Making a difference...together

JUAN DE FUCA LAND USE COMMITTEE

Notice of Meeting on Tuesday, **October 18, 2022 at 7 pm**

Juan de Fuca Local Area Services Building, #3 – 7450 Butler Road, Otter Point, BC

AGENDA

1. Approval of Agenda

2. Approval of the Supplementary Agenda

3. Adoption of Minutes of September 20, 2022

4. Chair's Report

5. Planner's Report

6. Development Permit with Variance Applications
   a) DV000086 - Lot 1, Section 9, Otter District, Plan 12535 (8492 West Coast Road)
   b) DV000089 – Section 41, Otter District as Shown on Plan Deposited Under DD 55112I (Clark Road)

7. 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

8. Adjournment

Please note that during the COVID-19 situation, the public may attend the meeting in-person or electronically through video or teleconference. Should you wish to attend the meeting in-person, please contact the Juan de Fuca Community Planning Office at 250.642.8100. Should you wish to attend electronically, please contact us by email at jdfinfo@crd.bc.ca so that staff may forward meeting details. Written submissions continue to be accepted until 4:00 pm the day before the meeting.

Making a difference...together

Minutes of a Meeting of the Juan de Fuca Land Use Committee
Held Tuesday, September 20, 2022 at the Juan de Fuca Local Area Services Building
3 – 7450 Butler Road, Otter Point, BC

PRESENT: Director Mike Hicks (Chair), Vern McConnell, Roy McIntyre (EP), Ron Ramsay, Dale Risvold, Sandy Sinclair
Staff: Iain Lawrence, Senior Manager, JdF Local Area Services; Wendy Miller, Recorder
ABSENT: Stan Jensen
PUBLIC: 6 in-person; 2 EP

EP – Electronic Participation

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

The Chair provided a Territorial Acknowledgment.

1. Approval of the Agenda

MOVED by Vern McConnell, **SECONDED** by Dale Risvold that the agenda be approved.
CARRIED

2. Approval of the Supplementary Agenda
No supplementary items.

3. Adoption of Minutes from the Meeting of July 19, 2022

MOVED by Dale Risvold, **SECONDED** by Vern McConnell that the minutes from the meeting of July 19, 2022, be adopted. **CARRIED**

4. Chair's Report
It was advised that the current LUC membership can anticipate meeting in October and November, prior to the appointment of the new Director.

5. Planner's Report
No report.

6. Development Permit with Variance Application

a) DV000087 – Strata Lot 5, Section 16, Otter District, Strata Plan VIS7096 (11-7450 Butler Road)

Iain Lawrence spoke to the staff report for a development permit with variance to authorize the siting of a permanent shipping container and to authorize construction of an additional building within a designated commercial and industrial development permit area.

Iain Lawrence highlighted the subject property and site plan. The location of the existing boulevard landscaping and the location of the building were identified. The application was referred to the Juan de Fuca Community Parks Program as the building is adjacent to a community trail. Program staff had no concerns regarding the proposed development, and additional landscape screening was not requested.

Iain Lawrence confirmed that no comments were received in response to the notice of intent mailed to adjacent property owners within 500 m of the subject property.

The Chair confirmed that the applicants were present.

Iain Lawrence responded to questions from the LUC advising that:
- access for firefighting is considered as part of the building permit referral to the fire department
- spatial separation is considered by the Building Division when building plans are reviewed
- there is a registered architect overseeing the application
- the subject property backs onto vacant strata common property
- the subject property is zoned Sooke Business Park Industrial (M-SBP), which permits a lot coverage of 60%
- rainwater collection is not a requirement of the M-SBP zone

The applicants responded to questions from the LUC advising that:
- the property is serviced by rainwater collection and by trucked water
- the building is a steel structure with no windows
- the structure is the standard height for a shipping container
- the structure will be used for auxiliary cannabis processing

MOVED by Roy McIntyre, **SECONDED** by Ron Ramsay that the Juan de Fuca Land Use Committee recommends to the Capital Regional District Board:
That Development Permit with Variance DV000087, for Strata Lot 5, Section 16, Otter District, Strata Plan VIS7096 to vary Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040, Part 2, Section 27B.09(d)(ii) by reducing the rear yard setback requirement from 4.5 m to 0.6 m for the purpose of constructing an industrial building and to authorize the siting of a permanent shipping container, be approved.

CARRIED

b) DV000090 - Lot 14, Section 97, Sooke District, Plan 14282 (35 Seagirt Road)

Iain Lawrence spoke to the staff report for a development permit with variance application to authorize construction of a single family dwelling with secondary suite and related services, and to reduce the side yard setback requirement.

Iain Lawrence highlighted the subject property, site plan, and construction drawings. It was confirmed that the proposed single family dwelling with secondary suite is sited in the location of the previous dwelling which was constructed in 1974 and demolished in 2019. It was further confirmed that no comments were received in response to the notice of intent mailed to adjacent property owners within 500 m of the subject property.

The Chair confirmed that the applicant was present.

The applicant responded to a question from the LUC advising that the subject property has not been subdivided since the original house was constructed.

MOVED by Vern McConnell, **SECONDED** by Dale Risvold that the Juan de Fuca Land Use Committee recommends to the Capital Regional District Board:
That Development Permit with Variance DV000090, for Lot 14, Section 97, Sooke District, Plan 14282, to vary Juan de Fuca Land Use Bylaw No. 2040, Part 2, Section 10.09(b) by reducing the side yard setback requirement from 6 m to 3 m to authorize construction of a single family dwelling with secondary suite and related services, be approved.

CARRIED

7. Zoning Amendment Applications

a) RZ000273 - That Part of Section 17, Otter District, Lying East of Otter Point Road, Except Parcel C (DD43782I) And Except Parts in Plans 3054 And 17721 (3542 & 1-3542 Otter Point Road)

Iain Lawrence spoke to the staff report for the application that proposes a minor expansion of the Rural Residential 2 (RR-2) zone on the northern portion of the property and rezoning the southern portion of the property from the Industrial Sawmill (M-3) zone to a new Rural Industrial (M-RU) zone to permit business and general industrial uses.

Iain Lawrence advised that the LUC directed referral of the proposal to agencies and to the Otter Point Advisory Planning Commission (APC) at its meeting of July 20, 2021.

Iain Lawrence directed attention to the referral comments as included in the staff report. It was reported that Otter Point APC considered the proposal at its meeting of August 11, 2021. It was further reported that the applicant has amended the proposal in response to comments from the agencies and the APC. Amendments include a southerly expansion of the RR-2 zone to ensure alignment of future property lines with zoning boundaries; removal of cannabis production and accommodation for recreational vehicles; and limitations to the general industrial use.

Iain Lawrence highlighted the subject property and proposed zoning boundary and outlined the proposed M-RU zone.

The Chair confirmed that the application agent was present.

The application agent responded to a question from the LUC advising that the applicant withdrew the cannabis production and recreational vehicle component from the proposal in response to concerns raised through the referral process regarding high water use.

Iain Lawrence responded to questions from the LUC advising that:
- each of the four M-RU zoned lots proposed by subdivision application SU000711 would be permitted opportunity to have an accessory caretaker unit
- under the original Rural A zoning, the subject property could have been subdivided into three lots and each lot would have had opportunity to have multiple dwellings and a suite
- the maximum floor area proposed by the M-RU zone regulates density

In response to comments received from the APC, the Chair reported that it is not a function of the LUC to monitor water use. Iain Lawrence advised that the applicant was required to register a covenant (CA8709728) to ensure the installation of a 60,000 gallon water supply dedicated to fire protection for the industrial sawmill use and the community, in response to comments made by the APC and the Otter Point Volunteer Fire Department.

The application agent stated that the road access into the subject property has reduced the amount of land zoned RR-2. To support the potential for six rural residential zoned lots, a minor expansion of the RR-2 zone on the northern portion of the property has been requested.

MOVED by Sandy Sinclair, **SECONDED** by Vern McConnell that the Juan de Fuca Land Use Committee recommends to the Capital Regional District Board:

a) That the referral of proposed Bylaw No. 4423, "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 153, 2021" to the Otter Point Advisory Planning Commission; the Juan de Fuca Electoral Area Parks and Recreation Advisory Commission; CRD departments; BC Hydro; Department of Fisheries and Oceans; District of Sooke; Ministry of Agriculture; Ministry of Environment and Climate Change Strategy; Ministry of Forests, Lands and Natural Resource Operations; Ministry of Transportation and Infrastructure; RCMP; Sooke School District #62; and T'Sou-ke First Nation be approved and the comments received;
b) That proposed Bylaw No. 4423, "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 153, 2021" be introduced and read a first time and read a second time; and
c) That in accordance with the provisions of Section 469 of the *Local Government Act*, the Director for the Juan de Fuca Electoral Area, or Alternate Director, be delegated authority to hold a public hearing with respect to Bylaw No. 4423.

CARRIED

b) RZ000278 - Add Detached Accessory Suite as a Permitted Accessory Use in the Wildwood Terrace 4 (WT-4) Zone

Iain Lawrence spoke to the staff report for a joint application to amend the Wildwood Terrace 4 (WT-4) zone to allow a suite to be located in an accessory building.

Iain Lawrence advised that the LUC directed referral of the proposal to agencies and to the Shirley-Jordan River Advisory Planning Commission at its meeting of July 19, 2022.

Iain Lawrence directed attention to the referral comments as included in the staff report and highlighted the subject property and proposed amendment to the WT-4 zone.

MOVED by Ron Ramsay, **SECONDED** by Roy McIntyre that the Juan de Fuca Land Use Committee recommends to the Capital Regional District Board:

1. That the referral of proposed Bylaw No. 4496, "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 156, 2022", to the Shirley-Jordan River Advisory Planning Commission, appropriate CRD departments, 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, and T'Sou-ke First Nation be approved and the comments received;
2. That proposed Bylaw No. 4496 be introduced and read a first time and read a second time; and
3. That in accordance with the provisions of section 469 of the *Local Government Act,* the Director for the Juan de Fuca Electoral Area, or Alternate Director, be delegated authority to hold a Public Hearing with respect to Bylaw No. 4496.

CARRIED

c) RZ000279 - Strata Lots 1, 2, 3, & 4, Section 85, Sooke District, Strata Plan EPS1027 Together with an interest in the Common Property in proportion to the Unit Entitlement of the Strata Lot as shown on Form V (476, 478, 480 & 482 Becher Bay Road)

Iain Lawrence spoke to the staff report for a joint application to amend Bylaw No. 2040 by changing the zone from Rural Zone – A (Rural A) to the Rural Residential 6A Zone (RR-6A) for the purposes of dissolving the strata and facilitating subdivision to create the equivalent number of parcels.

Iain Lawrence highlighted the subject property and strata plan, advising that the East Sooke Official Community Plan, Bylaw, No. 4000, provides policies to support the rezoning of Rural A zoned lands and existing building strata developments for the purposes of subdivision as an alternative to a building strata to create an equivalent number of lots.

MOVED by Sandy Sinclair, **SECONDED** by Dale Risvold that staff be directed to refer proposed Bylaw No. 4505, "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 157, 2022", to the East Sooke Advisory Planning Commission, First Nations, appropriate CRD departments and the following external agencies for comment:
BC Hydro
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
Sc'ianew (Beecher Bay) First Nation
Sooke School District #62
T'Sou-ke First Nation

CARRIED

8. Adjournment

At this time, the Chair responded to a question from a LUC member advising that comment raised by the Shirley-Jordan River APC at its meeting July 19, 2022, regarding vacation rental use will be an item for consideration by the next Director. The Chair responded to a further question from a LUC member confirming that next Director will make recommendation to the CRD Board to appoint individuals to the APCs and vacant LUC positions.

The meeting adjourned at 7:40 pm.

_____
Chair

Making a difference...together

REPORT TO THE JUAN DE FUCA LAND USE COMMITTEE
MEETING OF TUESDAY, OCTOBER 18, 2022

SUBJECT **Development Permit with Variance for Lot 1, Section 9, Otter District, Plan 12535 – 8492 West Coast Road**

ISSUE SUMMARY

A request has been made for a development permit with variance to authorize subdivision and proposed development on a parcel partially designated as Steep Slopes and Sensitive Ecosystems Development Permit (DP) areas, and to reduce the requirement that 10% of the lot perimeter of a parcel front onto a public highway.

BACKGROUND

The 2.87 hectare (ha) property is located at 8492 West Coast Road and is zoned Rural Residential 3 (RR-3) in the Juan de Fuca Land Use Bylaw No. 2040 (Appendix A). The subject property is bounded by Rural Residential 3 (RR-3) zoned parcels to the east and west, a Rural (A) zoned parcel to the north, and by West Coast Road to the south. There is a single-family dwelling, two accessory buildings (detached garage and studio), and several smaller sheds located on the subject property, which is accessed by an existing driveway in the southeast corner of the parcel. All existing structures are to be located on the proposed remainder lot.

The applicant has submitted an application for a two-lot fee-simple subdivision (SU000741), dwelling, workshop, driveway and septic field (Appendix B). The RR-3 zone establishes an average minimum lot size of two hectares (ha); however, the application was made under Section 514 of the *Local Government Act* (Subdivision to Provide Residence for a Relative). Inclusive of the panhandle, proposed Lot A is 2 ha and the remainder parcel is 0.87 ha.

Portions of the parcel are designated as Steep Slopes and Sensitive Ecosystems development permit areas by the Otter Point Official Community Plan, Bylaw No. 3819; therefore, a development permit is required to authorize subdivision and the alteration of land. Proposed Lot A does not meet the requirement that 10% of the perimeter of the lot front on a public highway. Therefore, a variance is requested in conjunction with the development permit.

ALTERNATIVES

Alternative 1
The Land Use Committee recommends to the CRD Board:
That Development Permit with Variance DV000086 for Lot 1, Section 9, Otter District, Plan 12535, to authorize the subdivision and proposed development of land designated as Steep Slopes and Sensitive Ecosystems Development Permit Areas; and to vary Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040, Part 2, Section 3.10(4) by reducing the minimum frontage requirement for proposed Lot A from 10% of the lot perimeter (116.9 m) to 2.8% of the lot perimeter (33 m), as shown on the plans prepared by McIlvaney Riley Land Surveying Inc., dated January 14, 2022, be approved.

Alternative 2
That Development Permit with Variance DV000086 be denied.

IMPLICATIONS

Legislative Implications

The Otter Point Official Community Plan, Bylaw No. 3819, designates development permit areas (DPAs) and outlines development permit guidelines (Appendix C). The property is located within the Steep Slopes and Sensitive Ecosystems DPAs; therefore, a development permit is required prior to subdivision or the alteration of land. CRD Delegation of Development Permit Approval Authority Bylaw, 2009, Bylaw No. 3462, grants the General Manager, Planning and Protective Services, the authority to issue a development permit; however, the delegated authority does not include development permits that require a variance, as stated in Section 5(a) of the bylaw.

The Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040, Schedule A, Part 1, Section 3.10(4), specifies that the minimum frontage on the highway shall be one-tenth of the perimeter of the lot that fronts on the highway. Proposed Lot A does not meet this requirement; therefore, a variance is requested.

Public Consultation Implications

Pursuant to Section 499 of the *Local Government Act*, if a local government is proposing to pass a resolution to issue a development variance permit it must give notice to each resident/tenant within a given distance as specified by bylaw. Juan de Fuca Development Fees and Procedures Bylaw No. 3885, states that the Board may, at any time, refer an application to an agency or organization for their comment. In addition, it states that a notice of intent must be mailed to adjacent property owners within a distance of not more than 500 m. Any responses received from the public will be presented at the October 18, 2022, Land Use Committee meeting. There is no requirement for public consultation if a local government is considering a development permit.

Land Use Implications

Development Permit:

A Geotechnical Report certified by Tony Grimson, P.Geo., and Shane Moore, P.Geo., (Ryzuk Geotechnical), dated July 13, 2022, was submitted by the applicant to address the Steep Slope development permit (DP) guidelines relative to the proposed subdivision and development of the new parcel. The report described the site conditions, identified a safe building site on the proposed parcel, and confirmed that the proposed subdivision was feasible from a geotechnical perspective and safe for the use intended in accordance with Section 56 of the Community Charter.

Report recommendations included driveway construction parameters for the proposed parcel, and that silt mitigation measures should be considered if construction will be carried out in the rainy season. The professional report is attached to the draft development permit with variance as an appendix.

An Environmental Assessment report certified by Erin Vekic, R.P.Bio., M.Sc., and Julie Budgen, R.P.Bio, B.Sc., (Corvidae Environmental Consulting Ltd), dated August 2022, was submitted to review the proposed development in relation to the Sensitive Ecosystem DP guidelines. The report described the site conditions, characteristics, and proposed development, noted that the remainder lot is fully developed with a dwelling and associated services, and confirmed that the areas within the designated Sensitive Ecosystem meet the definition of Mature Forest, being greater than 80 years old.

