.

Other examples of diversity within DL 1312

Wildlife Trees

There are numerous examples of early-stage wildlife tree development, mainly in western redcedar. Piliated woodpecker excavations. are common in large diameter redcedar throughout DL 1312 and by allowing inoculation with rot fungi, start the process of wood rot within the living tree that often result in flaws and openings that become important wildlife habitat for species dependent on those features.

Piliated woodpeckers are considered lynch pin species for their role in creating critical habitat for a range of cavity nesting/roosting species that include squirrels, bats, owls, and other woodpeckers. At the current life stage of these forest stands, it can be expected that a range of species will occupy the available fresh cavities. Although these trees are not the massive veteran old growth individuals associated with bear dens and large cavities openings, over time as the trees grow in

height, volume and diameter, the current cavities may evolve into larger openings. So, although the stand is young, it does contain the beginnings of structures and habitat characteristic of older forests.

Another second growth wildlife tree related observation is that as understory trees are outcompeted, shaded out and die, they are being colonized by both fungi and insects such as termites or carpenter ants. The bract or conk in the photo is typically associated with older forest and old growth wildlife trees. One can also see that the bark (same tree) has been pulled back, or has sloughed away, exposing the insect gallery and rich food source for variety of foraging creatures.

Trees that are grown in the open in the absence of shade and competition tend to have coarse heavy crowns and thick branches. There are several examples of this occurrence in DL 1312 mainly in well corners or exposed microsites where individual trees developed this branchy coarse growth form. These trees will have poor wood quality and would be candidates for wildlife tree retention or creation in the future.

Raptor Sightings

During field observations, a medium sized very secretive hawk was observed mid-lot, assumed to be a red-tailed hawk. Scat (mutes) were observed around the base of a large branched redcedar, indicating perching, feeding, or roosting behavior. One possibility is that squirrel activity and sign is common in DL 1312 and this predator-prey relationship was what was observed. No raptor nest was observed at that location or elsewhere on the site.

Other raptor sightings included numerous soaring and foraging hawks above and along the hydro powerline. It appears that some raptors are actively hunting the edge of the powerline, likely using hydro poles as perching habitat, while viewing the opening below.

Wildlife trails and bear climbing marks

Several well-worn wildlife trails were observed running north-south through the site, likely used mainly by black bears. Bear sign observed included bear cub climb marks on a young alder tree. Other easily identified large mammal sign included black tailed deer tracks

Powerline Edge

The powerline edge is a unique habitat for edge dwelling creatures and softens the hard lines and abrupt change from second growth forest to open low shrubbery.

It appears that most of the hydro right-of-way edge has been planted later than most of the adjacent stands, likely as part of the previous Christmas tree farm through that zone. Some of the edge also contains a strip of natural red alder. The effect today is that a dense mix of conifer, deciduous, some native species, some imports, form a dense band of foliage and tree crowns that shield and conceal visibility into the forest from the powerline. The edge zones, and especially the south facing aspect was observed to be highly active with foraging songbirds, using the plantation edge as nesting and hiding cover, while feeding in the right-of way low dense shrub plant community.

As insectivorous songbird numbers have plummeted throughout North America in recent decades, and especially the soaring species such as swallows and night hawks, those species that feed by ambush forays from cover have not declined as badly. So, in an era where it is important to conserve every bit of wildness and diversity, even in altered landscapes such as second growth conifer and powerline rights-of-way, in the face of catastrophic loss of biodiversity, these edge habitats are important in their own way.

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Unique plants – Orchids

Although widely distributed in Canada, the western coralroot was observed in several locations in DL 1312. Coralroot grows in heavy shade on organic soils. It is a saprophyte, lacking chlorophyl and derives its energy from organic matter. For a site that has been altered historically with fire and logging ground disturbance, it is at least one indicator of forest floor (which contains myriad micro flora and fauna species and numbers and the majority of a forest's biodiversity) recovery that we see coralroot. The photo is a stock photo; however, coralroot was observed in several site locations in the western end of DL 1312.

Mushrooms

Much has been studied and written about the diverse and rich mycology of the Elphinstone slopes. Recent field observations in DL 1312 align with landscape level assessments. Prolific mushroom flushes are to be expected from Sept to Dec, depending on the year. Although it is an axiom that old forests support a wider range of mushroom species diversity than younger forests, DL 1312

appears to support a vibrant mushroom ecology. The photo in the lower right is of a pine mushroom, observed and harvested in 2019.

Since we only see the fungal fruiting bodies in the form of mushrooms, and most of the fungal biomass extends in the forest floor, we can imagine that the upper organic soil layers are alive with a network of fungal mycelia playing their critical role in nutrient cycling and decomposition, helping to supply tree roots with water, nitrogen, phosphorus, other trace elements etc. in exchange for photosynthesized carbohydrates.

Hydrology

DL 1312 is located mid-slope on the Elphinstone landscape in the Higgs, Smales, Cornwallis watersheds and is just east of the Town of Gibsons watershed reservoir polygon in DL 1313. This stream overlay shows the headwaters of Higgs Brook, Smales Creek and several other watercourses and ditch features. Further stream inventory work will reveal additional detail for ditches and hydrological connectivity in the land gift area. Additionally, the watercourses flowing through the proposed sub-division lots will be afforded streamside protection under the Riparian Areas Practices Regulation and SCRD by-laws.

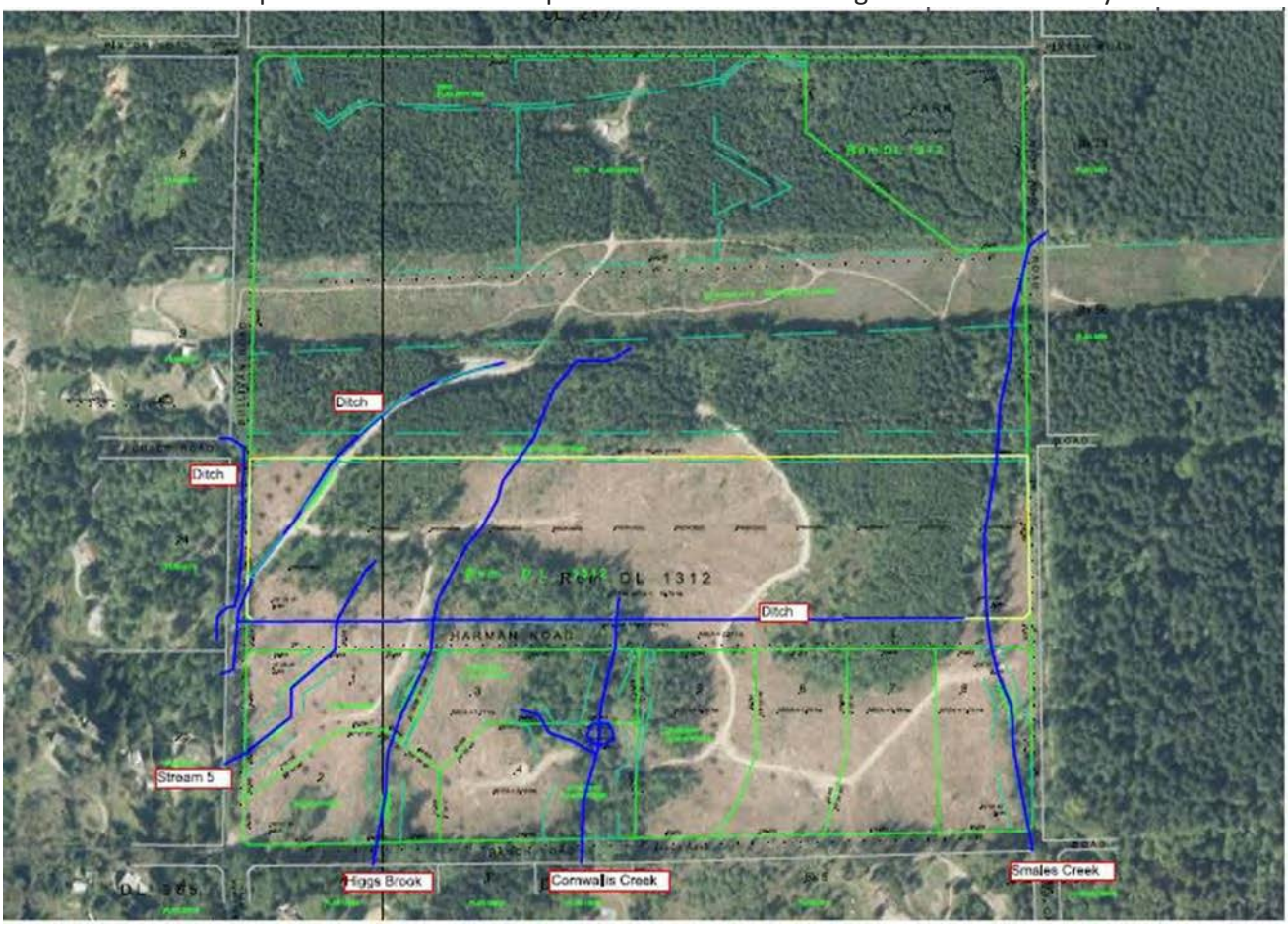


Figure 4. Hydrology – stream network.

The Elphinstone slopes above DL 1312 are characterized by numerous steep headwaters that merge and drain towards the Strait of Georgia. DL 1312 is hydrologically connected through seepage swales, ditches and small headwater drainage channels to Higgs and Cornwallis ss well as having Smales Creek and its steep headwaters inside the northeastern park dedication, flowing along the eastern boundary. This photo (left) is taken viewing downhill at a swale feature in the northwest portion of DL 1312. Although there is no defined channel here, ground water concentrations and slow discharge through to distant the lower slope channels are a feature of this intact second growth area. Much has been written about storm water torrents and infrastructure damage in Roberts Creek from the many watercourses flowing through the area. DL 1312 north plays a part in moderating storm water run-off through canopy interception of rain and snow and moderated surface and ground water discharge.

Aquatic Life

There are several biologically roadside ditches that have formed small pools. Unidentified amphibian tadpoles, juveniles (salamanders) and egg masses were observed in several of these pools in 2019/20. It is likely that a range of amphibians are found on site, including red-tailed frogs, possibly coastal tailed frogs in any functioning step-pool or cascade pool stream reaches. Amphibians are facing serious declines in North America, especially in urban areas. It is a positive sign that amphibians are present in DL 1312.

Recreation

Numerous informal and rights-of-way trails traverse DL 1312 and are actively used by cyclists, horse riders and hikers. The trails are important linkages through mid-lower Roberts Creek trails into the upper Elphinstone area such as the Suncoaster Trail and Mount Elphinstone mountain bike trails. The experience of forested trails surrounded by the unique features highlighted in this memo are preferable to an open logged environment.

The clear-cutting possibility

One of the possible outcomes of this rezoning process is that the area being offered as a community amenity with the unique and valued features described above, if denied, it simply defaults to the land uses allowed under the Z zone. Broadly, that zoning anticipates forest management, which could result in clear-cutting or heavy harvesting throughout 1312. At the time of writing, second growth logging is experiencing strong market activity and the current economic trends support logging stands with this timber profile.

Figure 5. Clear-cut land use option

As a tool to help visualize an extensive harvest case and what it might look like for DL1312, the following figures are an informed representation of a failed rezoning that results in a clear-cut throughout Remainder DL1312, versus a sub-divided DL1312 with housing development in the 12 new lots in the south and with an intact, notwithstanding the existing rights-of-way, 26 ha forested tract above that.

The clear-cut option shows that there is the possibility of a wide swath of bare and exposed ground with potential impacts to:

Local hydrology in terms of loss of cover and water retention; Reduced streambank protection Water quality and temperature in local streams; Microclimate changes with extremes dominating after the forest canopy is removed; Local amphibian and songbird populations; and Recreation values, access, and trail usage.

Figure 6. Community Amenity Option, no clear-cutting in gift area.

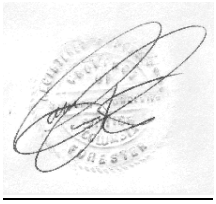
The preservation or community amenity option shows lot development between Harman and Porter roads but also provides a view of the positive impacts of leaving stream buffers in place, maintaining deep interior forest conditions and the existing trail network.

Concluding Remarks

A walk through of the second growth forests of land gift remainder Lot DL 1312 uncovers many reassuring examples of environmental health and biological diversity worth conserving:

- Wildlife trees;
- Raptor foraging areas;
- Amphibian breeding sites;
- Avian habitat;
- Unique plant species;
- Forest floor/forest soils;
- Mycology;
- Hydrology; and,
- Recreational opportunities;

The opportunity exists with the land gift to not only protect these environmental features, but to also formalize a forested buffer between the urban/rural interface of occupied land and the broader landscapes above DL 1312 with linkages to storm water management, wildlife corridors, aquifer recharge, and continuing recreation and tourism activities.

	**Cam Forrester, R.P.F.** **# 2118** **Date Signed – April 29, 2021**

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Planning and Community Development Committee – June 17, 2021

AUTHOR: Nick Copes, Planner 1

SUBJECT: **Frontage Waiver Application FRW00010 (10584 Wood Bay Ridge Road)**

RECOMMENDATIONS

THAT the report titled Frontage Waiver Application FRW00010 (10584 Wood Bay Ridge Road) be received;

AND THAT the required 10% perimeter road frontage for Lot 24 be waived in order to facilitate a proposed subdivision of a portion of District Lot 1485, Group 1 New Westminster District Except Plans 13528, 19922, 20166, LMP26373, BCP17413, BCP39164 and BCP45712District Lot 1485, Group 1 New Westminster District Except Plans 13528, 19922, 20166, LMP26373, BCP17413, BCP39164 and BCP45712.

BACKGROUND

The SCRD has received a Frontage Waiver Application in relation to a 6-lot subdivision of a portion of a parcel located at 10584 Wood Bay Ridge Road in the Halfmoon Bay Electoral Area (Attachment A – Subdivision Plan).

Section 512 of the *Local Government Act* requires that all new parcels created by subdivision provide a public road frontage equivalent to at least 10% of their perimeter unless a local government waives the requirement. Lot 24 of the proposed subdivision does not meet the 10% perimeter road frontage requirement, therefore, the applicant is requesting the SCRD Board to consider waiving the road frontage requirement in order to permit the proposed subdivision.

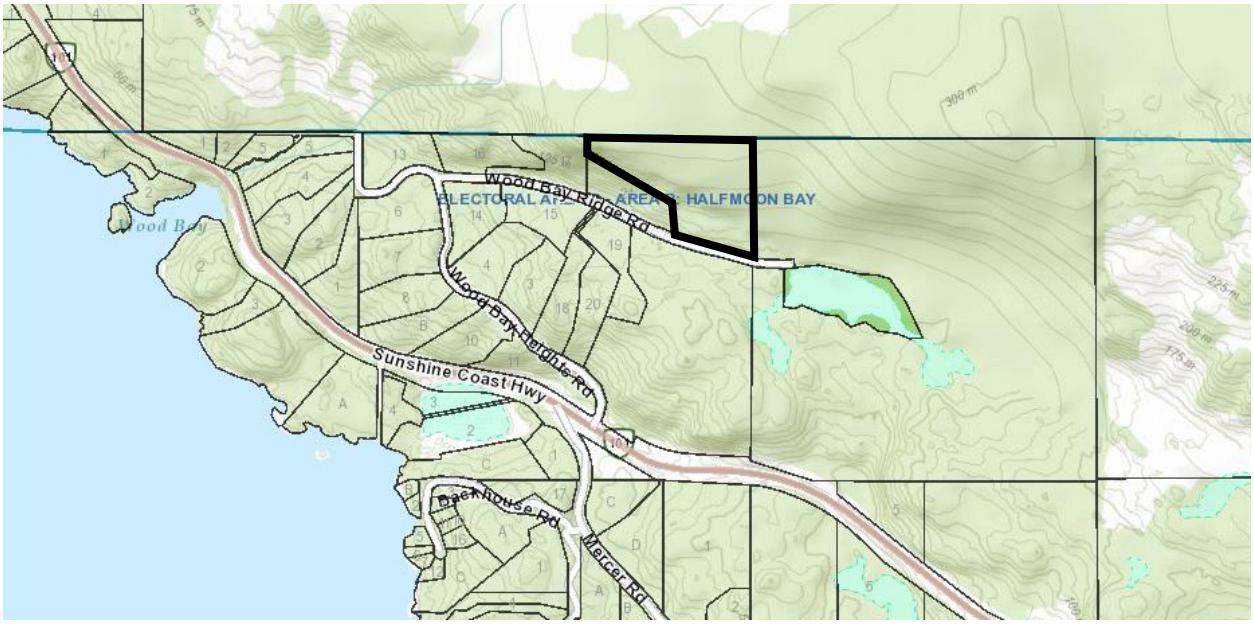
The purpose of this report is to provide information on the application and obtain direction from the Planning and Community Development Committee.

