

SHIRLEY-JORDAN RIVER ADVISORY PLANNING COMMISSION

Notice of Meeting on Tuesday, **February 7, 2023, at 7 pm**

Shirley Community Hall, 2795 Sheringham Point Road, Shirley, BC

AGENDA

1. Elections
2. Approval of Agenda
3. Approval of the Supplementary Agenda
4. Adoption of Minutes of November 15, 2022
5. Planner's Report
6. Zoning Amendment Application
 - a) RZ000280 – Lot A Section 74 Renfrew District Plan VIP71883 (11237 West Coast Road) and That Part of Section 74, Renfrew District Lying to the North of the Northerly Boundary of Plan 109RW
7. Adjournment

**Minutes of a Meeting of the Shirley-Jordan River Advisory Planning Commission
Held November 15, 2022, at the Shirley Community Hall, 2795 Sheringham Point Road,
Shirley, BC**

PRESENT: Fiona McDannold (Chair), Emily Anderson, Vivi Curutchet, Melody Kimmel
Staff: Iain Lawrence, Senior Manager, JdF Local Area Services;
Darren Lucas, Planner; Wendy Miller, Recorder
ABSENT: Wayne Jackaman
PUBLIC: 4

The meeting was called to order at 7:00 pm.

1. Approval of the Agenda

MOVED by Melody Kimmel, **SECONDED** by Vivi Curutchet that the agenda be approved. **CARRIED**

2. Approval of the Supplementary Agenda

No supplementary items.

3. Adoption of the Minutes of August 9, 2022

MOVED by Melody Kimmel, **SECONDED** by Emily Anderson that the minutes of August, 9, 2022, be adopted. **CARRIED**

4. Planner's Report

Iain Lawrence extended a thank you to the APC for its work over the last four years, noting that the term of the current APC concludes December 31, 2022. Certificates of appreciation as issued by the CRD Board Chair were presented to the APC.

It was advised that residents interested in becoming a member of the APC need to submit interest by November 18, 2022.

5. Zoning Amendment Application

a) RZ000281 – Strata Lot A (3692 Waters Edge Drive) and Strata Lot B (12051 West Coast Road), Section 2, Renfrew District, Strata Plan VIS6939

Darren Lucas spoke to the staff report for a joint application to rezone the subject property from the Rural Residential 2A (RR-2A) zone to the Rural Residential 1 (RR-1) zone for the purposes of dissolving a building strata and subdividing the property into two fee-simple parcels.

The Chair confirmed that the applicants were present.

An applicant stated that, should the property be permitted to subdivide, the land will essentially remain status quo as the dwelling units are serviced by separate well and septic systems.

APC comments included:

- no other properties are zoned RR-1
- the RR-1 zone permits a minimum lot size of 0.4 ha which is significantly smaller than the minimum lot size permitted by the RR-2A zone, which may be precedent setting
- dissolution of the strata would grant more control to the property owners while not increasing the number of dwelling units permitted on each lot
- the RR-1 zone does not permit use of a trailer for temporary accommodation of guests unlike the RR-2A zone

Staff responded to questions for the APC advising that:

- the property is considered a non-conforming two-lot building strata as the dwellings were constructed prior to adoption of the bylaw that zoned the land RR-2A
- the Shirley-Jordan River OCP allows for consideration of rezoning applications of building strata properties for subdivision to create lots smaller than the lot size otherwise supported by the OCP, provided that the subject strata was registered prior to the adoption of the OCP
- the subject building strata was established prior to the adoption of the current OCP
- the number of building strata developments registered prior to the adoption of the current Shirley-Jordan River OCP is generally limited to a few Rural A zoned properties.
- should rezoning and subdivision of the subject property proceed, each lot would be permitted either one second suite or one detached accessory suite

MOVED by Fiona McDannold, **SECONDED** by Vivi Curutchet that the Shirley-Jordan River Advisory Planning Commission recommends to the Juan de Fuca Land Use Committee support for zoning amendment application RZ000281.

CARRIED

6. Adjournment

The meeting adjourned at 7:12 pm.

Chair



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REPORT TO THE JUAN DE FUCA LAND USE COMMITTEE MEETING OF TUESDAY, JANUARY 17, 2023

- SUBJECT** **Zoning Bylaw Amendment Application for Two Properties Located at 11237 West Coast Road – described as:**
- **Lot A Section 74 Renfrew District Plan VIP71883 – 11237 West Coast Road; PID: 024-937-207; and**
 - **That Part of Section 74, Renfrew District Lying to the North of the Northerly Boundary of Plan 109RW; PID: 009-590-412**

ISSUE SUMMARY

The landowner has submitted an application to rezone the subject properties from the Forestry (AF) zone to the Rural Commercial Recreation (Campground) (CR-2) zone with amendments.

BACKGROUND

The properties are subject to the Forestry (AF) zone and located on the north and south sides of West Coast Road, abutting the eastern boundary of Jordan River Regional Park (Sandcut Beach) to the west, AF zoned lands to the east and west, and Resource Land (RL) zoned land to the north (Appendix A). The subject lands are designated Coastal Upland (CU) in the Shirley-Jordan River Official Community Plan (OCP) Bylaw No. 4001. Portions of the property are located in Steep Slopes, Sensitive Ecosystem, and Riparian development permit areas. The 78.11 ha subject area is comprised of two parcels including a 7.7 ha waterfront parcel and a 70.4 ha Private Managed Forest Land (PMFL) parcel. The land is within the Shirley Fire Protection Service Area.

The landowner has submitted an application to amend Bylaw No. 2040 by removing the land from the AF zone (Appendix B) and adding it to the CR-2 zone. The proposal includes amendments to the CR-2 zone for the purpose of developing a cabin and campground resort with accessory uses (Appendix C). The applicant has provided a concept plan that illustrates the future establishment of an “environmentally responsible” resort/“eco-resort” (Appendix D). The concept plan is supplemented by an Environmental Assessment and a *Riparian Areas Protection Regulation* assessment report (RAPR report) to inform and guide site planning and future development (Appendix E). Staff have prepared Bylaw No. 4518, for consideration (Appendix F).

ALTERNATIVES

Alternative 1

That staff be directed to refer proposed Bylaw No. 4518, "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 158, 2022", to the Shirley-Jordan River Advisory Planning Commission, appropriate CRD departments, and the following external agencies and First Nations for comment:

BC Hydro
District of Sooke
FLNR - Archaeology Branch
FLNR - Ministry of Forests, Lands, Natural Resource Operations and Rural Development
FLNR - Water Protection Section
Island Health
Ministry of Transportation & Infrastructure
Pacheedaht First Nation
RCMP
Sooke School District #62
T'Sou-ke First Nation

Alternative 2

That proposed Bylaw No. 4518 not proceed.

IMPLICATIONS

Legislative Implications

The Advisory Planning Commissions (APCs) were established to make recommendations to the Land Use Committee on land use planning matters referred to them related to Part 14 of the *Local Government Act (LGA)*. Staff recommend referring the proposed Bylaw No. 4518 to the Shirley-Jordan River APC.

Should the proposal proceed, a public hearing pursuant to Part 14, Division 3 of the *LGA* will be required subsequent to the amendment passing second reading by the CRD Board. Property owners within 500 m of the subject properties will be sent notice of the proposed bylaw amendment and a public hearing will be advertised in the local paper and on the CRD website.

Regional Growth Strategy Implications

Section 445 of the *LGA* requires that all bylaws adopted by a regional district board after the board has adopted a regional growth strategy (RGS) be consistent with the RGS. In accordance with CRD policy, where a zoning bylaw amendment that applies to land within the Shirley-Jordan River OCP area is consistent with the OCP, it does not proceed to the full CRD Board for a determination of consistency with the RGS.

Land Use Implications

The Shirley-Jordan River OCP designates the subject area as Coastal Upland. The intent of the Coastal Upland land use designation is to support the continued use of those lands for forestry. Lands in this designation consist primarily of parcels enrolled in the PMFL program or zoned for forestry uses. If lands are removed from the PMFL program, then uses such as low-impact recreation and low-impact tourism are supported. Community parks, single-family residential, and agriculture are also supported in this designation. The concept plan proposes low-impact tourism consistent the Shirley-Jordan River contextual rural character and in keeping with the community goals identified by the OCP.

The CR-2 zone currently exists within Bylaw No. 2040; however, no lands in the bylaw area are currently subject to this zone (Appendix G). The provided concept plan illustrates 39 cabins; 84 campsites; staff accommodation; office and reception space combined with a convenience store and a caretaker dwelling unit; assembly uses; and accessory and utility buildings. The proposal also retains a dwelling and cabin located on the waterfront portion of the property. In order to regulate these uses, a number of amendments are proposed to CR-2 zone. Since no land within the bylaw area is currently subject to this zone, no non-conforming land uses and developments will be created as a result of amendments. Staff are of the opinion that the proposed development may be considered in alignment with the Coastal Uplands Land Use designation and Shirley-Jordan River OCP policies; however, the OCP does not define low-impact tourism.

The development proposal incorporates recommendations provided by the environmental reports to preserve watercourses and limit the number of new stream crossings. The proposed semi-clustering of accommodation types and limits on the potential expansion of the proposed development would be regulated by the proposed amendments to the CR-2 zone.

Should proposed Bylaw No. 4518 proceed, the amended CR-2 zone would allow for a mixture of uses and low densities including one campsite per 0.5 ha to a maximum of 100 campsites per parcel; one tourist cabin per 0.5 ha to a maximum of 30 tourist cabins per parcel; one convenience store per parcel; one caretaker dwelling; one one-family dwelling; and assembly uses. The proposed zone also introduces a definition for staff accommodation, which provides an opportunity to address housing goals identified in the OCP. The proposed zone stipulates 9 m to

15 m setbacks, and separation distances between cabin units to provide space for vegetation consistent with the landowner's intention to develop an "eco-resort" that integrates with the broader community's rural character.

Based on the information provided by the applicants and the policies of the Shirley-Jordan River OCP, staff recommend that the application be referred to the Shirley-Jordan River APC, and to relevant CRD departments, First Nations and external agencies.

CONCLUSION

The purpose of Bylaw No. 4518 is to amend Bylaw No. 2040 by removing the subject properties from the Forestry (AF) zone and adding those parcels to the Rural Commercial Recreation (Campground) (CR-2) zone with amendments. Staff have prepared proposed Bylaw No. 4518 and recommend referral to the Shirley-Jordan River APC, First Nations, CRD departments and external agencies for comment. All comments received will be brought back to the Land Use Committee. At that time, the Committee may consider a recommendation for first and second reading.