Recommendations to reduce potential impacts included: constructing the driveway on the existing logging road and removing vegetation only where necessary within the project footprint (including retaining trees > 50 cm diameter where feasible), replacing mature trees at a 2:1 ratio, replanting

disturbed areas with native species, removing invasive species, and making use of erosion and sediment control methods. The professional report is attached to the draft development permit with variance as an appendix.

Variance:

The Juan de Fuca Land Use Bylaw requires that where a lot being created by a subdivision fronts on a public highway, the minimum frontage on the highway shall be one-tenth of the perimeter of the lot. The applicant has proposed to reduce the minimum frontage requirement from 10% of the lot perimeter (116.9 m) to 2.8% (33 m) for proposed Lot A.

In evaluating whether a frontage exemption is justified, the following technical criteria are normally considered:

- How does it relate to the topography of the area?
- Does it create any environmental impacts?
- Will reducing the frontage produce an awkward lot configuration?
- Will reducing the frontage eliminate future subdivision potential of the lot and of lots beyond?
- Will the exemption reduce road network and access options?
- Does the proposed reduction disturb existing residences?

The proposed lot boundaries are located to accommodate an existing access, which is to be upgraded for use as a driveway access to proposed Lot A. The proposed parcel is limited to a maximum lot coverage of 15%. All existing structures located on the proposed Remainder Lot meet the required yard setbacks specified by Bylaw No. 2040. The creation of one additional parcel is not anticipated to substantially affect the public road network or neighboring properties. Permitted uses for each parcel support one single-family dwelling, along with related accessory uses, including one secondary or detached accessory suite subject to regulations. The applicant proposed to construct a new dwelling, workshop, septic field and driveway on the new lot.

Development Permit with Variance DV000086 has been prepared for consideration to authorize subdivision and proposed lot development within Steep Slopes and Sensitive Ecosystems Development Permit Areas, and to grant a variance to reduce the minimum frontage requirement for proposed Lot A (Appendix D). Any residents that may be affected by the proposal will have an opportunity to come forward with their comments through the public notification process.

Staff recommend Alternative 1, subject to public notification and consideration of comments from neighbouring residents.

CONCLUSION

The applicant has submitted a 2-lot subdivision application under Section 514 of the *LGA* and is required to obtain Steep Slopes and Sensitive Ecosystems development permit prior to subdivision, land alteration or construction. A variance has also been requested to reduce the minimum frontage requirement for proposed Lot A from 10% of the lot perimeter (116.9 m) to 2.8% (33 m). Professional reports were received to address the Steep Slopes and Sensitive Ecosystems DP guidelines. Staff recommend approval of development permit with variance DV000086, subject to public notification. If the Permit is approved by the Board, the Corporate Officer will proceed to issue the Permit and register a Notice of Permit on Title.

RECOMMENDATION

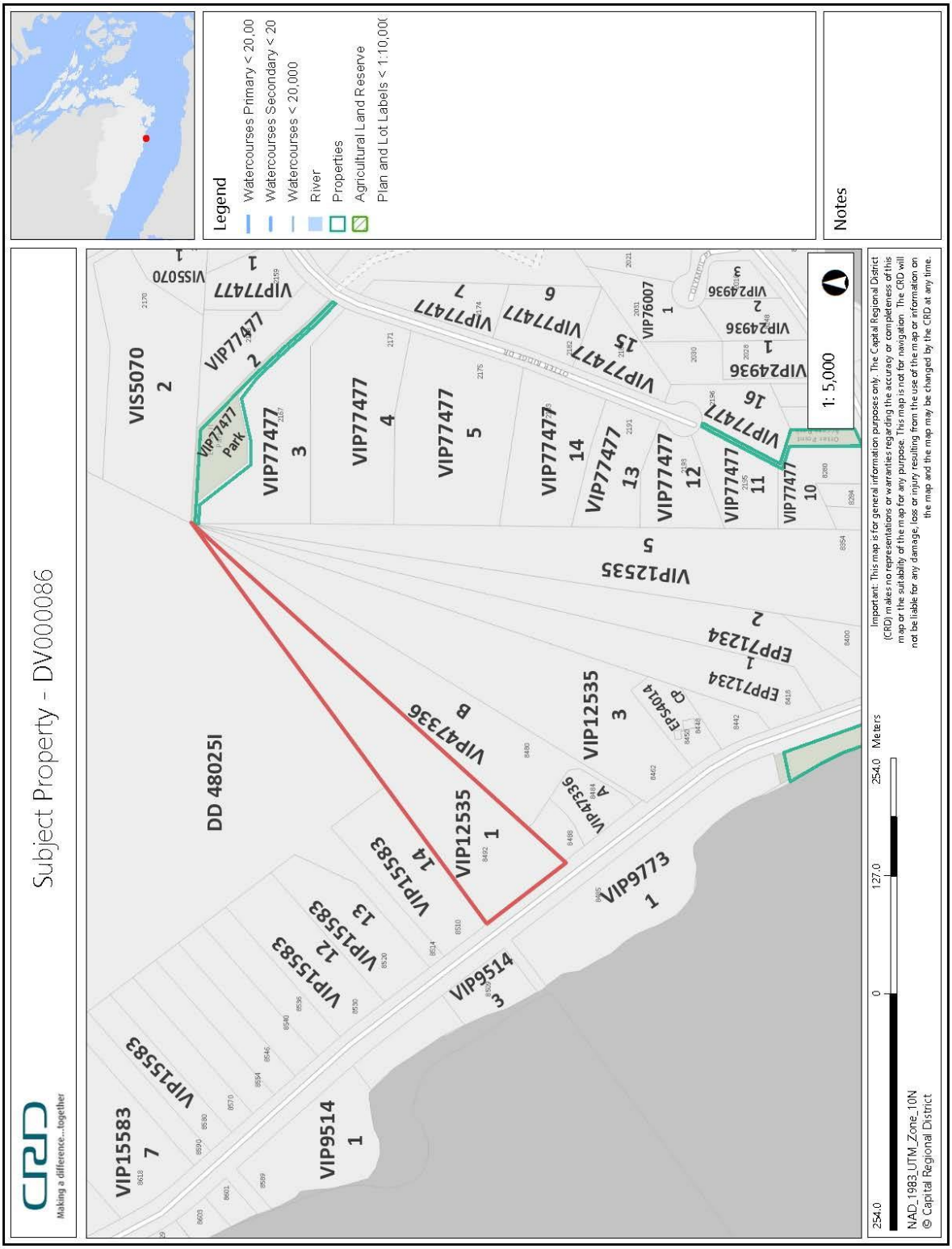
The Land Use Committee recommends to the Capital Regional District Board:
That Development Permit with Variance DV000086 for Lot 1, Section 9, Otter District, Plan 12535, to authorize the subdivision and proposed development of land designated as Steep Slopes and Sensitive Ecosystems Development Permit Areas; and to vary Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040, Part 2, Section 3.10(4) by reducing the minimum frontage requirement for proposed Lot A from 10% of the lot perimeter (116.9 m) to 2.8% of the lot perimeter (33 m), as shown on the plans prepared by McIlvaney Riley Land Surveying Inc., dated January 14, 2022, be approved.

Submitted by:	Iain Lawrence, MCIP, RPP, Senior Manager, JdF Local Area Services
Concurrence:	Kevin Lorette, P.Eng., MBA, General Manager, Planning & Protective Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

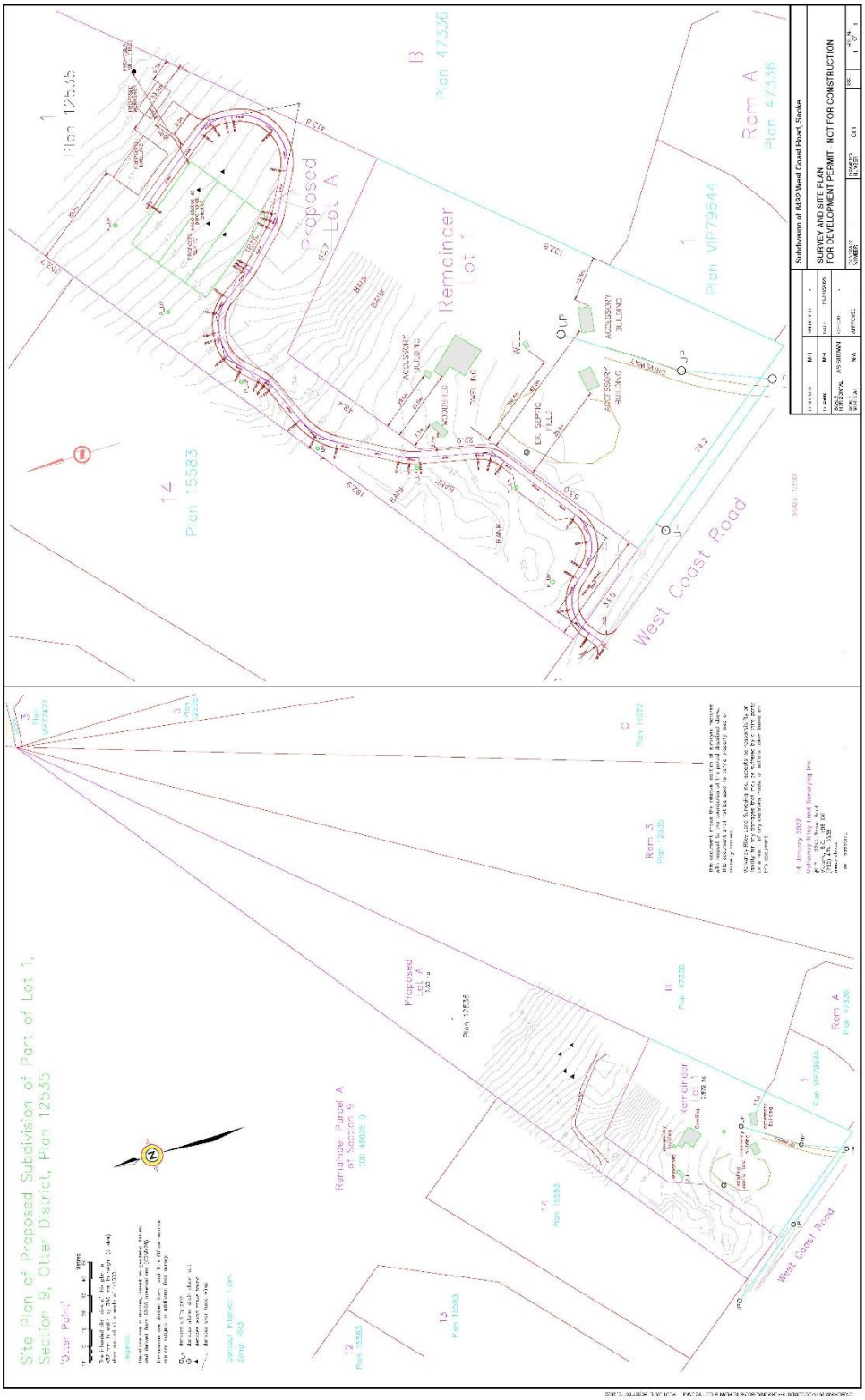
ATTACHMENTS

Appendix A: Subject Property Map
Appendix B: Proposed Subdivision Plan
Appendix C: Development Permit Guidelines
Appendix D: Permit DV000086

Appendix A: Subject Property Map



Appendix B: Proposed Subdivision Plan



Appendix C: Development Permit Guidelines

Development Permits issued in "Steep Slope DPA" will be in accordance with the following:

1. No development, subdivision or sewage disposal system will be permitted in a "Steep Slopes DPA", as specified in the Justification above, except as allowed by a Development Permit or subject to a general exemption as outlined in Section 6.2 of this Plan.
2. Avoid intrusion of development into Development Permit Areas and to minimize the impact of any activity in these areas. Development shall generally only be supported where the applicant provides compelling reasons supported by a Qualified Professional's recommendations for mitigation to support the request or if there are no alternate building locations. Variances from other applicable regulations, including height, setback and location regulations may be considered in order to minimize encroachment into the "Steep Slopes DPA".
3. Development or subdivision of land should be designed to comply with the policies in Section 5.4 of the Plan.
4. An application for a Development Permit for land within a "Steep Slopes DPA" on Map 5a, shall provide an assessment of the slope conditions on the proposed development site by a geotechnical engineer, and recommendations on the suitability and stability of the soil for the proposed development. The assessment should include recommendations for vegetation protection, enhancement or retention, where applicable. A plan prepared by a British Columbia Land Surveyor may be required as a condition of the Development Permit.
5. As a condition of the issuance of a Development Permit, compliance with any or all conditions recommended in the report prepared by the Qualified Professional may be required.
6. A Development Permit shall not be issued without confirmation by the Qualified Professional regarding the safety of proposed development and assurances that the development will not have detrimental impact on the environment or adjoining properties. No development or alteration of land shall occur where the Qualified Professional's geotechnical engineering report indicates that a hazardous condition may result except in compliance with all conditions recommended by the Qualified Professional's report.
7. An applicant may be required to provide a sediment and erosion plan with recommendations for implementation. Erosion control measures, during and after construction, may be specified in the permit.
8. Any development must be designed to avoid storm water runoff that could destabilize the slope or cause damage to neighbouring properties. An applicant may be required to provide a drainage plan with recommendations for implementation.
9. Removal of vegetation should be minimized to allow only for building sites, sewage disposal systems, driveways, landscaping and other permitted land uses.
10. A disturbed site should be re-vegetated using plant material indigenous to the site or other suitable non-invasive plants. An applicant may be required to provide a re-vegetation plan with recommendations for implementation.
11. An applicant may be required to register a covenant under Section 219 of the Land Title Act attaching a copy of the report of the Qualified Professional.
12. Where the Qualified Professional recommends re-vegetation or remediation works, a landscaping plan and security deposit may be required.

Development Permits issued in "Sensitive Ecosystems DPA" will be in accordance with the following:

1. No development, subdivision or sewage disposal system will be permitted in the "Sensitive Ecosystems DPA", except as allowed by a Development Permit or subject to the general exemptions as outlined in Section 6.2 of this Plan.
2. Avoid intrusion of development into Development Permit Areas and to minimize the impact of any activity in these areas. Development shall generally only be supported where the applicant provides compelling reasons supported by a Qualified Environmental Professional's recommendations for mitigation to support the request or if there are no alternate building locations. Variances from other applicable regulations, including height, setback and location regulations may be considered in order to minimize encroachment into the Development Permit Area.

3. Development or subdivision of land should be designed to comply with the policies in Section 5.3.2 of the Plan.
4. The applicant for a Development Permit for land within the “Sensitive Ecosystems DPA” must provide an assessment by a Qualified Environmental Professional on the environmental conditions on the proposed development site and recommendations on the suitability of the site for the proposed development. The assessment must include recommendations for vegetation protection, enhancement or retention, where applicable. A plan prepared by a British Columbia Land Surveyor may be required as a condition of the Development Permit.
5. As a condition of the issuance of a Development Permit, compliance with any or all conditions recommended in the report prepared by the Qualified Environmental Professional may be required.
6. Disturbance to existing vegetation that is not directly affected by the footprint of building, ancillary uses, and driveways must be minimized. Any disturbed areas shall be rehabilitated with appropriate landscaping and habitat compensation measures. Loss of natural habitat shall be minimized.
7. A buffer zone within which land alteration or structures will be limited to those compatible with the characteristics of the sensitive ecosystems, or those that can be mitigated in a manner recommended by a Qualified Environmental Professional may be required and the specific or general location of the buffer zone may be designated.
8. In order to ensure unnecessary encroachment does not occur into the Development Permit area at the time of construction, permanent or temporary fencing measures may be required.
9. Environmentally sensitive areas and the habitat requirements for wildlife species at risk as defined in the federal Species at Risk Act should remain in their natural state and should not be developed or disturbed.
10. Where possible, large tracts of wildlife habitat or continuous habitat corridors should be preserved, in order to facilitate movement of wildlife. In addition, where possible, landscape plans should enhance, expand or create wildlife habitat such as wetlands, native aquatic and terrestrial plants.
11. Planting of invasive species adjacent to or within designated “Sensitive Ecosystems DPA" will not be permitted.
12. Changes in the land surface which could affect the health of vegetation or the biodiversity of any plant communities and disturbance of mature vegetation and under-storey plants will be minimized.
13. Any development must be designed to avoid storm water runoff and the development or subdivision may be required to be carried out in accordance with recommendations contained in a drainage plan that the applicant may be required to provide.
14. Removal of gravel, sand, soil or peat in “Sensitive Ecosystems DPA” will be strictly limited and only permitted if impacts can be mitigated in a manner recommended by a Qualified Environmental Professional.
15. Development should generally conform to Develop with Care 2012: Environmental Guidelines for Urban and Rural Land Development in British Columbia.
16. Development may be required to incorporate environmentally sound building practices where appropriate, such as natural drainage, or use of permeable paving materials.
17. A subdivision application which proposes the creation of parcels less than the average parcel size supported by this Plan and located within a smaller footprint of the parent parcel may be supported where the conditions are secured for the permanent on-going protection or restoration of environmentally sensitive features without an amendment to this Plan. However, the overall number of parcels must be consistent with the Land Use Designation.
18. Where the Qualified Environmental Professional or Qualified Professional recommends re-vegetation or remediation works, a landscaping plan and security deposit may be required.