Table 1 - Application Summary

Owner / Applicant:	Jim Green
Civic Address:	10584 Wood Bay Ridge Road
Legal Description:	District Lot 1485, Group 1 New Westminster District Except Plans 13528, 19922, 20166, LMP26373, BCP17413, BCP39164 and BCP45712 District Lot 1485, Group 1 New Westminster District Except Plans 13528, 19922, 20166, LMP26373, BCP17413, BCP39164 and BCP45712
Electoral Area:	B – Halfmoon Bay
Parcel Area:	9.93 Hectares (subdivision portion)9.93 Hectares (subdivision portion)
OCP Land Use:	Rural Residential
Land Use Zone:	RU2 (Rural Two)
Subdivision District:	G1 (minimum lot size 1 HA, Average 1.7 HA)

Application Intent:	To waive the requirement for 10% frontage along Wood Bay Ridge Road for the proposed Lot 24

Figure 1 - Location of subject subdivision



DISCUSSION

The intent of the subdivision is to create 5 parcels from the portion of the current parent parcel north of Wood Bay Ridge Road. The frontage of the proposed panhandle Lot 24 on Wood Bay Ridge Road is less than 10% of the perimeter of the lot, therefore a frontage waiver is required.

All proposed parcels require driveway access onto Wood Bay Ridge Road. Due to topography, proposed orientation, shape of parcels, and location of buildings and utilities the applicant proposes to provide direct frontage on Wood Bay Ridge Road for 4 of the lots and a panhandle driveway access for the lot (Lot 24) behind (i.e. north) of these lots.

There are no policies or regulations contained within the Official Community Plan or Zoning Bylaw prohibiting panhandled lots of new subdivisions. The Ministry of Transportation and Infrastructure has no concerns with the lot layout and has issued preliminary layout approval for the proposed subdivision.

The proposed subdivision conforms to zoning regulations and issuance of the frontage waiver will enable the subdivision to receive final approval.

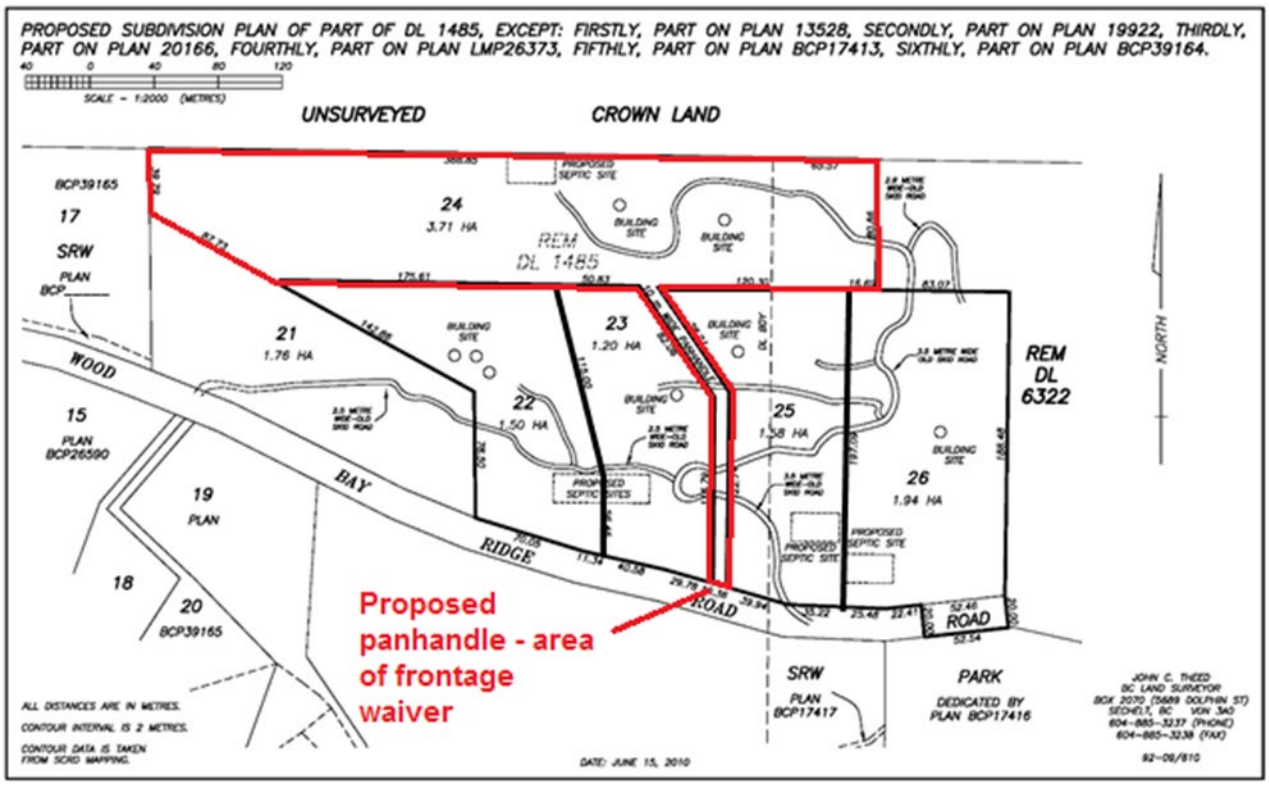
Based on the above, staff consider the subdivision design appropriate, and recommend approval of the frontage waiver.

ATTACHMENTS

Attachment A – Proposed Subdivision Plan

Reviewed by:			
Manager	X – D.Pady	Finance	
GM	X – I. Hall	Legislative	
CAO	X – D. McKinley	Other	

Attachment A



SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Planning and Community Development Committee – June 17, 2021

AUTHOR: Rebecca Porte, Parks Planning Coordinator

SUBJECT: **Disc Golf Course Proposal for Welcome Woods and Connor Park**

RECOMMENDATION(S)

THAT the report titled Disc Golf Course Proposal for Welcome Woods and Connor Park be received;

AND THAT SCRD decline moving forward with the development of a disc golf course at Welcome Woods and Connor Park at this time;

AND FURTHER THAT consideration of a potential disc golf for Welcome Woods and Connor Park be deferred to a future comprehensive management planning process for those parks.

BACKGROUND

The Sunshine Coast Disc Golf Association (SCDGA) appeared as a delegation to the PCD Committee on June 13, 2019 where they proposed a partnership with the SCRD for the development of a disc golf course within Welcome Woods Wilderness Area and Connor Park. The following recommendation was adopted by the SCRD Board on June 27, 2019:

180/19 **Recommendation No. 1** *Sunshine Coast Disc Golf Association Delegation*

> THAT the delegation materials received from the Sunshine Coast Disc Golf Association regarding Disc Golf course Proposal in Halfmoon Bay be received;
>
> AND THAT staff work with the Sunshine Coast Disc Golf Association regarding the disc golf course proposal in Halfmoon Bay and report to a future committee with options and next steps**.**

Welcome Woods Wilderness Area is a 72.6 ha SCRD park located in Halfmoon Bay (Area B). It is enjoyed for its natural values, and is primarily used for walking and biking. Connor Park is located adjacent to Welcome Woods Wilderness Area. Connor Park consists of 17.6 ha of land containing a playing field, ball diamonds, forested hiking/biking trails, mountain bike pump track, tot playground, and washrooms. The parks are connected to an extensive trail network incorporating provincial land and Sargeant Bay Provincial Park.

Connor Park was established as an SCRD Park in 1979 through efforts of the local community. Welcome Woods Park was donated to the SCRD by the Welcome Woods Community Association/Water District (WWCA) in 1977. The Park has a covenant held by WWCA and the SCRD, outlining that the park be maintained as a wilderness area with hiking trails. In 2002 the covenant holders agreed to amend the allowable uses of the park to include “people using their own muscle power”, including mountain bikers and strollers.

Following the Disc Golf Association presentation in June 2019, staff engaged with the disc golf association, and commenced on-site park inspections and public engagement. The purpose was to get a clearer sense of the suitability of, and public interest in, a potential disc golf course for the site. On July 9, 2020 Staff presented a public consultation report to the PCD Committee summarizing the public engagement regarding the disc golf proposal. The report outlined the process as well as the feedback that came out of the questionnaire, Facebook ads and public engagement evening.

The purpose of this report is to provide options regarding the potential for disc golf within Welcome Woods and Connor Park.

DISCUSSION

Upon review of existing information, and analysis of alternatives, staff would like to provide the Committee with two options for discussion and consideration.

Options and Analysis

Option 1 – Do not move forward with disc golf for Welcome Woods and Connor Park at this time. (Staff recommended option).

Through the public consultation process and staff on-site park assessments, various concerns regarding a potential disc golf course were highlighted. Concerns include competing uses, ecological impacts, existing park issues, and lack of comprehensive park plan for Welcome Woods and Connor Park. These issues, as explained below, are why staff are recommending Option 1 at this time.

Competing uses: There is concern that the current park uses will not be compatible with the addition of disc golf, and public worries have been raised about potential conflict between user groups. There are a number of users that are either slow moving (mobility challenged), fast moving (mountain bikers) or users who have dogs. Each of those user groups perceive risks from run-ins with flying discs on a trail if the multiple uses were overlapping.

One way to address potential conflict would be to separate use types and establish trails for disc golf distinct from other trails. The challenge with this would be the need to develop a new network of dedicated disc golf course trails, which would have various impacts to the natural values of the park and to park usage. Alternatively, if the current trail system was utilized for disc golf, some trails could be designated as disc golf trails, and shared trails could be improved to provide better sight lines. Additional signage would also need to be implemented to educate people about the multiple uses of the trails and user etiquette. Overall, compatibility of adding disc golf to the various existing forms of park use is in question.

Ecological Impacts: Varying degrees of ecological impacts would be inevitable with the development of a disc golf course within either Connor or Welcome Woods Parks. Disc golf courses do not require significant clearing (courses are often within forested areas), but do require some removal of brush and trees to enhance site lines, or trail development to establish a trail network for the course (likely there would be some trail development required in this case). Disc golf courses require enhanced levels of regular maintenance to ensure playability and functionality.

Because disc golf often requires players to leave the trails to retrieve and throw discs, it would be important that prior to course design and development, ecologically sensitive areas be identified and avoided. Additional trail or disc golf course development will also require a professional review for archaeological and cultural sensitivities that may exist in the area. At this point there is some information available, but no comprehensive mapping of ecologically significant or culturally sensitive areas within either Connor Park or Welcome Woods Parks.

Existing park issues: Through the site analysis, unaddressed issues within Welcome Woods and Connor Park have surfaced. These include unauthorized trail building, signage and wayfinding concerns and required trail repairs. Prior to any additions to the park amenities, a plan for dealing with outstanding issues should be prepared.

Lack of comprehensive park plan: It is challenging to properly assess the suitability of a disc golf course without the reference of a broader park plan for Welcome Woods and Connor Park. A comprehensive planning process to identify vision, priorities, short term and long term management strategies for these parks would be an important step in strategic planning. This park planning process would work with the community to include identifying present and anticipated future needs for the park, and would take into account historical, ecological and human values. Potential new initiatives such as disc golf or other added amenities could be addressed and evaluated within a broad planning process. The plan, when adopted and implemented could guide future short and long term direction for the parks.

If the Board decides to decline proceeding with planning and development of a disc golf course for Welcome Woods Park, a letter will be sent to SCDGA following Board resolution.

Option 2 – Develop a memorandum of understanding (MOU) with the Disc Golf Association regarding the development and stewardship of a disc golf course, and proceed with next steps towards planning, budgeting, and implementation (staff do not recommend at this time).

If option 2 is selected staff will work to create a partnership agreement with the Sunshine Coast Disk Golf Association via MOU towards development, stewardship and maintenance of a disc golf course as well as engage the public on potential course locations and layouts.

This option would require that SCRD complete an inventory of sensitive areas to inform course design. Incremental resources would be required for this work, and could be explored as part of the 2022 budget process.

Timeline for next steps or estimated completion date

Option 1 can be implemented immediately.

If the Board chooses option 2, staff will engage with SCDGA towards developing an MOU and the design of course layout options. Staff would scan for existing sources of incremental funding to support the needed study of sensitive areas, or else prepare a 2022 budget proposal for consideration.

Communications Strategy

If the SCRD Board declines moving forward with a disc golf course at this time, a letter would be sent to the SCDGA informing them of the decision.

If the Board chooses to move forward with the disc golf course, the public would then be re-engaged for feedback once course layout options are developed.

STRATEGIC PLAN AND RELATED POLICIES

The recommendations of this report consider the priority to ensure fiscal sustainability.

Communication and collaboration with community groups facilitates community development and supports SCRD values of collaboration, respect and transparency.

Outdoor recreation opportunities facilitate community development and support sustainable economic development.

CONCLUSION

Staff recommend Option 1. Staff believe that it is premature to move forward with a disc golf course for Welcome Woods and Connor Park at this time.

Reviewed by:			
Manager	X - K. Robinson	Finance	
GM	X – I. Hall	Legislative	
CAO	X - D. McKinley	Other	

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Planning and Community Development Committee – June 17, 2021

AUTHOR: Kevin Clarkson, Parks Superintendent

SUBJECT: **UPDATE ON PRIVATE DONATION OFFER - DELIVERY OF SOIL MATERIAL AT GIBSONS LANDFILL**

RECOMMENDATIONS

THAT the report titled Update on Private Donation Offer - Delivery of Soil Material at Gibsons Landfill be received.

BACKGROUND

The SCRD Board adopted the following resolution on March 25, 2021:

108/21 THAT the report titled Private Donation Offer- Delivery of Soil Material at Gibsons Landfill and Shirley Macey Park be received;

AND THAT SCRD accept the offer of a private donation of clean, native soil material at Gibsons Landfill; subject to:

- Review of the material to be donated by a qualified professional to ensure, to the extent possible and in accordance with best practices for movement of fill, that there are no invasive species concerns;
- Confirmation of an agreement with the donor about monitoring and, if required, treatment of the donated material to control invasive species for a period of 12 months, at the donor's expense;

AND FURTHER THAT, if the donation proceeds:

- SCRD enter into a short-term, temporary general services agreement with Maycon Construction Management Ltd. for the donated services and delivery of donated soil material;
- The donation be included in the 2021 Budget as follows (revenue donation/expense-materials and supplies): Solid Waste [350]: $137,350;
- The Draft 2021-2025 Financial Plan be amended accordingly.

The purpose of this report is to update the committee on the donor's final decision in regards to donation of the soil material and adherence to the terms set in the March 25, 2021 Board resolution.

DISCUSSION

In April 2021, staff engaged the services of Coastal Raintree Consulting to provide a qualified environmental professional report to develop a management plan and best practices for the transfer of fill between donation and donor sites. The purpose was to identify and analyze the extent of invasive species at the donor site, and to provide both SCRD and the donor best practices for eventual material transfer. Report findings included various invasive species, but also found minimal risk in donated soil material transfer due to the ecology of species and the work proposed (see attachment A: Gibsons Landfill Invasive Plant Species Risk Assessment and Recommended Management Practices).

As well and as per resolution, staff again engaged with the donor on the specific terms set by the Board on May 25, 2021. The purpose of this discussion was to request from the donor, that if the donation were to proceed, the following additional terms would be met:

1. A general service agreement be signed between the donor and SCRD, indicating terms for risk and liability coverage, as well as adherence to safety protocol and best management practices for soil material transfer between sites;

2. Confirmation of an agreement with the donor about monitoring and, if required, treatment of the donated material to control invasive species for a period of 12 months, at the donor's expense;

On June 3, 2021, it was confirmed via phone call with the donor that the requirement to monitor and treat any transferred invasive species for a period of 12 months was not agreeable. The donor has chosen not to proceed with the offer for donation at this time. Staff expressed gratitude for the offer, appreciation for the donor's time and consideration, and extended an invitation for further partnerships in the future.

