

SHIRLEY-JORDAN RIVER ADVISORY PLANNING COMMISSION

Notice of Meeting on Tuesday, April 30, 2024, at 7 pm

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

AGENDA

- 1. Approval of Agenda
- 2. Planner's Report
- 3. Zoning Amendment Application
 - a) RZ000282 Parcel A (DD 104752I) of District Lot 745, Renfrew District; Parcel B (DD52657I) of District Lot 745, Renfrew District; District Lot 175, Renfrew District; and Strata Lot 13 of Section 76 and District Lot 745, Renfrew District, Strata Plan VIS4766 together with an interest in the common property in proportion to the unit entitlement of the Strata Lot as shown on Form 1 (10700 Block of West Coast Road)
- 4. Adjournment



REPORT TO THE JUAN DE FUCA LAND USE COMMITTEE MEETING OF TUESDAY, MARCH 19, 2024

<u>SUBJECT</u> Zoning Bylaw Amendment Application for the subject properties between Shirley and Jordan River described as:

- Parcel A (DD 104752I) of District Lot 745, Renfrew District; PID: 009-594-159
- Parcel B (DD52657I) of District Lot 745, Renfrew District; PID: 009-594-183
- District Lot 175, Renfrew District; PID: 023-414-308
- Strata Lot 13 of Section 76 and District Lot 745, Renfrew District, Strata Plan VIS4766 together with an interest in the common property in proportion to the unit entitlement of the Strata Lot as shown on Form 1; PID: 024-486-914

ISSUE SUMMARY

The landowner has applied to rezone the subject property from the Forestry (AF) and Resource Land (RL) zones to a new Wilderness Campground (WC) zone.

BACKGROUND

The subject properties are located north of West Coast Road between Shirley and Jordan River (Appendix A) and zoned Forestry (AF) and Resource Land (RL) in the Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040. The lands are designated Coastal Upland (CU) in the Shirley-Jordan River Official Community Plan (OCP), Bylaw No. 4001. Lands adjacent to the subject property are zoned AF to the east; AF, Intensive Commercial Recreation (CR-3), and Rural A to the west; RL to the north; and AF on the south side of West Coast Road.

The subject property is comprised of four parcels accessed from both Cedar Coast Drive and West Coast Road. The total estimated land area is 170.8 ha and extends roughly 1.7 km from West Coast Road to the most northern property line. The subject property is partially within the Shirley Fire Protection local service area and portions of the land are designated as Steep Slope, Sensitive Ecosystem, and Riparian development permit areas.

The landowner has submitted an application to amend Bylaw No. 2040 by removing the lands from the AF and RL zones (Appendix B) and adding them to a new Wilderness Campground (WC) zone (Appendix C) for the purpose of establishing a commercial wilderness campground with a total of 20 campsites over the 170.8 ha area (Appendix D).

The application was previously considered by the Juan de Fuca Land Use Committee (LUC) at the May 16, 2023, meeting (Appendix E). At that time, the LUC passed a motion that the application not proceed for referral until the applicant had provided additional information including an environmental report, a report on surface and ground water impacts if the proposed campground use should be serviced by a well or nearby creek, and clarification regarding access and site servicing.

The applicant has now submitted an environmental report (Appendix F), as well as access and servicing route plans (Appendix G), which identify that existing roads will be improved for accessibility. The landowner has also clarified that the proposed campground use will be serviced by commercial water delivery and waste-sewerage removal companies, rather than utilizing local land and resources. Furthermore, the landowner has applied for an extension of the fire protection local service area (Bylaw No. 4574) to include one of the subject properties.

Based on the information provided by the applicant, staff have prepared Bylaw No. 4550 for consideration (Appendix H).

ALTERNATIVES

Alternative 1

That staff be directed to refer proposed Bylaw No. Bylaw No. 4550, "Juan de Fuca Land Use Bylaw, 1992, Amendment No. 160, 2023" to the Shirley-Jordan River Advisory Planning Commission, appropriate CRD departments, First Nations and the following external agencies for comment: Pacheedaht First Nation **T'Sou-ke First Nation** BC Hydro **BC** Parks **District of Sooke** Island Health Ministry of Forests - Archaeology Branch Ministry of Forests - Water Protection Section Ministry of Land, Water and Resource Stewardship Ministry of Transportation & Infrastructure RCMP Sooke School District #62 Alternative 2

That proposed Bylaw No. 4550 not proceed.

IMPLICATIONS

Legislative Implications

The Advisory Planning Commissions (APCs) were established to make recommendations to the LUC on land use planning matters referred to them related to Part 14 of the *Local Government Act (LGA)*. Staff recommend referring proposed Bylaw No. 4550 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 property 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 CRD Board for a determination of consistency with the RGS. Staff are of the opinion that the proposed amendment is consistent with the policies of the Shirley-Jordan River OCP.

First Nations Implications

First Nations communities continue to live in lands that encompass the subject property for more than 10,000 years prior to contact with European nations. The CRD pursues enhancement of reciprocal engagement and procedures with First Nation communities towards advancing reconciliation, including but not limited, to the application referral process. The subject property is located within the traditional territory of the Pacheedaht and T'Sou-ke First Nations and each nation will be invited to participate in the land use review process to better inform consideration of the proposal.

Land Use Implications

The landowner has submitted an application to establish a commercial wilderness campground with a total of 20 campsites over four parcels with a total area of 170.8 ha (1 campsite per 8.5 ha).

The Shirley-Jordan River OCP designates the subject property as Coastal Upland (CU), which

consists primarily of parcels enrolled in the Private Managed Forest Lands (PMFL) program and supports the continued use of those land for forestry activities. If lands have been 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 land use designation.

Three of the four subject parcels are zoned AF, which specifies a minimum parcel size of 4 ha. The fourth parcel is zoned RL, which has a minimum parcel size of 120 ha. The AF and RL zones allow for similar uses, with the exception of *resource extraction* and *agriculture*, which are specifically consigned to the RL zone. Staff are of the opinion that the proposed development and the permitted uses listed in the proposed WC zone of Bylaw No. 4550 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 impact from the proposed development can be determined through the referral process and consideration of broader OCP policies and objectives.

The southernmost subject property is Lot 13 of strata VIS4766 (Fishboat Bay), which is zoned AF and was created under the parcel area averaging provisions of the *Bare Land Strata Regulation* of the *Strata Property Act*. The parcel is the subject of covenant EN21276, which is registered in favour of Capital Regional District. The covenant prohibits subdivision and the construction or placement of structures including fencing. Staff are of the opinion that should the zoning amendment be supported, the covenant would require an amendment to allow the camping use in the areas indicated on the applicant's site plan. Restrictions on subdivision specified within the covenant should remain in order to maintain the lot averaging of the strata.

The environmental report provides an inventory of natural hazards, sensitive ecosystems, riparian areas, steep slopes, local wildlife, ecology, and the land areas that were impacted by prior forestry activities. The report emphasized that the proposed level of development is very low and that potential environmental impacts are not anticipated. For future development, the implementation of Fire Smart practices is recommended, such as a 1.5 m non-combustible buffer for buildings and structures and a ~30 m non-combustible or managed vegetation area around each campsite. While the WC zone proposed in Bylaw No. 4550 stipulates a separation distance for campsites, buildings, and structures, additional zoning regulations can be considered during the referral process. Furthermore, should proposed Bylaw No. 4550 proceed, future works involving land clearing and building construction would be regulated through the development and building permit processes.

Should proposed Bylaw No. 4550 proceed, the new WC zone would permit one camping space per 8.5 ha with a minimum 20 m separation distance between each site, as well as continued silviculture, residential, and home-based business uses. The minimum proposed parcel size of 8 ha has been calculated to reflect the average parcel size of the total area of the lands and the minimum lot size specified by the existing AF and RL zones. Staff recommend referral to the Shirley-Jordan River APC, CRD departments, First Nations and external agencies.