Appendix D: Permit DV000086

Making a difference...together

CAPITAL REGIONAL DISTRICT

DEVELOPMENT PERMIT WITH VARIANCE NO. DV000086

1. This Development Permit with Variance is issued under the authority of Sections 490 and 498 of the *Local Government Act* and subject to compliance with all of the bylaws of the Regional District applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit with Variance applies to and only to those lands within the Regional District described below (legal description), and any and all buildings, structures, and other development thereon:

   PID: 004-050-827;
   Legal Description: Lot 1, Section 9, Otter District, Plan 12535 (the "Land")
3. This development permit authorizes a 2-lot fee-simple subdivision, single-family dwelling, workshop, and related services (the "development") on the Land, located within the development permit areas established under the Otter Point Official Community Plan, Bylaw No. 3819, Section 6.3 (Steep Slopes) and Section 6.6 (Sensitive Ecosystems) in accordance with the plans submitted to the CRD and subject to the conditions set out in this Permit.
4. The conditions under which the development referred to in section 3 may be carried out are as follows:
   a. That the components of the development occur in conformity of the Subdivision Plan prepared by McIlvaney Riley Land Surveying Inc, dated January 14, 2022;
   b. That the proposed development comply with the recommendations outlined in the report prepared by Tony Grimson, P.Geo., and Shane Moore, P.Geo., dated July 13, 2022 (the "Geotechnical Report");
   c. That the proposed development comply with the recommendations outlined in the report prepared by Erin Vekic, R.P.Bio., M.Sc., and Julie Budgen, R.P.Bio, B.Sc., dated August 2022 (the "Environmental Report"); and
   d. That upon substantial completion of the development, a final report be submitted from a qualified professional confirming that the recommendations outlined in the Environmental Assessment Report have been completed in accordance with the report.
5. The Capital Regional District's Bylaw No. 2040, Part 2, Section 3.10(4), is varied under section 498 of the *Local Government Act* as follows:
   a. That the the minimum frontage requirement of proposed Lot A be reduced from 10% of the perimeter of the lot to 2.8%;
6. Notice of this Permit shall be filed in the Land Title Office at Victoria as required by Section 503 of the *Local Government Act*, and the terms of this Permit (DV000086) or any amendment hereto shall be binding upon all persons who acquire an interest in the land affected by this Permit.
7. If the holder of a permit does not substantially start any construction permitted by this Permit within 2 years of the date it is issued, the permit lapses.
8. The land described herein shall be developed strictly in accordance with the terms and conditions and provisions of this Permit, and any plans and specifications attached to this Permit which shall form a part hereof.
9. The following plans and specifications are attached to and form part of this Permit:

   Appendix A: Subdivision Plan
   Appendix B: Geotechnical Report
   Appendix C: Environmental Report
10. This Permit is NOT a Building Permit.

Making a difference...together

DV000086

11. In issuing this Development Permit, the CRD does not represent or warrant that the land can be safely developed and used for the use intended and is acting in reliance upon the conclusions of the Geotechnical Report regarding the conditions to be followed for the safe development of the land.

RESOLUTION PASSED BY THE BOARD, THE ____ day of _____, 2022.

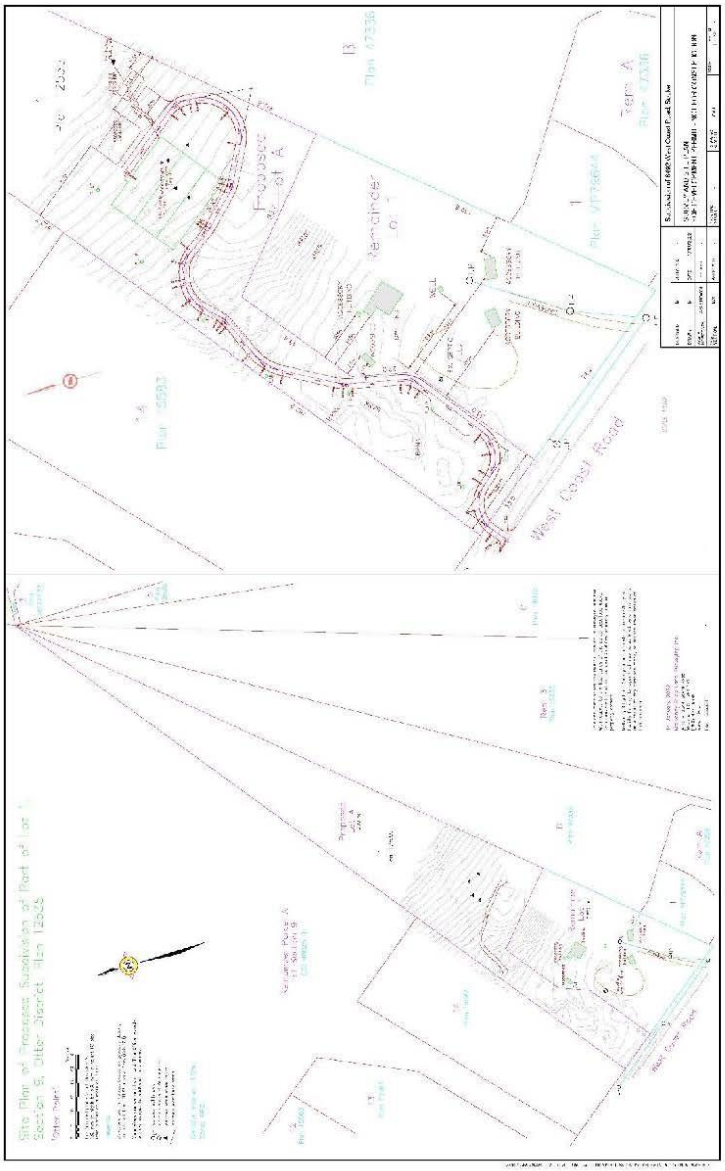
ISSUED this _____ day of _____, 2022.

_____
Kristen Morley
Corporate Officer

Making a difference...together

DV000086

Appendix A: Subdivision Plan



Making a difference...together

DV000086

Appendix B: Geotechnical Report

RYZUK GEOTECHNICAL
Engineering & Materials Testing
6-40 Cadillac Ave, Victoria, BC, V8Z 1T2 Tel: 250-475-3131 E-mail: mail@ryzuk.com www.ryzuk.com

July 15, 2022
File No: 11210-1

[redacted]
8492 West Coast Road
Sooke BC
V9Z 1E1

Attn: [redacted] (email [redacted])

Re: 2 Lot Subdivision
8492 West Coast Road, Sooke BC

As requested, we have completed an assessment of the geotechnical conditions at the referenced site, as such relate to the proposed subdivision. We understand the proposed development is to consist of subdivision of the existing property to create two lots including one for the existing residence. The site is located within the Otter Point Official Community Plan Development Permit Area No. 1 Steep Slopes (DPA) and as such requires a development permit for slopes exceeding 30% over a minimum 10 m run, unless otherwise exempted. The following letter summarizes the results of our investigation and associated recommendations as related to the proposed development and are provided in accordance with the previously accepted Terms of Engagement.

The parcel is a roughly 2.8 ha triangular shaped lot with approximately 100 m of frontage on West Coast Road, bounded by single family rural lots to the north, east and south and by West Coast Road to the west. Topography of the site is mostly benign descending down from a forested knoll in the north east to West Coast Road with a vertical relief of about 60 m across a horizontal distance of about 530 m. Currently there is a single-family residence and associated accessory buildings occupying the parcel, accessed by a gravel surfaced driveway off West Coast Road.

Our geotechnical investigation consisted of an office-based study of available geotechnical information, including the proposed subdivision plan dated April 9, 2022 (attached), satellite imagery, and surficial and bedrock geology mapping. Our review of available geology mapping for the site indicates that the parcel is underlain by shallow bedrock with potential for a veneer of undifferentiated soil cover. The bedrock mapped at the site is comprised of volcanic rocks of the Metchosin Igneous Complex.

Our field review included site reconnaissance and assessment across the parcel on June 10th, 2022, to visually assess the terrain, including steep slopes and potential building site.

The parcel rises gently off the West Coast Road across an open grassed meadow to the current residence roughly 85 m from the front property line. The topography of the parcel is generally bedrock controlled and with a sparse cover of mature red alder and coniferous species and a shrubby understory of salal and sword fern. We observed grass covered bedrock slopes up to 2 m high paralleling the northwestern

Making a difference...together

DV000086

property line roughly 25 m from the residence. An overgrown access trail leads from behind the northern corner of the residence, near the property line, and provides access to the proposed site of the dwelling and septic system on Lot 2 of the subdivision. There is a prominent bedrock slope trending northwest – southeast across the parcel, roughly 30 m behind the existing dwelling on Lot 1. Bedrock is exposed in a steeply sloped bench between 2 and 3 m in height with some small loose weathered boulder material at its base. Behind the bedrock bench is a gently sloped area that is the site of the septic system for proposed Lot 2. Soils exposed in shallow test pits dug for infiltration testing consist of a veneer of black silt topsoil and vegetation overlying native dense brown silty gravelly soils.

To the northeast of the area designated for the septic field, the site of the proposed dwelling on Lot 2 is located on a sloped area, measured on site at approximately 15 degress from horizontal. Similar native soils were observed under a shallow layer of vegetation. Roughly 30 m behind the proposed dwelling site a small northwest-southeast alignment of partially exposed bedrock was observed, roughly 0.5 m high and sloped at 23 degrees from horizontal. Beyond this exposure gentle, forested slopes, on the order of 15 degrees from horizontal were observed to the approximate property corner.

Based on the characteristics of the site we consider the proposed subdivision is feasible from a geotechnical perspective. In general, based on our observations on site and on the topographic contour data provided on the attached site plans, we consider the parcel to generally contain no steep slopes as defined in DPA No.1 Steep Slopes section 6.3.1. During our reconnaissance we observed several areas with steeper bedrock slopes, but such were generally limited to horizontal distances less than 10 m.

We consider that based on the generally gentle slopes at the location of the proposed dwelling on Lot 2, and the observation of dense native soils likely developed atop shallow, massive competent bedrock that the proposed building site is safe for construction. Development at the proposed dwelling site will likely involve removal of some of the existing vegetative understory and trees to accommodate new development footprints. We do not expect the removal of vegetation, including trees and stumps would adversely affect the site conditions from a geotechnical perspective, and can be completed with typical erosion protection. We do not anticipate that silt mitigation measures will be required for the proposed construction, however, it may be necessary if carried out during the rainy season. Temporary construction silt mitigation should consist of the installation of silt fencing downslope of construction areas.

Based on the site plan drawings we understand a new driveway will be required for access to the proposed Lot 2. The driveway will mostly be gravel surfaced except a short section where grades exist at near 20% and will be asphalt paved in this section. We note that bedrock is exposed at the ground surface in this area. We recommend that native soil subgrade or bedrock be exposed prior to placement of subbase gravels for the driveway. Where the proposed driveway is to be gravel surfaced we consider that a subbase layer consisting of 150 mm of 75 mm minus crushed rock with 100 mm of 19 mm minus crushed rock atop will provide suitable long term support to the proposed driveway. Where the proposed driveway is to be asphalt paved, we recommend a similar subbase and base thickness of gravels and with a 50 mm layer of asphalt pavement atop.

Making a difference...together

DV000086

Based on the above, and provided our recommendations are followed, we consider the undisturbed, native dense brown silty gravelly soils, exposed and cleared bedrock, or engineered fill placed atop such to be capable of providing stable, long-term support to foundations elements. Such should be inspected by qualified personnel at the time of construction.

We consider the proposed dwelling site as documented on the attached site plan is safe for use intended, that being single family residential construction, completed in accordance with the BC Building Code. This is pursuant to and in accordance with Section 56 of the Community Charter. We therefore support a steep slopes development permit exemption pursuant to Section 6.1.4 of the Otter Point Official Community Plan CRD Bylaw No. 3819.

We trust the preceding is suitable for your purposes at present. Please do not hesitate to contact our office if we can be of further assistance.

Regards,
Ryzuk Geotechnical
PPTN 1002996

Tony Grimisen, P.Geo.
Geoscientist

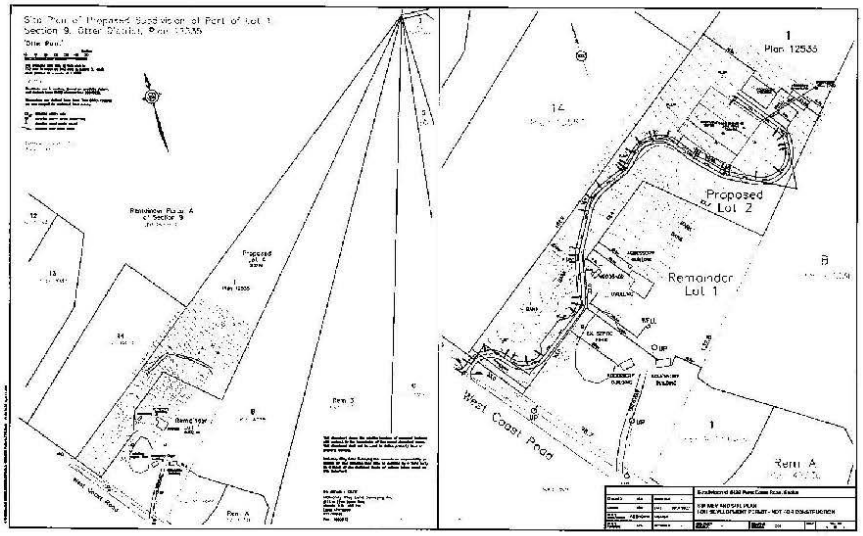
S. W. MOORE
#30946
BRITISH COLUMBIA
GEOSCIENTIST
5/1/2022

Shane Moore, P.Geo.
Lead Geoscientist/Principal

Attachment – Proposed Subdivision Plan, April 9, 2022

Making a difference...together

DV000086



Making a difference...together

DV000086

Appendix C: Environmental Report

ENVIRONMENTAL ASSESSMENT

FOR 8492 WEST COAST ROAD, OTTER POINT, BC

PREPARED FOR:
[redacted]
8492 WEST COAST ROAD
SOOKE, BC, V9Z 1E1

CORVIDAE PROJECT #2022-108
AUGUST 2022

CORVIDAE
ENVIRONMENTAL CONSULTING INC
6526 WATER STREET, SOOKE, BC

SOLUTION ORIENTED. PROTECTION OF THE ENVIRONMENT. ABSOLUTE INTEGRITY. OPEN COMMUNICATION. RESPECT.

Making a difference...together

DV000086

TABLE OF CONTENTS

1 INTRODUCTION 1
1.1 OBJECTIVES 3
1.2 REGULATORY FRAMEWORK 3
1.3 DEVELOPMENT PERMIT AREAS 5
2 SCOPE OF WORK 7
3 METHODS 7
3.1 DESKTOP REVIEW 7
3.2 FIELD ASSESSMENT 7
4 ENVIRONMENTAL SITE ASSESSMENT 8
4.1 LAND USE 8
4.2 CLIMATE AND BIOGEOCLIMATIC ZONE 8
4.3 TERRAIN AND SOILS 8
4.4 VEGETATION 8
4.5 WILDLIFE 11
4.6 SPECIES AT RISK 11
5 POTENTIAL ENVIRONMENTAL EFFECTS 14
6 RECOMMENDED ENVIRONMENTAL PROTECTION MEASURES 15
7 CONCLUSION 17
8 REFERENCES 19
APPENDIX A – SITE PHOTOGRAPHS 20

LIST OF TABLES

Table 1. Plant species observed on site during the July 8, 2022, field visit 9
Table 2. Wildlife Species observed on site during the July 8, 2022, field visit 11
Table 3. Recommended native vegetation to plant in disturbed areas 15
Table 4. Removal and disposal methods for invasive species 16

LIST OF FIGURES

Figure 1. Property Location and Proposed Development 2
Figure 2. Development Permit Areas – Steep Slopes and Sensitive Ecosystems Areas 6
Figure 3. Mature Forest at 892 West Coast Road 10
Figure 4. Species and ecosystems at risk occurrences in the vicinity of the Site 13

Making a difference...together

DV000086

LIST OF PHOTOS

Photo 1. East view of existing residence. July 8, 2022. 20
Photo 2. Southwest view of southern extent of the property. July 8, 2022. 20
Photo 3. Northwest view of road alignment near existing dwelling. July 8, 2022. 21
Photo 4. Southwest view of existing logging trail on property. July 8, 2022. 21
Photo 5. Typical view of Mature Forest DPA habitat on the property. April 21, 2022. 22
Photo 6. East view of second growth forest near the eastern extent of the property. July 8, 2022..... 22
Photo 7. Southwest view of proposed septic field location. July 8, 2022. 23
Photo 8. North view of clear-cut on adjacent property and onsite forest edge. July 8, 2022. 23
Photo 9. North view of mature forest north of proposed development. July 8, 2022. 24
Photo 10. Typical view of coarse woody debris and understory. July 8, 2022. 24

CAVEAT

This Environmental Assessment (EA) has been prepared with the best information available at the time of writing, including the Otter Point Official Community Plan, communications with the client, a site visit, 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.