Financial Implications

As the donation is not proceeding, the 20201-2025 Financial Plan will not be amended.

STRATEGIC PLAN AND RELATED POLICIES

N/A

CONCLUSION

The March 2021 offer of soil donation will not proceed.

Reviewed by:			
Manager	X – K. Robinson	CFO/Finance	X – T. Perreault
GM	X – I. Hall	Legislative	
CAO	X – D. McKinley	Purchasing/Risk	X- V. Cropp

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Planning and Community Development Committee – June 17, 2021

AUTHOR: Ian Hall, General Manager, Planning and Community Development

SUBJECT: **JOINT USE STEERING COMMITTEE TERMS OF REFERENCE**

RECOMMENDATION(S)

THAT the report titled Joint Use Steering Committee Terms of Reference be received;

AND THAT the Joint Use Committee Terms of Reference be endorsed;

AND FURTHER THAT pending SCRD Board and SD46 Council endorsement, a meeting of the Joint Use Committee be arranged.

BACKGROUND

SCRD and School District No. 46 (SD46) have maintained a Master Joint Use Agreement (JUA) since November 2016. The agreement supports mutual access/use of facilities and coordinated capital planning.

Senior staff meet regularly to monitor the agreement and address coordination issues.

The JUA speaks to a Joint Use Committee, to be composed of elected officials, which will be established “in accordance with its terms of reference, as amended from time to time”, which will meet at minimum annually.

Staff have prepared a draft Terms of Reference for this Committee, following our standard template (Attachment A).

SD46’s Operations Committee considered the draft Terms of Reference on May 25, 2021 and recommended support.

This report advances the Terms of Reference for SCRD Committee/Board consideration. Staff recommend approval.

DISCUSSION

Analysis

Once endorsed and in use, the terms of reference can be reviewed/amended as needed.

The Joint Use Committee, once operational, will further strengthen the cooperation between SCRD and SD46.

Financial Implications

N/A

Timeline for next steps or estimated completion date

Pending SCRD Board and SD46 Council endorsement, staff will coordinate a meeting of the Joint Use Committee.

STRATEGIC PLAN AND RELATED POLICIES

Working together, 3.3 Increase Intergovernmental Collaboration

CONCLUSION

Staff recommend that the Joint Use Committee Terms of Reference be endorsed.

Pending Board and Council endorsement, a meeting of the Joint Use Committee can be arranged.

ATTACHMENTS

Attachment A – Joint Use Steering Committee Terms of Reference (May 13, 2021 Version)

Reviewed by:			
Manager		Finance	
GM	X – I. Hall	Legislative	X – S. Reid
CAO	X – D. McKinley	Other	

TERMS OF REFERENCE

JOINT USE STEERING COMMITTEE

1. Purpose

1.1 The purpose of the Joint Use Steering Committee is to:

a. guide the implementation and success of the Master Joint Use Agreement between School District (SD46) and Regional District (SCRD),
b. support the community by making the most effective use of public resources by avoiding duplication of efforts and assets, wherever possible.

2. Duties

2.1 The Joint Use Steering Committee will:

a. develop and make recommendations to the SCRD and SD46 with respect to the Joint Use Agreement;
c. provide advise with respect to capital investment, policy changes, and contractual amendments;
d. foster collaboration and support successful delivery of community and stakeholder engagement methods;
e. wholeheartedly champion the Joint Use Agreement;
f. share all communications and information across all Steering Committee members;
g. respond in a timely manner to all communications and taking action so as to not hold up the Joint Use process; and,
h. provide key insights to local capacity and opportunities for action.

2.2 The Joint Use Steering Committee will remain in effect for the term of the Joint Use Agreement. The Terms of Reference may be revisited at the request of either party and may be amended, varied or modified in writing after consultation and agreement by the Steering Committee.

3. Membership

3.1 The Joint Use Steering Committee is comprised of the following members:

a. Three SCRD directors, to be appointed annually by the SCRD
b. Three SD46 Trustees, to be appointed annually by SD46
c. Members shall be appointed annually by their respective SCRD and SD46 Boards.

3.2 SCRD and SD46 staff may be assigned to serve in a liaison capacity. The role of the staff liaison may include:

a. providing information and professional advice;
b. facilitating and/or co-chairing meetings;

Approval Date:	July 29, 2010	Resolution No.	333/10 rec 18
Amendment Date:	July 26, 2012	Resolution No.	303/12 rec 20
Amendment Date:		Resolution No.	

c. assisting the committee in writing reports and/or recommendations to the SCRD and SD46 Boards as requested by the committee;
d. bringing such matters to the committee's attention as are appropriate for it to consider in support of SCRD and SD46 Board direction;
e. serving as one of the communication channels to and from the SCRD and SD46; and,
f. providing advice to the SCRD and SD46 Boards that is at variance to a committee recommendation.

4. Operations

4.1 A majority of the voting members of the committee, as listed in section 3.1 will constitute a quorum.

4.2 The Joint Use Steering Committee will meet at least once per calendar year, with a maximum of four meetings per year.

4.3 All Committee meetings must be open to the public except where the committee resolves to close a portion of it pursuant to Section 90 of the *Community Charter*.

4.4 The authority of the Committee is limited as follows:

a. The Joint Use Steering Committee does not have the authority to bind the SCRD or SD46 in any way, nor engage or otherwise contact third parties, consultants, organizations or authorities in a manner which may appear to be officially representing either the SCRD or SD46.
b. The Joint Use Steering Committee may communicate with external organizations and agencies to collect information and make inquiries.
c. Where the Joint Use Steering Committee wishes to express opinions or make recommendations to external organizations and agencies, it must first obtain authorization from the SCRD and SD46 Boards.

4.5 Joint Use Steering Committee members will commit to:

a. attending all scheduled Steering Committee meetings and, if necessary, arrange to have the appointed Alternate ~~to~~ attend on their behalf if unavailable.

4.6 Members of the Joint Use Steering Committee expect:

a. that each member will be provided with complete, accurate and meaningful information in a timely manner;
b. to be given reasonable time to provide feedback and recommendations;
c. to be alerted to potential risks and issues that could impact the project, as they arise; and,
d. open and honest discussions.

4.7 In carrying out its mandate, the Committee will work towards conducting operations in a way that:

a. improves the economic, environmental and social well-being for present and future generations;
b. encourages and fosters community involvement;
c. enhances the friendly, caring character of the community;
d. maintains an open, accountable and effective operation; and,
e. is consistent with the goals and objectives of the SCRD and SD46 strategic plans.

4.8 Meetings will be chaired by an elected official from the organization hosting the meeting. Meeting agendas and minutes will be provided by the host organization including:

a. preparing agendas
b. sharing meeting notes, to be provided by the previous meeting's host.

4.10 Committee members are subject to the applicable Conflict of Interest legislation outlined in Section 100 – 109 of the *Community Charter* or Part 5 of the *School Act*. The terms "Council" and "Committee" shall be interchangeable for the purpose of interpretation of these sections.

4.11 Committee members must respect and maintain the confidentiality of the issues brought before them.

5. Reference Documents

5.1 *Community Charter*, Section 100 – 109 – Conflict of Interest
5.2 *Community Charter*, Section 90 – Open/Closed Meetings
5.3 *School Act*, Part 5 – Conflict of Interest

Approval Date:	July 29, 2010	Resolution No.	333/10 rec 18
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Amendment Date:		Resolution No.	

SUNSHINE COAST REGIONAL DISTRICT

AGRICULTURAL ADVISORY COMMITTEE

May 25, 2021

MINUTES FROM THE AGRICULTURAL ADVISORY COMMITTEE MEETING HELD ONLINE ELECTRONICALLY VIA ZOOM

PRESENT:	Chair	David Morgan
	Members	Raquel Kolof Barbara Seed Erin Dutton Gerald Rainville
ALSO PRESENT:	Electoral Area F Director	Mark Hiltz (Non-Voting Board Liaison)
	Electoral Area E Director	Donna McMahon (Non-Voting Board Liaison)
	GM, Planning & Community Development	Ian Hall
	Planner 1/Senior Planner	Julie Clark
	ALC Application 61646 (SCRD ALR00015)	Darrell Zbeetnoff (Guest)
	ALC Application 61646 Representatives	Chris Danroth (Guest) Geoff Hughes-Games (Guest)
	Recording Secretary	Genevieve Dixon
	Public	2
REGRETS:	Members	Paul Nash Faye Kiewitz Jon Bell

David Morgan assumed the role of Chair for this meeting.

CALL TO ORDER 3:32 p.m.

AGENDA The agenda was adopted as received

MINUTES

Recommendation No. 1 *AAC Meeting Minutes of April 27, 2021*

The Agricultural Advisory Committee recommended that the meeting minutes of April 27, 2021 be approved as presented.

REPORTS

ALC Application 61646 (SCRD ALR00015)

Key points of discussion:

- Staff introduced report to the committee and corrected typographical error in report – correct application number is 61641.
- Final soil assessment report was received by staff on May 21, 2021. No material changes from the draft report.
- Agricultural Land Commission (ALC) regulation defines fill.
- Asphalt is considered a prohibited fill by the ALC.

Regarding the property, the applicant stated:

- Two separate berms on the property hold all the salvaged top soil from the fill sites
- The top of one berm is growing garlic, the other cleared areas is growing various types of vegetables, a large chicken run with 100 chickens and pigs in another area.
- The applicant noted the fill that was put in was screened and sized road mulch and the cover was heated-in-place asphalt cover. The hard surface is needed for the greenhouse
- the fill was carefully chosen, purchase receipts can be provided.
  Five shipping containers on site used for storage.

The applicant's agrologist noted:

- Provided an overview of the methods for soil / draining analysis.
- In their professional opinion the fill is an acceptable use for the site
- The purpose of the soil analysis was confirm agricultural capability, not provide nutrient management planning
- The purpose of the drainage comments was to provide a conceptual plan for draining the property, not an implementation plan or regulatory review. Further catchment ponds are possible.
- Fill area is around 3-4% of the site.
- In the winter a sub drainage plan could buffer for storm water flow for a perennial crop and that will improve the growth into the summer. Drainage would be a drought-proofing mechanism. Water could be used that comes off the asphalt pad.

Recommendation No. 2 *ALC Application 61646 (SCRD ALR00015)*

The Agricultural Advisory Committee recommends the SCRD receive more information from the applicant regarding ALC Application 61646 (SCRD ALR00015).

NEXT MEETING June 22, 2021

ADJOURNMENT 5:00 p.m.

SUNSHINE COAST REGIONAL DISTRICT

AREA A - EGMONT/PENDER HARBOUR ADVISORY PLANNING COMMISSION

April 28, 2021

RECOMMENDATIONS FROM THE AREA 'A' ADVISORY PLANNING COMMISSION MEETING HELD ELECTRONICALLY VIA ZOOM

PRESENT:	Chair	Peter Robson
	Members	Dennis Burnham Jane McOuat Gordon Politeski Alan Skelley Catherine McEachern Janet Dickin Yovhan Burega Sean McAllistar Tom Silvey Alex Thomson Gordon Littlejohn
ALSO PRESENT:	Electoral Area A Director	Leonard Lee (Non-Voting Board Liaison)
	TELUS Representatives	Chad Marlatt (Guest) Doug Anastos (Guest)
	Recording Secretary	Kelly Kammerle

CALL TO ORDER 7:00 p.m.

AGENDA The agenda was adopted as presented.

MINUTES

Area A Minutes

The Egmont/Pender Harbour (Area A) APC Minutes of March 31, 2021 were approved as circulated.

The following minutes were received for information:

- Planning and Community Development Committee Minutes of March 18, 2021

REPORTS

TELUS Telecommunication Tower – Egmont Mine – Request for Local Government Concurrence

Key points of discussion:

- The APC agrees that for safety and convenience, cell coverage is much needed in this area.

Recommendation No. 1 *TELUS Telecommunication Tower – Egmont Mine – Request for Local Government Concurrence*

The Area A APC recommends approval of the Telus Telecommunication Tower located at the Egmont Mine near the Skookumchuck Narrows.

Planning Processes – Administrative Improvements

The Area A APC received the staff report for information, "Planning Processes – Administrative Improvements" and noted the following comments:

- The proposed changes are hardly subtle or administrative. They will reduce substantially matters to be referred to APCs for comment—altering a practice of garnering community input that has been in place for over 20 years.
- There is no data or evidence that the benefits will outweigh the obvious pitfalls; these changes will create APCs that have little or no relevance—other than portraying the illusion of public consultation.
- Community input on specific applications is more relevant than ever: site sensitive knowledge and historical context are crucial to good decision making, especially in light of the current issues with sinking subdivisions, limited water supply, inadequate parking and staff turnover.
- These changes fly in the face of the SCRD stated strategic goal of: proactively engaging with residents by fostering and promoting public consultation.
- Less is not more in a community where there is no daily newspaper, no contemporaneous media outlet and no internet visibility to applications and SCRD files. If residents in the community do not know of proposed applications and pending decisions, it is impossible to be engaged, proactively or otherwise.
- The solution is not to remove notice and information, but to make better information more accessible.

Recommendation No. 2 *Planning Processes – Administrative Improvements*

The Area A APC recommends that a letter be sent to the SCRD Board detailing the APC's concerns about the proposed Planning processes and administrative improvement changes.

DIRECTOR'S REPORT

The Director's report was received.

NEXT MEETING May 26, 2021

ADJOURNMENT 8:30 p.m.

SUNSHINE COAST REGIONAL DISTRICT

ROBERTS CREEK (AREA D)
ADVISORY PLANNING COMMISSION

May 17, 2021

RECOMMENDATIONS FROM THE ROBERTS CREEK (AREA D) ADVISORY PLANNING COMMISSION MEETING HELD ELECTRONICALLY VIA ZOOM

PRESENT:	Chair	Mike Allegretti
	Members	Gerald Rainville Meghan Hennessy Chris Richmond Nicola Kozakiewicz
ALSO PRESENT:	Electoral Area D Director	Andreas Tize (Non-Voting Board Liaison)
	Report Applicant	Jim Green (Guest)
	Recording Secretary	Vicki Dobbyn
	Public	1
ABSENT:		Alan Comfort

CALL TO ORDER 7:05 p.m.

AGENDA The agenda was adopted as presented.

MINUTES

The Roberts Creek (Area D) APC Minutes of April 19, 2021 were approved as circulated.

The following minutes were received for information:

- Halfmoon Bay (Area B) APC Minutes of April 27, 2021
- Elphinstone (Area E) APC Minutes of April 28, 2021
- West Howe Sound (Area F) APC Minutes of April 27, 2021
- Planning and Community Development Committee Minutes of April 15, 2021

REPORTS

Roberts Creek OCP Amendment Bylaw No. 641.11 and Zoning Amendment No 310.182 for Subdivision of Remainder of District Lot 1312

Key Points of Discussion:

- The agent for the owner, Jim Green, summarized the application.
- The application was previously reviewed by the Area D APC on May 13, 2019. It is being returned to the APC because new planning staff revised the report, and the April 19, 2021 memo from Cam Forrester, RPF, describing environmental and trail features of the proposed 26-hectare land contribution has been added to the report.
- If the SCRD accepts the land contribution it would come under the Parks function and all Areas (with the possible exception of Area A) contribute to the Parks function.
- The SCRD would hold it in fee simple and would consider usage after ownership is confirmed. If the SCRD wanted to change the current usage it would need to go through a rezoning process.
- A substantial change since the original application is the local real estate market prices.
- This application is a textbook case of urban sprawl.
- It was noted that a change in planning staff has resulted in a revised narrative in the report.
- Is there a different perspective from planning staff that supports the proposal and doesn't reference the OCP?
- The report should reference the relevant sections of the OCP and include the values of the OCP in opposition to this zoning change in addition to staff's perspective on application.
- The acreage being offered is zoned RU4 for resource uses, has been logged recently and is not very appealing for recreational purposes.
- There could be a domino effect because the parcel is located near 5-acre lots whose owners may see this precedent and want to subdivide their properties. The domino effect could carry over to other RU4 zoned areas in Roberts Creek
- Would it be a better application with 5-acre lots?
- The application undermines the values of the OCP
- One pro of the application is the potential value of the land contribution for a range of possible future uses
- There is value in more public input on this application.