RECOMMENDATION

That staff be directed to refer proposed Bylaw No. 4518, "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 158, 2022", to the Shirley-Jordan River Advisory Planning Commission, appropriate CRD departments, the following external agencies and First Nations for comment:

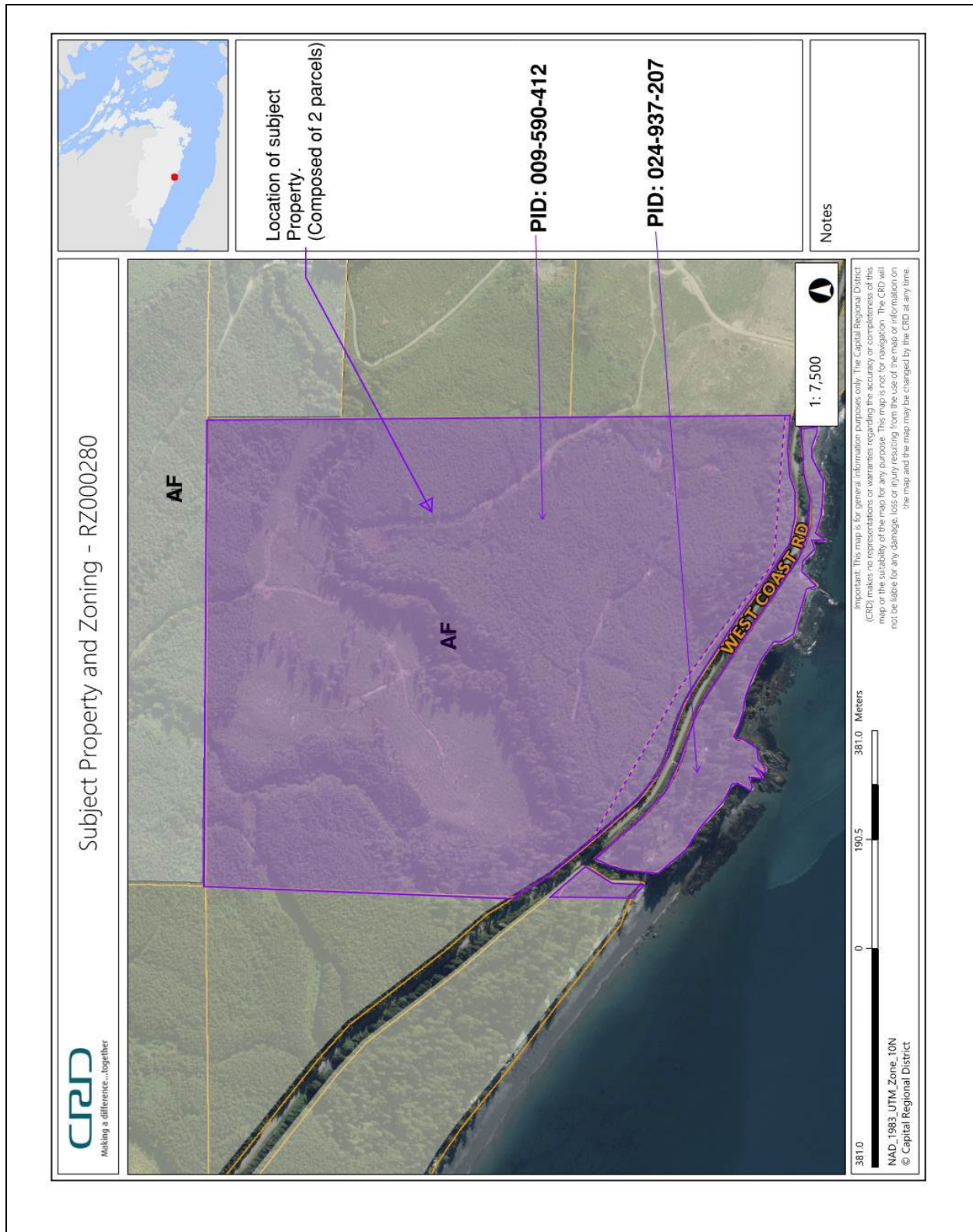
BC Hydro
District of Sooke
FLNR - Archaeology Branch
FLNR - Ministry of Forests, Lands, Natural Resource Operations and Rural Development
FLNR - Water Protection Section
Island Health
Ministry of Transportation & Infrastructure
Pacheedaht First Nation
RCMP
Sooke School District #62
T'Sou-ke First Nation

Submitted by:	Iain Lawrence, RPP, MCIP, Senior Manager, Juan de Fuca Local Area Services
Concurrence:	Kevin Lorette, P.Eng, MBA, General Manager, Planning & Protective Services

ATTACHMENTS

Appendix A: Subject Property and Zoning Map
Appendix B: Current Forestry Zone – AF
Appendix C: Proposed Rural Commercial Recreation (Campground) Zone – CR-2 with amendments
Appendix D: Concept Plan
Appendix E: Environmental Assessment Maps by Corvidae, dated May 2022
Appendix F: Proposed Bylaw No. 4518
Appendix G: Unimplemented Rural Commercial Recreation (Campground) Zone – CR-2

Appendix A: Subject Property and Zoning Map



Appendix B: Current Forestry Zone – AF

Schedule "A" of Capital Regional District Bylaw No. 2040
Juan de Fuca Land Use Bylaw

3.0 FORESTRY ZONE - AF

3.01 Permitted Uses

In addition to the uses permitted by Section 4.15 of Part 1 of this Bylaw, the following uses and no others shall be permitted in the Forestry AF Zone:

- (a) Silviculture except within 300m of a highway;
- (b) Offices, mechanical shops, fuel storage, and storage buildings accessory to mining or silviculture;
- (c) One-family dwelling;
- (d) Home Based Business Categories One, Two and Three; *Bylaw 3705*
- (e) Two Boarders or lodgers;
- (f) Secondary Suite pursuant to Part 1, Subsection 4.19; *Bylaw 3849*
- (g) Detached Accessory Suite pursuant to Part 1, Subsection 4.20. *Bylaw 3849*

3.02 Minimum Parcel Size for Subdivision Purposes

The minimum lot size is 4ha;

3.03 Density

One one-family dwelling per lot is permitted.

One secondary suite or one detached accessory suite per lot is permitted. *Bylaw 3849*

3.04 Height

Maximum height shall be 11m.

3.05 Lot Coverage

Maximum lot coverage shall be 10 percent.

3.06 Maximum Size of for Residential Buildings

Provided applicants having either met the *Sewerage System Regulation* (e.g., a filing) or acceptance by VIHA via referral. *Bylaw 3705*

- (i) On lots of less than 1ha in area, residential buildings and structures shall not exceed a Floor Area Ratio of 0.45 or a Total Floor Area of 418m², whichever is less;
- (ii) On lots of 1ha or more in size, residential buildings and structures shall not exceed a Floor Area Ratio of 0.45.

3.07 Yard Requirements

For all structures, the front, side, rear and flanking yards shall be a minimum of 15m. *Bylaw 3849*

Appendix C: Proposed Rural Commercial Recreation (Campground) Zone – CR-2
with amendments

Schedule "A" of Capital Regional District Bylaw No. 2040
Juan de Fuca Land Use Bylaw

23.0 RURAL COMMERCIAL RECREATION (CAMPGROUND) ZONE - CR-2

23.01 Permitted Uses

In addition to the uses permitted by Section 4.15 of Part 1 of this Bylaw, the following uses and no others shall be permitted in the Rural Commercial Recreation (Campground) CR-2 Zone:

- (a) Camp ground;
- (b) Tourist cabins;
- (c) Assembly use;
- (d) One-family dwelling.

Accessory Uses

- (a) Convenience store accessory to a camp ground use;
- (b) Staff accommodation pursuant to Part 2, Subsection 23.10;
- (c) Caretaker dwelling unit

23.02 Minimum Lot Size for Subdivision Purposes

- (a) The minimum lot size for subdivision purposes is no less than 4 ha.

23.03 Number of Residential Units

One dwelling unit per lot is permitted.

23.04 Height

Maximum height shall be 11m for the dwelling unit and 6m for all other principal buildings, structures and uses.

23.05 Lot Coverage

Maximum lot coverage shall be 10 percent.

23.06 Density of Provisions

- (a) 30 tourist cabins per parcel or one tourist cabin per 0.5 hectares; whichever is less;
- (b) 100 camping spaces per parcel or one campsite per 0.5 hectares; whichever is less;
- (c) One convenience store per parcel;
- (d) One Caretaker dwelling unit per parcel

23.07 Floor Area Regulation

- (a) Individual camping spaces shall be a minimum of 110m².

23.08 Setback Requirements

- (a) All campsites, buildings, and structures, must be setback a minimum of 9m from every parcel line; and 15m from the boundary of land designated as park.

23.09 Separation Space

- (a) All campsites and tourist cabins must be individual or freestanding; separated by a minimum of 9m measured from the outside surface of the nearest exterior wall of a building or structure; and the outermost edge of an area cleared of trees and other vegetation for a campsite, assembly use, or other outdoor uses.

Schedule "A" of Capital Regional District Bylaw No. 2040
Juan de Fuca Land Use Bylaw

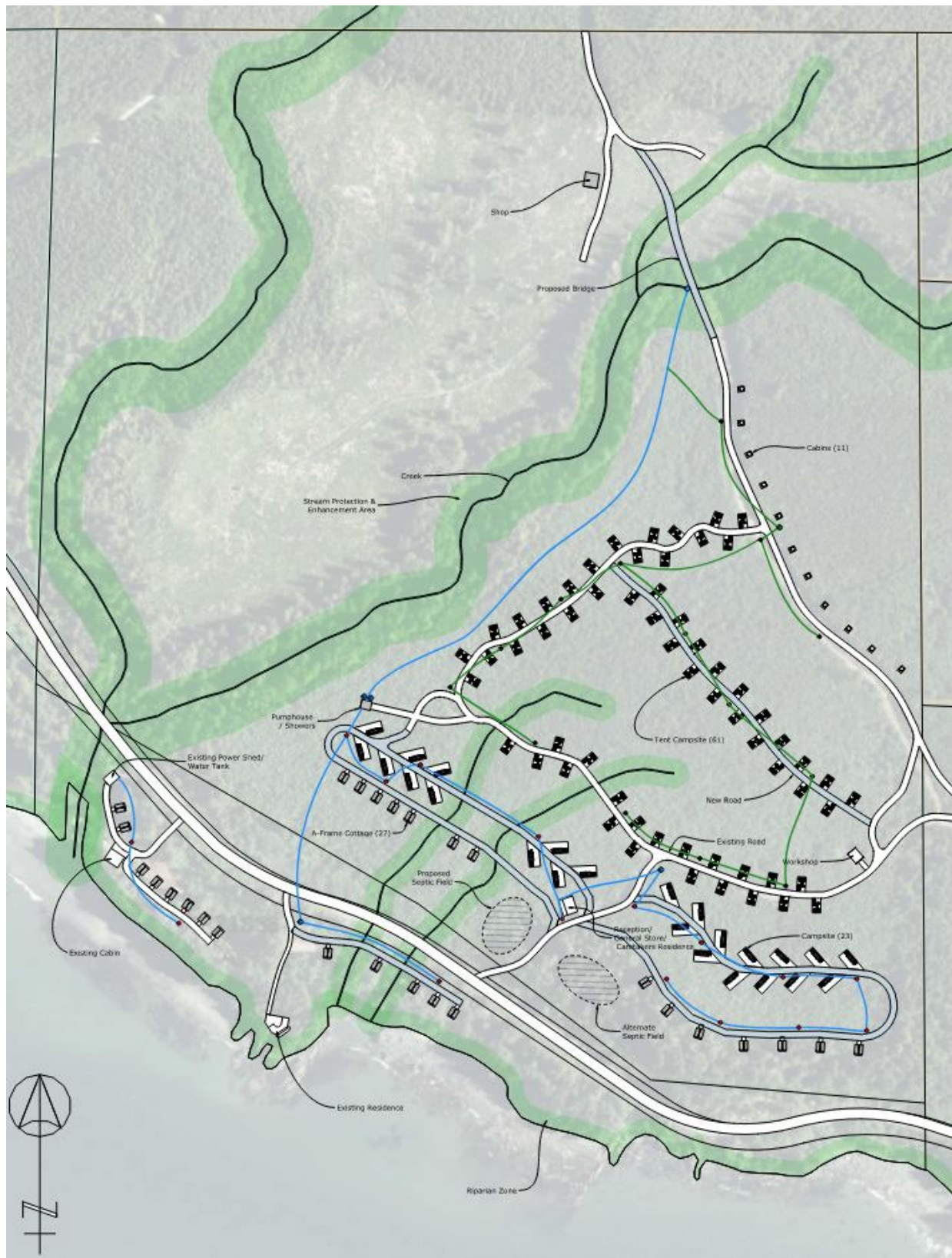
23.10 Definitions

(a) For the purpose of the *RURAL COMMERCIAL RECREATION (CAMPGROUND) ZONE - CR-2*, the following definitions apply:

Staff Accommodation means the accessory use of tourist cabins, for the accommodation of employees.