Making a difference...together

DV000086

1 INTRODUCTION

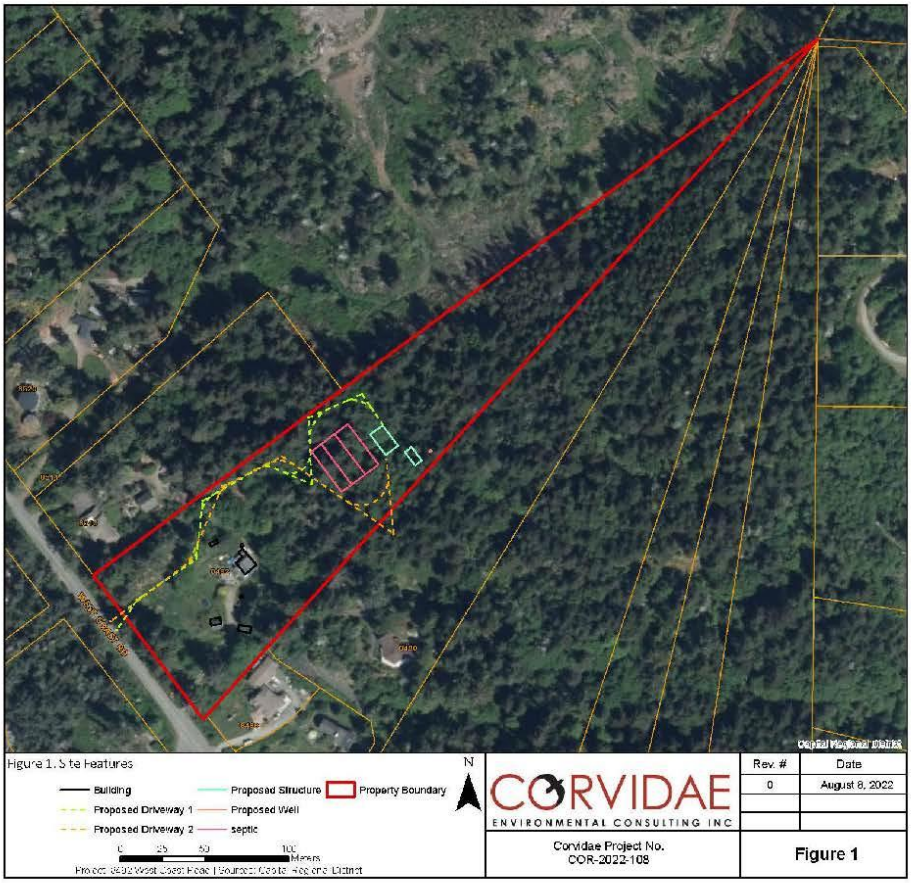
Corvidae Environmental Consulting Inc. (Corvidae) is pleased to provide this Environmental Assessment (EA) for the proposed subdivision and development at 8492 West Coast Road within the Otter Point Community, BC (the Site) (PID: 004-050-827; LOT 1, PLAN VIP12535). The Site boundaries are shown in Figure 1, designated by the red polygon (property boundary). The Site is currently zoned as Rural Residential 3 (RR-3) and includes one residential home and associated accessory buildings/structures.

The landowner is seeking to construct a dwelling, workshop, driveway, and septic field on the property to the north/northwest of the existing dwelling (Figure 1). Two development permit areas (DPAs) overlap the property, including the Steep Slopes DPA and Sensitive Ecosystems Areas DPA (Figure 2). The Sensitive Ecosystems Areas DPA on the property is listed as Mature Forest. No surface water features were identified at the time of the assessment.

This document addresses the requirements in Sections 6.6 and 6.3 of the Otter Point Official Community Plan (OCP) Bylaw No. 3819, provides a detailed assessment on the environmental conditions on the Site, potential impacts of the proposed development, and recommendations for the protection of environmentally sensitive features and methods to minimize impacts of the proposed development.

Making a difference...together

DV000086



Making a difference...together

DV000086

1.1 OBJECTIVES

The purpose of this EA is to assess the current terrestrial and riparian environments onsite, identifying terrestrial and aquatic habitat, sensitive ecosystems, vegetation communities, and wildlife habitat, including wildlife trees, nests, and any other wildlife features. This EA also identifies the presence of threatened or endangered species on or around the Site, which includes a 200 metre (m) buffer around the Site boundaries. As part of the EA, Corvidae completed a detailed field assessment to document biophysical features, habitat and verify available ecosystem inventory data and DPA layers.

From this information potential impacts have been determined and mitigations provided to protect the Mature Forest DPA area, the natural environment, its ecosystems and associated biological diversity. This report and planning meet the environmental requirements in the Otter Point Official Community Plan, zoning by-laws and addresses provincial and federal laws.

1.2 REGULATORY FRAMEWORK

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

Municipal

- Otter Point OCP, Bylaw No. 3819 (Capital Regional District 2014) – Development Permit Area No. 4 - Sensitive Ecosystems Areas:

"That part of the Otter Point area within the boundaries of areas marked "Cliffs", "Seasonally Flooded Agricultural Fields", "Herbaceous", "Mature Forest", "Sparsely Vegetated" and "Woodland" on Map 5d, which is attached to and forms a part of this bylaw, is designated as a Development Permit Area, the "Sensitive Ecosystems DPA", under Section 919.1(1)(a) of the LGA for the protection of the natural environment, its ecosystems and biological diversity.".

6.6.3 Objectives for the Sensitive Ecosystems Area to regulate development in a manner that:

i. Minimizes the impact of development on the natural environment.

ii. Protect habitat for rare and endangered species of native vegetation or wildlife and to provide wildlife corridors as secondary habitat within Otter Point.

- Otter Point OCP, Bylaw No. 3819 (CRD 2014) – Development Permit Area No. 1 – Steep Slopes:

"That part of the Otter Point area shown as "Steep Slopes" on Map 5a, which is attached to and forms a part of this bylaw, is designated as a Development Permit Area, the "Steep Slopes DPA", under Section 919.1(1)(b) of the LGA, for protection of development from hazardous conditions. The "Steep Slopes DPA" boundaries include areas having slopes exceeding 30% or 16.7 degrees in slope over a minimum 10 metre run. Notwithstanding the areas identified on Map 5a, the actual Development Permit Area will in every case be verified".

Making a difference...together

DV000086

6.3.1 Objectives for the Steep Slopes DPA:

iii. To regulate development in the area with a view to protecting the integrity of the slopes and reducing the risk of injury to persons or damage to property resulting from erosion, landslide and slope slippage.

The guiding principle for the use of Development Permits is found within the *Local Government Act*. DPAs can be designated for purposes such as, but not limited to: protecting, enhancing and restoring the biodiversity and ecological values and functions of environmentally sensitive areas; fostering compatibility between development, existing land uses and environmentally sensitive areas; maintaining connectivity between sensitive ecosystems; and protecting water quality and quantity.

Making a difference...together

DV000086

Provincial

- Wildlife Act (1996)
- Invasive Species Council of BC
- *Weed Control Act* (1996, current as of October 2016)

Federal

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

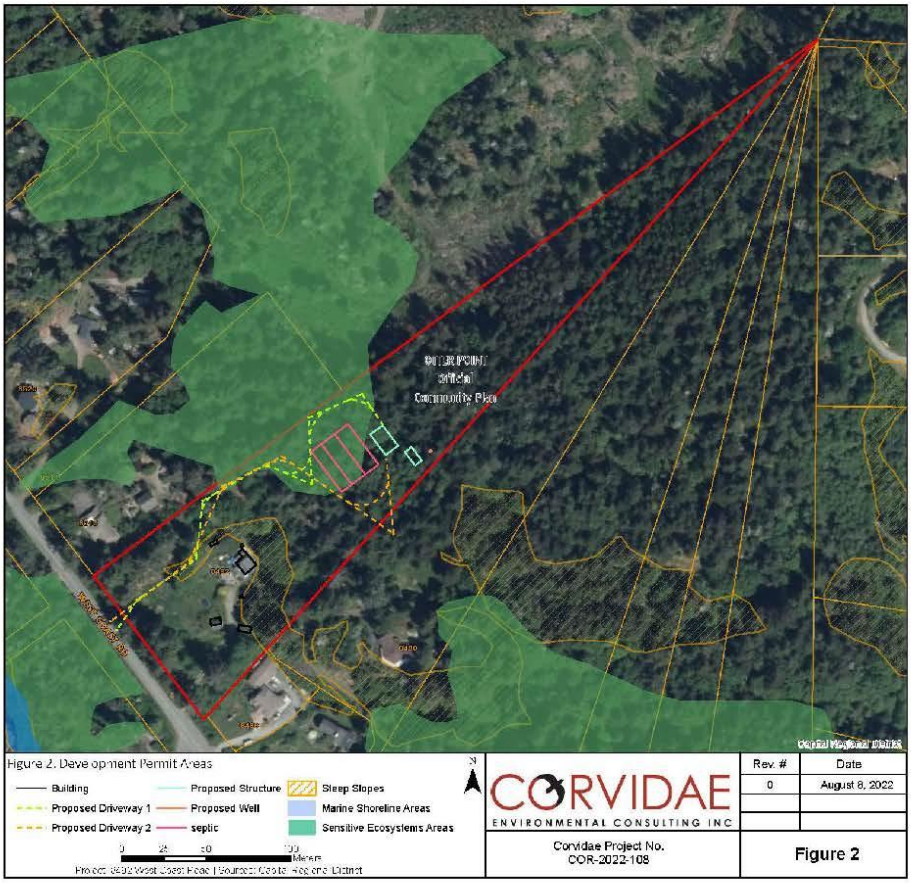
1.3 DEVELOPMENT PERMIT AREAS

The Site contains sections of DPA No. 4 (Sensitive Ecosystems Areas) and DPA No.1 (Steep Slopes). DPA No.4 includes areas of Otter Point that are marked as "Cliffs", "Seasonally Flooded Agricultural Fields", "Herbaceous", "Mature Forest", "Sparsely Vegetated" and "Woodland" on Map 5d of the OCP. These areas were identified previously in the Sensitive Ecosystem Inventory report completed by Raincoast Applied Ecology/HB Lanarc in 2011. The sensitive ecosystem that is mapped on the property is listed as "Mature Forest". This DPA designation occurs to protect the natural environmental character of Otter Point and to minimize impacts of development on the natural environment.

DPA No.1 includes the parts of Otter Point that are shown as "Steep Slopes" on Map 5a. This DPA was created for the protection of the development from hazardous conditions and includes areas having slopes exceeding 30% or 16.7 degrees in slope over a minimum 10 metre (m) run. Steep Slope DPAs are susceptible to erosion hazard and careful control of development of these slopes is needed to reduce risk to life and property, to prevent erosion and potential risks to down-slope properties, and to prevent destabilization of slopes. A Steep Slope DPA is mapped on the property behind (to the east/northeast) the existing dwelling. The proposed development layout will avoid much of this DPA, only engaging a small portion of it with the proposed driveway/road alignment.

Making a difference...together

DV000086



Making a difference...together

DV000086

2 SCOPE OF WORK

Corvidae completed an environmental assessment for the Site and documented the ecological features. Background information was reviewed, including applicable databases. The following features were documented and provided in this report:

- Areas of sensitivity, including aquatic ecosystems and riparian areas.
- Areas of habitat and biodiversity values.
- Plant communities and plant species on site.
- Potential wildlife presence and wildlife habitat.
- Soil types and terrain.
- Surface water flow patterns.

Following the field assessment, the biophysical features were mapped. Mitigations to minimize the impacts of the proposed 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 2022a and 2022b).
- BC HabitatWizard (Province of BC 2022).
- Aerial photographs of the Site (Google Earth 2022).
- CRD mapping system and database (CRD 2022).
- Otter Point Official Community Plan Bylaw No. 3819 (Capital Regional District 2014).

3.2 FIELD ASSESSMENT

A field assessment of the Site 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 Site.

Making a difference...together

DV000086

4 ENVIRONMENTAL SITE ASSESSMENT

Corvidae completed a site visit on July 8, 2022. Site photographs are included as Appendix A.

4.1 LAND USE

A primary residence and various accessory structures are present within the property. Areas not occupied by structures are characterized by second growth forest, previously disturbed grassy areas, an isolated pond, and open areas (mowed lawn). Surrounding land use is primarily residential. The Site is bound by West Coast Road to the southwest, and by residential properties to the north, east and west.

4.2 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 2022b). 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.

4.3 TERRAIN AND SOILS

Soils in this biogeoclimatic zone are typically moderately deep Orthic Humo-Ferric Podzols with Hemimor humus forms (Pojar et al. 1991). Soils on the property are described as well-draining, Orthic Humo-Ferric Podzols that predominantly loamy in texture (Robertson Soil Association, 60%). These soils are underlain by well-draining Duric Humo-Ferric Podzols (30%) and undifferentiated bedrock (10%) (Province of BC 2021).

The terrain on the property is moderately sloping from northeast to the southwest toward West Coast Road. A Steep Slopes DPA is mapped immediately northwest of the existing residence.

4.4 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 splenden*), lanky moss (*Rhytidiadelphus loreus*), and flat moss (*Plagiothecium undulatum*) dominate the well-developed moss layer (Pojar et al. 1991).

The southern portions of the Site have been disturbed to accommodate the onsite residence and accessory structures. These areas are characterized by grasses, lawn, and predominantly native shrubs. Ornamentals are also present. Coniferous trees occur immediately north of West Coast Road and along the north/northwest property line. A primarily deciduous stand of trees occurs to the northeast of the existing residence on a steeply sloping portion of the property, which is dominated by red alder.

Toward the upper extent of the property, the canopy becomes predominantly coniferous (Douglas-fir dominant) and was observed to be mature, second growth forest (Figure 3). Raincoast Applied Ecology and HB Lanarc describe Mature Forests as conifer-dominated ecosystems that are typically older than 80 years of age. They have a more complex structure than young forests, possess more coarse woody

Making a difference...together

DV000086

debris on the forest floor, and display an increased differentiation between canopy layers (2011). Large Douglas-fir trees (> 50 cm dbh) occur intermittently amongst younger conifers (Douglas-fir, western hemlock, western redcedar). The understory is well-developed and comprised of predominantly salal, sword fern, with some red huckleberry.

The Mature Forest on the property has been historically logged, and it is second growth forest with trees older than 80 years. There has been more recent clear-cutting on neighbouring properites. Evidence of logging included cut stumps, coarse woody debris, and old logging trails. Re-growth adjacent to disturbed areas on the property was comprised of native shrubs (e.g., Oceanspray and salmonberry) and ground cover species (e.g., sword fern and salal). Prior fragmentation of the Mature Forest DPA has occurred to the north of the property where clear-cutting has occurred. Fragmentation and edge effects that result from the adjacent clearcutting can negatively impact forest health, cause biodiversity loss, and result in the spread of invasive species.

Two invasive plant species were observed on the Site: English holly and Himalayan blackberry. Measures to remove and prevent invasive species are discussed in Section 6 of this report. All vegetation species noted during the July 8, 2022, field visit are included below in Table 1.