Recommendation No. 1 *Roberts Creek OCP Amendment Bylaw No. 641.11 and Zoning Amendment No 310.182 for Subdivision of Remainder of District Lot 1312*

The Area D APC recommended that the application not be supported because it does not conform to the Roberts Creek OCP particularly with reference Section 3) Goals of the Official Community Plan # 4 (To ensure that land is put to an aesthetically pleasing and environmentally responsible use and ensure ongoing biodiversity through the protection, restoration and enhancement of plant and animal habitats), #5 (To maintain the existing rural atmosphere of the overall community) and #7 (To avoid land use that results in suburban sprawl.)

Planning Processes – Administrative Improvements

Key Points of Discussion:

- Public input would be reduced in this new process.

Recommendation No. 2 *Planning Processes – Administrative Improvements*

The Area D APC does not support the implementation of the proposed Planning Processes due to the loss of public input into the planning process, and recommends that the SCRD identify how public consultation will happen using the new process.

DIRECTORS REPORT

The Director's Report was received.

NEXT MEETING June 21, 2021

ADJOURNMENT 9:05 p.m.

SUNSHINE COAST REGIONAL DISTRICT

AREA E – ELPHINSTONE
ADVISORY PLANNING COMMISSION

May 26, 2021

RECOMMENDATIONS FROM THE AREA E ADVISORY PLANNING COMMISSION MEETING HELD ELECTRONICALLY VIA ZOOM

PRESENT:	Chair	Mary Degan
	Members	Rod Moorcroft Nara Brenchley Anne Cochran Rick Horsley Karen Mahoney
ALSO PRESENT:	Director, Electoral Area E	Donna McMahon (Non-Voting Board Liaison)
	Alternate Director, Electoral Area E	Jason Lewis
	Manager of Planning & Development	Dave Pady (part)
	Planner 1/ Senior Planner	Julie Clark (part)
	Recording Secretary	Diane Corbett
	Applicant, ALC Application 61641	Chris Danroth
	Applicant, Bylaw Nos. 641.11 & 310.182	Jim Green
	Public	3 (part)
REGRETS:	Members	Urszula Dragowska Kasha Janota-Bzowska
ABSENT:	Members	Bob Morris Dougald Macdonald

CALL TO ORDER 7:05 p.m.

AGENDA

The agenda was adopted as amended with the following addition:

- New Business: BC Timber Sales Sunshine Coast (2021-2025) Operating Plan

MINUTES

Area E Minutes

The Area E APC minutes of April 28, 2021 were approved as circulated.

Minutes

The following minutes were received for information:

- Halfmoon Bay (Area B) APC Minutes of April 27, 2021
- Roberts Creek (Area D) APC Minutes of April 19, 2021
- West Howe Sound (Area F) APC Minutes of April 27, 2021
- Planning and Community Development Committee Minutes of April 15, 2021

REPORTS

ALC Application 61641 (SCRD ALR00015)

Staff noted a correction to the ALC application number in the staff report: 61641, not 61646.

The APC discussed the staff report regarding ALC Application 61641 (SCRD ALR00015) for 758/754 Henry Road, seeking retroactive approval for fill added without permission.

Planning staff provided an introduction and background information on the application.

Chris Danroth, applicant, responded to questions and inquired about the regulatory process.

Recommendation No. 1 *ALC Application 61641 (SCRD ALR00015).*

The Area E APC recommended that ALC Application 61641 (SCRD ALR00015) be denied based on the facts provided and for the following reasons, as stated in the staff report:

- The application documents are not sufficient to confirm that placement of fill protects or enhances future farming capability on this parcel (Elphinstone Official Community Plan policy objective);
- Addition of asphalt does not protect the future agricultural capability of this parcel;
- The application recommends implementation of a non-compliant drainage plan.

Roberts Creek OCP Amendment Bylaw No. 641.11 And Zoning Amendment Bylaw No. 310.182 For Subdivision of Remainder of District Lot 1312

The APC discussed the staff report regarding Roberts Creek OCP Amendment Bylaw No. 641.11 and Zoning Amendment Bylaw No. 310.182, for subdivision of remainder of DL 1312.

Applicant Jim Green provided a description and background information on the application to amend the Roberts Creek Official Community Plan and rezone a 40.45-hectare parcel, known as the remainder of District Lot 1312, to facilitate a future subdivision on the southern portion (14.32 ha) and donate the northern portion (26.13 ha) to the SCRD as Community Amenity Contribution in the form of a land gift.

The applicant responded to APC inquiries and made the following points:

- The proposed development would stop the upper portion of the property from being logged. The existing zoning promotes timber harvesting. There was no real science to inventing the Z zone.
- This application is to rezone 30 acres of the 100 acres.
- Being able to portion off the property with 2.5-acre lots and donating the remainder to

the SCRD makes sense economically.
- The 2.5 acres gives people a lower price point to a rural lifestyle.
- Concerns raised by the community in previous consultation: smaller lot size; increased traffic; potential water supply and lifestyle impacts.
- Members were invited to contact Mr. Green if interested in a walkabout on the land.

Points from discussion included:

- All of the water supply will be from drilled wells; what is the success of those wells for water? The applicant indicated there was a prolific water supply, and indicated a willingness to produce a hydrological report.
- Concern about fire protection and that water would have to be tanked up by the fire department as there would be no fire hydrants.
- As a previous owner in that area, observed that most people had great success with wells.
- The proposed 65-acre Community Amenity Contribution would be a buffer between the residential area and active logging. Current trails could remain. If that land were logged off, it would create more water problems.
- Concern about the lack of an over-arching plan for development on the coast, and the clash between the pressures for logging and for development.
- Concern about arsenic in the water supply in the area (Ranch Road). The applicant indicated no issues with arsenic, and that the wells would need to meet the Canadian standard for arsenic and a safe supply, or the proposed subdivided lot would fail.
- Like the proposed lot size; proposed lots are on a bench that has light and resources, and renders opportunities.
- Concern that the smaller lot size would set a precedent and that other owners on 5-acre lots would want to subdivide.
- The precedent would also include the donation of 65% of the lot as Community Amenity Contribution.
- Concern about stormwater management; a well-designed stormwater system would be required.
- Issue: challenge with silos of government in regard to development, and a lack of communication between agencies.
- The 2.5-acre lot size would be an ideal size for a small farm; has potential to enhance food security on the Sunshine Coast.
- Concern that residents have no control over logging and its impacts on the land.
- There is not much value in the timber on the upper lot, from a logging perspective.
- Proposal seems to be in alignment with what is happening in the area.
- It is going to be a compromise.
- The proposed 65-acre park as untouched land is pretty important. If DL 1313 becomes dedicated parkland, there could be a huge area of protection there, creating more of a corridor for recreation and other uses. There would be an intact forest between active development and Crown land. There would be a buffer zone between industrial land use and residential near Gibsons.
- Eventually the upper lot likely would get logged, with the current zoning, even if it is not valuable now; it would be a shame if we could have stopped it.
- Note how close this is to town and lower down the hill than so many other properties in Roberts Creek. It really is infill not sprawl.
- As part of this development, it is proposed that the road be made more accessible for a fire truck.

Recommendation No. 2 *Roberts Creek OCP Amendment Bylaw No. 641.11 And Zoning Amendment Bylaw No. 310.182*

The Area E APC recommended acceptance of the 65% park and allowing the applicant twelve 2.5-acre lots, on the condition that there is a strong and effective stormwater management plan in place that resembles the stormwater management plan of West Howe Sound; and that the application be supported for the following reasons:

- It seems to be infill and alignment with the development that has already happened.
- The new lots could create opportunities for local sustainable agriculture and housing supply.
- A 65-acre park would create a buffer and intact forest and a corridor for wildlife.
- There would be an opportunity to create a cleared buffer zone for fire prevention.
- As noted in the memo by C. Forester, R.P.F., attached to the staff report: "The opportunity exists with the land gift to not only protect these environmental features, but to also formalize a forested buffer between the urban/rural interface of occupied land and the broader landscapes above DL 1312 with linkages to storm water management, wildlife corridors, aquifer recharge, and continuing recreation and tourism activities."

NEW BUSINESS

BC Timber Sales Sunshine Coast (2021-2025) Operating Plan

In light of the lack of time for discussion, this item was not considered. Members were encouraged to read the BC Timber Sales Sunshine Coast (2021-2025) Operating Plan, forwarded by email to the APC by the Director prior to the meeting, and to offer comment to the Province by June 11, 2021deadline for public submissions.

DIRECTOR'S REPORT

The Director's report was received.

NEXT MEETING June 23, 2021

ADJOURNMENT 9:03 p.m.

RECEIVED
By SCRD Chief Administrative Officer at 7:35 am, May 18, 2021

Ruby Lake Landholders Association (RLLA)
email: rubylakelandholders@gmail.com

May 17, 2021

TO: Alton Toth, Chair, Planning and Development Committee
CC:Board of Directors, Sunshine Coast Regional District; Leonard Lee

RE: Proposed Expansion of Parking Area and Beach/Picnic Area at Dan Bosch Park

It has come to our attention that the SCRD is considering expanding the Parking Area at Dan Bosch Park (Phase 1), as well as the Beach Area, Picnic Area, and adding a Small Boat Launch Area, despite opposition from the local community for Phase 2.

When the Ruby Lake Landholders Association first heard about the idea to utilize available gas tax money, we were supportive of expanded parking at Dan Bosch Park to alleviate the EXISTING safety concern of parking on Highway 101. However, WE HAVE EXPRESSED MULTIPLE TIMES THAT THE LOCAL COMMUNITY AT RUBY LAKE IS OPPOSED TO ADDITIONAL EXPANSION OF PARK AMMENITIES, THE BEACH AREA, PICNIC AREA, and NEW BOAT LAUNCH AREA.

Frankly, we feel our input has been ignored, and continuing proposals to expand the park amenities beyond parking will create more demand on the park and more problems for local residents. The SCRD has failed to provide adequate oversight and enforcement of the park, and left the Ruby Lake community to suffer with misuse of the park, and deal with illegal campers, dangerous camp fires, noise, and belligerent park abusers. Consequently we are submitting this letter to make certain that our viewpoint is heard. Please carefully consider the following:

1. The Ruby Lake community generally SUPPORTS Phase 1 - EXPANDED PARKING to deal with the EXISTING DEMAND for day users of Dan Bosch Park. This is a safety issue, and an appropriate use for gas tax funds

2. The Ruby Lake community DOES NOT SUPPORT Phase 2 - EXPANDED USAGE of the park. Proposals that will result in increased demand for even more parking, such as expanded beach areas, more picnic areas, and a boat launch area will quickly outpace the proposed expanded parking, with no net gain to the safety issue on Hwy 101, and simply result in increased abuse that the local residents will have to deal with without any support from the SCRD

3. The SCRD needs to budget for an on-site full-time seasonal caretaker at Dan Bosch Park (May through September). There was an on-site caretaker previously that took care of public issues and managed the park well. During the years when the caretaker was present, the local Ruby Lake community had a good relationship with the park administration and park users. Without the caretaker, we have seen regular unlawful camping on the park, dangerous campfires during burning bans that were left smouldering and un-attended, increased partying and noise, litter, and related abuses. When residents have

called for enforcement from the SCRD, Parks Bylaw Enforcement, the RCMP, the fire department, and requested better signage, the response has been non-existent. The SCRD has failed us. Our residents have had to put out smouldering campfires that would likely have resulted in forest fires had local residents not been vigilant monitoring the area. In the Staff Report to the Planning and Community Development Committee – November 14, 2019 the SCRD Parks Planning Coordinator recognized the problem with camping and campfires, and stated *"A management plan is needed for Dan Bosch Park, and is tentatively included in the 2020 staff workplan. Through this planning process, public participation and input will help define existing pressures and specific future needs…Increasing park use may require additional resources to be applied. In the past, an on-site caretaker (concrete RV pad, septic, electrical and water hookups) was responsible for day-to-day park oversight. Future park management plans will need to consider service levels." Web*-Link (Annex F, Pgs 110-113): https://www.google.com/url?client=internal-element-cse&cx=002316935908233087294:gc_wvgd_45y&q=https://www.scrd.ca/files/File/Administration/Agendas/2019/2019-NOV-14%2520PCD%2520Agenda%2520Package.pdf&sa=U&ved=2ahUKEwiazaHttczwAhWFuJ4KHRnFCs4QFjAAegQIABAC&usg=AOvVaw3CXuFhpA9iRb_uoIPb8QfQ
So where is the management plan? Considering the current lack of effective management of the Park by the SCRD, we must opposed any expansion of the park facilities, other than parking expansion for safety reasons

4. In addition to caretaker and bylaw enforcement costs, the SCRD should also be aware of an another obstacle to expanding park amenities, and that is strong local opposition to increased recreational use of Ruby Lake, without comparable infrastructure development at alternative lakes, such as Sakinaw Lake and Garden Bay Lake, to provide alternative public recreational opportunities. The Ruby Lake Community is already the primary public recreational lake in the area, with its sandy beach, picnic area, parking, and outhouses at Dan Bosch Park, and a public boat launch ramp with docks and an outhouse at Ramp Road. SCRD Web-Link for Dan Bosch Park: https://www.scrd.ca/Dan-Bosch-Park

5. The Ruby Lake community already bears the brunt of public recreational access and boat traffic. Proposing to create additional infrastructure on an already busy lake with traffic overflowing onto Hwy 101 ignores the feedback provided by the local community. In contrast, Sakinaw Lake is almost twice the size of Ruby Lake (over 800 ha), does not require parking on Hwy 101 to access it via Sakinaw Lake Road, has a boat launch that is not surrounded by dozens of neighbours (as is the case at Ramp Road), and although the Sakinaw Lake boat launch ramp has relatively flat land suitable for public use, there are no picnic tables, no outhouses, no welcoming day-use beach area for public use, and under-developed parking/signage. There is presently an old faded salmon information board, a small dock, and an unkempt foreshore. There are some water-access parks on Sakinaw Lake, but the public does not know much about them (they are not listed on the SCRD Parks web-site) https://www.scrd.ca/scrd-parks-list The public cannot get to these parks and there is no official boat launch provision and welcoming entry point for day users. The Sakinaw Lake boat launch area is relatively small in size, yet this access area should be much

more public-friendly and inviting before considering pushing more recreational burden onto Ruby Lake. Similarly, Garden Bay Lake does not require parking on Hwy 101, has minimal public infrastructure, and amenities could be added to make it a more inviting local recreational opportunity for Pender Harbour visitors.

Ruby Lake is a drinking water source for 95% of local residents. Domestic water is also drawn from the Cove Cay pump house and services the community of Earl's Cove. SCRD Web-Link for Cove Cay Water System: https://www.scrd.ca/Cove-Cay The local community is very protective of the water quality at Ruby Lake because we drink the water, and increasing public swimming density at an unsupervised park creates increased pollution risk. Water quality at Dan Bosch Park should be regularly tested and reported to properly manage pollution risk, and we would like to request this be park of the Dan Bosch Park Management Plan

6. Why is the proposal for Phase 2 coming from Pender Harbour groups, without endorsement form the local Ruby Lake community? This makes no sense.

7. One final request before considering any Phase 2 activity—please plan for public consultation, an official notice, and a public comment period before approving any Phase 2 expansion activities.

Thank you for considering this information.

Andrew McFadyen, President
Ruby Lake Landholders Association.