CONCLUSION

The purpose of Bylaw No. 4550 is to amend Bylaw No. 2040 by removing the subject property from the Forestry (AF) and Resource Land (RL) zones and adding them to a new Wilderness Campground (WC) zone. In order to permit the proposed campsite use on Strata Lot 13, Plan VIS4766, an amendment to covenant EN21276 should be completed prior to bylaw adoption. Staff have prepared proposed Bylaw No. 4550 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 readings.

RECOMMENDATION

That staff be directed to refer proposed Bylaw No. Bylaw No. 4550, "Juan de Fuca Land Use Bylaw, 1992, Amendment No. 160, 2023" to the Shirley-Jordan River Advisory Planning Commission, appropriate CRD departments, First Nations and the following external agencies and for comment: Pacheedaht First Nation T'Sou-ke First Nation BC Hydro BC Parks District of Sooke Island Health Ministry of Forests - Archaeology Branch Ministry of Forests - Water Protection Section Ministry of Forests - Water and Resource Stewardship Ministry of Transportation & Infrastructure RCMP

Sooke School District #62

Submitted by:	lain 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: Location, Zoning, and DPA Map

- Appendix B: Current Forestry (AF) and Resource Land (RL) Zones
- Appendix C: Proposed Wilderness Campground Zone WC
- Appendix D: Concept Plan and Emergency Evacuation Plan
- Appendix E: LUC Meeting Minutes, May 16, 2023
- Appendix F: Environmental Review, prepared by Steve Toth, ASct, R.P. Bio., December 20, 2023
- Appendix G: Visitor Access and Servicing Route Plans
- Appendix H: Proposed Bylaw No. 4550



Appendix A: Location, Zoning, and DPA Map

Appendix B: Current Forestry (AF) and Resource Land (RL) Zones

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

3.0 FORESTRY ZONE - AF

3.01 Permitted Uses

3.03

3.04

3.05

3.06

3.07

Height

Lot Coverage

Yard Requirements

Buildings

Maximum Size of for Residential

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 <u>Minimum Parcel Size for Subdivision</u> The minimum lot size is 4ha; <u>Purposes</u>
 - Density One one-family dwelling per lot is permitted.

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

Maximum height shall be 11m.

50

Maximum lot coverage shall be 10 percent.

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

- 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;
- On lots of 1ha or more in size, residential buildings and structures shall not exceed a Floor Area Ratio of 0.45.

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

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

1A.0 RESOURCE LAND ZONE - RL

1A.01 Permitted Uses

In addition to the uses permitted by Part 2, Schedule A of this bylaw, the following uses and no others shall be permitted in the Resource Land RL Zone:

Principal Uses:

- (a) Residential:
- (b) Resource Extraction; (c) Agriculture.

Accessory Uses:

- (d) Home Based Business Categories One, Two and Three;
- (e) Secondary suite or detached accessory suite; and
- (f) Buildings or structures accessory to the above uses pursuant to Part 1, Subsection 4.01.

Local government land use regulations may not be applicable to private managed forest lands pursuant to Part 3, Section 21 of the Private Managed Forest Land Act.

1A.02 Minimum Parcel Size for Subdivision Purposes

- (a) The minimum parcel size for subdivision purposes is 120 ha;
- (b) For Section 946(4) of the Local Government Act purposes, the minimum parcel size of the remainder parcel is 120 ha where lands have been removed from Private Managed Forest Land status.

1A.03 Density Provisions

- (a) One single-family dwelling;
- (b) One secondary suite or one detached accessory suite.

1A.04 Height

Maximum height of principal buildings shall be 9 m.

1A.05 Maximum Size of Buildings

(a) Provided that percolation and septic field requirements are met pursuant to the Sewerage System Regulation, principal buildings and structures shall not exceed a Total Floor Area of 418 m².

1A.06 Yard Requirements

- (a) Front yards shall be a minimum of 7.5 m;
- (b) Interior and exterior side yards shall be a minimum of 15 m;
- (c) Rear yards shall be a minimum of 15 m.
- 1A.07 Yard Requirements for Agriculture and Agricultural Buildings Adjacent to Non-Farm Parcels

Notwithstanding the above, setbacks for agricultural uses and agricultural buildings are as follows:

- (a) 30 m of a front parcel line;
- (b) 15 m of a side parcel line; and
- (c) 15 m of a rear parcel line.

CRD Bylaw No. 2040

Consolidated for Convenience November 2021

Bylaw 3759

Bylaw 4413

Appendix C: Proposed Wilderness Campground Zone – WC

22A.0 WILDERNESS CAMPGROUND ZONE - WC

22A.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 Wilderness Campground (WC) zone:

Principle uses:

- (a) One-family dwelling;
- (b) Camp ground;
- (c) Silviculture.

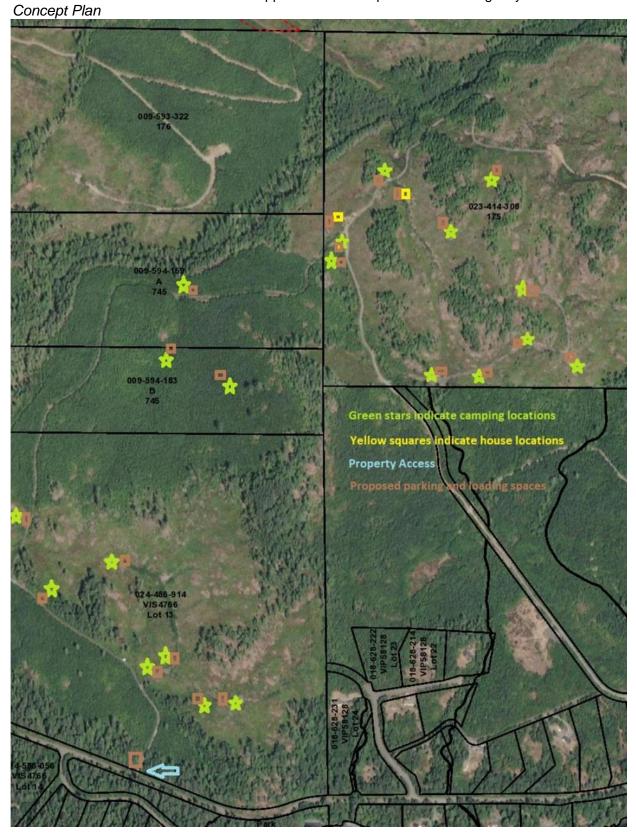
Accessory uses:

- (d) Home Based Business Categories One, Two and Three;
- (e) Secondary Suite pursuant to Part 1, Subsection 4.19;
- (f) Detached Accessory Suite pursuant to Part 1, Subsection 4.20.
- 22A.02 Minimum Lot Size for Subdivision Purposes
- 22A.03 Number of Residential Units
- 22A.04 Height
- 22A.05 Lot Coverage
- 22A.06 Density

22A.07 Setback Requirements

22A.08 Separation Space

- (a)The minimum lot size for subdivision purposes is no less than 8 ha.
- (a) One dwelling unit per lot is permitted.
- (a)Maximum height shall be 11 m.
- (a) Maximum lot coverage shall be 10 percent.
- (a)One camping space per 8.5 ha;
- (b) Individual camping spaces shall be a maximum of 400 m².
- (a) All campsites, buildings, and structures, must be setback a minimum of 15m from every parcel line and watercourses.
- (a) All campsites, buildings, and structures must be separated by a minimum of 20m 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, or other outdoor uses.