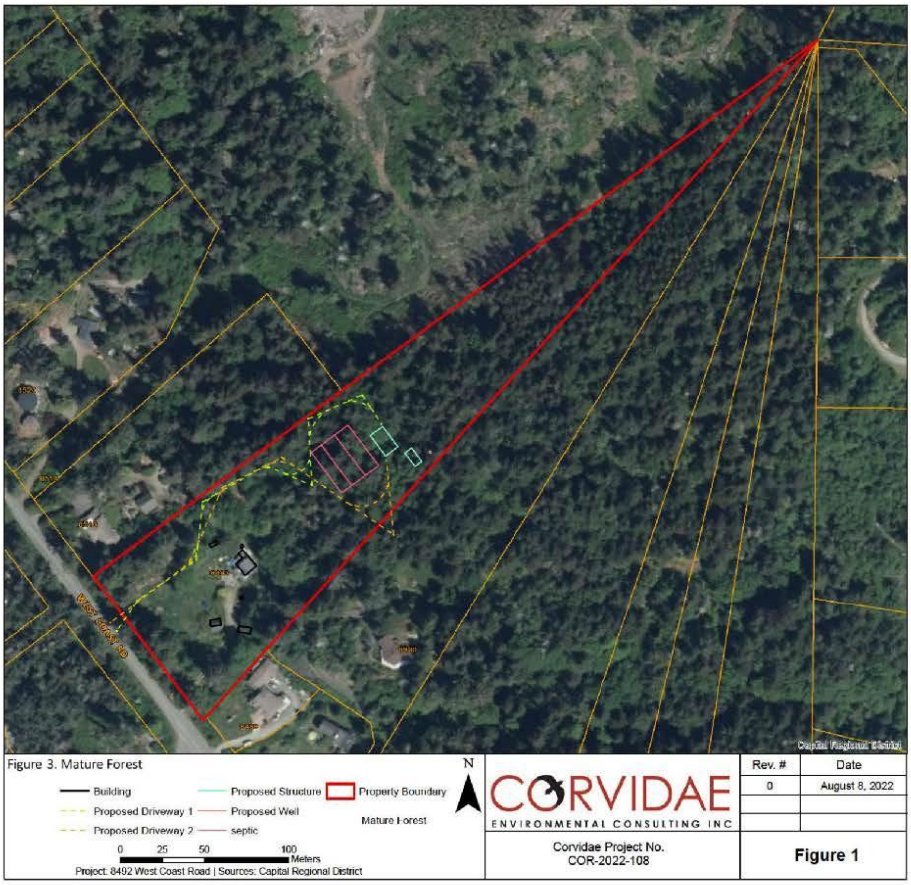
Table 1. Plant species observed on site during the July 8, 2022, field visit

Common Name	Scientific Name	BC Provincial Status[1]	*SARA* Schedule 1 Status[2]
Bamboo	*Poaceae* family	Exotic	--
Bigleaf maple	*Acer macrophyllum*	Yellow	--
Bracken fern	*Pteridium aquilinum*	Yellow	--
Cleavers	*Galium aparine*	Yellow	--
Common velvet grass	*Holcus lanatus*	Exotic	--
Douglas-fir	*Pseudotsuga menziesii*	Yellow	--
English holly	*Ilex aquifolium*	Invasive; Exotic	-
Himalayan blackberry	*Rubus armeniacus*	Invasive; Exotic	--
Nootka Rose	*Rosa nutkana*	Yellow	--
Oceanspray	*Holodiscus discolor* var. *discolor*	Yellow	--
Oregon beaked moss	*Eurhynchium oreganum*	Yellow	--
Red alder	*Alnus rubra*	Yellow	--
Red elderberry	*Sambucus racemosa*	Yellow	--
Red huckleberry	*Vaccinium parviflorum*	Yellow	--
Salal	*Gaultheria shallon*	Yellow	--
Salmonberry	*Rubus spectabilis*	Yellow	--
Siberian spring beauty	*Claytonia sibirica*	Yellow	--
Sword fern	*Polystichum munitum*	Yellow	--
Trailing blackberry	*Rubus ursinus*	Yellow	--
Western hemlock	*Tsuga heterophylla*	Yellow	--
Western redcedar	*Thuja plicata*	Yellow	--

[1] BC CDC 2022a
[2] Government of Canada 2022

Making a difference...together

DV000086



Making a difference...together

DV000086

4.5 WILDLIFE

The forested habitat found in the CWH 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).

Existing trees on the Site may provide nesting and roosting habitat for birds, including migratory songbirds, year-round resident species, raptors, and owls. No nests were observed during the site assessment. The landowner noted that deer and black bear frequent the property. Bear scat was noted near the eastern property boundary. Species listed in Table 2 below were observed during the site assessment.

Table 2. Wildlife Species observed on site during the July 8, 2022, field visit

Common Name	Scientific Name	BC Provincial Status[1]	*SARA* Schedule 1 Status[2]
Black bear (scat)	*Ursus americanus*	Yellow	--
Pacific wren	*Troglodytes pacificus*	Yellow	--
Dark-eyed Junco	*Junco hyemalis*	Yellow	--
American robin	*Turdus migratorius*	Yellow	--

[1] BC CDC 2022a
[2] Government of Canada 2022

4.6 SPECIES AT RISK

A query of the BC CDC iMap tool yielded one (1) occurrence of a species at risk within a two-kilometer radius of the Site: the seaside bone lichen (*Hypogymnia heterophylla*) (BC CDC 2022b). The seaside bone is a provincially red-listed species and is listed as threatened on Schedule 1 of the Species at Risk Act (SARA). This species grows in seaside habitats on the branches of conifers, particularly shore pine. All Seaside Bone sites in Canada are within 1 km of the ocean coast in sparse Shore Pine forests exposed to winds and storms (Government of Canada 2021).

The seaside bone lichen was not detected on the property. Although the property occurs within 1 km of the ocean, seaside bone is unlikely to occur given that sparse, shore pine forest habitat was not identified during the site assessment The location of the element occurrence in relation to the Site is provided in Figure 4.

This species occupies a variety of moist, forested habitats and riparian sites from low to middle elevations with adequate shelter (i.e., decaying logs and other woody debris, leaf litter, and the bases of Sword Ferns) (Province of BC 2022). Warty jumping-slug is unlikely to occur on the Site given the lack of suitable cover on the Property and fragmentation of forested habitat in the area. slug was not detected on the Site.

Making a difference...together

DV000086

CRITICAL HABITAT

A 50 km^2 grid square of critical habitat for little brown myotis (*Myotis lucifugus*) and Northern myotis (*Myotis septentrionalis*) 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 km^2 polygon for bats contains a known occurrence of the species and therefore, it is assumed that additional populations may occupy suitable habitat in the area. No suitable maternal roosting habitat was observed for bats (caves or rock crevasses). Use of the property by little brown myotis and Northern myotis is considered low based on-site characteristics.

Large polygons that reflect mapped, final critical habitat for Western Painted Turtle (Pacific Coast population) (*Chrysemys picta bellii*) occur within 2 km of the property, however, current site conditions do not support this species (i.e., steep slopes and lack of aquatic habitat onsite).

Making a difference...together

DV000086

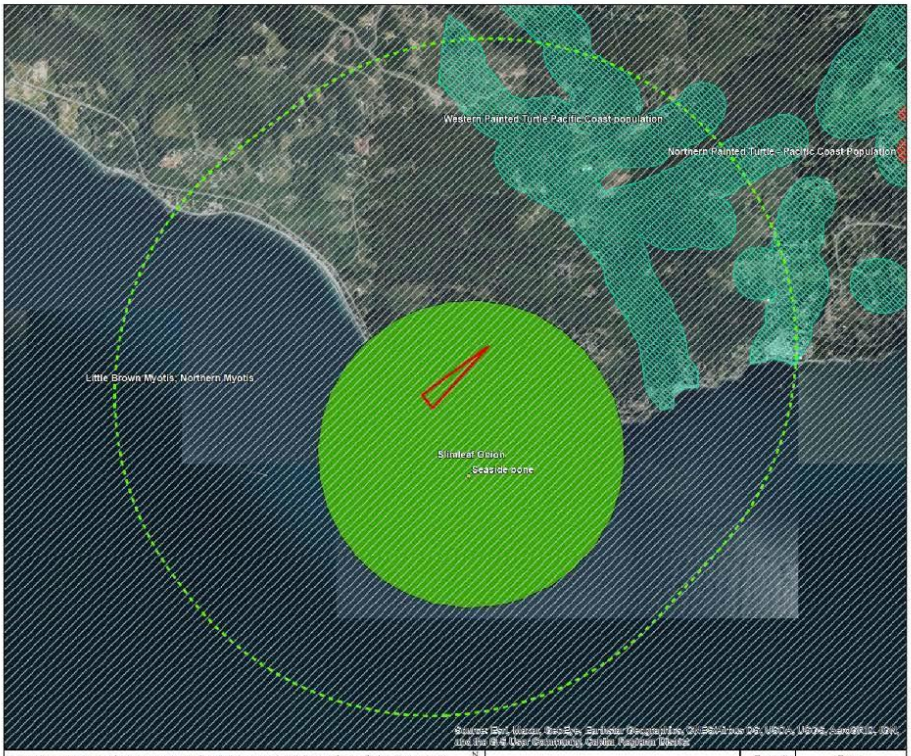


Figure 4 - Potential Species at Risk Occurrences within 2 km of the Property

Property Boundary
2 km area around property boundary
Little Brown Myotis; Northern Myotis
Western Painted Turtle Pacific Coast population
Fungus
Vascular Plant
Vertebrate

0 500 1,000 2,000 Meters

Project: 1390 Lands End Road | Source: Capital Regional District, DataBC

CORVIDAE ENVIRONMENTAL CONSULTING INC

Rev. #	Date
0	August 9 2022

Corvidae Project No.
COR-2022-108

Figure 2

Making a difference...together

DV000086

5 POTENTIAL ENVIRONMENTAL EFFECTS

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

- Impacts to mature forest.
- Loss of native vegetation and spread of invasive plant species.
- Change in wildlife habitat availability and wildlife mortality risk.
- Sediment movement in the project area.

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

SENSITIVE ECOSYSTEMS AREAS

The proposed project area occurs within the Sensitive Ecosystems Areas DPA. The objective of this DPA is to minimize the impact of development on the natural environment. Clearing of trees and vegetation within this area will result in the permanent loss of second growth Mature Forest habitat.

VEGETATION

The effects of trees and vegetation 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 and plant communities immediately adjacent to cleared areas may experience changes due to windthrow and changes in microclimate (increased light and moisture penetration) due to tree removal within the project area.

INVASIVE SPECIES

Invasive plants are particularly adept at colonizing degraded plant communities and disturbed soils. 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

Loss and alteration of terrestrial habitat can result in the loss of habitat for wildlife species. Tree and shrub clearing can directly alter or remove wildlife habitat. Noise from site preparation and construction may temporarily disturb and displace remaining wildlife.

EROSION AND SEDIMENT

Removal of vegetation during construction exposes soils to erosion and can result in the movement of sediment on the Site. Damage or degradation of soil surfaces during construction can include loss of soil structure, increased erosion, and soil compaction.

Making a difference...together

DV000086

6 RECOMMENDED ENVIRONMENTAL PROTECTION MEASURES

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

- The Otter Point OCP, Bylaw No. 3819 (Capital Regional District 2014)
- 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), and
- Environmental Best Management Practices for Urban and Rural Land Development in British Columbia (BC Ministry of Water, Land and Air Protection 2004).

SENSITIVE ECOSYSTEM AREAS

Impacts to mature forest habitat on the Site can be reduced by retaining large trees (>50 cm dbh) where feasible within the project alignment, and only removing vegetation where necessary within the project footprint. The proposed driveway alignment has been selected to follow the path of a former logging road, thereby reducing impacts to forested habitat. Mature Forest located to the north of the proposed development within the property will remain intact and protected throughout construction.

VEGETATION

It is recommended that areas disturbed by project construction or activities that are not part of the permanent footprint are to be replanted with native vegetation. Tree removal is required to accommodate the proposed development. Trees will be replaced at a 2:1 ratio.

Overall plant density should be approximately one plant per 1 to 2 m^2 of disturbed space. The purpose of using native species is to reduce irrigation maintenance in the future. The optimal time for revegetation is in the fall, prior to the wet winter season. However, planting at any time of the year (with irrigation as needed) is acceptable to prevent invasive species. Natural recruitment is anticipated within the second-growth forest and will also contribute to the re-establishment of native vegetation.

Invasive plant species that are encountered during development activities are to be removed. Areas that become void of vegetation following invasive species removal will be replanted with native species. Table 4 details native plant species that are suitable for the area. Recommended plant density following invasive removal is 1 to 2 m^2 for shrubs and 3 m^2 for trees.

Table 3. Recommended native vegetation to plant in disturbed areas

Common Name	Species
Douglas-fir	*Pseudotsuga menziesii*
oceanspray	*Holodiscus discolor*
red huckleberry	*Vaccinium parvifolium*
salal	*Gaultheria shallon*
sword fern	*Polystichum munitum*

Making a difference...together

DV000086

Common Name	Species
western redcedar	*Thuja pilcata*

INVASIVE SPECIES

Invasive weed control is difficult for established populations. Species should be removed using the most appropriate methods, at the correct time of year, and plant material must be disposed of correctly to avoid re-establishment or spread. Following removal, re-seed bare soil with desirable, competing vegetation. Details of removal methods for the invasive species detected on the property are included below in Table 4.

Table 4. Removal and disposal methods for invasive species

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.
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.

Mitigation measures to control and minimize the spread of invasive weeds on the site include:

- Clean all machinery before arrival onto the site to ensure that more weed seeds and other propagules (e.g., pieces of root) are not brought into the project area.
- Use available fill and soil from on site where possible. If fill or topsoil is imported from external areas, ensure that it is from a weed-free source.

Disturbed areas should be seeded with fast growing vegetation such as a mix with a native clover or seed mix to compete with weed species, fix nitrogen and provide soil stabilization right after clearing.

WILDLIFE AND WILDLIFE HABITAT

Mitigation measures to minimize impacts on wildlife and wildlife habitat include:

- Vegetation clearing should be completed outside of the migratory bird window (prior to March 15th or after August 15th; Government of Canada 2018). If vegetation clearing is scheduled within the sensitive time period for breeding birds, a QEP should conduct nest search surveys a maximum of 2-3 days prior to the start of activities. If an active nest is discovered during nest searched or clearing activities, the nest will be subject to site-specific mitigation measures (e.g., protective buffer around the nest or unobtrusive monitoring) until the young have naturally fledged/left the area. Multiple nest sweeps may be required. Nest search areas include both vegetation and onsite, man-made structures that are scheduled for removal.

Making a difference...together

DV000086

- If clearing is schedule between January 1 and August 15, a raptor nest survey should be completed by a QEP prior to clearing. Occupied or active nests would be subject to the actions described above. In addition, permits are required to remove eagle or osprey nests regardless of occupancy.
- Avoid additional removal of established trees or shrubs, where practical (outside of the project footprint), except for identified danger trees that cannot be avoided.

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.

Mitigation options to minimize the potential effects of the project on the natural environment include:

- Prior to clearing, delineate areas to be cleared and install construction fencing to protect the integrity of surrounding mature forest habitat outside of the project footprint.
- Seed and straw placement on any exposed soils.
- If soil is being stored in place for more than one growing season, tarp or seed with a quick growing species (fall rye, clover or other agronomic).
- Heed weather advisories and scheduling initial clearing work to avoid excessively rainy periods (>10 cm in 24 hours) that may result in high flow volumes and/ or increase erosion and sedimentation.

7 CONCLUSION

The potential environmental impacts of the proposed project at 8492 West Coast Road include the loss of some Mature Forest (as shown in Figure 3). However, the proposed buildings are small and larger (>50 cm) trees can be avoided. The driveway is planned on an existing logging road and can avoid >50 cm trees. Implementation of the mitigation and restoration measures recommended in this report, including avoiding tree removal where feasible and replanting with native vegetation during construction, will minimize the impacts of the proposed development on the environment and the majority (approximately 80%) of the Mature Forest ecosystem will remain intact. All works are to be completed in compliance with the Migratory Bird window.

Making a difference...together

DV000086

Report Prepared By:

Erin Vekic, R.P.Bio, M.Sc.
Corvidae Environmental Consulting Inc.
604-617-5024

Julie Budgen, R.P.Bio., B.Sc.
Corvidae Environmental Consulting Inc.
250-415-8553

Making a difference...together

DV000086

8 REFERENCES

British Columbia Conservation Data Centre (CDC). 2022a. BC Species and Ecosystems Explorer. B.C. Ministry of Environment. Victoria, B.C. Available: http://a100.gov.bc.ca/pub/eswp/. Accessed: July 2022.

British Columbia Conservation Data Centre (CDC). 2022b. CDC iMap [web application]. Available at: http://maps.gov.bc.ca/ess/sv/cdc/. Accessed: July 2022.

British Columbia Ministry of Environment (MOE). 2014a. Procedures for Mitigating Impacts on Environmental Values (Environmental Mitigation Procedures) Version 1.0. Available at: https://www2.gov.bc.ca/assets/gov/environment/natural-resource-policy-legislation/environmental-mitigation-policy/em_procedures_may27_2014.pdf. Accessed: July 2022.

British Columbia Ministry of Environment (MOE). 2014b. Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia. Available at: https://www2.gov.bc.ca/gov/content/environment/natural-resourcestewardship/naturalresource-standards-and-guidance/best-managementpractices/develop-with-care. Accessed: July 2022.

British Columbia Ministry of Environment. 2004. Environmental Best Management Practices for Urban and Rural Land Development. Available at: https://www.env.gov.bc.ca/wld/documents/bmp/urban_ebmp/urban_ebmp.html. Accessed: July 2022.

Capital Regional District. 2014. Official Community Plan Bylaw No. 3819. Available at: https://www.crd.bc.ca/docs/default-source/crd-document-library/bylaws/juandefucaelectoralarea/3819---otter-point-official-community-plan-bylaw-no-1-2014.pdf. . Accessed: July 2022.

Capital Regional District. 2021. CRD Regional Map. Available at: https://maps.crd.bc.ca/Html5Viewer/?viewer=public. Accessed: July 2022.

Government of Canada. 2018. General nesting periods of migratory birds. Available at: https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods/nesting-periods.html. Accessed: July 2022.

Government of Canada. 2021. Species at Risk Public Registry: Seaside Bone Lichen. Available at: https://species-registry.canada.ca/index-en.html#/species/127-424. Accessed: July 2022.