Tracey Hincks

From: Lori Pratt
Sent: Thursday, May 20, 2021 9:37 AM
To: DL - Directors
Cc: Tracey Hincks; Ian Hall
Subject: FW: Trails Strategy for BC- report on what we heard from local governments
Attachments: RSTBC_Final Local Government What We Heard Report_23March2021.pdf

FYI

Lori Pratt
Chair & Director Area B (Halfmoon Bay)

Sunshine Coast Regional District
1975 Field Road, Sechelt, BC V0N 3A1

Phone: 604-740-2370

Follow us on Twitter at sunshinecoastrd
Like us on Facebook
Visit us: www.scrd.ca

From: Trails Strategy DO NOT REPLY:FLNR:EX [mailto:Trails.Strategy.DoNotReply@gov.bc.ca]
Sent: May 20, 2021 8:38 AM
To: Trails Strategy DO NOT REPLY:FLNR:EX <Trails.Strategy.DoNotReply@gov.bc.ca>
Subject: Trails Strategy for BC- report on what we heard from local governments

External Message

Hello,

In the summer of 2020, a survey was sent to local government staff and elected officials seeking input on a comprehensive review of the Trails Strategy for BC. The survey was live between late May and early July 2020. In total, 233 individuals representing 145 different municipalities and regional districts completed the survey. Please find attached a summary of what we heard from that engagement process.

In addition to local governments, numerous other engagements were undertaken in support of the review of the Strategy. The engagement was completed in a partnership between Recreation Sites and Trails BC (RSTBC) and the Provincial Trails Advisory Body (PTAB). The engagements have been completed as a means of informing a comprehensive review of the Trails Strategy for British Columbia to ensure the continued relevance of the strategy to recreationalists, communities, First Nations, the tourism sector, and the Province. The review included:

- background research,
- a literature review of the benefits of trails,
- over 40 interviews with representatives from provincial ministries, non-profits, and recreation clubs and associations,
- a survey of over 200 local government representatives,
- focus group webinars with recreation sector interests,

- a public survey of over 5,900 British Columbians, and
- a separate government-to-government engagement process with all First Nation governments in BC.

The province continues to review the results of the review of the Strategy. Recommendations will be made to update the strategy based on findings from the research and engagements. Recommendations will provide direction for formally updating the strategy to reflect the broad viewpoints of the First Nations and various stakeholders involved in the engagement processes. Once RSTBC receives the mandate to proceed with the recommended changes, the Trails Strategy will be updated and implemented to improve trail development, management and maintenance across the province. A new draft version of the strategy is expected to be complete by the end of 2021.

It is important to note that the Trails Strategy engagement process was conducted during the COVID-19 pandemic. During that time, a significant increase in trail-based recreation was noted likely due to outdoor trail use being an acceptable, healthy, and popular activity to engage in while adhering to social distancing protocols. This trend of increasing recreation trail use is expected to continue even after the pandemic is over owing to the large number of people that have been introduced to the benefits of British Columbia's extensive trail network.

Thank you to all those who participated in the Trails Strategy review process. Your contributions will result in a significant improvement to the management of BC's world-class natural amenities and trails networks.

Related Links:

- Trails Strategy for BC https://www2.gov.bc.ca/assets/gov/sports-recreation-arts-and-culture/outdoor-recreation/camping-and-hiking/rec-sites-and-trails/trail-strategy.pdf
- Trails Strategy Public engagement 'what we heard report https://www2.gov.bc.ca/gov/content/sports-culture/recreation/camping-hiking/sites-trails/program/policies-strategies/prov-trail-strategy
- The Provincial Trails Advisory Body https://www.orcbc.ca/provincial-trails-advisory-body/

Thank you,

Recreation Sites and Trails BC

Recreation Sites and Trails BC

MARCH 31st, 2021

TRAILS STRATEGY REVIEW

WHAT WE HEARD REPORT: LOCAL GOVERNMENTS

PREPARED FOR: B.C. MINISTRY OF FORESTS, LANDS, NATURAL RESOURCE OPERATIONS AND RURAL DEVELOPMENT

PREPARED BY: MNP LLP

Contents

Introduction

British Columbia offers an unparalleled diversity of landscapes and endless outdoor recreation opportunities. Trails are a fundamental means to explore and enjoy these spectacular unique natural amenities. Trails are also integral to the landscape and enable meaningful connections between people and nature.

Adopted in 2013, the Trails Strategy for B.C. is a call to action that invites all British Columbians to join in supporting and developing a sustainable network of trails throughout the Province.

The Provincial Trails Advisory Body (PTAB) advises the government on implementation and updates to the Trails Strategy for B.C. and is a partnership between:

- The Recreation, Sites and Trails BC (RSTBC) branch of the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD).
- Ministry of Environment and Climate Change Strategy (B.C. Parks).
- Ministry of Tourism, Arts and Culture.
- Ministry of Transportation and Infrastructure.
- Outdoor Recreation Council of B.C.
- B.C. Wildlife Federation.
- Wilderness Tourism Association.
- B.C. Recreation and Parks Association.
- Six public representatives from the Outdoor Recreation Council's membership.

The following principles guide this collaborative undertaking:

- Sound Environmental Stewardship and Management.
- Respect and Recognition for First Nations' Interests.
- Mutual Respect between Trail Interests and Other Resource Users.
- Respect and Understanding among Diverse Trail Interests.
- Partnerships and Collaboration.
- Secure Recreation Opportunities for All Trail Users.
- Benefits for Individuals, Communities and the Province.

In 2019, the PTAB, together with Recreation Sites and Trails B.C., began a formal review of the Trails Strategy to ensure its continued relevance and importance to recreationists, communities, First Nations, tourism proponents and the Province as a whole.

The formal review began with a detailed look at available academic literature and publications documenting the importance of trails to reconciliation, health, mental health, tourism and economic development. Following this, key stakeholders from the outdoor recreation sector and

the Provincial government were engaged through interviews and webinar focus groups. The resulting insights and learnings were used to develop a public engagement survey.

Following the public engagement, MNP embarked on a second phase to consult local governments. Building on previous findings, a survey was developed.

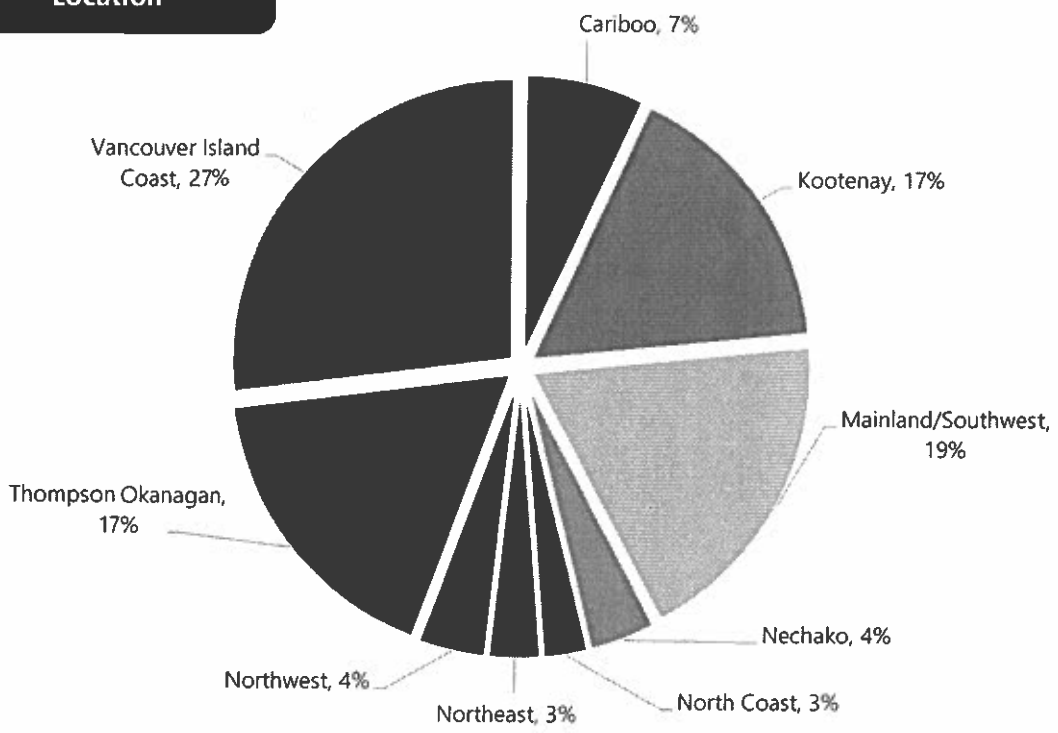
The survey launched on May 22, 2020, and closed on July 4, 2020.

Concurrent to these phases, staff from the Ministry of Forests, Lands, Natural Resource Operations and Rural Development have been engaging directly with First Nations to discuss the Trails Strategy.

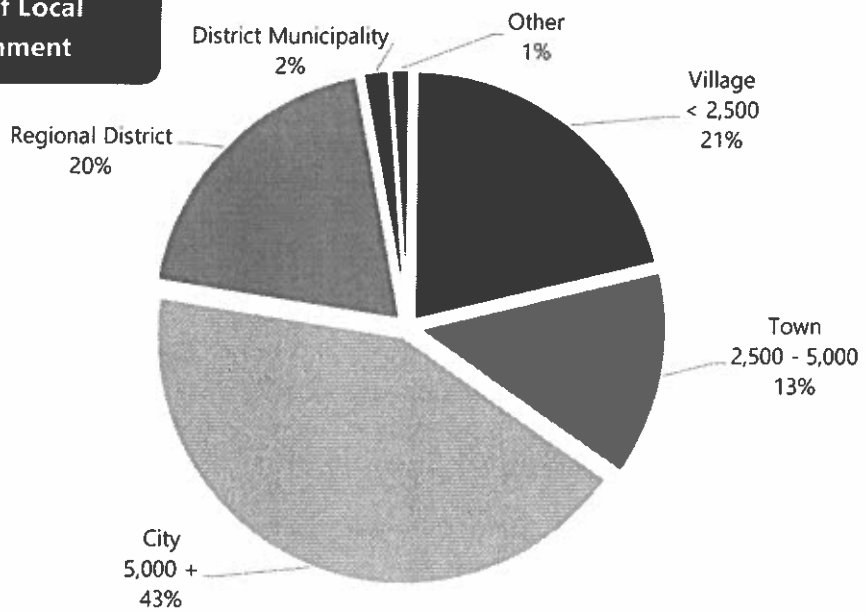
The following report outlines the findings of the local government survey.

Whom Did We Hear From?

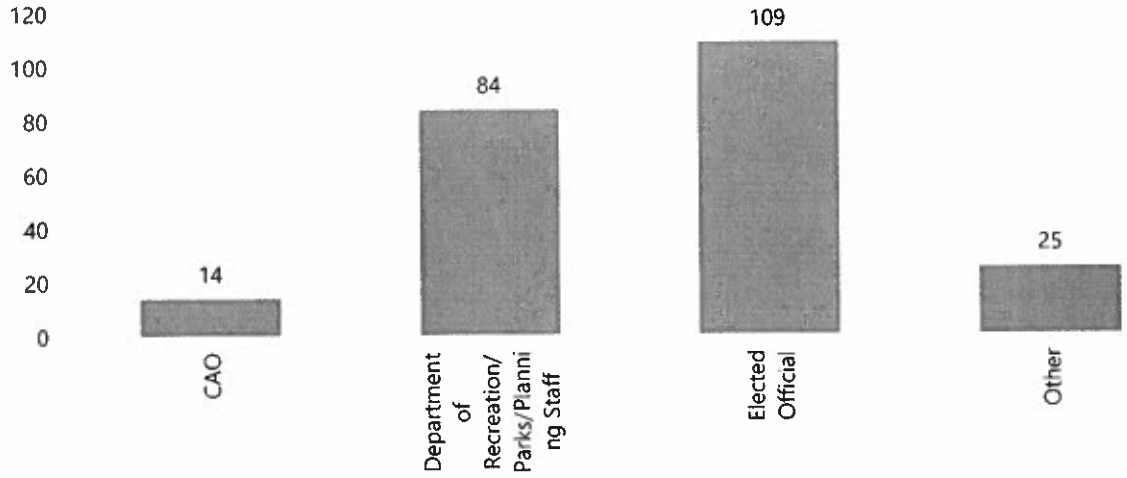
Respondent Location



Types of Local Government



In total, we heard from **233 respondents** from **145 different municipalities and Regional Districts**. Out of this, **57%** of them were aware of the Trails Strategy. **Their roles were:**



Respondents who indicated "other" primarily referenced roles related to economic development.

Involvement in the Trails Strategy

We heard that these governments were involved in trail **planning, building, maintenance, promotion,** and **management.**

78% are actively involved in the development and maintenance of local trails.

54% participate in trail planning engagements between landowners, trail stewards, and First Nations.

64% map local trails.

68% manage and operate parks with trails in them.

However, these respondents stated that they struggle to properly support trails due to:

- A lack of funding.
- Limited human resource capacity.
- The absence of a coordinated approach to trail management across jurisdictions.
- Proximity to private lands.

Vision, Guiding Principles, and Actions

Vision

Overall, we found that most of those surveyed agree with the existing vision of the Trails Strategy:

> **Vision: a world-renowned, sustainable network of trails, with opportunities for all, which provides benefits for trail users, communities and the province.**

However, respondents made the following suggestions to strengthen the vision statement:

Access

- Respondents believe that the vision should mention **access** and **accessibility**. The related reasoning varied:
  - Guaranteeing long-term access and stopping the industry from blocking entry.
  - Focusing on trails for users of different skills and diverse physical and cognitive abilities.
  - Increasing the number of trails that are accessible from home.
- There was a belief that **"opportunities for all"** should be better qualified. For example, one respondent suggested making it **"opportunities for all ages and abilities."**

Collaboration and Partnerships

- Some respondents would like the vision to include **partnerships** and **collaborations**, as they believe that **more cooperation** is needed.

Environment

- Some respondents would like the strategy's vision to place a greater emphasis on the **protection of the natural environment**.
- Respondents also echoed comments from earlier engagement, stating that the word **"sustainable" does not provide enough environmental consideration.**

Funding

- Some respondents stated that they would like a mention of **sustainable funding** in the Trails Strategy vision. They believe that more sustainable funding sources are needed to **develop** and **maintain** trails in British Columbia effectively.

Guiding Principles

While there was **general support** for all guiding principles, those surveyed raised that the wording is **too vague** and **overlaps**. Additionally, respondents wanted to include guiding principles around:

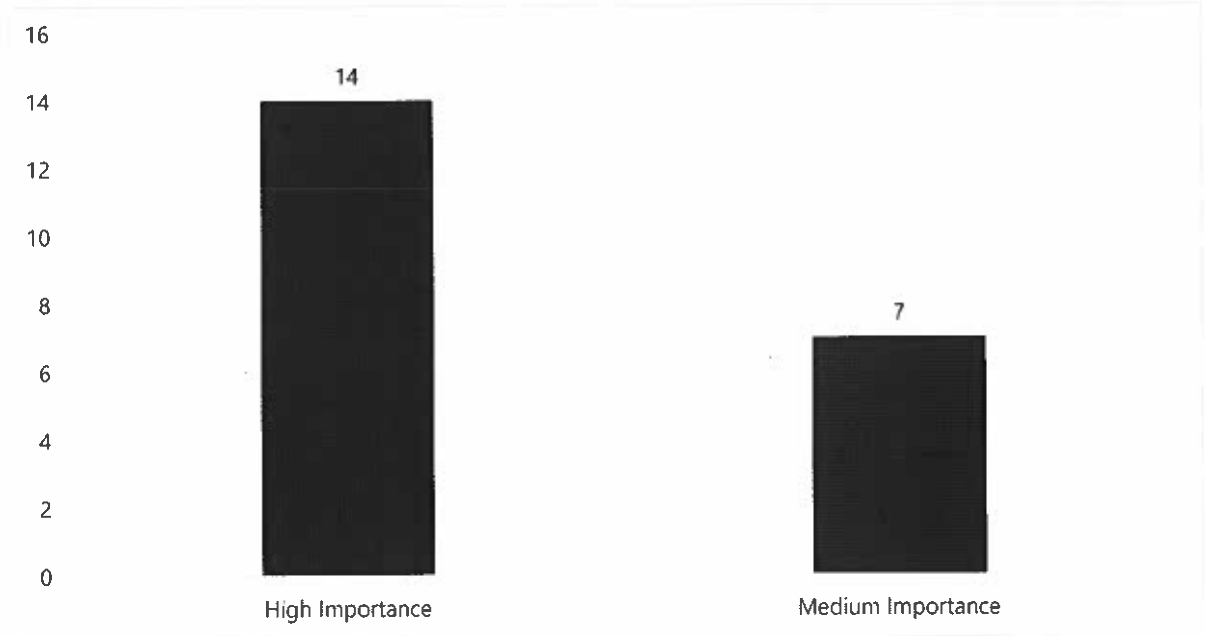
1. The environment and sustainability.
2. Financial sustainability.