Appendix D: Concept Plan and Emergency Evacuation Plan

Emergency Evacuation Plan

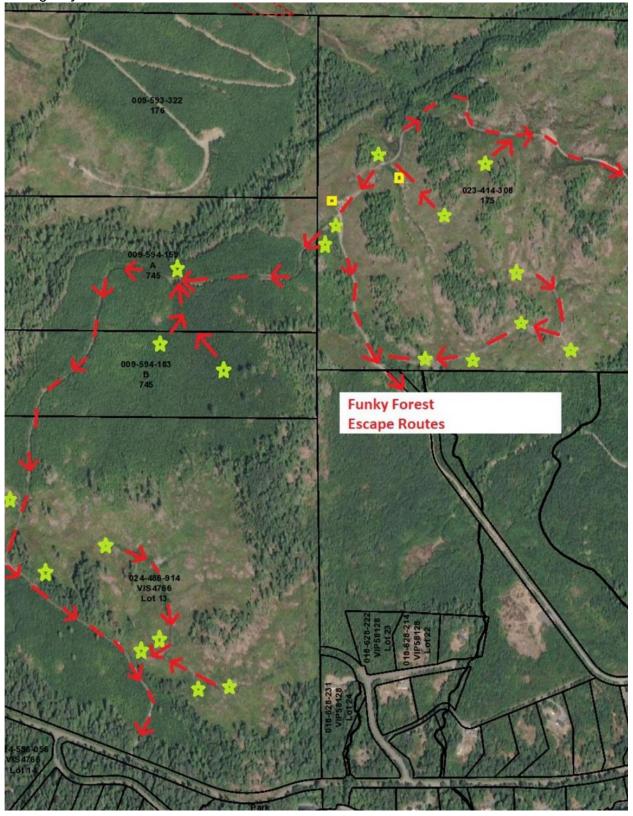


Image of proposed campsite platforms



Appendix E: May 16, 2023, LUC Meeting Minutes

7. Zoning Amendment Application

a) RZ000282 – Parcel A (DD 104752I) of District Lot 745, Renfrew District; Parcel B (DD52657I) of District Lot 745, Renfrew District; District Lot 175, Renfrew District; and Strata Lot 13 of Section 76 and District Lot 745, Renfrew District, Strata Plan VIS4766 together with an interest in the common property in proportion to the unit entitlement of the Strata Lot as shown on Form 1 (10700 Block of West Coast Road) Darren Lucas spoke to the staff report for the application to rezone the subject property from the Forestry (AF) and Resource Land (RL) zones to a new Wilderness Campground (WC) zone.

The subject property map, concept plans and proposed Bylaw No. 4550 were highlighted.

Attention was directed to the four submissions received and circulated in the supplementary agenda.

Staff confirmed that the applicant was present.

Applicant comments included:

- campsites are fully intended to be walk-in with road access provided for clients with mobility restrictions and for campsite servicing related to water delivery and portable toilet servicing
- proposed campsites would be gravel with steel fire rings sited away from vegetation
- a water license application is in progress and pre-application comment was sought from the past and present fire chiefs of the Shirley Volunteer Fire Department

The Chair opened the floor to comments from the public regarding the proposal.

Public attendee comments included:

- specific concern regarding rezoning of Strata Lot 13, Strata Plan VIS4766 and modification of Covenant EN21276 to permit campground use on that lot
- concern regarding the proposal's impact on designated Steep Slope, Sensitive Ecosystem, and Riparian Development Permit Areas, as well as unmapped creeks
- support for the applicant hosting a public information meeting in the in the community before the proposal moves any further forward
- support for requesting more information and submission of professional assessments for consideration of by the LUC and prior to the proposal being referred to external agencies and to the Shirley – Jordan River APC

PPSS-35010459-3095

Juan de Fuca Land Use Committee Meeting Minutes May 16, 2023

LUC discussion ensued regarding requiring Qualified Professional reports for consideration by the LUC prior to referring the proposal to agencies and to the Shirley – Jordan River APC.

MOVED by Dale Risvold, **SECONDED** by Anna Russell that zoning amendment application RZ000282 not proceed until the applicant provides more information including an environmental report, a water report and clarity regarding on-site service routes intended for water delivery, portable toilet servicing and for guests with mobility issues.

CARRIED

3

8. Adjournment

The meeting adjourned at 8:36 pm.

Chair

Appendix F: Environmental Review, prepared by Steve Toth, ASct, R. P. Bio., December 20, 2023

Environmental Review of PID # 024-486-914, 009-594-183, 009-594-159 & 023-414-308, Shirley, B.C.



Prepared for: Funky Forest Inc. 10700 W Coast Rd, Shirley, BC V9Z 1G8 Prepared by: S.P. Toth, AScT, R.P.Bio. **Toth and Associates Environmental Services** 6821 Harwood Drive Lantzville, B.C. VOR 2H0

December 20, 2023



Toth and Associates Environmental Services

6821 Harwood Drive, Lantzville, B.C. V0R 2H0 Tel: (250) 390-7602 E-mail: stoth@shaw.ca

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Toth and Associates Environmental Services

1.0 INTRODUCTION

Toth and Associates Environmental Services were retained by Funky Forest Inc. to conduct an environmental review for a proposed rezoning / Official Community Plan (OCP) amendment of 4 parcels (the subject properties) consisting of approximately 171 ha / 422 acres of forest lands in Shirley, BC.

The subject properties are within the Juan de Fuca Electoral Area of the Capital Regional District (CRD) and lie within the Shirley – Jordan River OCP area. The subject properties have development permit areas (DPAs) designated on them for Riparian, Sensitive Ecosystems and Steep Slope DPAs and are within a Development Approval Information Area. The western 3 properties are zoned AF (Forestry), while the northeast property is zoned RL (Rural Resource).

A field survey of the subject properties was conducted on October 26, 2023 by Steve Toth, AScT, R.P.Bio.

1.1 Proposed Development

The proposed development includes a rezoning / OCP Bylaw amendment application to a new Wilderness Campground (WC) zone to allow for low density campsites and two house sites. It is our understanding that the new WC zone would permit one camping space per 8.5 ha with a 20 m separation distance between each site, as well as continued silviculture, residential, and home-based business uses.

2.0 METHODS

Review methods included consideration of the requirements of the Juan de Fuca Development Approval Information Bylaw (No. 3, 2019), the Shirley – Jordan River OCP (Bylaw No. 4001, 2018), methods and guidelines outlined the Environmental Objectives, Best Management Practices and Requirements for Land Developments (MELP 2001), and Develop With Care, 2014 - Environmental Best Management Practices for Urban and Rural Land Development in British Columbia. Forest values were described and defined within the context of the biogeoclimatic ecosystem classification system (BEC) using methodologies for classification to the site series level described in Land Management Handbook No. 28 (MOF 1994). Ecosystem descriptions were based on those outlined in the Field Manual for Describing Terrestrial Ecosystems (MELP, MOF, 1998).

Habitat values were assessed throughout the property. Physiographic feature descriptions included estimates of slope gradient, aspect, slope position, slope shape, micro-topography and exposure.

Species of vascular plants and byrophytes occurring on the property were recorded and cover classes based on visual estimates were assigned to each species. Total cover for each stratum, as described in Land Management Handbook No. 25 (MOF 1998), were recorded (A - Trees; B - Shrubs; C - Herbs; D - Mosses/Seedlings).

Additional features assessed included: wind damage, evidence of fire and historic logging, susceptibility to fire/wind damage, geologic features, surface water features and drainage patterns.

Forest community composition and structure was qualitatively assessed to determine the suitability in providing habitat features of value to known or potential wildlife species.