Government of Canada. 2022a. Species at Risk Public Registry. Available at: https://www.canada.ca/en/environment-climate-change/services/species-risk-publicregistry.html. Accessed: July 2022.

Pojar, J., K. Klinka, and D.A. Demarchi. 1991. Coastal Western Hemlock Zone. In Ecosystems of British Columbia. D. Meidinger and J. Pojar (editors). B.C. Ministry of Forestry, Victoria, B.C. Spec. Rep. Ser 6. Pp 95-111.

Province of British Columbia. 2022. HabitatWizard. Available at: http://maps.gov.bc.ca/ess/hm/habwiz/. Accessed: July 2022.

Raincoast Applied Ecology & HB Lanarc. 2011. Otter Point Sensitive Ecosystem Inventory. Available at: https://a100.gov.bc.ca/pub/acat/documents/r40904/2011-Otter-Point-SEI-Report_1389212847288_9199664023.pdf. Accessed July 2022.

Making a difference...together

DV000086

APPENDIX A – SITE PHOTOGRAPHS

Photo 1. East view of existing residence. July 8, 2022.

Photo 2. Southwest view of southern extent of the property. July 8, 2022.

Making a difference...together

DV000086

Photo 3. Northwest view of road alignment near existing dwelling. July 8, 2022.

Photo 4. Southwest view of existing logging trail on property. July 8, 2022.

Photo 5. Typical view of Mature Forest DPA habitat on the property. April 21, 2022.

Photo 6. East view of second growth forest near the eastern extent of the property. July 8, 2022.

Making a difference...together

DV000086

Photo 7. Southwest view of proposed septic field location. July 8, 2022.

Photo 8. North view of clear-cut on adjacent property and onsite forest edge. July 8, 2022.

Making a difference...together

DV000086

Photo 9. North view of mature forest north of proposed development. July 8, 2022.

Photo 10. Typical view of coarse woody debris and understory. July 8, 2022.

Making a difference...together

REPORT TO THE JUAN DE FUCA LAND USE COMMITTEE
MEETING OF TUESDAY, OCTOBER 18, 2022

SUBJECT **Development Permit with Variance for Section 41, Otter District as Shown on Plan Deposited Under DD 55112I – Clark Road**

ISSUE SUMMARY

A request has been made for a development permit with variance to authorize subdivision layout on a parcel designated as Steep Slopes, Riparian, and Sensitive Ecosystem Development Permit (DP) areas and to reduce the requirement that 10% of a parcel fronts onto a highway.

BACKGROUND

The subject property is a 76.5 ha parcel located at the end of Clark Road and is zoned Forestry (AF) in Juan de Fuca Land Use Bylaw No. 2040 (Appendix A). The subject property is bounded by Resource Land (RL) and Rural Residential 3 (RR-3) zoned parcels to the north, a Rural (A) zoned parcel to the east, and Forestry (AF) zoned parcels to the south and west. Several logging roads traverse the parcel providing access secured by easements to land in the Rural Resource Lands Official Community Plan (OCP) area to the north. There are no structures located on the lot.

The Forestry parcel is not classified as Private Managed Forestry Land (PMFL) under the *Private Managed Forest Land Act*; therefore, a development permit (DP-29-11) and a Riparian Areas Regulation notification were required to authorize timber harvesting on the parcel in 2011. Further logging affecting Riparian areas was undertaken after the Development Permit had been closed. As a result, a Conditions and Impact Assessment Report and the replanting of disturbed areas was required under Development Permit DP000376 prior to consideration of any further development proposals. A subsequent development permit (DP000384) authorizing the alteration of land within a Steep Slopes DP area for road construction works is currently active.

The owner has submitted a subdivision application for the creation of 18 fee simple parcels (Appendix B). Portions of the parcel are designated as Steep Slopes, Watercourses and Wetland Areas, and Sensitive Ecosystem development permit areas by the Otter Point OCP, Bylaw No. 3819. Therefore, a development permit is required to authorize subdivision. The proposed plan of subdivision includes three lots that do not meet the required frontage on a public highway. Therefore, a variance is requested in conjunction with the development permit.

ALTERNATIVES

Alternative 1
The Land Use Committee recommends to the Capital Regional District Board:
That Development Permit with Variance DV000089 for Section 41, Otter District as Shown on Plan Deposited Under DD 55112I to authorize the subdivision of land designated as Steep Slopes, Watercourses and Wetland Areas, and Sensitive Ecosystems Development Permit Areas; and to vary Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040, Part 2, Section 3.10(4) by reducing the minimum frontage requirement for:

a) proposed Lot 3 from 10% of the lot perimeter (88 m) to 7.5% of the lot perimeter (66 m);
b) proposed Lot 7 from 10% of the lot perimeter (119 m) to 0.5% of the lot perimeter (6 m); and
c) proposed Lot 18 from 10% of the lot perimeter (141 m) to 0.46% of the lot perimeter (6.5 m)

as shown on the plan prepared by J.E. Anderson, revised September 21, 2022, be approved.

Alternative 2
That Development Permit with Variance DV000089 be denied.

IMPLICATIONS

Legislative Implications

The Otter Point Official Community Plan, Bylaw No. 3819, designates development permit areas (DPAs) and outlines development permit guidelines (Appendix C). The property is located within the Steep Slopes, Watercourses and Wetland Areas, and Sensitive Ecosystems DPA and a development permit is required prior to subdivision or alteration of land. CRD Delegation of Development Permit Approval Authority Bylaw No. 3462, gives the General Manager, Planning and Protective Services, the authority to issue a development permit; however, the delegated authority does not include development permits that require a variance, as stated in Section 5(a) of the bylaw.

Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040, Schedule A, Part 1, Section 3.10(4) specifies that the minimum frontage on the highway shall be one-tenth of the perimeter of the lot that fronts on the highway. Three of the proposed lots do not meet this requirement; therefore, a variance is requested.

Public Consultation Implications

Pursuant to Section 499 of the *Local Government Act,* if a local government is proposing to pass a resolution to issue a development variance permit it must give notice to each resident/tenant within a given distance as specified by bylaw. Juan de Fuca Development Fees and Procedures Bylaw No. 3885, states that the Board may, at any time, refer an application to an agency or organization for their comment. In addition, it states that a notice of intent must be mailed to adjacent property owners within a distance of not more than 500 m. Any responses received from the public will be presented at the October 18, 2022, Land Use Committee meeting. There is no requirement for public consultation if a local government is considering a development permit.

Land Use Implications

Development Permit:

A Geotechnical report certified by Tony Grimison, P.Geo, and Andrew Jackson, P.Geo., P.L.Eng. (Ryzuk Geotechnical), dated February 11, 2022, was submitted by the applicant to address the Steep Slopes development permit guidelines relative to the subdivision proposal. The report confirmed that a safe building site exists for each parcel and provided Landslide Assessment and Flood Assurance Statements for the subdivision design. Future development activity proposed within the designated development permit areas on the newly created parcels will require a subsequent development permit application and accompanying professional report.

A Riparian Assessment report was submitted by Thomas Roy, R.P.Bio., of Cascadia Biological Services, dated November 26, 2021, and updated August 26, 2022. The report addressed the *Riparian Areas Protection Regulations* (*RAPR*) and Watercourses and Wetland Areas DP guidelines for the proposed subdivision. The report described the watercourses and wetlands on site, provided a historical analysis of recent logging activities and delineated the Streamside Protection and Enhancement Areas (SPEA). The biologist noted that a Conditions and Impact Assessment report was completed separately to address the previously cleared Riparian areas.

The report confirmed that the watercourses are determined to be fish bearing by default and identified a 30 m SPEA for the wetland, a 20.8 m SPEA for King Creek, and a 15 m SPEA for all five tributaries to King Creek on the parcel. The Province approved the biologist's report for subdivision layout through the Riparian Areas Protection Regulation Notification System (RAPRNS) on September 6, 2022.

Works associated with the subdivision include the installation of two culverts for stream crossings. These works were authorized under Section 11 of the *Water Sustainability Act* (*WSA*) by the Ministry of Forests, Lands, Natural Resource Operations, and Rural Development.

The professional reports are attached to the proposed development permit with variance.

Sensitive Ecosystems DPAs were designated when the Otter Point Official Community Plan was adopted in 2014. Development Permit (DP-29-11) authorized tree harvesting in 2011 and the subject property has been replanted. Therefore, no further assessments to meet the Sensitive Ecosystems guidelines were requested in support of the application.

Variance:

The Juan de Fuca Land Use Bylaw requires that where a lot being created by a subdivision fronts on a public highway, the minimum frontage on the highway shall be one-tenth of the perimeter of the lot. The applicant has proposed to reduce the minimum frontage requirement from 10% of the lot perimeter to 7.5% for proposed Lot 3, 0.5% for proposed Lot 7, and 0.46% for proposed Lot 18; the remainder of the proposed lots in the plan meet the minimum frontage requirement.

In evaluating whether a frontage exemption is justified, the following technical criteria are normally considered:

- How does it relate to the topography of the area?
- Does it create any environmental impacts?
- Will reducing the frontage produce an awkward lot configuration?
- Will reducing the frontage eliminate future subdivision potential of the lot and of lots beyond?
- Will the exemption reduce road network and access options?
- Does the proposed reduction disturb existing residences?

The proposed lot boundaries are not conventional; however, they follow the natural topography and are designed to minimize stream crossings through the use of panhandle driveways. The proposed lots meet the required 4 ha minimum parcel area specified by the AF zone, and the proposed panhandles meet the minimum 6 m width requirement for parcels that cannot be further subdivided under the provisions of the Bylaw. The subdivision layout provides access to lands beyond in accordance with the Ministry of Transportation and Infrastructure's requirements.

Proposed panhandle Lot 7 is located adjacent to forestry land to the north and vacant rural residential land to the east. Proposed panhandle Lot 18 is located in the southeast corner of the subject property and the closest dwelling, situated on Eaglecrest Drive, is over 125 m from the lot boundary. Adjacent properties to the east and south are currently vacant. Parcels are limited to a maximum lot coverage of 10% and permitted uses support a single-family dwelling and related accessory uses, including a secondary or detached accessory suite. Therefore, the proposed reduction is not anticipated to disturb existing residences. Through the public notification process, any residences that may be affected by the proposed frontage reduction will have an opportunity to come forward with their concerns.

Staff recommend Alternative 1, subject to public notification and consideration of comments from neighbouring residents.

CONCLUSION

The applicant has submitted an 18-lot subdivision application and is required to obtain a Steep Slopes, Watercourses and Wetlands, and Sensitive Ecosystems development permit prior to subdivision. A variance has also been requested to reduce the minimum frontage requirement for proposed Lot 3 from 10% of the lot perimeter (88 m) to 7.5% of the lot perimeter (66 m), for proposed Lot 7 from 10% (119 m) to 0.5% (6 m); and for proposed Lot 18 from 10% (141 m) to 0.46% (6.5 m). Staff recommend approval of development permit with variance DV000089 (Appendix D), subject to public notification. If the Permit is approved by the Board, the Corporate Officer will proceed to issue the Permit and register a Notice of Permit on Title.

RECOMMENDATION

The Land Use Committee recommends to the Capital Regional District Board:
That Development Permit with Variance DV000089 for Section 41, Otter District as Shown on Plan Deposited Under DD 55112I to authorize the subdivision of land designated as Steep Slopes, Watercourses and Wetland Areas, and Sensitive Ecosystems Development Permit Areas; and to vary Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040, Part 2, Section 3.10(4) by reducing the minimum frontage requirement for:

a) proposed Lot 3 from 10% of the lot perimeter (88 m) to 7.5% of the lot perimeter (66 m);
b) proposed Lot 7 from 10% of the lot perimeter (119 m) to 0.5% of the lot perimeter (6 m); and
c) proposed Lot 18 from 10% of the lot perimeter (141 m) to 0.46% of the lot perimeter (6.5 m)

as shown on the plan prepared by J.E. Anderson, revised September 21, 2022, be approved.

Submitted by:	Iain Lawrence, MCIP, RPP, Senior Manager, JdF Local Area Services
Concurrence:	Kevin Lorette, P.Eng., MBA, General Manager, Planning & Protective Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENTS

Appendix A: Subject Property Map
Appendix B: Plan of Subdivision with Requested Frontage Variances
Appendix C: Development Permit Guidelines
Appendix D: Permit DV000089

Appendix A: Subject Property Map

Appendix B: Plan of Subdivision with Requested Frontage Variances

PLAN
H 1:5000

LOT	PERIMETER	FRONTAGE	%	WAIVER REQUIRED
1	896m	FR=298m	33%	NO
2	929m	FR=327m	35%	NO
3	880m	FR=66m	7.5%	YES
4	886m	FR=98m	11%	NO
5	837m	FR=372m	44%	NO
6	856m	FR=250m	29%	NO
7	1192m	PH=6m	0.5%	YES
8	917m	FR=127m	14%	NO
9	861m	FR=105m	12%	NO
10	1024m	FR=168m	16%	NO
11	949m	FR=65/178m	7%/19%	NO
12	907m	FR=563m	62%	NO
13	939m	FR=304m	32%	NO
14	937m	FR=176m	19%	NO
15	853m	FR=140m	16%	NO
16	781m	FR=264m	34%	NO
17	884m	FR=147m	17%	NO
18	1407m	PH=6.5m	0.46%	YES

FR – FRONTAGE
PH – PANHANDLE

SITE INFO:

SITE AREA = 76.5 ha
ROAD DEDICATION = 3.7 ha
MINIMUM PARCEL SIZE = 4.00 ha

NOTE: LOT AREAS DO NOT INCLUDE PANHANDLES. AREAS AND DIMENSIONS ARE APPROXIMATE ONLY. AREAS TO BE VERIFIED BY LEGAL SURVEYOR. DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED. FRONTAGE ON LOT 10 INCLUDES PAN HANDLE WIDTH.

LEGAL: SECTION 41, OTTER POINT DISTRICT.

1:5000 0 100 300m

JEA J.E. ANDERSON & ASSOCIATES
SURVEYORS — ENGINEERS
4212 GLANFORD AVE, VICTORIA, BC, V8Z 4B7
TEL: 250 – 727 – 2214 FAX: 250 – 727 – 3395
E-MAIL : info@jeanderson.com

DRAWN: NM SCALE: 1:5000
DATE: 20220509 REV 20220921
SHEET 1 OF 1

CLIENT [redacted]
PROJECT CRD – JUAN DE FUCA AREA
CLARK ROAD
18 LOT FEE SIMPLE SUBDIVISION
FRONTAGE WAIVER VARIANCE PLAN
ENG: 33353
CRD FILE: SU000734
eDAS FILE#: 2021-0417

V:_Projects\33353 – Clark Road – [redacted] – Engineering\02 – Drawings & Sketches (Eng)\33353 – Base – Design.dwg Printed: September 21, 2022

Appendix C: Development Permit Guidelines

Development Permits issued in "Steep Slope DPA" will be in accordance with the following:

1. No development, subdivision or sewage disposal system will be permitted in a "Steep Slopes DPA", as specified in the Justification above, except as allowed by a Development Permit or subject to a general exemption as outlined in Section 6.2 of this Plan.

2. Avoid intrusion of development into Development Permit Areas and to minimize the impact of any activity in these areas. Development shall generally only be supported where the applicant provides compelling reasons supported by a Qualified Professional's recommendations for mitigation to support the request or if there are no alternate building locations. Variances from other applicable regulations, including height, setback and location regulations may be considered in order to minimize encroachment into the "Steep Slopes DPA".

3. Development or subdivision of land should be designed to comply with the policies in Section 5.4 of the Plan.

4. An application for a Development Permit for land within a "Steep Slopes DPA" on Map 5a, shall provide an assessment of the slope conditions on the proposed development site by a geotechnical engineer, and recommendations on the suitability and stability of the soil for the proposed development. The assessment should include recommendations for vegetation protection, enhancement or retention, where applicable. A plan prepared by a British Columbia Land Surveyor may be required as a condition of the Development Permit.

5. As a condition of the issuance of a Development Permit, compliance with any or all conditions recommended in the report prepared by the Qualified Professional may be required.

6. A Development Permit shall not be issued without confirmation by the Qualified Professional regarding the safety of proposed development and assurances that the development will not have detrimental impact on the environment or adjoining properties. No development or alteration of land shall occur where the Qualified Professional's geotechnical engineering report indicates that a hazardous condition may result except in compliance with all conditions recommended by the Qualified Professional's report.

7. An applicant may be required to provide a sediment and erosion plan with recommendations for implementation. Erosion control measures, during and after construction, may be specified in the permit.

8. Any development must be designed to avoid storm water runoff that could destabilize the slope or cause damage to neighbouring properties. An applicant may be required to provide a drainage plan with recommendations for implementation.

9. Removal of vegetation should be minimized to allow only for building sites, sewage disposal systems, driveways, landscaping and other permitted land uses.

10. A disturbed site should be re-vegetated using plant material indigenous to the site or other suitable non-invasive plants. An applicant may be required to provide a re-vegetation plan with recommendations for implementation.