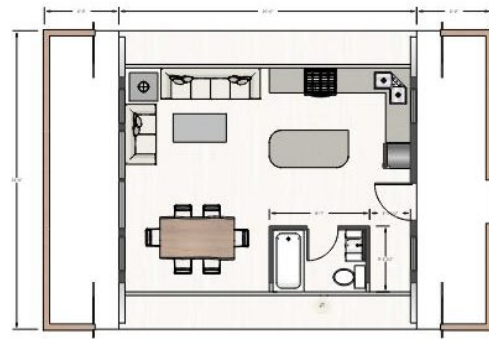
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Appendix D: Concept Plan



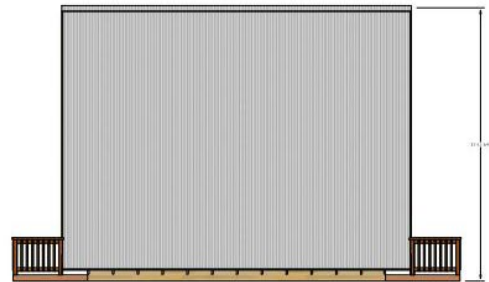
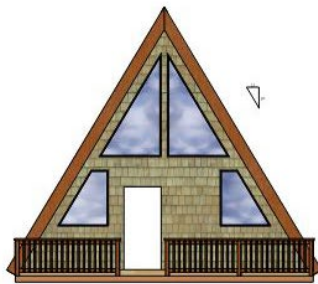


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Floor Plan
Area: 41.43 m²

Notes:
-Cabins shall be separated from each other
and from other buildings and structures
by a minimum of 3m.



North Elevation

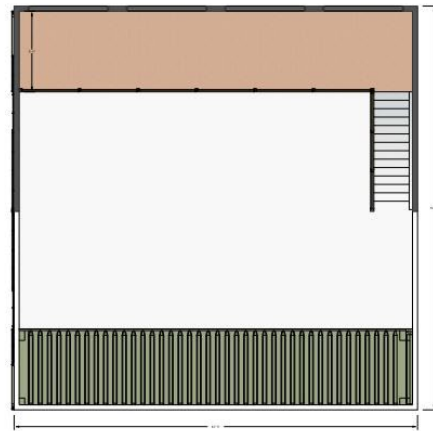


East Elevation

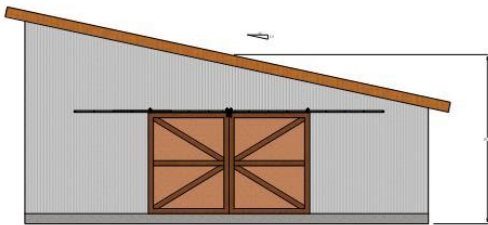




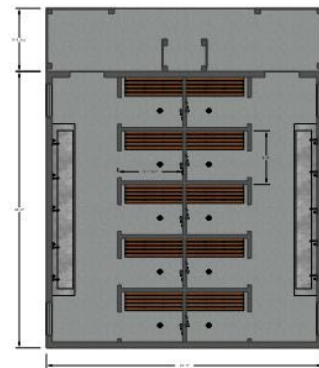
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Floor Plan



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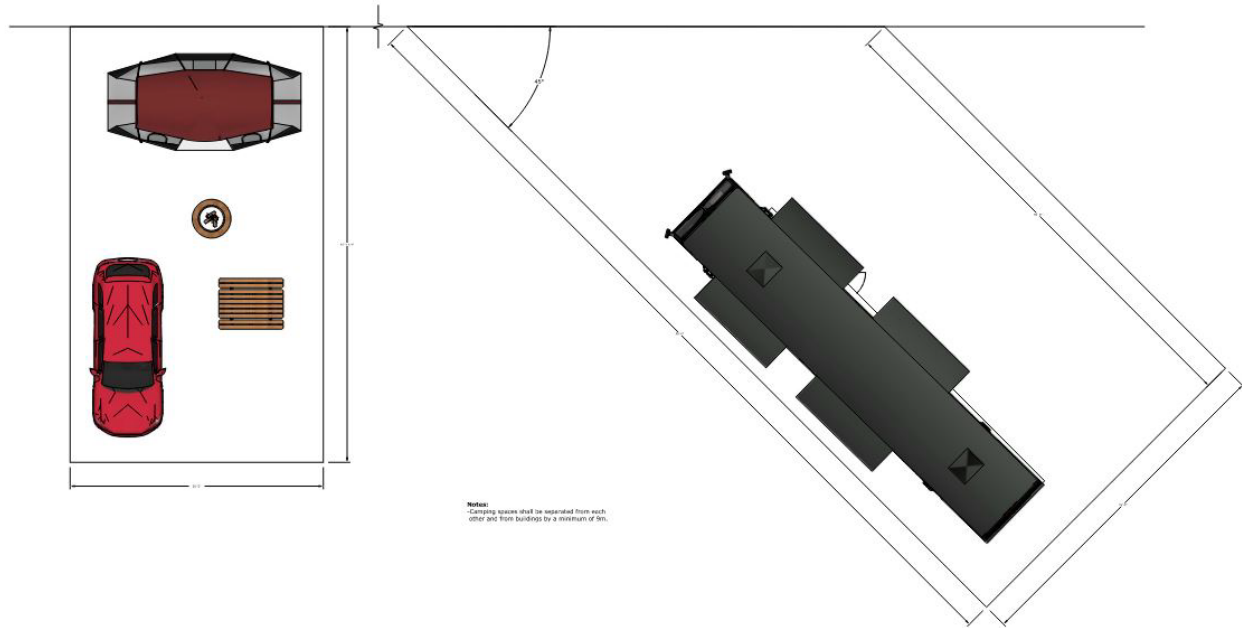
Floor Plan