2.1 Background Information Review

Maps and air photos of the subject properties were obtained from the Capital Regional District's (CRD's) Regional Map (https://maps.crd.bc.ca/Html5Viewer/?viewer=public), the Shirley – Jordan River OCP (Bylaw No. 4001, 2018) Google Earth©, the BC IMAP website (https://maps.gov.bc.ca/ess/hm/imap4m/) and the LIDAR BC website¹.

The B.C. Conservation Data Centre's (CDC) map site² was reviewed for documented occurrences of rare species in the area of the subject property. The B.C. Species and Ecosystems Explorer database (https://a100.gov.bc.ca/pub/eswp/search.do) was searched for red (endangered) and blue listed (special concern) species with potential to occur on the property. The search was restricted to a specified area of interest centered on the subject properties measuring approximately 40 km².

The CRD's website (https://www.crd.bc.ca/) was visited to review the Shirley - Jordan River OCP and Juan de Fuca Development Approval Information Bylaw, as well as to determine zoning, DPAs, air photos and topographic mapping. The Community Mapping Network's website (https://cmnbc.ca/) was visited to determine if any Sensitive Ecosystems or documented wildlife trees occur within or nearby the subject properties. The BC Habitat Wizard (https://maps.gov.bc.ca/ess/hm/habwiz/) site was reviewed for watercourse information.

4.0 RESULTS

DPAs are designated on the property and include Sensitive Ecosystems, Steep Slopes and Riparian Areas (Figure 1). It is our understanding that the Sensitive Ecosystems were identified by the Sensitive Ecosystem Inventory (SEI) for the Shirley/Jordan River Electoral Area in 2014 (Madrone Environmental Services Ltd., September 2014) and included Mature Forests and Riparian Areas.

Existing mapped watercourse locations were refined based on DEM Hillshade mapping and additional watercourses were added where the Hillshade mapping indicated the presence of drainages.

4.1 Background Information Review

4.1.1 Sensitive Ecosystems

Sensitive Ecosystem DPA polygons were digitized from Schedule E of the Shirley-Jordan River OCP and from the CRD's Regional Map onto Google Earth. The Sensitive Ecosystem DPA polygons identified by Madrone are associated with Mature Forests and cover approximately 55.55 ha (32.5%) of the subject properties.

¹ https://governmentofbc.maps.arcgis.com/apps/MapSeries/index.html?appid=d06b37979b0c4709b7fcf2a1ed458e03

² https://maps.gov.bc.ca/ess/hm/cdc/.

Toth and Associates Environmental Services

Mature Forest is defined in Madrone's SEI report as 80 - 250 years of age. Our comparison of the Mature Forest polygons mapped by Madrone in 2014 and Mature Forest areas shown on more recent air photo imagery indicates that the vast majority of the Mature Forest polygons mapped by Madrone were logged in 2015 (Figure 2).

The Vegetated Land Cover layer on BC IMAP did not provide forest cover age information for the subject properties; therefore we have mapped the approximate forest cover age / logging history for the subject properties based largely on air photo interpretation (Figure 3).

4.1.2 Riparian Areas

Riparian DPA polygons were digitized from Schedule D of the Shirley-Jordan River OCP and from the CRD's Regional Map onto Google Earth. Riparian DPA polygons are primarily associated with Jacob Creek and the headwaters of Swallow Creek and cover approximately 21.89 ha (12.8%) of the subject properties (Figure 4).

The Riparian DPA includes all lands entirely or partially within a riparian assessment area as defined by the provincial *Riparian Areas Protection Regulation* (RAPR). Therefore it is our interpretation that if a watercourse does not have a riparian assessment area as defined by the RAPR, the Riparian DPA would not apply to it.

The RAPR applies to any freshwater watercourse that either provides, or flows to freshwater fish habitat. If a watercourse does not sustain fish populations or flow to downstream freshwater fish habitat the RAPR does not apply to the watercourse, and therefore there would not be a "riparian assessment area" associated with the watercourse.

Under the RAPR the riparian assessment area consists of a 30 m strip on each side of a stream, as measured from the stream boundary (high water mark). If a stream is in a ravine, the riparian assessment area for the stream consists of the following areas, as applicable:

- a) if the ravine is less than 60 m wide, a strip on each side of the stream that is measured from the stream boundary to a point that is 30 m beyond the top of the ravine bank;
- b) if the ravine is 60 or more metres wide, a strip on each side of the stream that is measured from the stream boundary to a point that is 10 m beyond the top of the ravine bank.

In the Riparian DPA, no development permit will be required for the following:

- a) Development where a QEP submits a report or provides certification acceptable to the CRD that the proposed development is located outside a riparian assessment area and the Riparian DPA. In the case of a subdivision, the entire plan of subdivision must be outside a riparian assessment area and the Riparian DPA.
- b) External alterations, including adding an additional storey, that are entirely within the existing building footprint, provided that established driveways are used and there is no clearing of land.
- c) Gardening and yard maintenance activities, such as lawn mowing, pruning and minor soil disturbances that do not alter the general contours of the land, within an existing landscaped area.
- d) Removal of trees that threaten the immediate safety of life and buildings, provided that such trees are deemed hazardous by a QEP.
- e) Removal of non-native, invasive species subject to the prior provision and acceptance by the CRD of report by a QEP.

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- f) Watercourses that have been determined to be non-fish bearing by a QEP.
- g) Public trails may be developed in the Riparian DPA, but not within a SPEA.
- h) Public trails may only be developed in the Riparian DPA if a QEP has determined that the trail will not have a detrimental impact on the riparian assessment area, including the SPEA.

In addition to these exemptions, we have been instructed by the provincial RAPR Coordinator that submission of a RAPR report for proposed rezoning applications is not required, as rezoning is not considered "development" under the RAPR. Submission of a RAPR report to the province would be required for future campsite development if any of the development activities are located within a "riparian assessment area".

4.1.3 Steep Slopes

The Steep Slope DPA includes all those areas having slopes exceeding 30% or 16.7 degrees over a minimum 10 metre run. Steep Slope DPA polygons were digitized from Schedule C of the Shirley-Jordan River OCP and from the CRD's Regional Map onto Google Earth. Steep Slope DPA polygons cover approximately 58.65 ha (34.3%) of the subject properties (Figure 5).

A comparison of steep slope areas indicated by the DEM Hillshade mapping and mapped Steep Slope DPA polygons suggested that this DPA may be over-mapped in some areas of the subject properties and under-mapped in some areas as well.

In the Steep Slope DPA, no development permit will be required for the following:

- a) External alterations, including adding a second storey, that are entirely within the building footprint.
- b) The proposed development is located outside the Steep Slope DPA, as verified by a QP report or other certification demonstrating to the CRD that the proposed development is not located on land with slopes exceeding 30% or having a slope greater than 16.7 degrees over a minimum 10 metre run.
- c) Recognizing that the Building Inspector has the necessary authority to require a geotechnical report to ensure land is safe for the intended use, a development permit is not required for a building constructed under a valid building permit in the Steep Slope DPA provided that no other part of the land in the Steep Slope DPA will be altered for other purposes, such as the construction of driveways or septic systems.
- d) Pruning of trees that does not adversely affect the health of the tree.
- e) Removal of hazardous trees that threaten the immediate safety of life and buildings.
- f) Removal of trees by hand-held tools providing the tree root ball remains intact and in situ with no soil disturbance.

4.1.4 Rare Species and Ecological Communities

The subject properties are within the western variant of the Coastal Western Hemlock very dry maritime (CWHxm2) biogeoclimatic zone.

The BC Conservation Data Centre's (CDC) mapping site indicated that there are no known rare species or ecological community occurrences on, or adjacent to the subject property. Rare species previously documented in the general area include Wandering salamander (*Aneides vagrans*),

Vancouver Island ermine (*Mustela richardsonii anguinae*) and Northern red-legged frog (*Rana aurora*) near the mouth of Jordan River, Dwarf maiden-hair fern (*Adiantum aleuticum var. subpumilum*) at Fossil Bay, Seaside bone (*Hypogymnia heterophylla*) at Sheringham Point, Keeled jumping slug (*Hemphillia burringtoni*) and Vancouver Island ermine near the mouth of Muir Creek.