11. An applicant may be required to register a covenant under Section 219 of the *Land Title Act* attaching a copy of the report of the Qualified Professional.

12. Where the Qualified Professional recommends re-vegetation or remediation works, a landscaping plan and security deposit may be required.

Development Permits issued in the "Watercourse DPA" will be in accordance with the following:

1. No development, subdivision, or sewage disposal system will be permitted in a "Watercourses DPA", except those allowed by a Development Permit or subject to the general exemptions as outlined in Section 6.2 of this Plan.
2. Avoid intrusion of development into Development Permit Areas and minimize the impact of any activity in these areas. Development shall generally only be supported where the applicant provides compelling reasons supported by a Qualified Environmental Professional's recommendations for mitigation to support the request or if there are no alternate building locations. Variances from other applicable regulations, including height, setback and location regulations may be considered in order to minimize encroachment into the Development Permit Area.
3. Development or subdivision of land should be designed to comply with the policies in Section 5.3.1 of the Plan.
4. The application for a Development Permit for land within the "Watercourses DPA" on Map 5c, must provide an assessment by a Qualified Environmental Professional on the environmental conditions on the proposed development site and recommendations on the suitability of the site for the proposed development. The assessment should include recommendations for vegetation protection, enhancement or retention, where applicable. A plan prepared by a British Columbia Land Surveyor may be required as a condition of the Development Permit.
5. As a condition of the issuance of a Development Permit, compliance with any or all conditions recommended in the report prepared by the Qualified Environmental Professional may be required.
6. Construction at a time of year and using construction methods that minimize the impacts on rare and sensitive species may be required.
7. Development must be designed so as to maintain the quality of any storm water flowing toward or into the identified water features and so as to prevent any increase in volume and peak flow of runoff. An applicant may be required to provide a drainage plan with recommendations for implementation.
8. Indigenous vegetation may be required to be planted on the site to reduce erosion risk, restore the natural character of the site, improve water quality, or stabilize slopes and banks. An applicant may be required to provide a re-vegetation plan from a person qualified and the development permit may include conditions intended to implement the recommendations.
9. Modification of channels, banks or shores which could result in significant environmental harm or significantly alter local hydrological conditions will not be permitted.
10. Landscaping and other related residential activities should be sited so as to prevent nutrient-rich water from entering natural water features.
11. A buffer zone within which land alteration or structures will be limited to those compatible with safeguarding the characteristics of the water feature in accordance with the professional report may be required and the specific or general location of the buffer zone may be designated.
12. Conditions relating to road and driveway construction in these areas will ensure that:
    a. watercourse crossings are located so as to minimize disturbance of water feature banks, channels, shores, and vegetation cover;
    b. wherever possible, bridges are used instead of culverts for crossings of fish-bearing watercourses; and
    c. culverts are sited below the seasonal low water level to allow unrestricted movement of fish in both directions.
13. Where the Qualified Environmental Professional or Qualified Professional recommends re-vegetation or remediation works, a landscaping plan and security deposit may be required.
14. In order to ensure unnecessary encroachment does not occur into the Development Permit Area at the time of construction, permanent or temporary fencing measures may be required.

15. Development should be designed to minimize stream crossings. However, any required crossing should be in compliance with all conditions recommended by the Qualified Environmental Professional's report.

16. If any temporary stream alteration or diversion takes place, streams should be rerouted through their original channels with provincial or federal approval.

17. The removal of gravel and soil from streambeds of watercourses is prohibited unless provincial or federal approval is received.

18. In reviewing a Development Permit application the CRD shall consider the site-specific natural features, ecological processes that support riparian function, wildlife ecology, and unique ecosystems. These include, but are not limited to:

    a. maintenance of an effective visual and sound (natural vegetated) buffer around nesting trees or other sensitive features;

    b. vegetation, trees, snags, and root systems;

    c. rare and uncommon species and plant communities;

    d. soils and soil conditions (moisture, nutrients and permeability);

    e. birds and other wildlife species and their habitats, such as shelter, nesting trees, perch trees, and breeding areas;

    f. maintenance of linkages with adjacent riparian ecosystems to minimize fragmentation;

    g. topography and relative orientation of features on neighbouring properties; and,

    h. appropriate timing of construction.

Appendix D: Permit DV000089

Making a difference...together

CAPITAL REGIONAL DISTRICT

DEVELOPMENT PERMIT WITH VARIANCE NO. DV000089

1. This Development Permit with Variance is issued under the authority of Sections 490 and 498 of the *Local Government Act* and subject to compliance with all of the bylaws of the Regional District applicable thereto, except as specifically varied or supplemented by this Permit.

2. This Development Permit with Variance applies to and only to those lands within the Regional District described below (legal description), and any and all buildings, structures, and other development thereon:

   PID: **009-497-757;**
   Legal Description: **Section 41, Otter District as shown on Plan deposited under DD 55112I (the "Land")**

3. This development permit authorizes an eighteen lot subdivision (the "development") on the Land, located within the development permit areas established under the Otter Point Official Community Plan, Bylaw No. 3819, 2018, Section 6.3 (Steep Slopes), 6.5 (Watercourses and Wetlands Areas), and 6.6 (Sensitive Ecosystems), in accordance with the plans submitted to the CRD and subject to the conditions set out in this Permit.

4. The conditions under which the development referred to in section 3 may be carried out are as follows:
   a) That the components of the development occur as identified on the Subdivision Plan, prepared by JE Anderson & Associates, dated September 21, 2022;
   b) That the development comply with the report prepared by Tony Grimison, P.Geo, and Andrew Jackson, P.Geo., P.L.Eng. of Ryzuk Geotechnical, dated February 11, 2022 (the "Geotechnical Report"); and
   c) That the development comply with the report prepared by Thomas Roy, R.P.Bio., of Cascadia Biological Services, dated November 26, 2021 (the "Riparian Assessment Report").

5. The Capital Regional District's Juan de Fuca Land Use **Bylaw No. 2040** Schedule A, Part 1, Section 3.10(4) is varied under section 498 of the *Local Government Act* as follows:
   a) proposed Lot 3 from 10% of the lot perimeter (88 m) to 7.5% of the lot perimeter (66 m);
   b) proposed Lot 7 from 10% of the lot perimeter (119 m) to 0.5% of the lot perimeter (6 m); and
   c) proposed Lot 18 from 10% of the lot perimeter (141 m) to 0.46% of the lot perimeter (6.5 m)

6. Notice of this Permit shall be filed in the Land Title Office at Victoria as required by Section 503 of the *Local Government Act*, and the terms of this Permit (DV000089) or any amendment hereto shall be binding upon all persons who acquire an interest in the land affected by this Permit.

7. If the holder of a permit does not substantially start any construction permitted by this Permit within 2 years of the date it is issued, the permit lapses.

8. The land described herein shall be developed strictly in accordance with the terms and conditions and provisions of this Permit, and any plans and specifications attached to this Permit which shall form a part hereof.

9. The following plans and specifications are attached to and form part of this Permit:

   Appendix 1: Subdivision Plan
   Appendix 2: Geotechnical Report
   Appendix 3: Riparian Assessment Report

10. This Permit is NOT a Building Permit.

Making a difference...together

DV000089

11. In issuing this Development Permit, the CRD does not represent or warrant that the land can be safely developed and used for the use intended and is acting in reliance upon the conclusions of the Geotechnical Report regarding the conditions to be followed for the safe development of the land.

RESOLUTION PASSED BY THE BOARD, THE _____ day of _____, 2022.

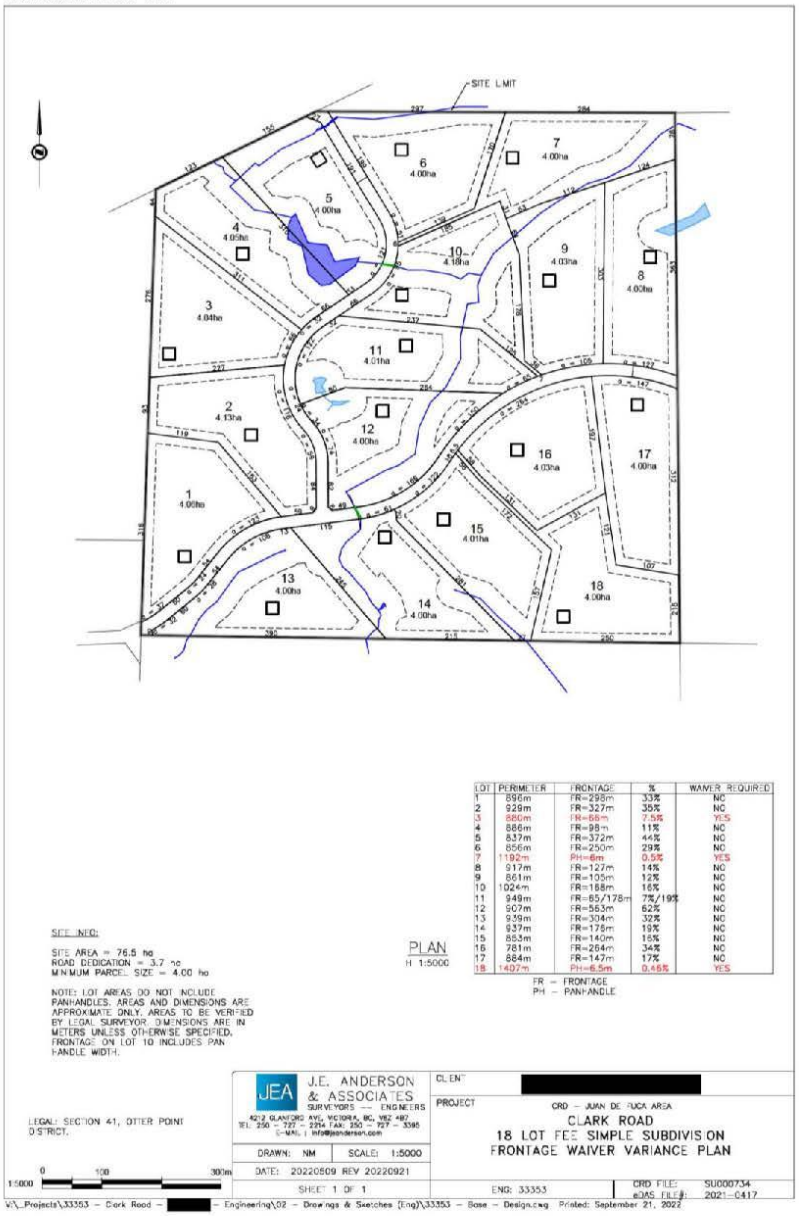
ISSUED this _____ day of _____, 2022

_____
Corporate Officer
Kristen Morley

Making a difference...together

DV000089

Appendix 1: Subdivision Plan



LOT	PERIMETER	FRONTAGE	%	WAIVER REQUIRED
1	896m	FR=298m	33%	NO
2	928m	FR=327m	35%	NO
3	880m	FR=66m	7.5%	YES
4	886m	FR=98m	11%	NO
5	837m	FR=372m	44%	NO
6	856m	FR=250m	29%	NO
7	1192m	PH=6m	0.5%	YES
8	917m	FR=127m	14%	NO
9	861m	FR=105m	12%	NO
10	1024m	FR=188m	18%	NO
11	949m	FR=65/178m	7%/19%	NO
12	907m	FR=563m	62%	NO
13	959m	FR=304m	32%	NO
14	937m	FR=178m	19%	NO
15	883m	FR=140m	16%	NO
16	781m	FR=264m	34%	NO
17	884m	FR=147m	17%	NO
18	1407m	PH=6.5m	0.46%	YES

V:_Projects\33353 – Clark Road – [redacted] – Engineering\02 – Drawings & Sketches (Eng)\33353 – Base – Design.dwg Printed: September 21, 2022

CRD
Making a difference...together

DV000089

Appendix 2: Geotechnical Report

RYZUK GEOTECHNICAL
Engineering & Materials Testing
6-40 Cadillac Ave, Victoria, BC, V8Z 1T2 Tel: 250-475-3131 E-mail: mail@ryzuk.com www.ryzuk.com

February 11, 2022
File No: 8447-10

[redacted]

Attn: [redacted]

Re: Geotechnical Assessment for Proposed Subdivision
Section 41, Clark Road - Otter District, BC

INTRODUCTION

As requested, we attended the referenced site on January 21st, 2021, to complete a visual reconnaissance and assessment of the existing geotechnical conditions as such relate to the proposed subdivision. We understand that the current proposal consists of a conventional subdivision creating 18 fee simple lots along with access roads as shown on the attached plan by J.E. Anderson & Associates dated October 25, 2021.

At this time we have reviewed the Proposed Subdivision Review from the MOTI which indicates that the Approving Officer considers the land within the proposal may be subject to natural hazards such as flooding, erosion, landslip or avalanche. Our work has been carried out in accordance with Engineers & Geoscientists BC's ("EGBC's") Guidelines for Legislated Landslide Assessments for Proposed Residential Developments in BC and Guidelines for Legislated Flood Assessments in a Changing Climate in BC, and our findings and associated recommendations are provided herein, including Appendix D: Landslide Assessment Assurance Statement, and Appendix I: Flood Assurance Statement. Although we are familiar with these types of assessments and MOTI's expectations for reporting there is the potential that additional geotechnical requirements may be identified by MOTI in the course of the subdivision process. Our work has been carried out in accordance with, and is subject to, the previously provided Terms of Engagement.

Our assessment has consisted of a review of available background information, followed by our field reconnaissance to ground truth the site and assess for potential geohazards. Our desktop review included the proposed subdivision layout, review of surficial and bedrock geology mapping, BC Water Resources Atlas groundwater well mapping, CRD online atlas 5m interval contour data, BC Government LiDAR digital elevation model (DEM) images and available satellite imagery. Our assessment was carried out on January 21, 2022, and consisted of a general traverse of the accessible areas of the site to review the surficial geotechnical conditions including terrain, ground cover, and

Making a difference...together

DV000089

select shallow test pits previously completed by others. Certain areas which were not assessed due to access constraints are described below.

SITE DESCRIPTION

The site is situated approximately 9 km west of the Town of Sooke and 2 km northwest of the Otter Point Road and West Coast Highway 14 junction and is located within generally forest covered rolling foothills overlooking the Strait of Juan de Fuca. It is a rural parcel of approximately 80 hectares and is bounded by undeveloped land to the north and east and light residential acreage development to the south and west.

The parcel is currently undeveloped except for access roads for previous logging and contains no habitable structures. The northwest half of the site is covered in thick immature coniferous cover. The remainder of the site is generally clear of large trees with sparse smaller coniferous trees, low scrubby brush and felled timber indicative of past logging operations. Based on available imagery (Google Earth Pro), logging and/or clearing activity has generally occurred since 2004. It is apparent that the northeast east quadrant was logged prior to 2004, and subsequently replanted. Most of the tree removal on the remainder of the parcel has occurred between 2010 and 2012.

The site is characterized by several large bedrock knolls with low to moderately sloping flanks in the north, west and south with a flatter, open northeast trending valley in the central portion of the site. Average slopes across the site are in the order of 7 to 15 degrees from horizontal, with some steeper slopes on the flanks of bedrock hills. The terrain is cut by one central watercourse, King Creek, which generally traverses the property from northeast to southwest with several smaller unnamed creeks feeding it. Total relief across the parcel is in the order of 70 m from the highest peaks on the east and west at 170 m geodetic to the valley adjacent to the southern property boundary at 100 m geodetic.

Site access is present from a gravel road extension to Clark Road which enters the property from the lower west side property line. It joins the logging roads on the property at the junction of the two main proposed roads on the site. For the purposes of description, we have named the roads on the attached site plan. Road Dedication 'A' traverses the property from west to east separating Lots 14, 15, 16 and 17 from lots 8 to 12. Road Dedication 'B' traverses the property from south to north, commencing at the junction of roads 'A' and 'B'. There were several smaller logging roads which branch off Road 'B' currently providing access to other lots within the proposed subdivision.

We were not able to access certain areas of the site due to vegetation/terrain, including most of Lots 4, 5 and 6. On Lot 2 we were able to discern the style of terrain by viewing such from the proposed building site on Lot 3. Good access was available throughout the remainder of the proposed Lots and Proposed Building Sites, which we consider suitable to complete our assessment.

SITE CONDITIONS

We traversed the site commencing at the termination of proposed Road 'A' documenting geomorphic features of the property as a whole and at each proposed building site. Overall, the topography of the

Making a difference...together

DV000089

[redacted] February 11, 2022
Section 41, Clark Road – Otter District, BC

site is strongly bedrock controlled. Mostly all the proposed building sites are located atop exposed bedrock slopes. Surface conditions were mostly observed to be damp with ponded water and small rivulets of water conveying surface water from exposed bedrock slopes toward the central watercourse. King Creek generally has a low slope gradient at roughly 5 degrees from horizintal, is between 2 to 4 m wide, 0.3 m deep and in places has abundant vegetation and fallen tree debris. Stream flow at the time of our visit was low to moderate and turbulent with no observed incision of the stream channel.