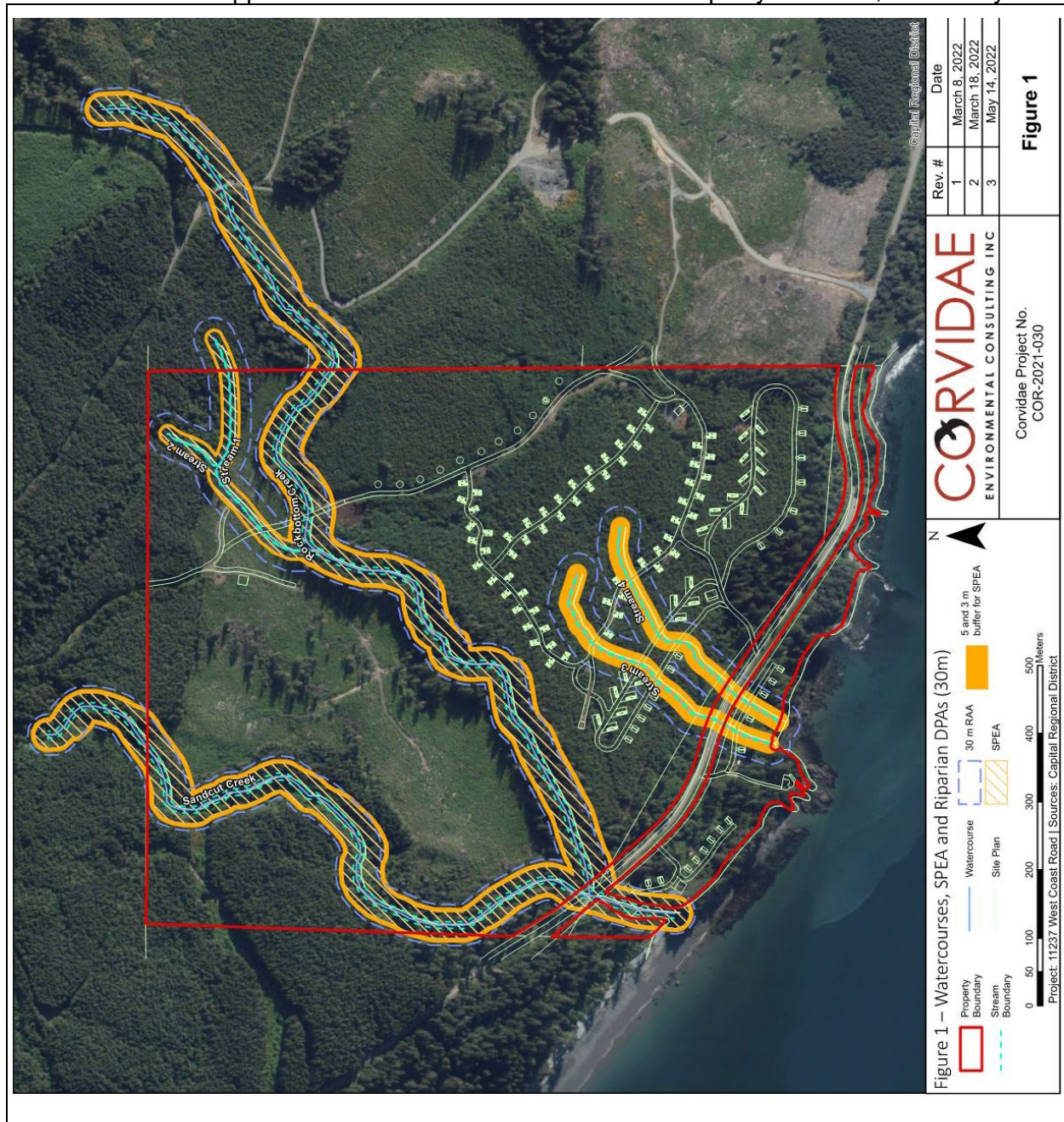
Side Elevation

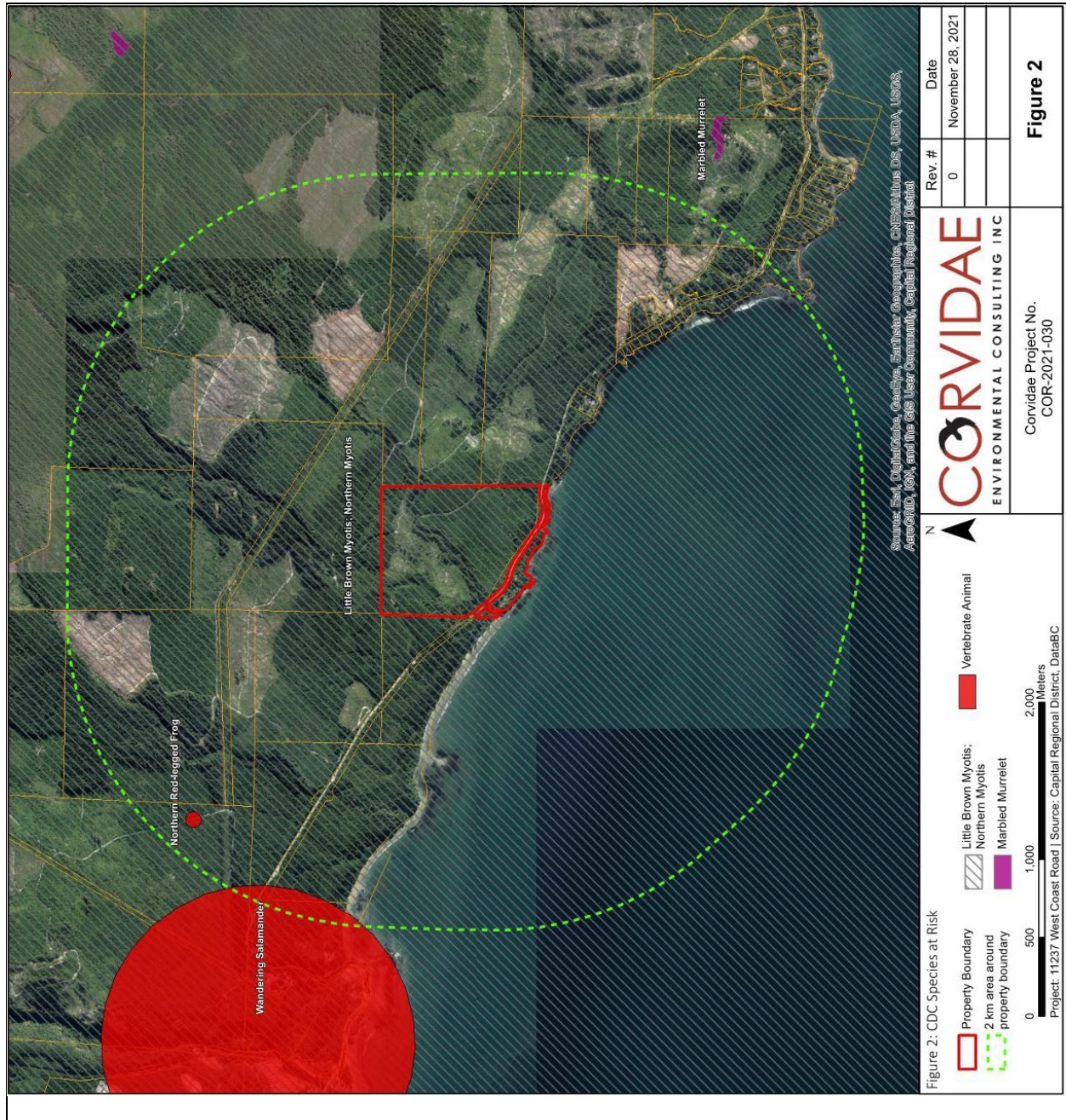


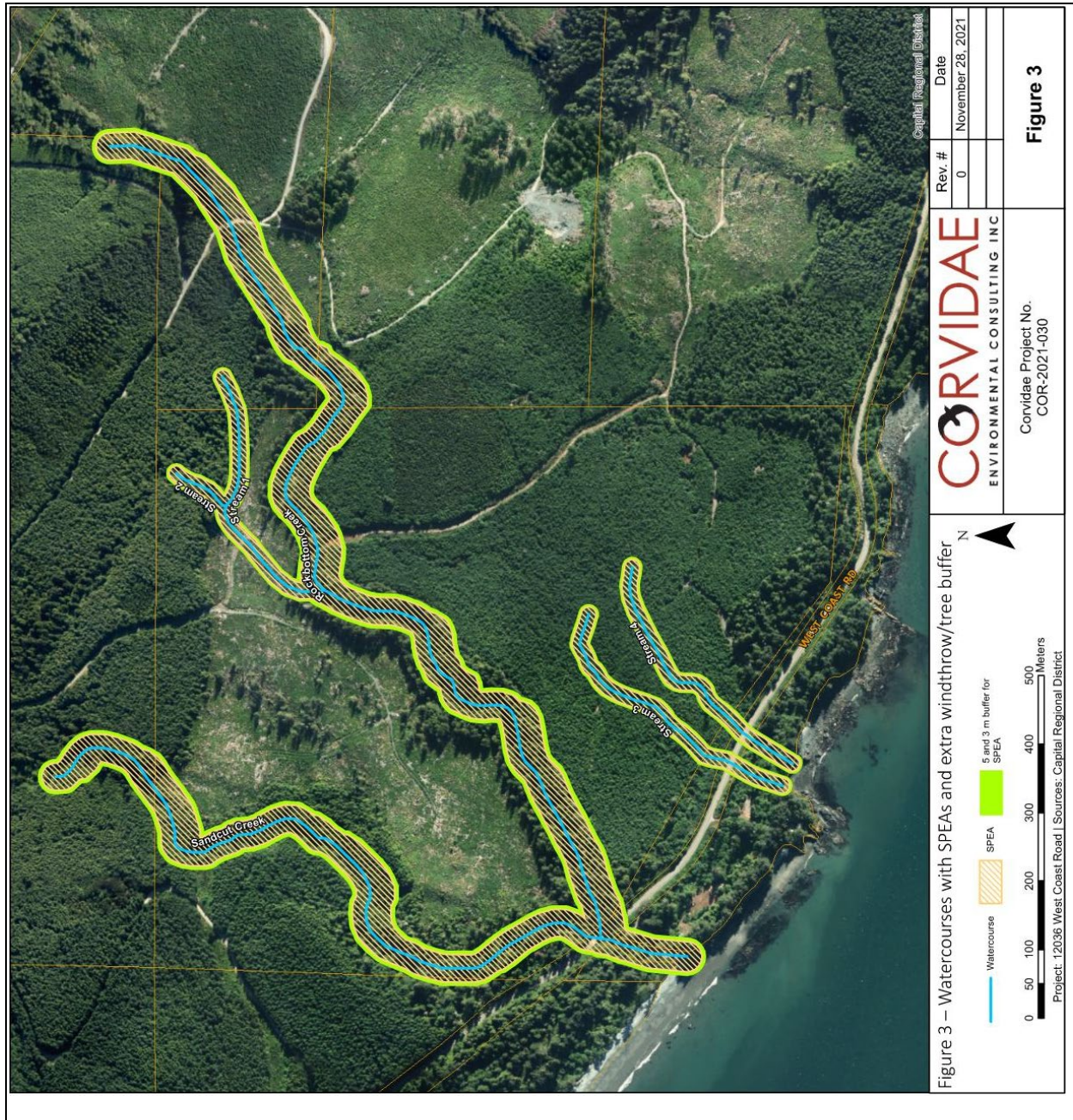
Rear Elevation



Appendix E: Environmental Assessment Maps by Corvidae, dated May 2022







Appendix F: Proposed Bylaw No. 4518

**CAPITAL REGIONAL DISTRICT
BYLAW NO. 4518**

A BYLAW TO AMEND BYLAW NO. 2040, THE "JUAN DE FUCA LAND USE BYLAW, 1992"

The Capital Regional District Board, in open meeting assembled, enacts as follows:

1. Bylaw No. 2040 being the "Juan de Fuca Land Use Bylaw, 1992" is hereby amended as follows:

A. SCHEDULE A, PART 2 - ZONING DISTRICTS

- (a) By deleting the section 23.0 Rural Commercial Recreation (Campground) Zone – CR-2 and replacing it with the new 23.0 Rural Commercial Recreation (Campground) Zone – CR-2 as follows:

23.0 RURAL COMMERCIAL RECREATION (CAMPGROUND) ZONE – CR-2

23.01 Permitted Uses

In addition to the uses permitted by Section 4.15 of Part 1 of this Bylaw, the following uses and no others shall be permitted in the Rural Commercial Recreation (Campground) CR-2 Zone:

- (a) Camp ground;
- (b) Tourist Cabin;
- (c) Assembly use;
- (d) One-family dwelling;

Accessory Uses

- (e) Convenience store accessory to a camp ground use;
- (f) Staff accommodation pursuant to Par 2, Subsection 23.10.
- (g) Caretaker dwelling unit

23.02 Minimum Lot Size for Subdivision Purposes

- (a) The minimum lot size for subdivision purposes is no less than 4 ha.

23.03 Number of Residential Units

One dwelling unit per lot is permitted.

23.04 Height

Maximum height shall be 11m for the dwelling unit and 6m for all other principal buildings, structures and uses.

23.05 Lot Coverage

Maximum lot coverage shall be 10 percent.

23.06 Density of Provisions

- (a) 30 tourist cabins per parcel or one tourist cabin per 0.5 hectares; whichever is less;
- (b) 100 camping spaces per parcel or one campsite per

CRD Bylaw No. 4518

2

- 0.5 hectares; whichever is less;
- (c) One convenience store per parcel;
- (d) One Caretaker dwelling unit per parcel

23.07 Floor Area Regulation

- (a) Individual camping spaces shall be a minimum of 110m².

23.08 Setback Requirements

- (a) All campsites, buildings, and structures, must be setback a minimum of 9m from every parcel line; and 15m from the boundary of land designated as park.

23.09 Separation Space

- (a) All campsites and tourist cabins must be individual or freestanding; separated by a minimum of 9m measured from the outside surface of the nearest exterior wall of a building or structure; and the outermost edge of an area cleared of trees and other vegetation for a campsite, assembly use, or other outdoor uses.

23.10 Definitions

(a) For the purpose of the *RURAL COMMERCIAL RECREATION (CAMPGROUND) ZONE - CR-2*, the following definitions apply:

Staff Accommodation means the accessory use of tourist cabins, for the accommodation of employees.

D. SCHEDULE B, ZONING MAPS

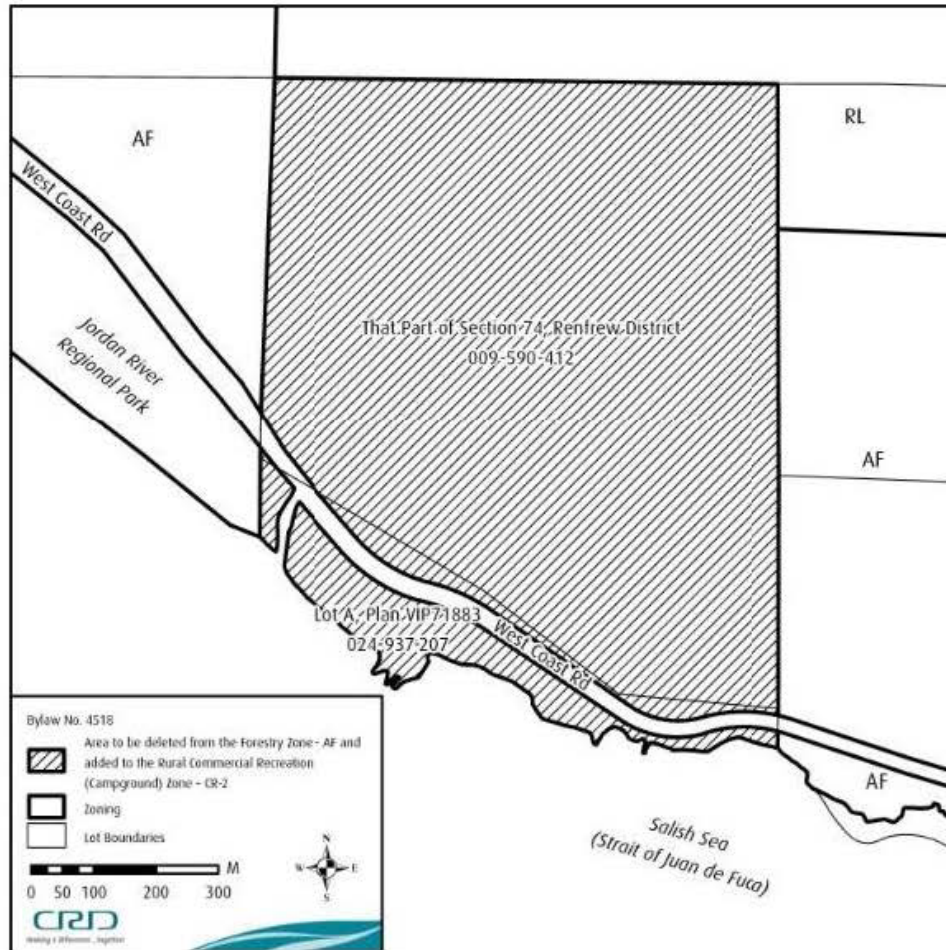
- a. By deleting LOT A SECTION 74 RENFREW DISTRICT PLAN VIP71883 from the Forestry zone - AF, and adding to the Rural Commercial Recreation (Campground Zone – CR-2, as shown in Plan No. 1.
- b. By deleting THAT PART OF SECTION 74, RENFREW DISTRICT LYING TO THE NORTH OF THE NORTHERLY BOUNDARY OF PLAN 109RW from the Forestry zone - AF, and adding to the Rural Commercial Recreation (Campground Zone – CR-2, as shown in Plan No. 1..

CRD Bylaw No. 4518

3

Plan No. 1 of Bylaw No. 4518, an amendment to Bylaw No. 2040

2. This Bylaw may be cited as "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 158, 2022"



READ A FIRST TIME THIS	day of	2023
READ A SECOND TIME THIS	day of	2023
READ A THIRD TIME THIS	day of	2023
ADOPTED THIS	day of	2023

CHAIR

CORPORATE OFFICER

Appendix G: Unimplemented Rural Commercial Recreation (Campground) Zone – CR-2

Schedule "A" of Capital Regional District Bylaw No. 2040
Juan de Fuca Land Use Bylaw

23.0 RURAL COMMERCIAL RECREATION (CAMPGROUND) ZONE - CR-2

23.01 Permitted Uses

In addition to the uses permitted by Section 4.15 of Part 1 of this Bylaw, the following uses and no others shall be permitted in the Rural Commercial Recreation (Campground) CR-2 Zone:

- (a) Camp Grounds;
- (b) Tourist Cabins;
- (c) Dormitories;
- (d) Restaurant;
- (e) Private Clubs;
- (f) Amusement Facilities, Indoor;
- (g) Amusement Facilities, Outdoor;
- (h) One dwelling unit.