There were no raptor or heron nest sites documented on or adjacent to the property by the BC Wildlife Tree Stewardship Atlas³ or Great Blue Heron Management Team Atlas⁴.

The search of the B.C. Ecosystem Explorer site for potential red and blue-listed species within the area identified 167 animal species, 79 plant species, and 48 ecological communities. Although the search area was restricted to a 40 km² centered on the subject properties, the search returned numerous species that are not known from the area or even Vancouver Island.

The list of rare animal species was refined by excluding those species known not to occur on the property based on known limits of distribution or specific habitat requirements that do not exist on the property. Those species not wholly dependent upon some of the characteristics provided by the subject property for critical life functions (e.g. foraging, breeding or shelter) were also excluded. The refined list included 13 species with realistic potential to occur in the general area of the subject properties.

Scientific Name	English Name	BC List	Potential			
Accipiter gentilis laingi	Northern Goshawk, laingi subspecies	Red	Low. It prefers to breed in larger, intact patches of mature forest rather than small isolated stands.			
Anaxyrus boreas	Western Toad	Yellow	Very Low. There are no suitable wetland breeding habitats on the subject properties.			
Aneides vagrans	Wandering Salamander	Blue	High. Wandering salamanders are widespread in low numbers throughout low – mid elevation forests on southern Vancouver Island.			
Cervus elaphus roosevelti	Roosevelt Elk	Blue	Documented on the properties.			
Chordeiles minor	Common Nighthawk	Blue	Moderate. Utilizes open rock outcrop habitats for nesting.			
Glaucidium gnoma swarthi	Northern Pygmy-Owl, swarthi subspecies	Blue	Moderate. We encounter this species fairly frequently in middle elevation forests on southern Vancouver Island.			
Hemphillia burringtoni	Keeled Jumping-slug	Red	Moderate. Where suitable moist conditions are present, this slug c occupy young seral stages but is more often found in stands at lea 60 years old. Often associated with riparian areas.			
Hemphillia dromedarius	Dromedary Jumping-slug	Red	Moderate. Similar conditions as Keeled Jumping-slug.			
Lasiurus cinereus	Hoary Bat	Blue	Moderate. Widespread in low numbers. Roosts singly in trees.			
Megascops kennicottii kennicottii	Western Screech-Owl, kennicottii subspecies	Blue	Low. Significant decline in population since 2000, primarily due to recent westward spread of Barred-owls.			
Mustela richardsonii anguinae	Ermine, anguinae subspecies	Blue	Low. Widespread in low numbers. Often associated with grass / sedge open areas and edges such as fens and meadows.			
Myotis lucifugus	Little Brown Myotis	Blue	Moderate. Widespread and still fairly common.			
Myotis yumanensis	Yuma Myotis	Blue	Moderate. Widespread and still fairly common.			
Oncorhynchus clarkii clarkii	Cutthroat Trout, clarkii subspecies	Blue	May be present in lower Jacob Creek.			

Table 1. List of potential rare animal species

³ https://cmnbc.ca/atlasgallery/wildlife-tree-stewardship/

⁴ https://cmnbc.ca/atlasgallery/great-blue-heron-gbhe-management-team/

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Scientific Name	English Name	BC List	Potential				
Patagioenas fasciata	Band-tailed Pigeon Blue		Moderate. This species has drastically declined throughout southwestern BC. It is still present in low numbers during the breeding season and has a high dependence on the annual use of mineral sites. Pigeons are terrible nest builders and we have found only two band-tailed pigeon nests in 30 years. We would postulate that this species is likely an old growth dependent species that was reliant upon large diameter moss covered limbs and / or mistletoe for nesting platforms.				
Rana aurora	Northern Red-legged Frog	Blue	High. Despite its listed status, we still frequently encounter red-legged frogs in moist forest habitats and riparian corridors throughout Vancouver Island. Currently the greatest threats to this species include the invasive American bullfrog, land development, emerging diseases such as Chytridiomycosis, logging and climate change (summer droughts; premature drying of ephemeral breeding sites).				
Sorex navigator brooksi	Western Water Shrew, brooksi subspecies	Blue	Very Low. Our targeted surveys for this species over the past 30 years have indicated that it requires streams with relatively stable banks and year-round flows.				

The list of plant species was refined to exclude those species with known limits of distribution or habitat requirements not found within the study area. The refined list included 3 potential rare plant species.

Table 2.	List of	potential	rare p	lant s	pecies

Scientific Name	English Name	BC List	t Potential			
Allium amplectens	slimleaf onion	Blue	Very Low. Not generally known from the west coast but has been documented at Otter Point and Sooke River. Occurs on vernally moist rocky bluffs and meadows in the lowland zone.			
Githopsis specularioides	common bluecup	Blue	Very Low. Not generally known from the west coast but has been documented at Sooke River and Bluff Mountain.			
Prosartes smithii	Smith's fairybells	Blue	Very Low. Not generally known from the area. Nearest occurrence is Loss Creek. Usually associated with stream floodplains.			

All of the terrestrial ecological communities within the CWHxm2 are listed by the province as red or blue listed when in Mature (>80 years) or Old-growth states (>250 years). The list of potential ecological communities was refined to include only those communities that would have realistic potential to develop on the property if the property were to remain undisturbed (i.e. climax communities). There are currently no known rare ecological communities on the subject properties.

Table 3.	List of	potential	rare eco	logical	communities	
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Scientific Name	English Name	Biogeoclimatic Units	BC List	Potential	
Pseudotsuga menziesii - Pinus contorta / Cladina spp.	Douglas-fir - lodgepole pine / reindeer lichens	CWHxm2/02	Red	Very Low. Potential restricted to dry rock outcrops. Shore (lodgepole) pine not prevalent on the properties.	
Pseudotsuga menziesii / Polystichum munitum	Douglas-fir / sword fern	CWHxm2/04	Red	Very Low. This ecological community occurs o dry nutrient-rich sites with significant slope (35-70%) that have deep, medium-texture soils.	
Pseudotsuga menziesii - Tsuga heterophylla / Gaultheria shallon Dry Maritime	Douglas-fir - western hemlock / salal Dry Maritime	CWHxm2/03	Red	Very Low. This ecological community occurs on dry sites that are often on steep upper slopes with warm aspects. Soils are shallow or coarse over bedrock.	

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Thuja plicata / Polystichum munitum Very Dry Maritime	western redcedar / sword fern Very Dry Maritime	CWHxm2/05	Red	Very Low. Generally not known from west coast VI.
Thuja plicata / Rubus spectabilis	western redcedar / salmonberry	CWHxm2/13	Red	Very Low. Generally not known from west coast VI.
Tsuga heterophylla - Thuja plicata / Struthiopteris spicant	western hemlock - western redcedar / deer fern	CWHxm2/06	Red	Low. Potential would be restricted to cool aspects.

4.2 Field Assessment

Habitat values and forest cover were documented throughout the subject properties during the field survey. Features were geo-referenced using a Garmin Map60CSx handheld Global Positioning System (GPS).

4.2.1 Environmentally Sensitive Areas

Environmentally Sensitive Areas (ESAs) include the relatively small areas of remaining Mature Forests (80 - 250 years) on the subject properties as well as riparian areas. While not included in the ESA mapping, moss dominated rock outcrops in our opinion also represent ESAs. The vast majority of rare plant species found on southern Vancouver Island are associated with terrestrial herbaceous rock outcrops and rock outcrops provide important habitat for several bird and bat species. Rock outcrops are largely included within the mapped Mature Forest and Steep Slope DPA polygons.