Guiding Principles:

- **Benefits for individuals, communities and the province.**
- **Secure recreation opportunities for all trail users.**
- **Partnerships and collaborations.**
- **Respect and understanding among diverse trail interests.**
- **Mutual respect between trail interests and other resource users.**
- **Respect and recognition for First Nations' interests.**
- **Sound environmental stewardship and management.**

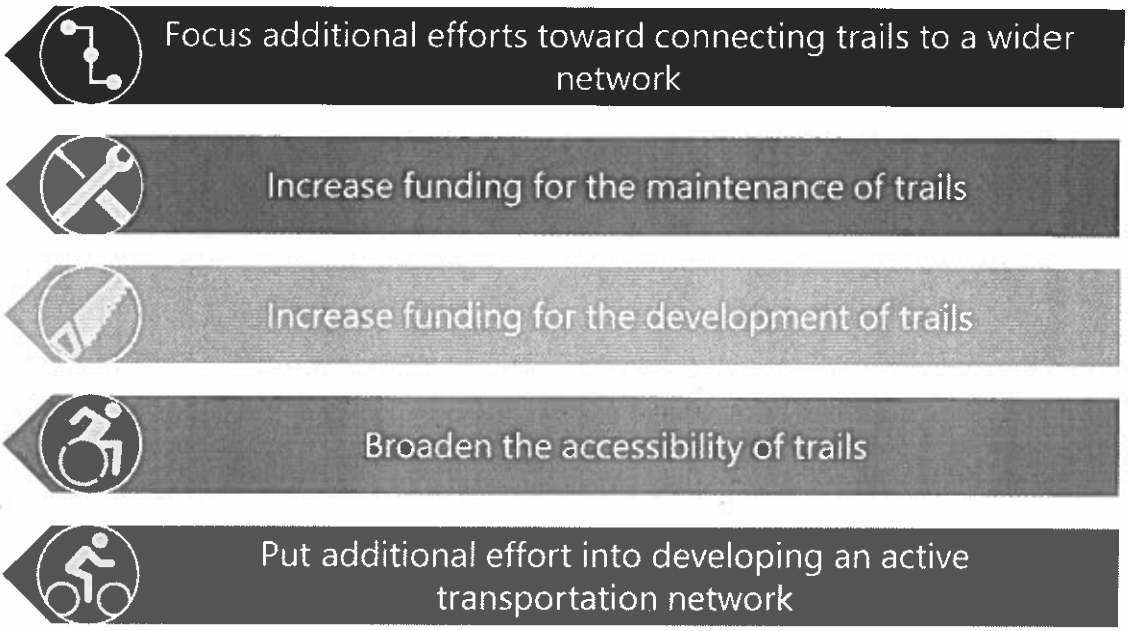
Actions

We heard that respondents generally found most actions of the strategy **to be of high importance.**

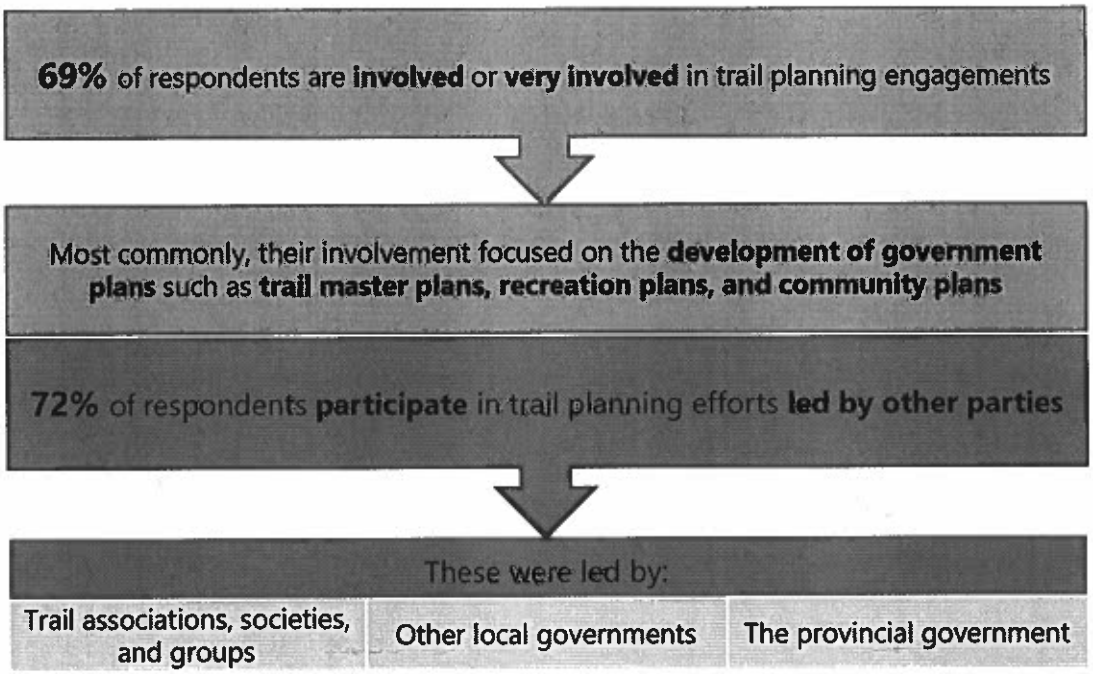


Opportunities for the Trail System in B.C.

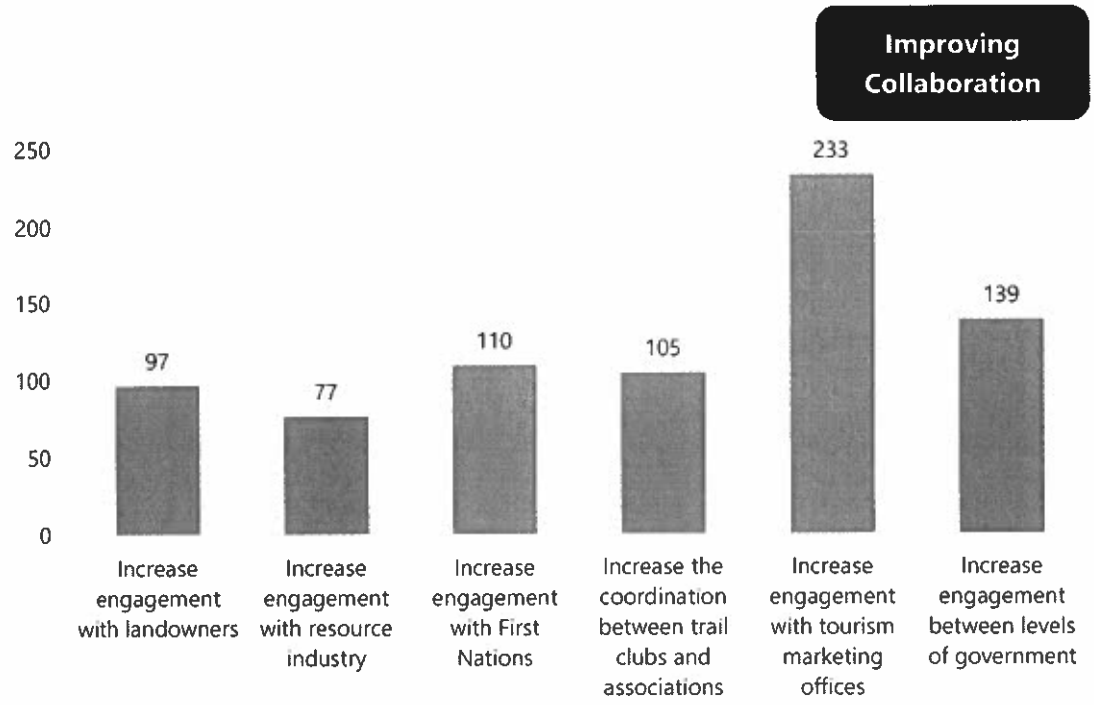
We heard from local government representatives that the **best opportunities to improve** the trail system are to:



Improving Consultation and Collaboration



We heard from respondents that collaboration could be improved by **increasing engagement with tourism marketing offices, between levels of government, and with First Nation groups.**



When prompted to provide more detail on increasing engagement between levels of government, respondents stated that they would like to see the **provincial government**, **regional districts**, and **the federal government** playing a more prominent role in **trail planning activities**. When it came to the provincial government, respondents also suggested that the following groups be involved:

1. Recreation Sites and Trails B.C.
2. B.C. Parks.
3. The Ministry of Transportation and Infrastructure.
4. The Agricultural Land Commission.
5. The Ministry of Forests, Lands, Natural Resource Operations, and Rural Development.

First Nation Collaboration

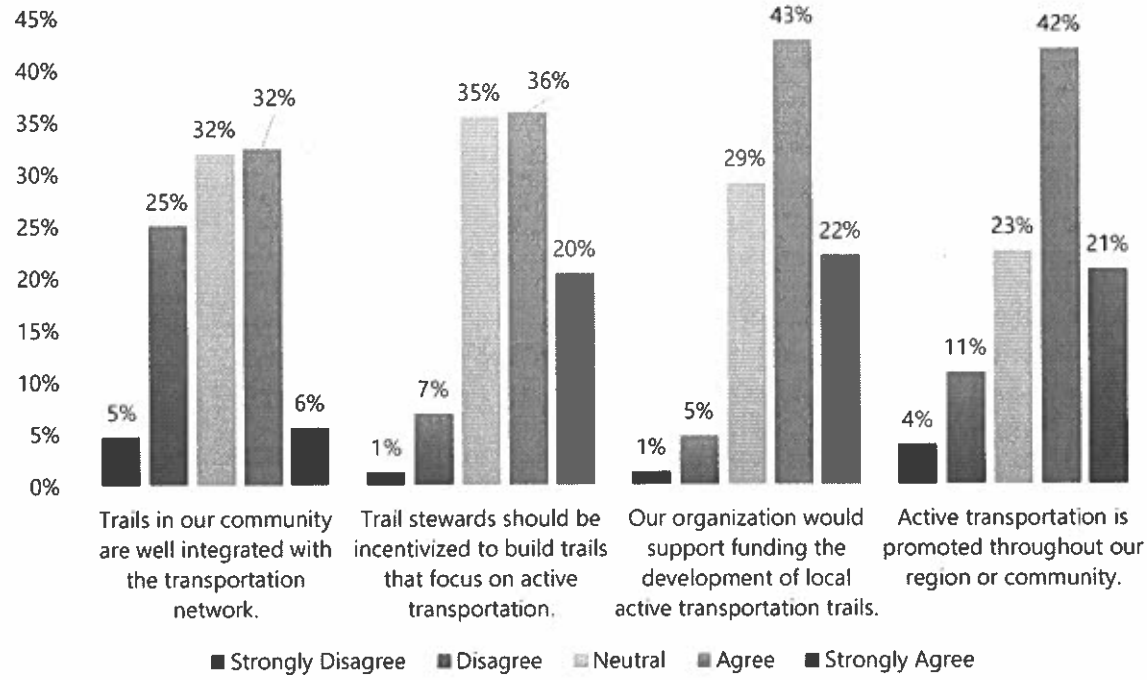
We heard that First Nation collaboration is important to local government, with **59% of respondents** expressing that there were **relationship-building opportunities** between **local government, trail associations,** and **First Nation groups** within their regions.

We heard that some initiatives are occurring to involve First Nation groups in trail planning, with **42% of respondents agreeing or strongly agreeing** that ongoing initiatives related to trails **positively impact the communities.** According to these respondents, these initiatives are successful because:

1. The First Nation group sits on the trail planning leadership team.
2. There is active and continuous engagement.
3. They co-manage the trail network.
4. There is strong collaboration.
5. Communication and trust are robust.

The Integration of Trails into the Transportation Network

Local government representatives indicated that they **promote active transportation throughout their region and community**. That said, communities varied when it came to integrating trails with the active transportation network. With this in mind, there was some level of support **(56%)** for **incentivizing trail stewards to build trails that focus on active transportation**; representatives believe their organization would support funding the development of local active transportation trails.



Private Landownership and the Trail Network

We heard that local governments had developed partnership agreements with landowners or trail associations to **reduce liability risk for landowners.** Additionally, local governments provide help and expertise to landowners to **identify** and **mitigate hazards.**

The survey asked respondents to identify the most significant **challenges** and **opportunities** the region faces with private landownership. These included:

Challenges

- Formal access to trails on private lands.

Opportunities

- Incentivize private landowners to allow public access.
- Create more formalized access to trails on private lands.
- Increase cooperation and communication with private landowners.

Increasing the Financial Sustainability of Trails

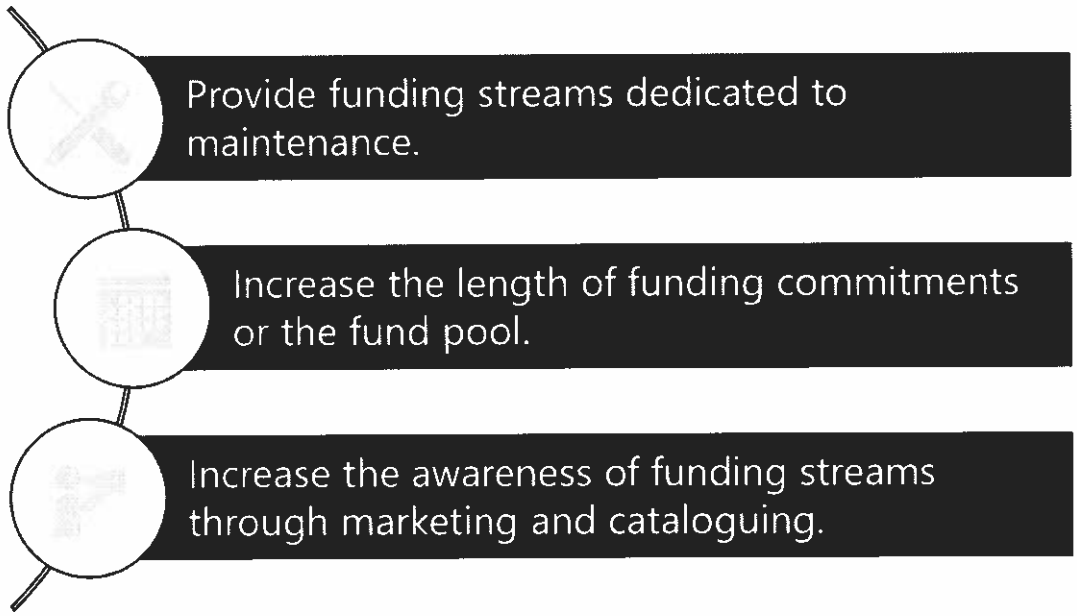
We heard that local governments would like a reliable and diverse funding model to support B.C.'s trail system, with **74% of respondents** indicating that their local government provides funding to develop and maintain trails through:

1. Operational and capital budgets.
2. Grants.

Additionally, **70%** apply for funding from outside sources. The most common sources were:

1. The Rural Dividend Fund.
2. Bike BC funding.
3. Northern Development Initiative Trust.
4. Unspecified federal funding sources.
5. Infrastructure funding—Active Transportation, General, and Capital.

We also heard that local government representatives generally believe that **trails' funding should be the Province's responsibility**. Respondents suggested the following improvements to **increase the financial sustainability** of the trail system in British Columbia:



Guidelines, Standards, and Education

Standards and Guidelines

We heard from respondents that **their governments use tools, standards, and guidelines** to help them **build and maintain** trails in their region.

In terms of standards and guidelines, **respondents most commonly use** the following:

1. Internal trail standards and adaptations of other standards.
2. International Mountain Bike Association.
3. Whistler Trail Standards.

Education Programs

When prompted to state whether their local government **promoted** or **used** education programs around **proper trail etiquette**, we heard that only **38%** did so. This group also raised that they use **signage** and **social media** as their primary tool to deliver this education. Further, these respondents promoted other external education sources, such as the Adventure Smart program.