23.02 Minimum Lot Size for Subdivision Purposes

Minimum lot size shall be 2ha.

23.03 Number of Residential Units

One Dwelling unit per lot is permitted.

23.04 Height

Maximum height shall be 7.5m for the dwelling unit and 4m for all other principal buildings, structures and uses.

23.05 Lot Coverage

Maximum lot coverage shall be 20 percent.

23.06 Density of Development

- (a) A maximum of 20 camping spaces per hectare are permitted; or
- (b) A maximum of 12 tourist cabins per hectare are permitted; or
- (c) A maximum of 48 guests per hectare in dormitory accommodation are permitted; or
- (d) When the above accommodation types are mixed, densities equivalent to (a) to (c) above will be permitted based on the proportion of lot area devoted to each type.

23.07 Size of Camping Spaces

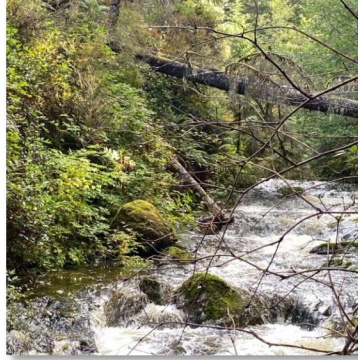
Individual camping spaces shall be a minimum of 110m².

23.08 Yard Requirements

- (a) Front yards shall be a minimum of 7.5m;
- (b) Side yards shall be a minimum of 3m, except where the lot abuts a lot in a Residential, Rural Residential, or Multiple Family Residential Zone, the side yard shall be a minimum of 6m;
- (c) Flanking yards shall be a minimum of 6m CTS;
- (d) Rear yards shall be a minimum of 6m.

23.09 Separation Space

- (a) Tourist cabins and dormitories shall be separated from other structures and from camping spaces by a minimum of 3m;
- (b) Camping spaces shall be separated from each other and from structures by a minimum of 9m.



ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED SANDCUT ECO-RESORT AT 11237 WEST COAST ROAD

PREPARED FOR:

Redacted: Pursuant to Section 22 of British Columbia's *Freedom of Information and Privacy Protection Act*.

11237 WEST COAST RD
SHIRLEY, BC V9Z 1G8

AND

IAIN LAWRENCE
CAPITAL REGIONAL DISTRICT
3 – 7450 BUTLER RD
Sooke, BC V9Z 1N1

CORVIDAE PROJECT #2021-030
MAY 2022

CORVIDAE
ENVIRONMENTAL CONSULTING INC

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Photo 12. View looking south at the existing road from the north end of the property. August 2021...	25

CAVEAT

This Environmental Assessment (EA) has been prepared with the best information available at the time of writing, including the CRD Official Community Plan, communications with the client and regulators, site visits, review of site plans and design drawings and other documentation relevant to the project. This EA has been developed to assist the project in remaining in compliance with relevant environmental regulations, acts and laws pertaining to the project and to identify and mitigate the expected impacts of the project and reclamation activities directly related to the project.



1 INTRODUCTION

Corvidae Environmental Consulting Inc. (Corvidae) is pleased to provide this Environmental Assessment (EA) for the proposed changes to 11237/11269/11275 West Coast Rd (the property; PID 024-937-207 and 009-590-412).

This document addresses the requirements in Section 5 of Bylaw No. 4001 and provides an assessment on the environmental conditions on the property, potential impacts of the proposed development, and recommendations on the protection of environmentally sensitive features and methods to minimize impacts of the proposed development. The property is intersected at the western end by Sandcut Creek (Figure 1). Three mapped Development Permit Areas (DPAs; Bylaw 4001, see Section 1.3 for details) are present on the property: Shoreline DPA, Riparian DPA, Sensitive Ecosystem DPA (fringe forest). A Riparian Areas Protection Regulation report (Appendix A) will be completed in parallel to this assessment.

1.1 CURRENT CONDITIONS

The current property owner acquired the property in 2017. An existing house and a small cabin near Sandcut Creek were present on the property when it was purchased. A Riparian Area Regulation assessment was completed on the creek in 2011 and a 15 m SPEA was recommended.

The property is accessed by three driveways: access to the main house (marked as 11237 West Coast Road); access to 11275, the westernmost portion of the property (narrow and gated); access to the cabin and cleared areas on the east bank of Sandcut Creek (marked as 11269 West Coast Road). The latter driveway has been surfaced with crushed rock. A small permanent utility shed has been constructed next to the driveway, and a plastic water cistern placed behind it where a water line is accessed.

In 2018 and 2019, the current property owner undertook brushing and clearing of parts of the property for future development of an ecofriendly camping accommodation. A previously cleared area in the centre of the western part of the property was re-cleared (Photo 5). In addition, an area along the eastern bank of Sandcut Creek has been recently cleared and grubbed, with some ground leveling. The existing cabin, the driveway, the utilities shed and the recently cleared area on the eastern bank of Sandcut Creek were located within the Riparian DPA as mapped by CRD (CRD 2019). A Conditions and Impacts report was completed for the development by Corvidae (Corvidae 2019).

A new road network was constructed in 2019 to access the eastern part of the property. Several small clearings and structures have been built on the property to the east of the highway, all outside the riparian DPAs for the streams on the property.

1.2 PROPOSED DEVELOPMENT

The property owner is seeking to rezone the Site from AF-Forestry to Intensive Commercial Recreation Zone CR-3 and construct a campground and resort on the property. The proposed development will include 26 RV sites, 69 tent campsites, 27 A-frame cottages, and 11 yurt/dome tents adjacent to existing roads as well as new roads that will also be constructed. A reception/general store and workshop will also be included as part of the development.



1.3 REGULATORY FRAMEWORK

This environmental assessment is designed to comply with the provisions set out in the Shirley-Jordan River Official Community Plan (OCP) for development permit areas and for compliance with the provisions for environmental protection contained in the following relevant legislation:

Municipal

- Shirley-Jordan River OCP, Bylaw No. 4001

520 Shoreline Development Permit Area (DPA)

That part of the Shirley – Jordan River Plan area indicated as Shoreline Protection DPA on Schedule D is designated as a development permit area pursuant to Sections 488(1)(a) and 488(1)(b) of the Local Government Act (LGA). The Shoreline Protection DPA established under this section includes all land lying 15 metres upland of the natural boundary of the ocean.

530 Riparian DPA

That part of the Shirley – Jordan River Plan area indicated as Riparian DPA on Schedule D is designated as a development permit area pursuant to Sections 488(1)(a) and 488(1)(i) of the Local Government Act (LGA). The Riparian DPA established under this section also includes all lands entirely or partially within a riparian assessment area as defined by the Riparian Areas Regulations (RAR), which includes: (a) for a stream, the 30 metre strip on both sides of the stream, measured from the high water mark, (b) for a ravine less than 60 metres wide, a strip on both sides of the stream measured from the high water mark to a point that is 30 metres beyond the top of the ravine bank, and (c) for a ravine 60 metres wide or greater, a strip on both sides of the stream measured from the high water mark to a point that is 10 metres beyond the top of the ravine bank.

540 Sensitive Ecosystem DPA

That part of the Shirley – Jordan River area indicated as Sensitive Ecosystem DPA on Schedule E is designated as a development permit area pursuant to Sections 488(1)(a) and 488(1)(i) of the Local Government Act (LGA). The Sensitive Ecosystem DPA established under this section includes those sensitive ecosystems and other important ecosystems identified as Intertidal, Estuarine, Freshwater, Older Forest, Mature Forest, Fringe Forest, Woodland, Herbaceous, Sparsely Vegetated, Wetlands, and Riparian in the Sensitive Ecosystem Inventory (SEI) prepared by Madrone Environmental in 2014. The Sensitive Ecosystem DPA includes the strip of land 30 metres from the natural boundary on either side of all watercourses.

The guiding principle for the use of Development Permits is found within the Local Government Act. Development Permit Areas can be designated for purposes such as, but not limited to the following:

- Protects, enhances and restores the biodiversity and ecological values and functions of environmentally sensitive areas.
- Fosters compatibility between development, existing land uses and environmentally sensitive areas.
- Maintains connectivity between sensitive ecosystems; and



- Protects water quality and quantity.

Provincial

- *Wildlife Act* (1996)
- Invasive Species Council of BC
- *Weed Control Act* (1996, current as of October 2016)
- *Water Sustainability Act* (Updated December 2021)
 - Activities in and about a stream, including culverted road crossings and bridge installation, require a Section 11 notification under the WSA
- Riparian Areas Protection Regulation (2019)
 - The objective of the Riparian Area Protection Regulation (RAPR) is to preserve and enhance sensitive riparian ecosystems, including vegetation and coarse woody debris, shade and hydrogeological conditions that are vital for maintaining stream health and productivity.
 - In the RAPR, a Streamside Protection and Enhancement Area (SPEA) is defined as “an area (a) adjacent to a stream that links aquatic to terrestrial ecosystems and includes both existing and potential riparian vegetation and existing and potential adjacent upland vegetation that exerts an influence on the stream, and (b) the size of which is determined according to this regulation on the basis of an assessment report provided by a qualified environmental professional in respect of a development proposal.”

Federal

- *Migratory Birds Convention Act* (1994)
- *Species at Risk Act* (SARA) (2002)
- *Fisheries Act* (2018)



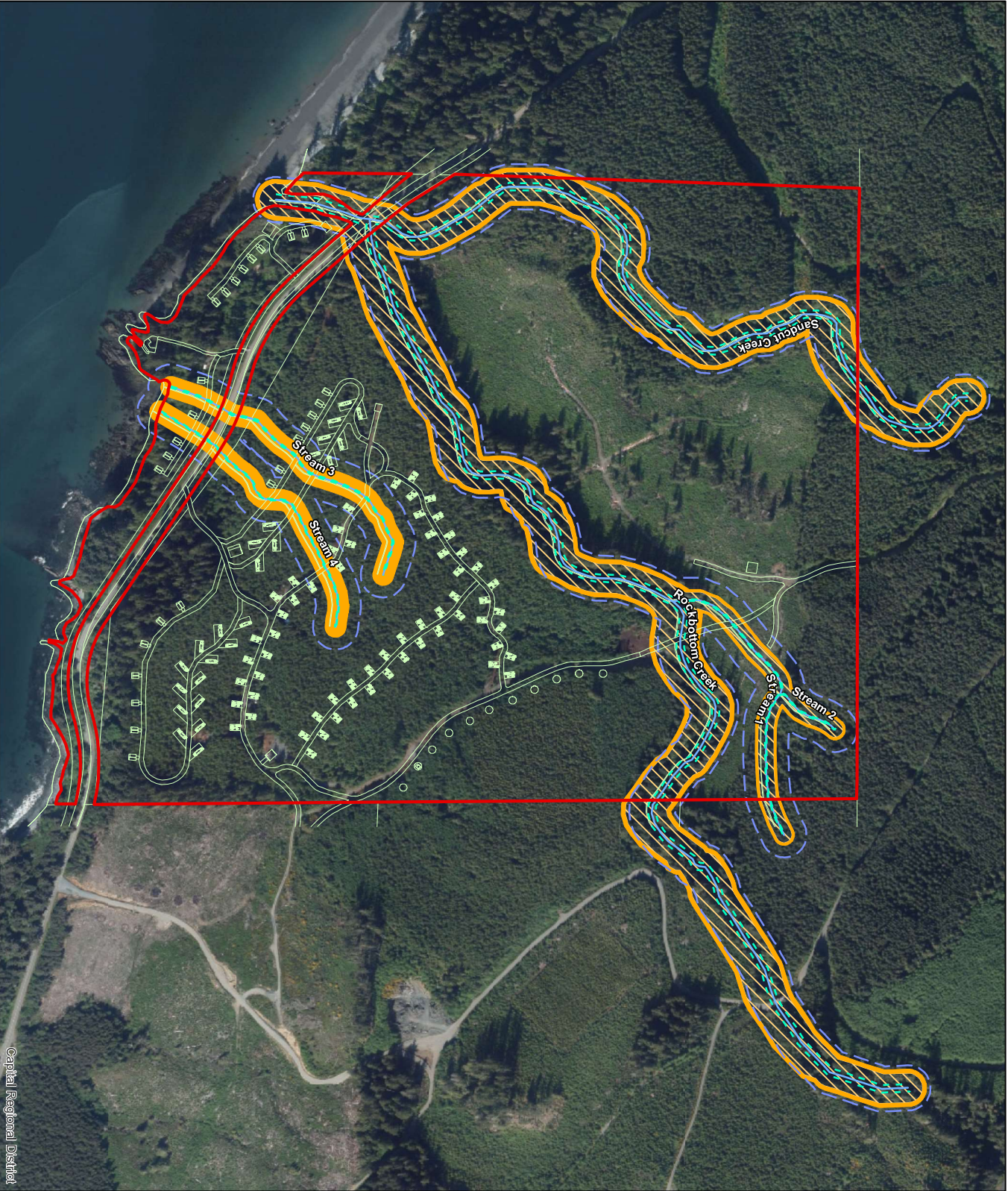
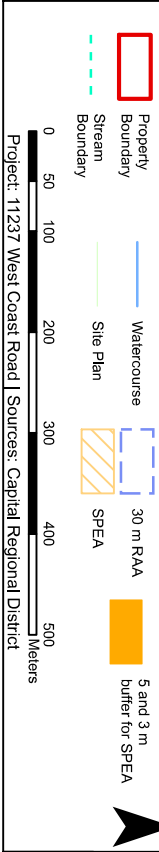