The Mature Forest ESAs mapped by Madrone on the subject properties in 2014 measured approximately 55.55 ha. Our measurements indicate that the remaining Mature Forest areas on the subject properties measure approximately 26.2 ha, including some areas we have mapped that were not previously mapped as Mature Forest by Madrone.

4.2.2 Rare Species

The late fall timing of the field survey precluded the assessment of use by migratory birds, herptiles and the identification of most annual / perennial flowering herbaceous plants. Evidence of use of a small area on the properties by blue-listed Roosevelt elk indicated the past presence of either a solitary bull or a very small herd of elk.

4.2.3 Forest Cover

Forest cover on the subject properties consists largely of 8 - 19 year old stands with approximately 64.8% of the property logged since 2004. Approximately 19% of the property was harvested in 2005 and 39% of the property was harvested in 2015.

Areas logged in 2015 consist of open, shrub stage regenerating forest with fairly dense shrub and herb layer development (Photographs 1 - 3). Areas logged in 2004 / 2005 consist of dense early Pole-Sapling stage stands with closed canopies and relatively little understorey development (Photograph 4).

Older stands of forest cover on the property are largely limited to steep / inaccessible areas associated with the Jacob Creek ravine / canyon and rock outcrops. Most of these stands have fairly high incidents of tree failure along their borders from windthrow and exposure.

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4.3 Wildlife Habitat Values and Wildlife Species

4.3.1 Bird use

Bird numbers and species noted on the subject property were low and largely limited to resident species typical of the area including dark-eyed junco, spotted towhee, chestnut-backed chickadee, American robin, Anna's hummingbird, common raven, Bewick's wren and winter wren. Evidence of use included ruffed grouse scratchings, sooty grouse droppings, red-breasted sapsucker, downy woodpecker and northern flicker foraging holes.

No raptor or heron nest sites were observed on the property. One merlin was observed.

4.3.2 Mammals

Evidence of use of the property by black-tail deer indicated a surprisingly low level of use considering the location, habitat and that this private property is gated. While many people may think that deer numbers are high on Vancouver Island due to the presence of high numbers within urban / sub-urban areas, the deer population is actually at an all time historic low. Deer numbers are down from over 250,000 animals in the 1980's to approximately 55,000 in 2019. The current numbers are likely much lower due to the rapid spread of Adenovirus Hemorrhagic Disease (AHD) over most of southern Vancouver Island and the gulf islands since 2019.

Evidence of use by black bear indicated typical levels of use with no particularly high use areas noted. Red squirrels were observed and eastern cottontail pellets were noted. One probable pine marten scat was found. No evidence of cougar or wolf was found.

The documentation of the use of a small area of the subject properties by Roosevelt elk indicated a single bull or possibly a very small herd of elk had been present in the area during the rutting season over the past two years based on rubs and sign.

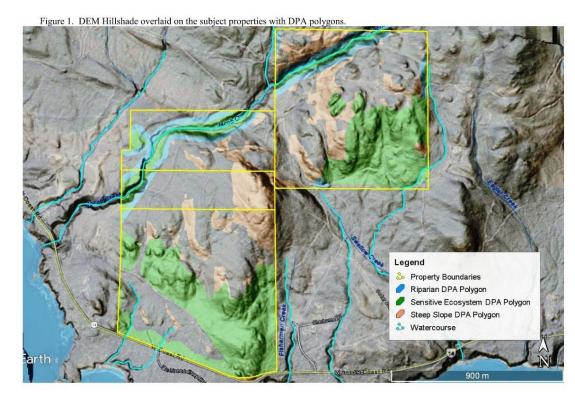
4.3.3 Herptiles

No reptiles or amphibians were observed during the field surveys. Pacific tree-frogs were heard.

4.3.4 Habitat Values

The subject properties contain all of the habitat requisites to support most wildlife species expected to occur in the area. Possible limitations to use by some species include a lack of wetlands, the extensive areas of forest cover < 20 years of age and relative lack of large areas of Mature Forest.

Overall, we would rate the habitat suitability values on the subject properties as moderately high for species such as black bear, Roosevelt elk and black tail deer.



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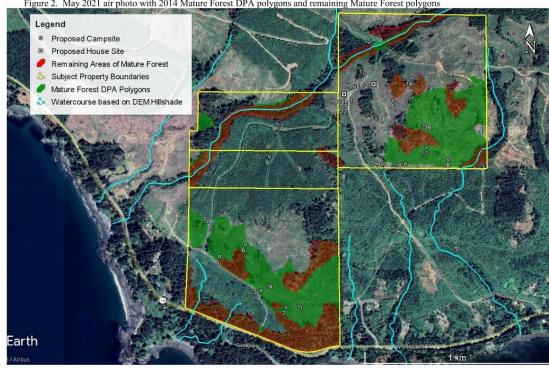
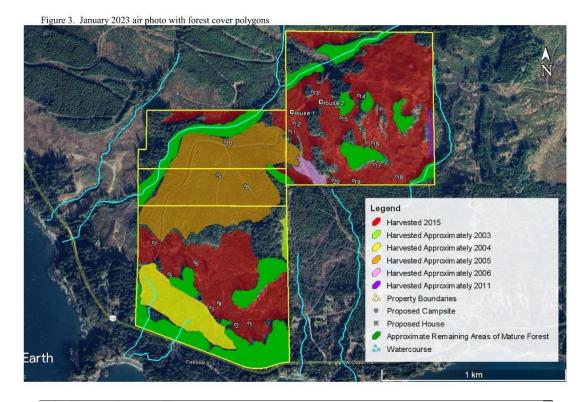


Figure 2. May 2021 air photo with 2014 Mature Forest DPA polygons and remaining Mature Forest polygons

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Figure 4. July 2016 air photo showing post-2015 logged areas and Riparian DPA polygons

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4.4 Watercourses

The main watercourse on the subject property is Jacob Creek (Photographs 5 - 7) which is located in a deep ravine / canyon along the north side of the subject properties. Practically no information was found from our search of provincial websites, other than that it is fish bearing. Jacob Creek through the properties consists an 8 - 15% grade, cascade pool morphology with a channel width of 10 - 13 m.

There are a number of other small seasonal drainages / watercourses on the properties, none of which are of significant size. These watercourses include the headwaters of Aleda and Swallow Creeks. No information regarding fish populations was available for these watercourses from the BC Habitat Wizard site.

4.5 Watercourse Setbacks

Under the provincial *Riparian Areas Protection Regulation's* Simple Assessment Method Jacob Creek would require Streamside Protection and Enhancement Area (SPEA) setbacks of 10 m from top of ravine bank. The approximate top of ravine bank was mapped based on the DEM Hillshade imagery (Figure 6). All of the other drainages on the subject properties would require 10 m SPEA setbacks from high water mark under the RAPR's Detailed Assessment Method, *if the RAPR applies to these drainages* – which is yet to be determined. For planning purposes we have applied 10 m setbacks to all of the other drainages.

5.0 DISCUSSION & RECOMMENDATIONS

The proponent's intent is to utilize existing disturbed areas such as old rock quarries, spur roads / skidder trails and logging landings wherever possible in order to reduce the new footprint impacts associated with the proposed campsites. In many ways this a very laudable objective; however we feel that this approach must be tempered with providing a reasonable, safe campsite footprint and in most cases this should include some level of tree removal / vegetation modification.

The tree density in most of the areas logged prior to 2015 on the property is excessively high and thinning / spacing of trees in the vicinity of the campsites would actually be beneficial to long term forest development and biodiversity.