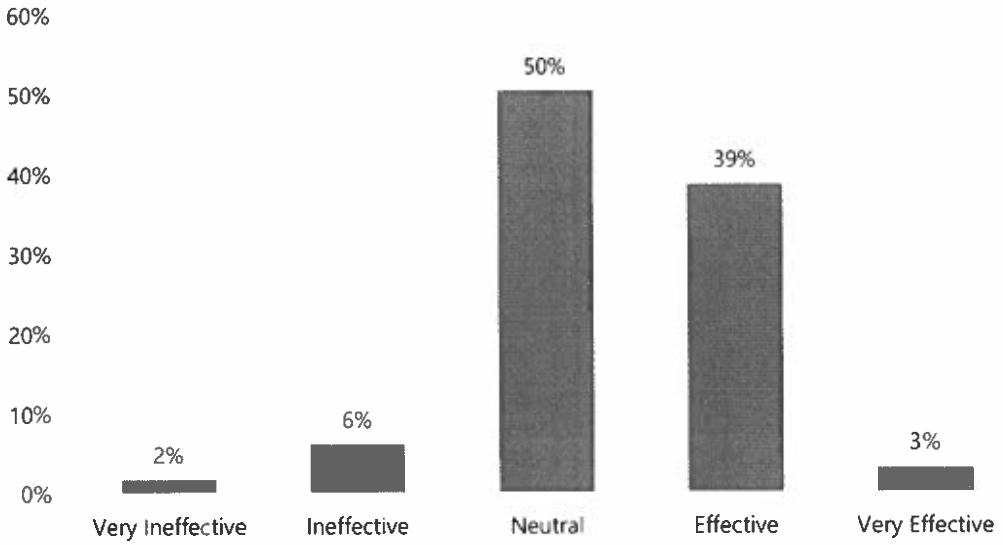
Environmental Awareness and Tools

When prompted on environmental stewardship tools, we heard that:

43% of respondents stated that environmental stewardship tools were used in the region when building trails.

51% of respondents were unsure if environmental stewardship tools were used in the region when building trails.

Local governments partner with associations to build trails, using the associations' internal expertise or tools. In some cases, respondents hired professional consultants, environmental experts, engineers, and biologists to design trails. When prompted to provide details on the effectiveness of existing tools used to address environmental concerns, we heard from respondents that these were either neutral or effective.

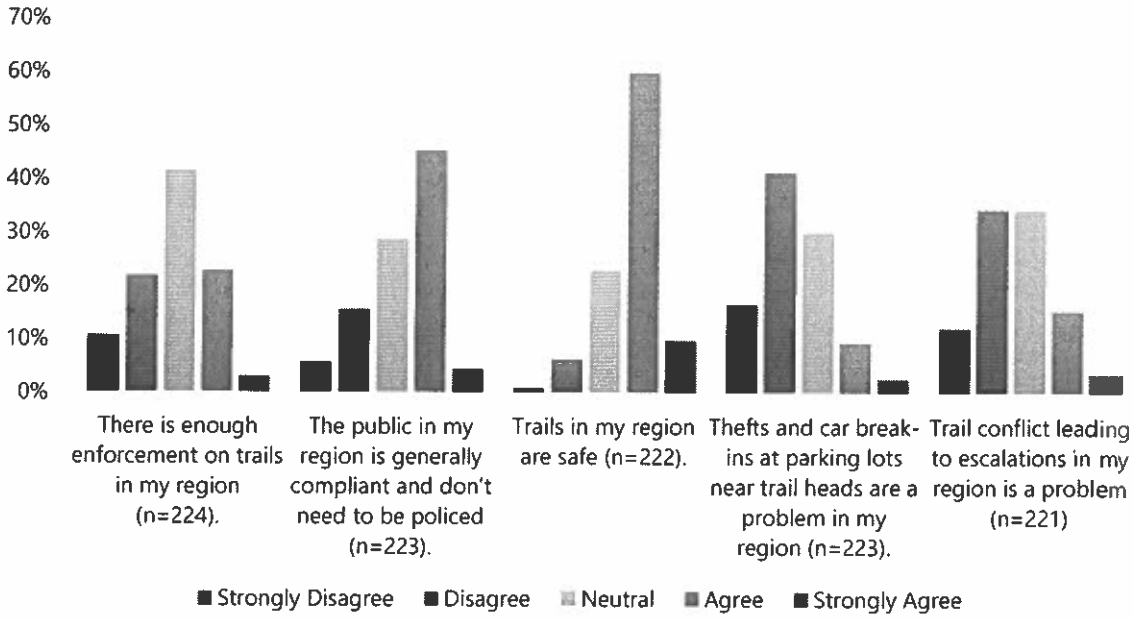


In previous engagements, we found that trail associations **effectively enhance the environmental awareness and appreciation of their members**. However, more could be done to **educate tourists and the general public**.

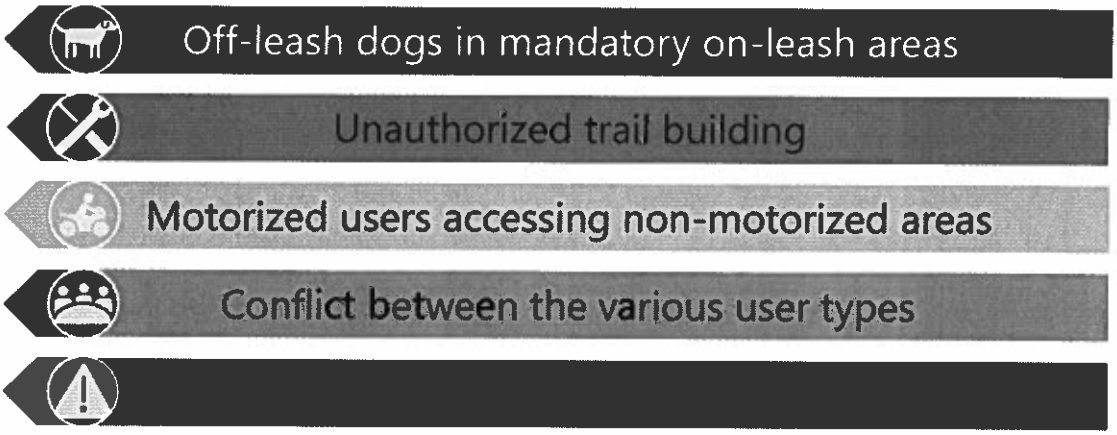
We heard that local government representatives most **firmly believe** that the Province should **develop educational tools to raise the environmental awareness and appreciation of users** and should **centralize environmental education efforts.** That said, they were also supportive of having local tourism offices play a role in educating tourists.

Enforcement

We heard that local government representatives **felt that trails in their region are safe (70%)** and that the public is generally compliant and **does not** need to be policed **(49%)**. Additionally, respondents generally did not believe that **thefts** and **trail conflicts** were significant issues in their region.

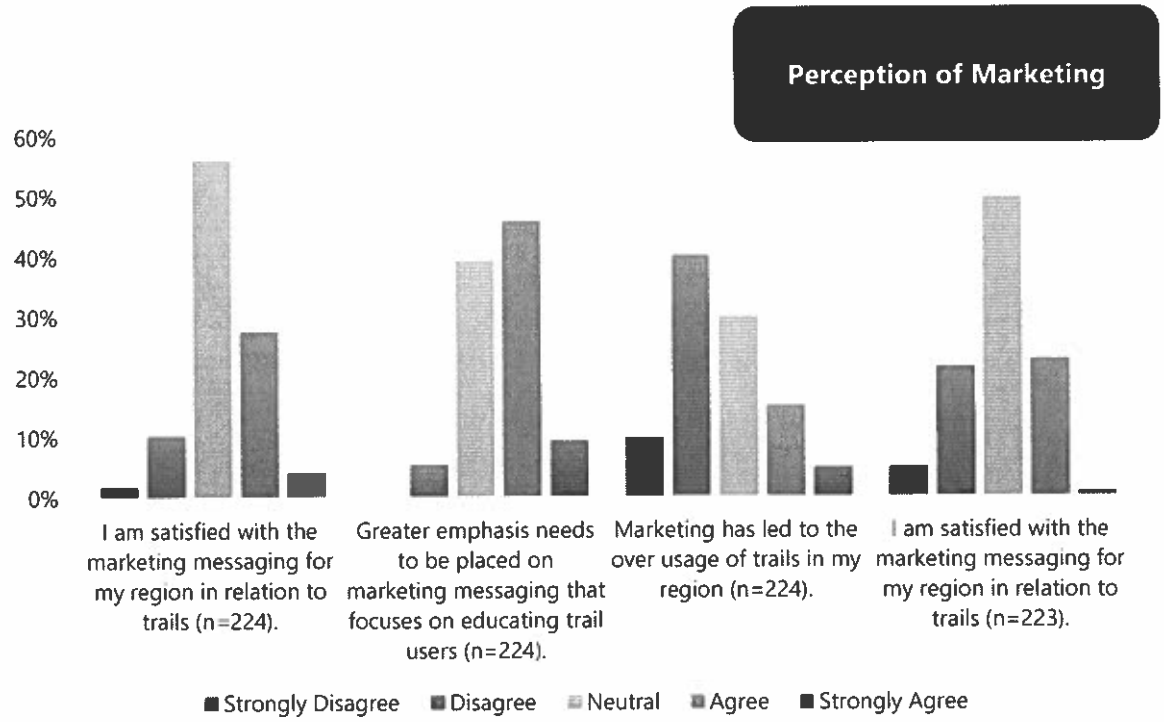


Regarding issues related to enforcement, the most cited areas needing increased attention to ensure compliance were:



Communication and Marketing

Overall, local government representatives were generally **neutral** when it came to questions around their perception of marketing efforts in the Province. Respondents typically did not have a strong opinion on its overall success and whether the marketing messaging adequately represented their region. However, there was a general appetite to shift the focus of marketing efforts to educate trail users.



We heard from **75% of all respondents** that their local government had mapped the local trails in their community, with **95%** of those communities **making this publicly available**.

Conclusion and Next Steps

We appreciate all survey responses provided during this local government engagement period. We have heard that trails are essential to local governments across the Province, but additional support is required on behalf of the provincial government to maintain, fund, and build trails. Additionally, we heard that local governments would like to increase communication and partnerships among stakeholders to better trails in British Columbia, preserve trails and the environment for future generations, and ensure accessibility.

The PTAB will take this report, other engagements, and research into consideration to help them finalize their recommendations to the provincial government to update the Trail Strategy. The Province may then formally update the strategy to reflect the considerable information provided by the various stakeholder groups engaged in this process.

ANNEX O

BRITISH COLUMBIA

File: ORCS 10285-20/DSC VQO

May 25, 2021

VIA EMAIL

Dear Stakeholder:

The Sunshine Coast Natural Resource District (SCNRD) of the Ministry of Forests, Lands Natural Resource Operations and Rural Development is seeking your input on an upcoming administrative decision for a draft Ministerial Order to update existing scenic areas. The proposal is to update the Visual Quality Objectives (VQO's), through Sections 7(1) and 7(2) of the Government Actions Regulation (GAR) for the Forest and Range Practices Act (FRPA).

Scenic landscapes are important to all of us. The provincial Visual Resource Management Program helps manage the rate and distribution of forestry activities on the landscape to meet the scenic-quality expectations of the public, first nations, tourism, and the forest industry. The purpose of the order is to update the existing visual landscape inventory and Visual Quality Objectives in the Sunshine Coast District which includes portions of your operational area(s).

VQOs describe levels of visual alteration appropriate for landscapes based on their visual sensitivity. Once the sensitivity of a landscape has been assessed, a VQO is established to guide forest management activities. VQOs are established at the local level by the resource District Manager in consultation with First Nations, License holders, stakeholders, and the public. As the existing forest landscape data is approximately 20 years old, this update seeks to align the visual data and objectives with current viewing activity and expectations.

The following link gives you access to the FTP website which contains information and maps showing the current Established Visual Quality Objectives (EVQO) and the Recommended Visual Quality Classification (RVQC). RVQC's go through a Government Actions Regulation (GAR) process to become legal or EVQO's. An important part of the GAR process is engagement with stakeholders.

https://www.for.gov.bc.ca/ftp/dsc/external/!publish/2020_DSC_VQO_GAR/

Ministry of Forests, Lands,
Natural Resource Operations
and Rural Development

Sunshine Coast
Natural Resource District

Mailing Address:
7077 Duncan Street
Powell River BC V8A 1W1

The Draft Visual Quality Objectives are based on the results of a Visual Landscape Inventory Analysis, preliminary referrals with First Nations and License holders, and a Timber Supply Impact Analysis. Further consideration through ongoing consultation with First Nations, Stakeholders, and the Public is required prior to the District Manager's decision to assign a final VQO.

In addition to the information provided at the above link, the Sunshine Coast Natural Resource District is pleased to offer three online information sessions that will provide a background of Visual Management and the GAR Order process and make available Visual Resource Specialists to answer questions. The sessions are arranged geographically as follows:

- Session 1 – Wednesday, June 2nd, 2021, 7pm – Discovery Islands, Bute and Toba Inlet
  Register in advance for this meeting:
  https://zoom.us/meeting/register/tJEsf-GgqzwjGdz8KGSuTyofEcEtOw4r9KPL

- Session 2 – Thursday, June 3rd, 2021 7pm – Upper Sunshine Coast, Texada Island, and Jervis Inlet
  Register in advance for this meeting:
  https://zoom.us/meeting/register/tJIqc-itqD0tHNJ6YPhSj8MLTfuHBjFPq_QK

- Session 3 – Tuesday, June 8th, 2021, 7pm – Lower Sunshine Coast, Gambier, and Nelson Islands
  Register in advance for this meeting:
  https://zoom.us/meeting/register/tJcqce-vrzkjH9Ujf8QG0gQeKMVeIIjHwvuF

We appreciate that this GAR Order may have an impact on your establishment and hope you will take the time to comment. Please review the information package and maps provided and submit any comments or concerns in writing to FTA.DSC@gov.bc.ca using the "VQO Feedback Form" provided on the FTA site no later than August 20, 2021.

The District asks that you review this information with your members or constituents that may be impacted by this decision and collect their feedback which you can then provide to the District.

In the interim should you have any questions please contact Andrea Rietman at 604 413-0151 or by email at, Andrea.Rietman@gov.bc.ca to discuss the visual landscape review.

Yours truly,

Derek Lefler, RPF
District Manager
Sunshine Coast Natural Resource District

Attachments: *SCNRD VQO GAR Order Background.pdf*

BRITISH
COLUMBIA

Background Information Regarding the Visual Quality Objective Update in the Sunshine Coast Natural Resource District

Background of VQOs in the Sunshine Coast Natural Resource District

Visual Quality Management is one of the Forest and Range Practices Act (FRPA) Values that government may set legal objectives for and that is required to be managed for by forest tenure holders on provincial forest land. Visual Quality Objectives (VQOs) are legally established through Government Action Regulation (GAR) Orders. The VQOs assign categories of visual alteration (retention, partial retention, etc.) which are determined through a process that starts with a Visual Landscape Inventory (VLI) which provides Recommended Visual Quality Classes (RVQC's) that are then legally established through a GAR Order process.

The Sunshine Coast Natural Resource District (SCNRD) recognizes that land use has changed within the Sunshine Coast, with increased focus on tourism and recreational use. The Sunshine Coast is largely accessed by water and with over 40 marine parks and reserves it attracts visitors from around the world. Outdoor recreation and tourism are important components to the local and provincial economy and tourism operators market the scenery as one of the key ingredients that makes their product unique and attractive. The importance and increased tourism use within the Sunshine Coast is the driving mechanism updating the VQOs.

The Visual Landscape Inventory (VLI)

Development of Visual Quality Objectives (VQOs) is initiated by a Visual Landscape Inventory (VLI) and the previous Visual Landscape Inventory (VLI) for the Sunshine Coast Natural Resource District (SCNRD) was conducted in 1991 with updates made up until 1999.

From 2012 to 2014 the SCNRD contracted an independent Visual Resource Specialist to conduct an updated VLI from Howe Sound in the south, to Toba and Bute Inlets in the north, and west to Texada.