Figure 1 – Watercourses, SPEA and Riparian DPAs (30m)





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COR-2021-030

Rev. #	Date
1	March 8, 2022
2	March 18, 2022
3	May 14, 2022

Figure 1

2 SCOPE OF WORK

Corvidae completed an environmental assessment for the property. The environmental assessment documented the ecological features on the property including riparian areas and any sensitive species or ecosystems. Background information was reviewed, including applicable databases. During the assessment, the following features were documented in this report:

- Areas of sensitivity, habitat and biodiversity values;
- Plant communities and plant species on site;
- Potential wildlife presence and wildlife habitat;
- Soil properties and terrain; and
- Surface water flow patterns.

Following the field assessment, the biophysical features and cleared areas were mapped and buffer areas have been identified. Mitigations to minimize the impacts of the proposed residential development on the environment have been provided in Section 6.

3 METHODS

3.1 DESKTOP REVIEW

Baseline biophysical conditions were compiled by reviewing the best available data and information including existing reports for the area and conducting searches of online provincial and federal databases:

- BC Conservation Data Centre (BC CDC 2021a and 2021b);
- BC HabitatWizard (Province of BC 2021);
- Aerial photographs of the property (Google Earth 2021);
- CRD regional mapping system and database (CRD 2021), and
- Shirley-Jordan River Official Community Plan Bylaw No. 4001 (CRD 2018).

3.2 FIELD ASSESSMENT

A field assessment of the property was completed by a Qualified Environmental Professional (QEP) from Corvidae. The assessment included characterization of vegetation and habitat types, wildlife sign and species observations, wildlife habitat, and assessed the current conditions of the property.

The SPEAs for the streams on the property were calculated using the detailed assessment methodology in the RAPR Technical Manual (BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development 2019).



4 ENVIRONMENTAL SITE ASSESSMENT

Corvidae completed site visits on June 2, 16, August 4 and Sept 5, 2021. The property was assessed for any environmental concerns that may be present, including the riparian area of Sandcut Creek, Rockbottom Creek and the small seasonal streams on the property. Appendix B shows photos of the property and riparian areas.

4.1 CLIMATE AND BIOGEOCLIMATIC ZONE

The project is located within the Coastal Western Hemlock (CWH) biogeoclimatic zone, and specifically in the western variant of the Very Dry Maritime subzone (classified as CWHxm2; BC CDC 2019b). The CWHxm2 occurs from sea-level to 450m of elevation on southern Vancouver Island. The CWHxm2 has warm, dry summers and moist, mild winters with relatively little snowfall. Growing seasons are long and can experience water deficits.

It is a unique habitat that occurs on the central and southeastern section of Vancouver Island. The average rainfall is 1497.1 mm/annually (Sooke Lake North Station, Environmental Canada 2018).

4.2 TERRAIN AND SOILS

Soils in this biogeoclimatic zone are typically moderately deep Orthic Humo-Ferric Podzols with Hemimor humus forms (Pojar et al. 1991).

The soils on the site were a clay-loam and sandy-silty loam.

The topography of the property is varied. The property generally slopes from the highway (north side) towards the beach (south boundary of the property). Localized low areas occur where Sandcut Creek intersects the property, and where a drainage runs parallel to the highway and driveway, towards the beach. The existing house and cabin are both located on high areas, where rocky bluffs overhang the beach below. Areas north of West Coast Road generally slope in a south/southwest direction toward the roadway.

4.3 VEGETATION

The CWHxm2 is typically dominated by components of western hemlock (*Tsuga heterophylla*), Douglas-fir (*Pseudotsuga menziesii*) and western red cedar (*Thuja plicata*) (Pojar et al. 1991). Salal (*Gaultheria shallon*), dull Oregon-grape (*Mahonia nervosa*), and red huckleberry (*Vaccinium parvifolium*) typify the poorly to moderately developed shrub layer. Oregon beaked moss (*Kindbergia oregana*), step moss (*Hylocomium splendens*), lanky moss (*Rhytidiadelphus loreus*), and flat moss (*Plagiothecium undulatum*) dominate the well-developed moss layer (Pojar et al. 1991).

There are two types of ecosystems on the property: dry mature forest and riparian forest.

- The dry mature forests are dominated by Douglas-fir, with a shrubby understory that includes salal and oceanspray.
- Adjacent to the streams, and in localized areas with concentrated moisture in the soil, forests contain more bigleaf maple, red alder western hemlock, and western redcedar. The understory in riparian areas is dominated by salmonberry and sword fern.



During the site assessment the species in Table 1 were found on the site. Six invasive species were observed on the site: bull thistle, Canada thistle, English holly, Himalayan blackberry, scotch broom and spurge laurel. Measures to remove and prevent invasive species are discussed in Section 6 of this report.

During the site assessment the species in Table 1 were found on the site.

Table 1. Plant species observed on site during field visit in 2021

Common Name	Scientific Name	BC Provincial Status ¹	SARA Schedule 1 Status ²
Black twinberry	<i>Lonicera involucrata</i> var. <i>involucrata</i>	Yellow	--
Bracken fern	<i>Pteridium aquilinum</i>	Yellow	--
Bull thistle	<i>Cirsium vulgare</i>	Invasive ; Exotic	--
Canada goldenrod	<i>Solidago canadensis</i>	Exotic	--
Canada thistle	<i>Cirsium arvense</i>	Invasive ; Exotic	--
Coastal leafy moss	<i>Plagiomnium insigne</i>	Yellow	--
Coastal strawberry	<i>Fragaria chiloensis</i>	Yellow	--
Common horsetail	<i>Equisetum arvense</i>	Yellow	--
Common rush	<i>Juncus effusus</i>	Yellow	--
Douglas-fir	<i>Pseudotsuga menziesii</i>	Yellow	--
English holly	<i>Ilex aquifolium</i>	Invasive ; Exotic	--
Foxglove	<i>Digitalis purpurea</i>	Exotic	--
Goatsbeard	<i>Aruncus dioicus</i> var. <i>acuminatus</i>	Yellow	--
Hairy cat's-ear	<i>Hypochaeris radicata</i>	Exotic	--
Himalayan blackberry	<i>Rubus armeniacus</i>	Invasive ; Exotic	--
Maidenhair fern	<i>Adiantum aleuticum</i>	Yellow	--
Oregon-beaked moss	<i>Kinbergia oregana</i>	Yellow	--
Pacific sanicle	<i>Sanicula crassicaulis</i>	Yellow	--
Palm tree moss	<i>Leucolepis acanthoneuron</i>	Yellow	--
Pearly everlasting	<i>Anaphalis margaritacea</i>	Yellow	--
Red alder	<i>Alnus rubra</i>	Yellow	--
Red elderberry	<i>Sambucus racemosa</i>	Yellow	--
Red huckleberry	<i>Vaccinium parvifolium</i>	Yellow	--
Salal	<i>Gaultheria shallon</i>	Yellow	--
Salmonberry	<i>Rubus spectabilis</i>	Yellow	--
Scotch broom	<i>Cytisus scoparius</i>	Invasive ; Exotic	--
Slough sedge	<i>Carex obnupta</i>	Yellow	--
Snowberry	<i>Symphoricarpos albus</i>	Yellow	--
Spurge laurel	<i>Daphne laureola</i>	Invasive ; Exotic	--
Step moss	<i>Hylocomium splendens</i>	Yellow	--
Sword fern	<i>Polystichum munitum</i>	Yellow	--
Thimbleberry	<i>Rubus parviflorus</i>	Yellow	--
Trailing blackberry	<i>Rubus ursinus</i>	Yellow	--
Trembling aspen	<i>Populus tremuloides</i>	Yellow	--
Wall lettuce	<i>Mycelis muralis</i>	Exotic	--



Common Name	Scientific Name	BC Provincial Status ¹	SARA Schedule 1 Status ²
Western hemlock	<i>Tsuga heterophylla</i>	Yellow	--
Western redcedar	<i>Thuja plicata</i>	Yellow	--
Willowherb	<i>Epilobium</i> sp.	--	--

¹ BC CDC 2021a² Government of Canada 2021

4.4 WILDLIFE

The habitat is found in the Coastal Western Hemlock biogeoclimatic zone is home to many wildlife species. Black-tailed deer, black bear, marten, and gray wolf are the most common large mammals in this zone on Vancouver Island. For bird species in this zone, the following typically occur: great horned owl, barred owl, ruffed grouse, band-tailed pigeon, northern flicker, hairy woodpecker, common raven, Steller's jay, chestnut-backed chickadee, red-breasted nuthatch, varied thrush, red-tailed hawk, Townsend's warbler. The following amphibians may occur in this biogeoclimatic zone: western toad, Pacific treefrog, western redbacked salamander (Pojar et al. 1991).

The forest on the property is home to a variety of birds, mammals, reptiles and amphibians. Mature trees provide nesting and roosting habitat for songbirds, owls and woodpeckers. Large and small coarse woody debris provide cover habitat for small mammals, snakes and amphibians. No suitable amphibian breeding habitat was observed on the site; however, amphibians were observed using terrestrial habitat adjacent to the streams. During the site assessment the species in Table 2 were found on the site.

Table 2. Wildlife Species observed on site during field visits in 2021

Common Name	Scientific Name	BC Provincial Status ¹	SARA Schedule 1 Status ²
American black bear (scat)	<i>Ursus americanus</i>	Yellow	--
American robin	<i>Turdus migratorius</i>	Yellow	--
Bald eagle	<i>Haliaeetus leucocephalus</i>	Yellow	--
Black-tailed deer (scat)	<i>Odocoileus hemionus</i>	Yellow	--
Chestnut-backed chickadee	<i>Poecile rufescens</i>	Yellow	--
Common raven	<i>Corvus corax</i>	Yellow	--
Dark-eyed junco	<i>Junco hyemalis</i>	Yellow	--
Pacific wren	<i>Troglodytes pacificus</i>	Yellow	--
Red squirrel	<i>Tamiasciurus hudsonicus</i>	Yellow	--
Red-breasted nuthatch	<i>Sitta canadensis</i>	Yellow	--
Varied thrush	<i>Ixoreus naevius</i>	Yellow	--

¹ BC CDC 2021a² Government of Canada 2021

4.5 SPECIES AT RISK

A query of the BC CDC iMap tool yielded no occurrences of species at risk within a two-kilometer radius of the property (Figure 2; BC CDC 2019). One record exists in the Jordan River area: red-legged frog



(*Rana aurora*; approximately 2.4 km from the property). This species was observed on the property during the site visits for this assessment.