The BC FireSmart Manual⁵ recommends that a minimum 1.5 metre non-combustible surface should extend around dwellings and any attachments, such as decks. Examples of non-combustible landscaping include primarily decomposed granite, gravel and rocks, pavers and brick.

The Manual indicates that between 1.5 m and 10 m from a dwelling (i.e. Zone 1) should be a fireresistant zone, free of all materials that could easily ignite from a wildfire and recommends planting / retaining only low-density, fire-resistant plants and shrubs, as well as avoiding having any woody debris present, including mulch. Coniferous trees with cones and needles are highly flammable and should not be within 10 m of a dwelling.

⁵ https://firesmartbc.ca/wp-content/uploads/2019/01/FireSmart-Homeowners-Manual.pdf

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For Zone 2 (10 - 30 m from a dwelling) the Manual recommends thinning and pruning evergreen trees to reduce fire hazard in this zone. Regular clean up of accumulations of fallen branches, dry grass and needles from the ground should be conducted to eliminate potential surface fuels. There should be a minimum of 3 m *between the outermost branches of trees* (not 3 m tree spacing). Remove smaller coniferous trees and resinous shrubs that could act as a "ladder" and allow fire to move into the treetops.

Assuming a footprint of 30 m radius for each campsite based on the BC FireSmart Manual's recommendations for vegetation management provides a total area for 20 campsites and 2 house sites of approximately 6.22 ha, or roughly 3.6% of the entire land base of the subject properties. This is the footprint associated with maintaining a fire safe area at each campsite / house location and the actual development footprint associated with structures would be much lower.

The primary predicted / expected impact of the proposed development of campsites on the subject properties is associated with increased human use. It has been our experience that most wildlife species can become accustomed to persistent, low levels of human disturbance particularly when wildlife is not being harassed or hunted. However, species such as black bear, blacktail deer and Roosevelt elk do not seem to be very tolerant of dogs and therefore we recommend that the campsite rules include a requirement for any dogs to be leashed.

Ancillary use associated with campsites often includes walking / biking trails. While we encourage these activities, trail locations need to be sited carefully to avoid disturbance of sensitive sites such as moss / herb dominated rock outcrop areas and wet seepage sites, steep slopes or watercourses.

5.1 Assessment of Proposed Campsites

We have reviewed the proposed campsite locations in relation to the Steep Slope, Riparian and remaining Mature Forest DPAs and provide the following comments and alternate campsite locations (Figure 6) for discussion purposes.

- Campsites 1 & 2 no change, not within DPAs;
- Campsites 3 & 4 minor relocation to existing disturbed areas, not within DPAs;
- Campsites 5 & 6 no change, not within DPAs;
- Campsite 7 within Steep Slope DPA, we have provided an alternate location outside DPAs in a relatively flat area harvested in 2015;
- Campsite 8 no change, although it is shown as within a Steep Slope DPA, the field survey
 indicated that this area is not steep;
- Campsite 9 although the proposed location is not within a DPA, the 2006 air photo indicates the proposed location is on a minor non-defined drainage and therefore we have provided an alternate site approximately 36 m south;
- Campsite 10 although it is not shown within a DPA, our mapping indicates this campsite location is most likely within a Riparian Assessment Area and possibly within a SPEA setback, therefore we have suggested an alternate location approximately 180 m west;
- Campsite 11 the proposed location is within a mapped Steep Slope DPA located approximately 25 m below a cut and fill section of road, therefore we have suggested an alternate location approximately 65 m west;

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- Campsite 12 although it is not within a DPA the proposed location appears to be on a cutthrough road which may be of use for long loads in the future, therefore we have suggested an alternate location approximately 25 m south;
- Campsites 13 & 14 no change, not within DPAs;
- Campsites 15 & 16 no change, although campsite 15 is shown as within a Steep Slope DPA, the field survey indicated that this area is not steep;
- Campsites 17 & 18 Campsite 17 is within a Steep Slope DPA and therefore we have suggested an alternate location on an old spur road approximately 150 m northeast. We have suggested a slight relocation of Campsite 18 to 20 m north to be on an old spur road.
- Campsite 19 no change, not within DPAs; and,
- Campsite 20 the proposed location is within mapped Steep Slope & Riparian DPAs, therefore we have suggested an alternate location approximately 180 m west on an old skidder trail.

6.0 CONCLUSION

The proposed rezoning of the subject properties to a new Wilderness Campground zone is in order to allow for development of two house sites and approximately 20 campsites. This a very low level of proposed development given the large size of the subject properties, and while we have conducted studies in support of several proposed campsites over our 30 years of environmental consulting experience we have not had a development proposal with such low development density. In many ways the low level of intended development made the assessment of potential environmental impacts somewhat difficult to measure, as there does not appear to be any significant potential for environmental impacts as a result of the proposed development, particularly when compared with the historic / currently permitted land uses.

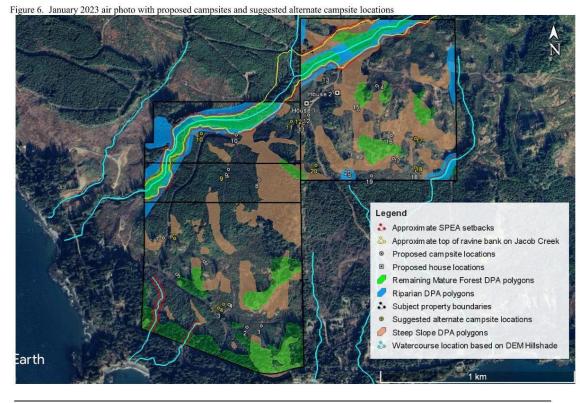
Please contact us if you have any questions or concerns regarding the contents of this report or require any additional information

Sincerely,

Steve Toth, AScT, R.P.Bio.

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7.0 REFERENCES

Bartels, R., J.D. Dell, R.L. Knight and G. Schaefer. 1985. Dead and down woody material. In: Management of wildlife and fish habitats in forests in western Oregon and Washington. E.R. Brown (ed.). USDA For. Serv. Pub. No. R6-FoWL-192. Portland, OR. pp. 171-186.

B.C. Ministry of Environment, Lands and Parks, B.C. Ministry of Forests. 1998. Field Manual for Describing Terrestrial Ecosystems, Land Management Handbook No. 25. 214 pp.

B.C. Conservation Data Centre. BC Species and Ecosystems Explorer. B.C. Minist. of Environ. Victoria, BC. URL: <u>http://a100.gov.bc.ca/pub/eswp/</u> (accessed November 2023).

B.C. iMapBC 2.0 Mapping Service [web application]. Victoria, British Columbia, Canada. URL: <u>http://maps.gov.bc.ca/ess/sv/imapbc/</u> (accessed November 2023).

B.C. Ministry of Environment. December 2014. Develop With Care - Environmental Best Management Practices for Urban and Rural Land Development in British Columbia. 242 pp.

Bentley, D.M., M. Demarchi, and L. Sopuck. March 2005. Draft Best Management Practices for Raptor Conservation during Urban and Rural Land Development in British Columbia. Prepared for BC Ministry of Water, Land and Air Protection Ecosystem Standards and Planning Biodiversity Branch. 137 pp.

Biolinx Environmental Research Ltd. and E. Wind Consulting. November 2004. Best Management Practices for Amphibians and Reptiles in Urban and Rural Environments in British Columbia. Prepared for B.C. Ministry of Water, Lands, and Air Protection. 149 pp + appendices.

Campbell, R. W., N. K. Dawe, I. McTaggart-cowan, J. M. Cooper, G. W. Kaiser, M. C. E. Mcnall. 1990. The Birds of British Columbia. Volume III: Passerines, Flycatchers through Vireos. 636 pp.

Demarchi, D. 1996. An introduction to the ecoregions of British Columbia. MELP, Wildlife Branch. Victoria, B.C. 46 pp + appendices.