The VLI assesses visible areas at the landform level based on specific criteria to assign them a Visual Sensitivity Class (VSC). Section 9.2 of the Forest Planning and Practices Regulations (FPPR) establishes what alteration category is required for each VSC. For example, if a VLI conducted on a scenic landform results in a VSC of 3, the VQO must be in either the partial

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retention or modification category. 'Categories of visually altered forest landscape' are also defined under the FPPR Section 1.1.

The VLI provides a set of Recommended Visual Quality Classes (RVQC's) which recommend which alteration category is likely to result on the best outcome based on the professional advice of the person conducting the inventory.

Categories of visually altered forest landscapes were developed through extensive research that conducted public perception studies of various intensities of alterations on different landforms. Further information regarding the inventory process can be found in the VLI Procedures & Standards Manual.

The GAR Order Process

The Forest & Range Practices Act allows for the creation of Government Actions Regulations (GAR) in the form of legal Orders. This is the method through which the B.C. provincial government establishes land designations or stewardship measures for some forest and range values.

Establishment of Scenic Areas and VQOs are authorized under the Government Action Regulation Sec. 7 and there are 4 tests that must be met prior to a District Manager signing an order to establish, modify or cancel VQOs. These tests are:

1. Is special management required?
2. Is the order consistent with (other) established objectives?
3. Would the proposed action unduly reduce the supply of timber from BC's forests?
4. Do public benefits from the action outweigh any material adverse impact on delivered wood costs and any undue constraint on the ability of a forest agreement holder to exercise their rights?

In addition, the GAR process requires that holders of agreements under the Forest Act that may be affected by the order be provided with an opportunity for review and comment. There are also obligations to consult with affected First Nations and to conduct a review and comment period with the public and stakeholders, including, recreation groups and commercial tourism operators.

When deciding on the VQO changes under the new GAR Order, the District Manager must consider the RVQCs provided by the VLI, consultation with First Nations, potential effects on timber supply, and comments received from tenure holders, stakeholders, and the public.

Currently the SCNRD is initiating a Targeted Stakeholder Review and Comment Period. Once this period closes, all the input received will be considered and put through the checks and balances of the legal requirements of the GAR Order Process. A summary of the process and considerations taken will be provided with the final GAR Order which will be posted on the following site:

Government Actions Regulation - Province of British Columbia

When discussing Visual Management, it is important to keep in mind that it is only one of eleven FRPA values established by government and is managed from a visual landform

perspective. VQOs are not intended to create areas that are reserved from timber harvesting, rather they have the objective of considering what an area should look like from significant viewpoints and establishing that as a requirement for forestry practices.

The following link will give you access to an FTP website which contains:

1. Maps of the Existing Visual Quality Objectives *(EVQO SCNRD North Jan17 2019.pdf and EVQO SCNRD South Jan17 2019.pdf)*
2. Maps of the Draft Visual Quality Objectives *(Draft SCNRD Visual Quality Objectives North.pdf and Draft SCNRD Visual Quality Objectives South.pdf)*
3. Maps of the Draft VQOs with private land parcels masked *(RVQC SCNRD North Private Parcels Masked.pdf and RVQC SCNRD South Private Parcels Masked.pdf)*
4. The Draft of the VQO Order *(draft SCNRD VQO Order.docx)*
5. Shapefiles of the Draft VQOs *(DSC_VLI_under_review_most_recent.gdb.zip)*
6. Information Pamphlets *(vrm_a_guide_to_visual_quality_objectives.pdf and vrm_managing_change.pdf)*
7. A VQO Feedback Form *(VQO Feedback Form.docx)*
8. A copy of this background document *(SCNRD VQO GAR Order Background.pdf)*

https://www.for.gov.bc.ca/ftp/dsc/external/!publish/2020_DSC_VQO_GAR/

In addition to the information provided on the FTP site, the Sunshine Coast Natural Resource District is pleased to offer three online information sessions that will provide further background information regarding Visual Management and the GAR Order process. These sessions will review what Visual Resource Management means, what the SCNRD is doing about Visual Quality, how stakeholders can provide feedback, and a discussion period with Visual Resource Specialists who can answer questions. The sessions are arranged geographically as follows:

- **Session 1 – Discovery Islands, Bute and Toba Inlet**
  Date: Wednesday, June 2nd, 2021, 7pm
  Register in advance for this meeting:
  https://zoom.us/meeting/register/tJEsf-GgqzwjGdz8KGSuTyofEcEtOw4r9KPL

- **Session 2 – Upper Sunshine Coast, Texada Island, and Jervis Inlet**
  Date: Thursday, June 3rd, 2021 7pm
  Register in advance for this meeting:
  https://zoom.us/meeting/register/tJIqc-itqD0tHNJ6YPhSj8MLTfuHBjFPq_QK

- **Session 3 – Lower Sunshine Coast, Gambier, and Nelson Islands**
  Date: Tuesday, June 8th, 2021, 7pm
  Register in advance for this meeting:
  https://zoom.us/meeting/register/tJcqce-vrzkjH9Ujf8QG0gQeKMVeIIjHwvuF

The SCNRD appreciates that this GAR Order may have an impact on your establishment and hopes that you will take the time to comment. Please review the information package and maps provided and submit any comments or concerns in writing to FTP.DSC@gov.bc.ca using the "VQO Feedback Form" provided on the FTP site no later than August 20, 2021.

List of Links:

Forest and Range Practices Act
https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/laws-policies-standards-guidance/legislation-regulation/forest-range-practices-act

Visual Landscape Inventory (VLI)
https://www2.gov.bc.ca/gov/content/industry/forestry/managing-our-forest-resources/visual-resource-management/visual-landscape-inventory

Forest Planning and Practices Regulations
https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/14_2004#section9.2

Clearcutting and Visual Quality, a Public Perception Study (Report)
https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/visual-resource-mgmt/research-publications/vrm_clearcutting_and_visual_quality_a_public_perception_study_frr270_optimized.pdf

VLI Procedures & Standards Manual
https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/visual-resource-mgmt/vli_procedures__standards_manual97.pdf

Government Actions Regulations
https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/582_2004

FRPA Values
https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/laws-policies-standards-guidance/legislation-regulation/forest-range-practices-act/resource-values

Government Actions Regulation - Province of British Columbia
https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/laws-policies-standards-guidance/legislation-regulation/forest-range-practices-act/government-actions-regulation

BRITISH COLUMBIA

June 2, 2021

VIA EMAIL: Lori.Pratt@scrd.ca

Lori Pratt, Chair
Sunshine Coast Regional District

Re: Modernizing Forest Policy

Dear Chair Pratt:

Yesterday, the Premier and I shared a plan to modernize forest policy with the release of an intentions paper - www.gov.bc.ca/modernforestpolicy. This work aligns with our continued efforts to implement the recommendations of the Old Growth Strategic Review and improve forest management through the *Forest and Range Practices Act*. I would like to update you on this work and our next steps.

Intentions Paper

Plans to modernize forest policy as outlined in the Intentions Paper stem from what we heard from Indigenous peoples, local governments, industry, stakeholders and the public in forestry-focused engagement initiatives over the past three years including the *Forest and Range Practices Act* Improvement Initiative, the Old Growth Strategic Review, Coast Forest Sector Revitalization, and Interior Forest Sector Renewal. Three principles emerged from these engagements to guide our work including a focus on strengthening sector diversity, enhancing sustainability and stewardship, and ensuring ongoing support of the forest sector, what we have called strengthening the social contract.

There are 20 policy intentions laid out in this paper with several directly connected to what we heard from community leaders. This includes ensuring the voices of your communities are considered in decisions, like tenure disposition, where our government brought in Bill 22 in 2019 on this topic and seek to make further improvements. Other topics include the need to prioritize greater access to community tenures if local jobs, particularly in manufacturing, can be demonstrated. I also want to highlight our intention to provide statutory decision makers with discretion in permit approvals if the forest management proposed as part of a permit could put forest values at risk of damage, and to have community perspectives considered in tenure replacement decisions. There is much to be excited about it in these intentions and I hope you will take the time to review them.

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Old Growth Strategic Review

In 2019, my predecessor appointed a two-person panel to engage Indigenous and non-Indigenous communities, industry, and stakeholders on what a new path forward on managing old growth could include. They visited 45 communities, held over 200 meetings with close to 800 people, and received over 300 written submissions and more than 18,000 survey responses. The report they submitted in Spring 2020, along with the insight which informed it is included on our website at Old Growth Forests - Province of British Columbia (gov.bc.ca).

The report and its 14 recommendations are complex and over the next two years policy options and implementation decisions will be developed into a new Old Growth Strategy for British Columbia. The immediate priorities are recommendations #1 and #6, that is to work with Indigenous Nations on a government-to-government basis, to identify if and where any further timber harvesting deferrals are needed where old growth is at a very high and near-term risk of irreversible biodiversity loss. Attached in Appendix 1 is a high-level roadmap for how the ministry plans to sequence the work on the recommendations going forward.

What's Next

Over the next several weeks, ministry staff will connect with you on a series of virtual town halls we would like to have you join. I have asked my Parliamentary Secretary Roly Russell to host these town halls as part of his role to hear from you on modernizing forest policy and how it affects your communities.

After several initiatives to better understand where we should start our modernization effort, I am pleased we are advancing this work. The experiences and insights your government can bring to the table on behalf of your community are most welcomed. I hope you can participate.

Sincerely,

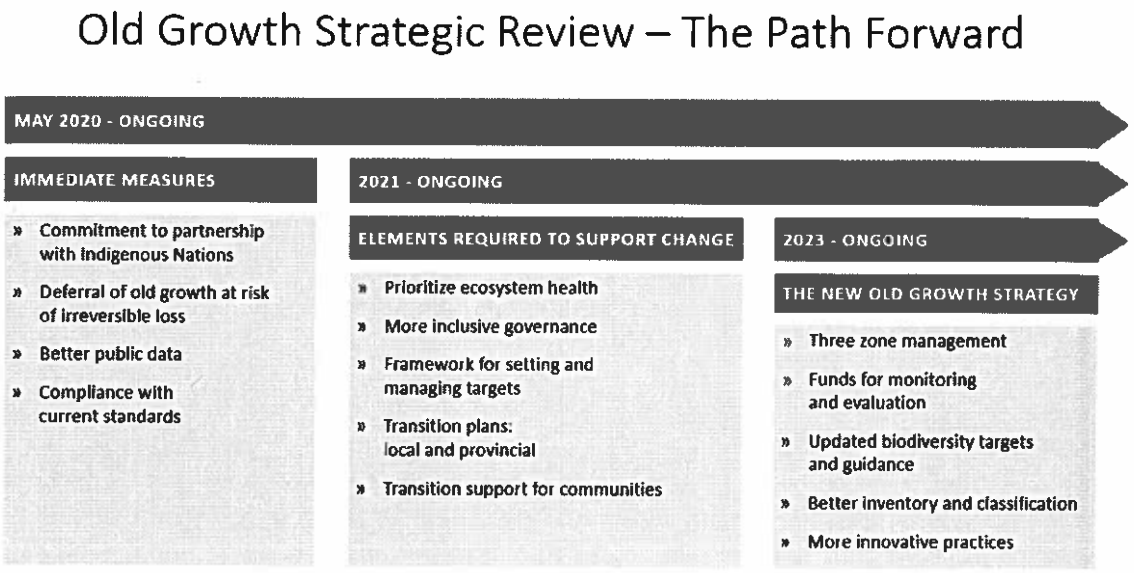
Katrine Conroy
Minister

Enclosure

pc: Roly Russell, MLA, Parliamentary Secretary for Rural Development
Brian Frenkel, President, UBCM
Craig Sutherland, ADM, Coast Area
Allan Johnsrude, Regional Executive Director, South Coast Region

Appendix 1:

Given the breadth and scope of the report, the province is recommending a phased approach to addressing the recommendations over the next two years. The diagram below illustrates recommendations #1, 5, 6, and 7 under the heading "Immediate Measures". The center column titled "Elements Required for Change" outlines recommendations #2, 4, 9, 13, 14 which set up a framework of key changes and policy shifts that support change. The third column titled "The New Old Growth Strategy" are recommendations #3, 8, 10, 11, and 12 which are critical to implementing change.



Subject: FW: Sunshine Coast Community Forest 5 year Cut Plan

From: Elaine Futterman
Sent: Monday, June 7, 2021 7:36 PM
To: Board Chair <board@scrd.ca>
Subject: Sunshine Coast Community Forest 5 year Cut Plan

Dear SCRD Board Members,

The Roberts Creek Official Community Plan Committee (OCPC) has sent the following correspondence to Warren Hansen, Operations Manager of the Sunshine Coast Community Forest (SCCF) regarding the recently announced 5 year cut plan. We have expressed our dismay at the selection of 3 cut blocks which border one of the 3 small Provincial Parks on Mt. Elphinstone in Roberts Creek. The logging of these 3 blocks is in opposition to important goals within our OCP.

The OCPC would appreciate your support of our request that these cut blocks be deleted from the SCCF 5 year cut plan until the Sunshine Coast Land Use Plan is completed.

Thank you,

Elaine Futterman, Chair, Roberts Creek Official Community Plan Committee

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To: Warren Hansen, SCCF Operations Manager June 7, 2021

Re: Roberts Creek OCPC comments on SCCF 5year Cut Plan

The Roberts Creek Official Community Plan Committee (OCPC) vigorously opposes the Sunshine Coast Community Forest's plan to log cut blocks EW 18A, EW 18B and EW 19 on Mt. Elphinstone in Roberts Creek. The OCPC is an elected committee of Roberts Creek residents whose mandate is to preserve the values expressed in the Roberts Creek OCP. See Appendix B of Robert Creek's OCP, SCRD Bylaw 641.

Important goals of our OCP include ensuring biodiversity through protection of plant and animal habitats as well as public access to the natural environment.

Roberts Creek's OCP expressly states that the three separate Provincial Parks in Roberts Creek comprised of 139 ha on Mt. Elphinstone need to be interconnected. The OCP supports the expansion of Mt. Elphinstone Park to the full 1500 ha originally requested for the lower elevations of the mountain to protect its diverse habitats. Our OCP states that the Province, the shishalh and Skwxwu7mesh Nations and the SCRD should work together to protect this land.

The SCCF's proposed cut blocks adjacent to the most western of the 3 small Provincial Parks will eliminate a wildlife corridor between it and the other 2 small Parks, as well as destroy access to the Park for those who hike, bike, pick mushrooms or ride horses into the Park. If logging occurs next to the Park, it is documented that approximately half of the remaining edge trees in the Park will fall in the next season's storms.

B.C. Parks recognizes the impact that logging on Crown land has on adjacent parkland. The Forest Practices Board also recognizes the importance of recreation on public forest land, the resulting economic benefits of tourism and improved healthy lifestyles. The B.C. Ministry of Forests has promised to refrain from planning cut blocks in the proposed Mt. Elphinstone Park expansion until the Land Use Plan between the shishalh and the Province is complete. What if the Land Use Plan is not complete before 2024 and 2025, the years the SCCF cut blocks in Roberts Creek are scheduled? Will the SCCF go ahead and cut these 3 blocks in Roberts Creek? The SCCF should adopt a policy of no cutting on Mt. Elphinstone until the Land Use Plan is complete.

These blocks provide much needed diversity of habitat, recreation opportunities in our increasingly crowded inter-urban interface, wildfire protection and sequestering of carbon. These trees have not been previously cut, only exposed to natural events such as fire. The Roberts Creek cut blocks that SCCF has in their 5year plan contain trees with an average age of 140 – 160 years including some Old Growth trees. If left to grow into their prime, these forests will become the Old Growth Forests of which we have so little left on our lower elevation slopes. With less than 3% of Old Growth remaining in B.C., these are the kinds of forests that people are fighting to save all over B.C.

The "Ecosystem Management Model" that the SCCF professes to use does not appear to be the management plan for the cut blocks bordering this small Park on Mt. Elphinstone. Nor does SCCF appear to respect the OCP of Roberts Creek, Sechelt's neighbor.

The OCPC requests that the SCCF delete these cut blocks on Mt. Elphinstone from their 5year plan.

Sincerely,
Elaine Futterman, Chair, Roberts Creek Official Community Plan Committee