CRITICAL HABITAT

Marbled Murrelet

Critical habitat for marbled murrelet has been mapped adjacent to nearby Desolation Creek in Jordan River Regional Park (approximately 1.3 km northwest the property). The mapping for the critical habitat for this species is based on a 2002 model using the biophysical attributes of nesting habitat. Suitable nesting habitat may be found in complex old growth stands (140+ years old) at 0-600m of elevation and within 50km of saltwater. Nest trees within suitable habitat are generally >30m tall with large mossy nest platforms on large upper limbs that are still protected by the canopy.

As the property has been historically logged, suitable stands are unlikely to occur. Veteran trees on the property may have the attributes of a suitable nest tree, but their exposure and isolation would likely reduce the probability of use by nesting murrelets.

Bats

A 50 km grid square of critical habitat for *Myotis lucifugus* and *Myotis septentrionalis* (Little Brown Myotis and Northern Myotis) overlaps the property.

Note, critical habitat mapping is done at a high level to indicate areas in which the biophysical attributes of critical habitat are known to or may occur. For example, the 50 km² polygon for bats contains a known occurrence of the species and therefore, it is assumed that additional populations may occur in suitable habitat. Painted turtles are known to travel within aquatic ecosystems connected to known locations and may occur up to 150m from the water.

During the field visit, no suitable roosting habitat was observed for bats (old growth snags or rock crevasses).



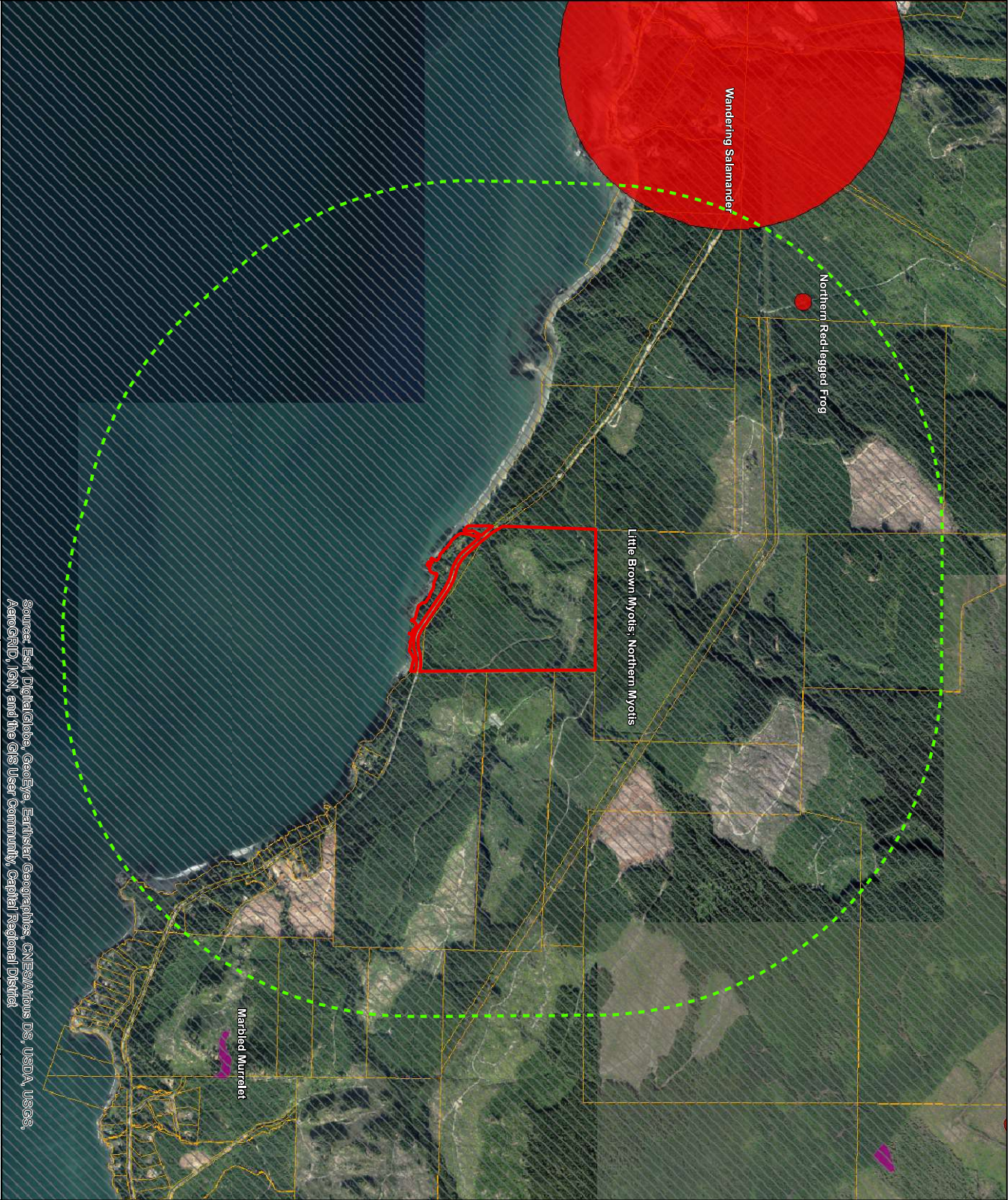


Figure 2: CDC Species at Risk

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Capital Regional District

Property Boundary

2 km area around property boundary

Little Brown Myotis; Northern Myotis

Marbled Murrelet

Vertebrate Animal

N

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Date

November 28, 2021

Figure 2

Project: 11237 West Coast Road | Source: Capital Regional District, DataBC

05001,0002,000Meters

4.6 RIPARIAN AREAS AND FISHERIES

The property is intersected at the west end by Sandcut Creek (Figure 1). Sandcut Creek, joined by Rockbottom Creek, passes under a highway bridge and flows south into the Juan de Fuca Strait. North of the bridge, and at the bridge location, the creek is within a steep-sided gully. South of the bridge, the creek widens. The western streambank remains very steep to the shoreline. The eastern streambank is relatively flat, varying from approximately 1 to 5 degrees of slope.

South of the bridge, Sandcut Creek has a rock bed, with pools and channels cut into the bedrock (Photo 9 and 11). Several small steps and waterfalls occur in this stretch of the creek (Photo 10). The creek ends with a waterfall over the rocks to the cobble beach. The waterfall, approximately 2-3 m tall, serves as a complete barrier to fish passage.

A search of the BC HabitatWizard (Province of British Columbia 2018) confirmed a lack of fish records in Sandcut Creek and Rockbottom Creek (Figure 4). The search revealed a number of records in neighbouring streams, including Desolation Creek and Jordan River to the west: cutthroat trout (anadromous; *Onchorynchus clarki clarkii*), Coho salmon (*Oncorhynchus kisutch*), steelhead salmon (*Oncorhynchus mykiss*) and rainbow trout (*Oncorhynchus mykiss*).

Several tributaries to Rockbottom Creek occur on the property. These are relatively narrow streams (0.5m to 2m width) with rock and cobble bottoms and a cascade-pool structure. Two additional small streams originate on the property and are culverted under the highway, emptying into the ocean.

An additional drainage is present in the middle section of the property to the west of the highway. The drainage appears to begin from the side of the driveway and continues through a low area between the highway and the central (cleared) part of the property, ending in a marshy depression near the shoreline, but not connected due to the beach structure. The watercourse is channelized intermittently, with saturated wet areas in between (Photo 12). This watercourse is isolated from any other watercourses and the ocean, and therefore is not eligible under the RAPR.

The calculated SPEAs for Sandcut and Rockbottom Creeks vary from 15-30m, depending on the shade zone of sensitivity and the stream direction. The SPEAs on the tributaries are all 10m either side of the stream.

In addition to the SPEA, a 3-5m windthrow/tree protection zone buffer is added outside the SPEA in order to protect the integrity of the SPEA (Figure 3). This additional protection is required by the RAPR.



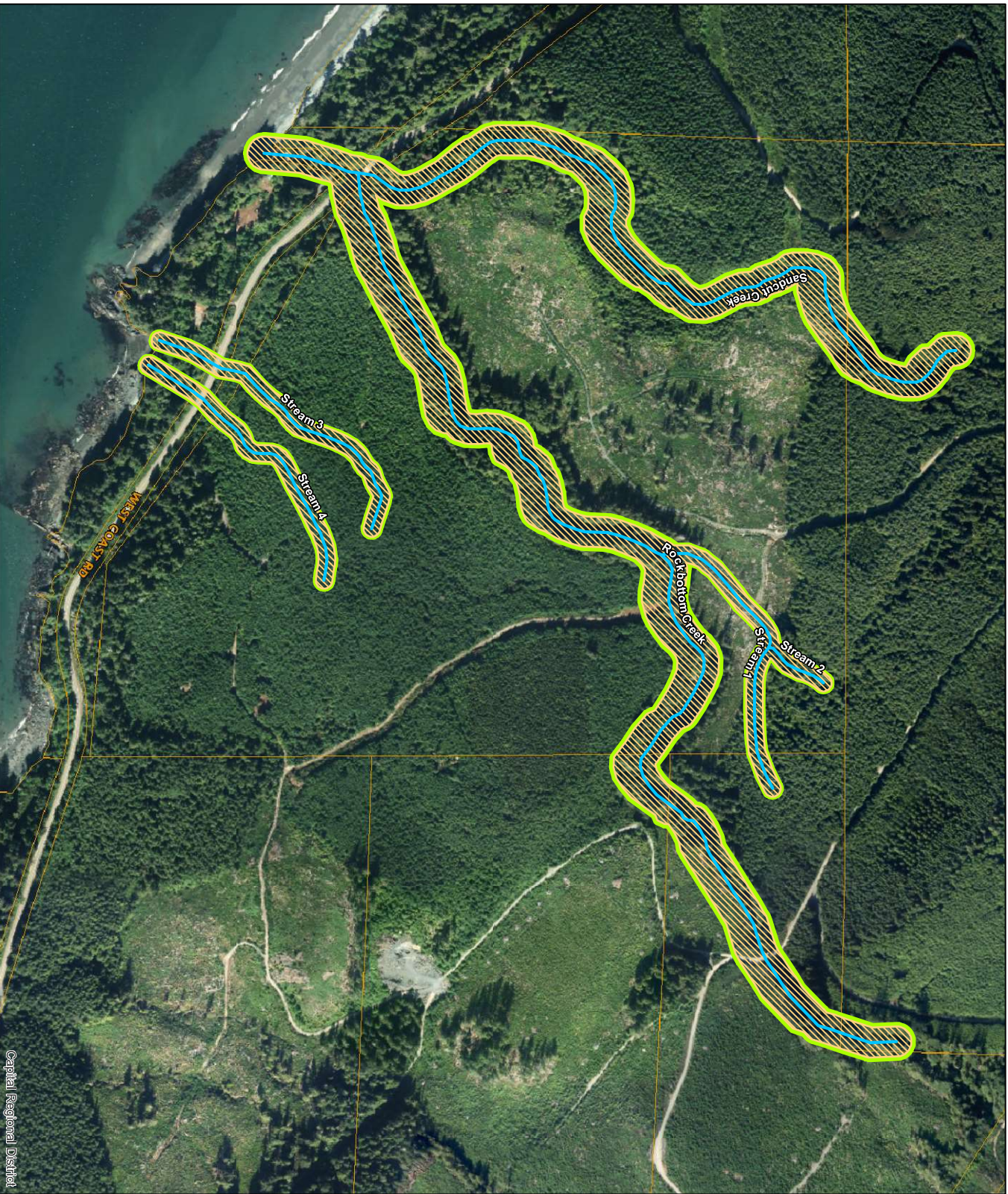


Figure 3 – Watercourses with SPEAs and extra windthrow/tree buffer

— Watercourse
 SPEA
 5 and 3 m buffer for SPEA

0 50 100 200 300 400 500
 Meters

Project: 12036 West Coast Road | Sources: Capital Regional District

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Figure 3

Capital Regional District

5 POTENTIAL ENVIRONMENTAL EFFECTS

The potential impacts of the proposed development of the property on the environment are:

- Impacts on sensitive ecosystem areas such as riparian habitat,
- Loss of existing vegetation and spread of invasive plant species,
- Change in wildlife habitat availability and wildlife mortality risk, and
- Erosion and sediment transport within and around the project area.