Green, D.M. and R.W. Campbell. 1984. The Amphibians of British Columbia. Royal British Columbia Museum Handbook No. 45. Victoria, B.C. 100 pp.

Green, R.N. and K. Klinka. 1994. A field guide for site identification and interpretation for the Vancouver Forest Region. Land Management Handbook Number 28. BC Ministry of Forests. Victoria, B.C. 285 pp.

Luttmerding, H.A., D.A. Demarchi, E.C. Lea, D.V. Meidinger and T. Vold. 1990. Describing Ecosystems in the Field, Second Edition. BC Ministry of Environment, Lands and Parks, BC Ministry of Forests. Victoria, B.C. 213 pp.

Meidinger, D. and J. Pojar. 1991. Ecosystems of British Columbia. BC Ministry of Forests. Victoria, B.C. 330 pp.

Canadian Wildlife Service and BC Ministry of Environment. 1997. Sensitive Ecosystem Inventory of the East Coast Vancouver Island and Gulf Islands.

Stevens, V. 1995. Wildlife Diversity in British Columbia: Distribution and habitat use of amphibians, reptiles, birds and mammals in Biogeoclimatic Zones. Res. Br., BC Min. For., Wildl. Br., B.C. Min. Environ., Lands and Parks. Victoria, B.C. Work Pap. 04/1995.

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Photograph 1. October 26, 2023. View through shrub stage regenerating forest to Mature Forest on south facing rock outcrop.



Photograph 2. View through shrub stage (logged 2015) regenerating forest to Mature Forest.

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Photograph 4. View of 18 year old closed canopied forest cover typical of areas logged in 2004 / 2005.

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Photograph 5. View of Jacob Creek.

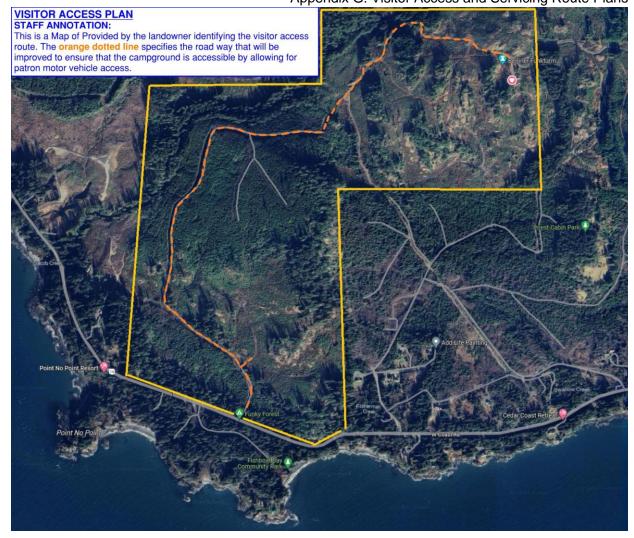


Photograph 6. View of steep ravine side slope above Jacob Creek.

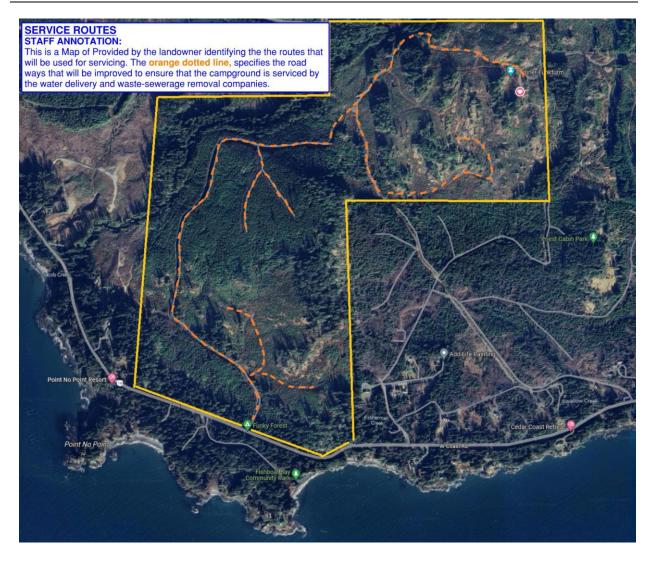


Photograph 7. View from top of ravine to Jacob Creek.

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Appendix G: Visitor Access and Servicing Route Plans



Appendix H: Proposed Bylaw No. 4550

CAPITAL REGIONAL DISTRICT BYLAW NO. 4550

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 adding the new 22.0A Wilderness Campground Zone - WC as follows:

22A.0 WILDERNESS CAMPGROUND ZONE - WC

22A.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 Wilderness Campground (WC) zone:

Principle uses:

- (a) One-family dwelling;
- (b) Camp ground;
- (c) Silviculture.
- Accessory uses:
- (d) Home Based Business Categories One, Two and Three;
- (e) Secondary Suite pursuant to Part 1, Subsection 4.19;
- (f) Detached Accessory Suite pursuant to Part 1, Subsection 4.20.

22A.02 <u>Minimum Lot Size for Subdivision</u> <u>Purposes</u>	(a)The minimum lot size for subdivision purposes is no less than 8 ha.
22A.03 Number of Residential Units	(a)One dwelling unit per lot is permitted.
22A.04 Height	(a)Maximum height shall be 11 m.
22A.05 Lot Coverage	(a)Maximum lot coverage shall be 10 percent.
22A.06 Density	(a)One camping space per

- (a)One camping space per 8.5 ha;
- (b) Individual camping spaces shall be a maximum of 400 m².

CRD Bylaw No. 4550

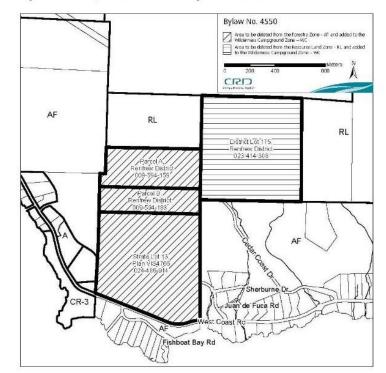
22A.07 <u>Setback Requirements</u>	(a) All campsites, buildings, and structures, must be setback a minimum of 15m from every parcel line and watercourses.		
22A.08 Separation Space	(a) All campsites, buildings, and structures must be separated by a minimum of 20m measured from the outside surface of 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, or other outdoor uses.		

B. SCHEDULE B, ZONING MAPS

- a. By deleting Parcel A (DD 1047521I) of District Lot 745, Renfrew District, from the Forestry Zone - AF, and adding to the Wilderness Campground Zone – WC, as shown in Plan No. 1.
- b. By deleting Parcel B (DD 52657I) of District Lot 745, Renfrew District, from the Forestry Zone - AF, and adding to the Wilderness Campground Zone – WC, as shown in Plan No. 1.
- c. By deleting District Lot 175, Renfrew District, from the Resource Land Zone RL, and adding to the Wilderness Campground Zone WC, as shown in Plan No. 1.
- d. By deleting Strata Lot 13 of Section 76 and District Lot 745, Renfrew District, Strata Plan VIS4766 together with an interest in the common property in proportion to the unit entitlement of the Strata Lot as shown on Form 1, from the Forestry Zone AF, and adding to the Wilderness Campground Zone WC, as shown in Plan No. 1.

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CRD Bylaw No. 4550



Plan No. 1 of Bylaw No. 4550, an amendment to Bylaw No. 2040

2. This Bylaw may be cited as "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 160, 2023".

READ A FIRST TIME THIS	day of	2024
READ A SECOND TIME THIS	day of	2024
READ A THIRD TIME THIS	day of	2024
ADOPTED THIS	day of	2024

CHAIR

CORPORATE OFFICER

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