The residual environmental impacts of the activities on the property will be reduced by the implementation of the mitigation and restoration measures recommended in Section 6 of this report.

VEGETATION

The effects of tree removal may include loss of biodiversity of plant species and increased susceptibility to invasive plants not only in the cleared area but also in adjacent plant communities. Vegetation immediately adjacent to cleared areas may experience in changes to the canopy structure and understory plant species due windthrow and increased light and moisture penetration.

INVASIVE SPECIES

Invasive plants are particularly adept at colonizing degraded plant communities and disturbed soils in high traffic areas, such as the margins of roads and parking areas. Invasive plants establish readily in disturbed areas as they have a wide ecological tolerance and grow and propagate quickly. The effects of invasive plant establishment may be the reduction or displacement native species by capturing resources and occupying habitats.

WILDLIFE AND WILDLIFE HABITAT

Habitat loss and alteration from vegetation clearing can cause displacement of wildlife, use of less suitable habitat, reduced foraging ability, increased energy expenditure and lower reproductive success. Reduced habitat effectiveness can occur as a result from the creation of habitat edges and the introduction of buildings with many windows into previously unused spaces can increase mortality risk for birds.

AQUATIC ENVIRONMENT

Vegetation in the foreshore area controls surface water run-off from the upland areas, preventing excessive silt and surface run-off pollution from entering the aquatic environment. Increased levels of sediment and turbidity can impact the productivity of aquatic ecosystems. Sediment in the water may change the amount of light reaching aquatic plants, thereby negatively impacting growth. Sediment has both lethal and sublethal impacts on fish. Aside from direct mortality from suffocation, sediment in the water may limit visual feeding, change fish behaviour, and reduce egg and embryo survival.



RIPARIAN ENVIRONMENT

The removal of vegetation in the riparian area may result in the loss of features, functions and conditions that are vital for maintaining bank stability and fish habitat conditions. Vegetation in the riparian area controls surface water run-off from the upland areas, preventing excessive silt and surface run-off pollution from entering the aquatic environment. Vegetation removal for the project will only occur outside of the SPEA and tree protection zones.

EROSION AND SEDIMENT

Removal of vegetation and ground disturbance may expose soils to erosion and can result in the movement of sediment on the property. Damage or degradation of soil surfaces during construction can include loss of soil structure, increased erosion, and soil compaction which can negatively affect post-construction reclamation efforts.

6 RECOMMENDED ENVIRONMENTAL PROTECTION MEASURES

The mitigation measures provided in this report are designed to protect sensitive ecosystems and were developed in accordance with:

- Procedures for Mitigating Impacts on Environmental Values (Environmental Mitigation Procedures) (BC Ministry of Environment [MOE] 2014a),
- Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia (Government of BC 2014),
- Environmental Best Management Practices for Urban and Rural Land Development in British Columbia (BC Ministry of Water, Land and Air Protection 2004), and
- RAPR Technical Manual (BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development 2019).

RIPARIAN ENVIRONMENT

No clearing of vegetation or trees, or disturbance of any kind shall occur within the SPEAs; and recommended no tree clearing in the windthrow and TPZ buffer. Danger trees within the buffers must be assessed by a certified arborist and removed under supervision of a QEP to ensure no damage is done to the SPEA.

VEGETATION

Areas disturbed by development that are not part of the permanent road or facilities footprint should be replanted with native trees and shrubs and/or seeded with native seed mix (Table 3). Overall plant density should be approximately one plant per 1 to 2 m².



Table 3. Recommended native vegetation to plant in disturbed area

Common Name	Species
Salal	<i>Gaultheria shallon</i>
Salmonberry	<i>Rubus spectabilis</i>
Nootka rose	<i>Rosa nutkana</i>
Oceanspray	<i>Holodiscus discolor</i>
Sword fern	<i>Polystichum munitum</i>
Western redcedar	<i>Thuja plicata</i>
Bigleaf maple	<i>Acer macrophyllum</i>
Coastal Revegetation Mix by Pacific Premier or equivalent	

*shrubs and ferns should be at least 1 gallon size; trees should be 3 gallon size at minimum pending availability

INVASIVE SPECIES

Invasive weed control is difficult for established populations. Immediate eradication of new and existing infestations should be a high priority during any maintenance and re-development of the lake shoreline area. Species should be removed using the most appropriate methods, at the correct time of year, and plant material must be disposed of correctly (burned or bagged and disposed of properly in a landfill) to avoid re-establishment or spread. Following removal, re-seed bare soil with desirable, competing vegetation. Chemical control is not recommended due to the sensitive aquatic ecosystems on the property.

Table 4. Removal and disposal methods for invasive species

Species	Removal Method	Removal Timing	Plant Disposal
Bull thistle	Regular cutting or pulling can help wear down plant reserves, reduce plant growth, and reduce populations, but is not likely to eradicate the species.	Cutting and pulling are best done before flowering to eliminate seed production.	If plants are cut prior to flowering, the plant material can be left on the site to decompose. If plants are cut post flowering, all plant parts, including flower heads, should be bagged and disposed of properly in a landfill.
Canada thistle	Regular cutting or pulling can help wear down plant reserves, reduce plant growth, and reduce populations, but is not likely to eradicate the species.	Cutting and pulling are best done before flowering to eliminate seed production.	If plants are cut prior to flowering, the plant material can be left on the site to decompose. If plants are cut post flowering, all plant parts, including flower heads, should be bagged and disposed of properly in a landfill.
English holly	English holly can be removed by hand pulling small seedlings or cutting mature trees at ground level removing all plant material.	Removal is best done before flowering to eliminate seed production.	Holly does not root again once removed, so it can also be piled to desiccate on site. Can be bagged and disposed of properly in a landfill. Do not compost.
English ivy	Can be removed by hand pulling and cutting of vines. Roots should be pulled so no rooted portions re-grow.	Removal should occur fall, when plants are easier to remove due to moist soil conditions.	Bagged and disposed of properly in a landfill. Do not compost.



Species	Removal Method	Removal Timing	Plant Disposal
Himalayan blackberry	Can be removed by pulling or cutting the canes from the ground. If possible, dig out the roots, paying careful attention not to damage nearby vegetation.	Removal should occur in the spring and early summer before they produce berries as canes that are cut as the plant is producing flowers are least likely to re-sprout.	Burned or bagged and disposed of properly in a landfill. Do not compost.
Scotch broom	Avoid disturbing the soil which can stimulate dormant broom seeds to sprout. Small broom plants can be pulled easily from the ground by hand without disturbing the soil. Larger plants should be cut below the root crown using loppers or a pruning saw.	Scotch broom removal should occur mid-April through early June before its seed pods begin to open.	Bagged and disposed of properly in a landfill. Do not 'recycle' garden debris or compost.
Spurge laurel	Spurge laurel can be removed by pulling small plants or cutting larger plants just below the soil. Spurge laurel stems may re-sprout after cutting and numerous seedlings may germinate so repeated site visits are necessary. Always wear gloves when handling spurge laurel because it produces a noxious substance which can cause severe eye and skin irritation. Avoid spreading berries during removal.	Can be removed year-round.	Removed plants should be bagged and disposed of properly in a landfill. Do not transport inside an enclosed vehicle as the plants can cause respiratory irritation.

WILDLIFE AND WILDLIFE HABITAT

The following measures should be taken to minimize impacts on wildlife and wildlife habitat:

- Clearing of existing vegetation, including tree cutting, brushing, or clearing and grubbing, should occur outside of the sensitive time period for breeding and nesting birds (mid-March to end of August; Government of Canada 2021b). If disturbance of vegetation is to occur within this time period, then a QEP must perform a nesting bird survey to identify any nesting birds that may be potentially impacted by the project. The survey must be completed within 5 days of the planned clearing/disturbance, and the results are valid for 5 days. If nesting bird activity is detected, then the QEP will recommend the appropriate mitigation, such as protective buffers or delay of clearing until nesting activity is complete.
- Where suitable and safe, retain habitat that provides shelter for wildlife, such as standing dead trees and rocky outcrops.
- In the event that an amphibian or reptile is encountered during clearing or construction, the QEP will recommend the appropriate mitigation, such as avoidance or relocation. All salvage must be done by the QEP and with the appropriate wildlife permit.



- A raptor nest survey should be completed prior to development activities. A QEP must perform a multi-visit nest survey to identify any nests that may be potentially impacted by the project. If nesting raptor activity is detected, then the QEP will recommend the appropriate mitigation, such as protective buffers.

EROSION AND SEDIMENT CONTROL

The primary focus of erosion and sediment control planning is erosion control; if there is no erosion then there is no sediment. Erosion control is far more cost effective to implement and manage than sediment control.

Erosion controls, including the recommendations listed below, are recommended to be maintained for the duration of the project.

- Install a silt fence barrier outside of the SPEA edge and tree protection zones between the building site and the construction area to prevent sediment laden runoff from entering the wetland.
- Store materials and soils in dry, flat areas at least 15m outside the edge of the SPEA.
- Revegetation of disturbed areas adjacent to the SPEA should be undertaken upon the completion of construction or disturbance. Prevent erosion and invasive plant colonization by planting native species of shrubs and trees (see Table 3), which naturally have deep roots to aid in soil stabilization, compete against weeds and do not require irrigation.
- Heed weather advisories and scheduling work to avoid wet and rainy periods that may result in high surface water flow volumes and/ or increase erosion and sedimentation.
- Regularly monitor the aquatic environment for signs of sedimentation during all phases of the work, undertaking or activity and taking corrective action if required.



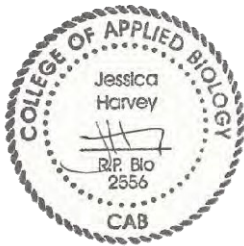
7 CONCLUSION

The observations from the site visits to the property have been detailed in this report. No permanent habitat features (e.g., bat roosts in rocky outcrops, raptor stick nests) were observed.

Subsequent field visits should be completed to update the biophysical observations and RAPR report as needed for each phase of the development planning (i.e., following the rezoning, future development permits).

During the development at 11237 West Coast Road, implementation of the mitigation measures recommended in this report, including the protection of the riparian area and revegetation of cleared areas to prevent invasive species, will minimize the impacts of the proposed development on the environment.

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APPENDIX A – SITE PHOTOGRAPHS

Photo 1. Sandcut Creek south of West Coast Road (Hwy 14). June 2021.



Photo 2. Rockbottom Creek near the northern edge of the property. September 2021.



Photo 3. Typical mature riparian forest adjacent to Sandcut and Rockbottom Creeks. September 2021.



Photo 4. Cleared area adjacent to riparian DPA for Rockbottom Creek. September 2021.



Photo 5. Cleared area and new/improved roads on the property. September 2021.



Photo 6. Stream 1 (tributary to Rockbottom Creek) in old clearcut near the northern edge of the property. September 2021.



Photo 7. Stream 3 in the centre of the property to the northeast of Hwy 14. September 2021.



Photo 8. Stream 2 near top of property. June 2021.



Photo 9. Stream 3 adjacent to old road. June 2021.



Photo 10. Representative photo of the middle section of stream 1. June 2021.



Photo 11. Stream 6 adjacent to old road. August 2021.



Photo 12. View looking south at the existing road from the north end of the property. August 2021.