Native soils exposed in several test pits generally consisted of light brown sandy gravelly silt with some cobbles. Soils are generally present as a veneer over bedrock but occasional occurrences of a 1 to 1.5 m thick soil horizon were exposed in logging road cuts in various parts of the property.

As noted above, terrain is relatively benign over much of the site. A summary of conditions and relevant features/potential hazards is provided by lot below. A photo log is provided in the attachments which contains a selection of photos highlighting notable features and typical surficial conditions of the proposed building sites. The attached site plan shows the general area of our traverse, along with road labels and our photo locations.

Lot 1

Lot 1 spans an entrance road to the site at the southwest corner of the proposed subdivision. We observed moss covered vertical bedrock slopes roughly 4 m high adjacent to the gravel entrance road which display some vertical jointing. No rockfall material was observed at slope base. To the south of the entrance road brown dense silty soils with cobbles were observed in a shallow test pit adjacent to the roadway. A rough gravel trail traverses shallow slopes to the top of an exposed bedrock hill where the proposed building site for Lot 1 is located. Well weathered and rounded bedrock exposures consisted of a fine grained crystalline extrusive igneous rock. To the southeast of the bedrock hill slopes in the order of 10 degrees from horizontal lead to a shallow valley which separates Lots 1 and 13. No loose rock or boulder debris was observed at the base of the bedrock hill.

Lots 2 and 3

Lot 2 was mostly inaccessible due to the thick overgrowth of vegetation. Stands of immature pine, alder and recently planted conifer cover most of the Lot. We observed the Lot from the building site on Lot 3 and note that Lot 2 is located on an extension of the same bedrock ridge. Bedrock exposures were of weathered, and rounded massive grey crystalline rock. No loose or weathered boulder material was observed on the slope. The building site for Lot 3 is located near the top of a local bedrock hill. Slopes in the order of 15 – 20 degrees sloping to the east were barren of trees but on the shallower sloping portion near the toe of the slope vegetation cover was thick.

Lots 4, 5 and 6

Lots 4, 5 and 6 were inaccessible due to vegetation cover and, as such we were not able to observe the building lots. We note that the building site on Lot 5 is located near a closed topographic contour at 150 m geodetic. The building site on Lot 6 is located on a ridge at approximately 155 m geodetic

Ryzuk Geotechnical Page 3

Making a difference...together

DV000089

elevation.

We observed a narrow drainage course running west through a 600 mm diameter culvert under a logging road which parallels the proposed property line boundary between Lots 4 and 5. The creek was roughly 1 m wide, with low flow across exposed light brown silty and cobbly soils. The creek eventually flows southeast joining King Creek within the limits of Lot 10. Additionally, there is a watercourse shown on the attached site plan to the north of Lot 6 which we observed to contain some ponded water but with no flow observed. The depression was roughly 2 m wide and contained felled tree debris and organic matter.

Lot 7

Lot 7 is located atop an exposed bedrock knoll at elevation 165 m geodetic with some pine tree cover. The lot slopes down to the south at an inclination of approximately 20 degrees from horizontal and meets a gravel access road that separates the Lot from King Creek. We observed some steeply sloped bedrock outcrop approximately 2 - 3 m high upslope of the gravel road. Exposed bedrock was well weathered, rounded and moss covered with no indication of boulders or loose material at the slope toe. Cutslopes up to approximately 1.5 m along the gravel roadway have exposed dense brown silty soils overlying bedrock and are inclined at up to 70 degrees from horizontal.

Lot 8

Lot 8 has been logged and hosts some younger second growth conifers. Shallow slopes on the order of 7 to 10 degrees from horizontal slope down from east to west across the Lot. The building lot is located atop bedrock with a veneer of dense silty soil. Bedrock consisted of fine grained massive crystalline material. There is a topographic low which separates Lot 8 from Lot 17 to the south and we observed ponded water and surface stormwater run-off approximately 50 mm deep flowing toward Road 'A'. We expect these are preferential surficial storm water flow channels and expect surficial runoff can be managed as described in our recommendations below. Soils exposed in the stream bed consisted of light brown gravelly silt.

Lot 9

Lot 9 is largely barren of vegetative cover with a lot of fallen trees and mounds of organic remains from logging and clearing activities. Limited exposure of bedrock was observed on this Lot which is mostly level with a cover of native brown silty, gravelly soil. The proposed building site is located centrally within the Lot. Shallow slopes down to the south were covered in grass and shrubbery. There was a small drainage course running parallel to Road A at the southern portion of the site which was approximately 1 m wide and 0.2 m deep. The drainage course contained grass, organic matter and tree stumps. On the north side of Lot 9 moderate tree covered slopes were observed that traversed down to the King Creek edge.

Lot 10

Lot 10 is devoid of tree cover on the eastern half and is covered in thick second growth forest on the

Making a difference...together

DV000089

western half. There is a gravel road which skirts the tree line leading to a flat topographic high in the southwest corner of the Lot where the proposed build site is located. Down slope to the north we observed a small creek roughly 1.5 m wide complete with sand and gravel in the base. Banks either side of the creek were in the order of 2 – 3 m high, with flowing water depth approximately 0.3 m. The Lot slopes on the order of 5 degrees from horizontal down to the east into the King Creek valley.

Lots 11 and 12

Lots 11 and 12 have second growth forest covered western portions and logged eastern portions. King Creek traverses near the eastern property line of both Lots. Both Lots have exposed barren bedrock topographic highs that the proposed building sites are located atop. Bedrock displays no evidence of large-scale joints or fractures, but some small < 0.3 m diameter boulder material was observed atop the exposed rock.

Tree and grass covered slopes measured at 15 degrees from horizontal are present flanking King Creek which at this location is roughly 2 – 4 m wide and 0.5 m deep and contains abundant logs and vegetation.

Lot 13

Terrain on Lot 13 is like that observed on Lots 14 to 18 with mostly open bedrock slopes devoid of tree cover but with abundant remnant logging debris strewn across the Lot. The proposed building site is located atop the bedrock knoll at a closed topographic contour.

Lot 14

Lot 14 building site is located on an undulating bedrock knoll which has been logged. We observed a northeast-southwest trending joint set developed in exposed bedrock creating vertical bedrock slopes roughly 0.5 – 1 m in height. There was some weathered bedrock colluvium present at the base of these slopes up to 0.4 m in diameter. The lot slopes gently to the southeast toward a valley which drains off the property line. Soils exposed in an excavation on site consist of very dense to hard brown gravelly silt with some cobbles.

Lots 15, 16 and 17

Lots 15, 16 and 17 are in the southeast portion of the proposed subdivision block. All lots are characterized by mostly open barren bedrock slopes which form either topographic highs or are on bedrock ridges. There is some sparse second growth tree cover on Lot 16 and 17 and abundant vegetation and felled tree debris across all three lots. Exposed bedrock comprised dark grey to black fine grained igneous rock which in places formed sub vertical bedrock slopes between 2 – 4 m in height. We observed a preferential alignment of these bedrock ridges along a primary joint set which strikes northeast – southwest and a secondary joint set developed at 90 degrees to this primary joint direction. Where soil was developed on these Lots it was generally < 1 m thick, comprised of dark brown gravelly silt and with abundant bedrock colluvium in the form of boulders up to roughly 0.6 m in diameter.

Making a difference...together

DV000089

[redacted] February 11, 2022
Section 41, Clark Road – Otter District, BC

We observed a northwest – southeast trending valley approximately 15 m in depth separating Lots 15 and 16. There was no stormwater flow observed within this valley and note it is located at a drainage divide with water likely to flow to the southeast across the property line.

Lot 18

Lot 18 was accessed via a secondary gravel logging road which connects to Road 'A'. The proposed building location was observed toward the base of a slope measured at 27 degrees from horizontal. We observed a veneer of native gravelly silt soils atop bedrock on these slopes and with abundant bedrock colluvium. Cutslopes in soil for the gravel access road are 1.5 m high on the upslope side of the road. At the southern portion of Lot 18 we observed some surficial stormwater flow downslope into a natural valley that continues south across the southern property line.

King Creek

King Creek enters the property near the northeast property line and flows in a southwesterly direction with a generally low gradient stream profile. We observed King Creek at several locations within the property bounds, as shown on the site plan. At these locations King Creek was approximately 3 – 4 m wide with a moderate turbulent flow between 0.2 to 0.4 m water depth. The channel base contained sand, gravel and some bedrock colluvium roughly 150 mm in diameter. In location #19 the creek was heavily vegetated and contained fallen trees. At location #20 King Creek flows through a 2.1 m diameter culvert placed in preparation for a proposed road crossing. We observed bedrock rip rap up to 0.5m in diameter placed up and downstream of the culvert. Bank height is between 0.5 and 1.5 m in height and generally sloped at 2H:1V. Banks on both sides of King Creek were observed to be well vegetated with ferns, shrubs and second growth cedar. Water flow was low to moderate and there was no evidence of incision within the creek channel.

SURFACE AND SUBSURFACE CONDITIONS

Bedrock geology mapping of the area by the BC Ministry of the Environment indicates that bedrock consists of volcanic and intrusive igneous rocks of the Metchosin Igneous Complex, namely basalts and dioritic to gabbroic intrusives. Surficial Geology of the Sooke Area maps by the Geological Survey Branch of the BC Ministry of Energy, Mines and Petroleum Resources indicates the parcel is characterized by a blanket (>1 m) of till deposited directly by glaciers, generally well compacted material with variable structure and texture. Bedrock topographic highs to the east and west of the parcel are mapped as consisting of a veneer of bedrock colluvium overlying bedrock. We observe on the maps that morainal ridges of till left by retreating glacial ice are oriented northeast southwest.

This mapping is consistent with our observations on site. Exposed bedrock outcrop comprised dark grey to black fine grained crystalline igneous rock (basalt). At several localities we observed that exposed bedrock was 'polished' to a clean well-rounded morphology, indicative of ice movement across the bedrock surface. Soils exposed in test pits on the parcel and in cutslopes along gravel logging roads consisted of very dense brown gravelly silt with bedrock colluvium cobbles which we consider is glacial till and has been well compacted due to the weight of overlying ice during

Ryzuk Geotechnical Page 6

9

Making a difference...together

DV000089

deposition.

We observe a large north-south contact between the Metchosin Igneous rocks and Carmanah Group Sedimentary rocks on geology maps and on satellite imagery approximately 1.5 km to the west of the parcel. Otherwise, there are no large-scale structural elements on the geology maps we reviewed that would significantly affect the parcel. This is consistent with our site observations of no obvious faulting or apparent abrupt changes in rock type indicative of large-scale structures. We consider that the massive, dense and unstructured nature of the bedrock observed on the parcel is indicative of very low potential for global bedrock failure.

Topographic data from the CRD online mapping tool shows closed topographic contours (170 m and 140 m geodetic) at bedrock highs on the west side of the parcel. The 165 m geodetic contour closes at a linear bedrock ridge at the northeast corner of the parcel. In the south central area the 135 m contour line closes at a localized bedrock high and off the eastern property line is a large topographic high with the 190 m contour closed at the top.

Available BC Government LiDAR digital elevation model imagery covers the southwest corner of the parcel. Review of such images shows features indicative of bedrock outcrop dissected by a network of surface drainage channels. We observed the main drainage system that traverses the property on LiDAR and note that this drainage is largely controlled by bedrock outcrop. We also note on LiDAR and available topographic maps that the drainage system continues south of the parcel across flatter topography before draining into the Juan De Fuca Strait roughly 2.7 km to the south.

Review of available groundwater well data from the BC Water Resources database indicates there are two wells drilled immediately offsetting the parcel. The well located approximately 0.5 km to the west intersected dark grey bedrock at 3.5 m beneath sandy and silty till soil. Static water level in the well was recorded at 2.6 m BGL. In the well drilled approximately 0.7 km to the east of the parcel, volcanic bedrock was encountered 2 m below unidentified soil. This is consistent with our observations on site of a thin till based soil developed above volcanic bedrock.

GEOTECHNICAL ASSESSMENT & RECOMMENDATIONS

Overall, we did not observe any imminent or potential geohazards that would preclude development of the site as proposed, provided such is undertaken in accordance with the recommendations presented below. The dense native soils or intact bedrock encountered within the site are considered stable and suitable for long term support of residential structures and associated infrastructure.

Geohazard Assessment

Based on our review of the Proposed Subdivision Status Letter, we understand that the Approving Authority (MOTI) considers that for the purposes of the landslide and the corresponding Appendix D statements, the Province of British Columbia does not have an adopted level of landslide safety. However, they have indicated that when considering risk from an event based on its probability of occurrence, the qualified professional must distinguish between damaging events and life-threatening events. For damaging events, a probability of occurrence of 1 in 475 years (10% probability in 50

Making a difference...together

DV000089

[redacted] February 11, 2022
Section 41, Clark Road – Otter District, BC

years) should be considered for landslide hazards. Such events may result in adverse consequences to the subject property that may be reduced through mitigative measures but are not considered to be capable of destroying residential buildings or infrastructure.

Based on our review of topographic maps we observe that the slopes beyond the property boundary to the north and east are relatively benign sloped at roughly 2H:1V or less. The bedrock is comprised of massive volcanic rock with no large-scale faulting or structuring or pervasive jointing that would indicate future potential for global instability. We would consider geohazard from landslip or avalanche beyond the property bounds to be very low.

We observed steep rock slopes locally on exposed bedrock knolls within the parcel but with minimal rockfall material at the base of such slopes. In general, the proposed building sites as per the attached subdivision plan are located atop topographic highs or ridges. We recommend that during subdivision preparation any loosened bedrock material which may be considered a rockfall hazard be cleared during earthworks and that during the construction phase steep rock slopes created during individual lot preparation should be inspected by a geotechnical professional at that time.

We consider that the veneer of very dense native soils observed on site have high friction angles and have undergone densification under the weight of receding glaciers. Shallower slopes on the parcel with soil development are not likely to be prone to failure because of the soil composition. There are some over steepened soil and rock cuts present along existing gravel access roads which are not considered globally unstable but may be prone to surficial ravelling or ongoing erosion. These areas could be addressed in one of two ways: accepted as an ongoing maintenance item; or, addressed in the course of subdivision preparation (civil servicing and associated earthworks) either by flattening to a stable angle, or armouring with an appropriately designed riprap or retaining structure. Where slopes are left as is, and proposed civil infrastructure or buildings coincide with these slopes, recommendations of a geotechnical professional should be followed.

Flood Hazard Assessment

Based on our review of available topographic maps, limited LiDAR imagery and observations during our site reconnaissance we consider that the valley occupied by King Creek traverses the parcel and follows a mostly well defined path generally controlled by bedrock outcrop. The creek has a low gradient profile and flows across dense brown till based soils with no indications of incision or erosional downcutting into the creek substrate. We observed no steep scarps or erosional undercutting of the creek banks. The active creek channel is maximum 4 m wide based on our observations in the field and in places has room to migrate across the enclosing valley for perhaps 20 m across the valley floor. Beyond the valley floor bedrock topography would limit lateral migration of the active channel.

We note that in November 2021 the Sooke and Victoria areas recorded a 24-hour rainfall event whose rainfall amount was greater than the 100-yr return period amount for the region. Presumably the small catchment area that feeds King Creek (approximately 160 Hectares) also experienced this greater than 100-yr return period rainfall. We did not observe stormwater transported vegetation or colluvium up the creek banks beyond the 'normal' flow height. Nor did we observe erosional

Ryzuk Geotechnical Page 8

11

Making a difference...together

DV000089

removal of the creek bank vegetation on creek sides. Based on these observations we consider that the active channel width and depth can accommodate the 100-yr return period stormwater flow and with some redundancy. Additionally, we observed that proposed building sites on lots 7, 8, 9, 10, 11, 12, 13, 14, 15 and 16 which are situated either side of the main tributary of King Creek are positioned upslope at a minimum 5 m vertical offset from the creek. In most cases the building sites are located greater than 10 m vertical offset from the creek elevation.

We consider that the shallow bedrock occurrence on the parcel would limit infiltration of stormwater. Consequently, the smaller tributaries and trickling overland flow we observed on the parcel may be seasonal or intermittent and during the wet season actively feed King Creek. The flow in these smaller tributaries and rivulets was very low, generally less than 100 mm deep and in some cases with no defined channel edges indicative of their non-permanent state. We consider that during subdivision preparation and construction a stormwater plan be developed to manage such and is discussed further under stormwater considerations.

Based on the above, we consider the noted drainage channel to be suitable for conveying flow generated during a 200-year storm event. As such, given the results of our analysis we do not consider the proposed development to be subject to flooding hazard with a probability of occurrence of 1 in 200 years, assuming no land usage changes in the catchment.

Safe Building Sites

Based on the above, we consider the building areas described herein and shown on the attached drawing to be safe from large scale geohazard and that residential construction can be carried out safely on each of the proposed Lots 1 through 18 provided our recommendations are followed. We were not able to access the proposed building sites on Lots 4, 5 and 6 however based on our general observations on the parcel and the proposed locations being at topographically high positions on their respective lots we consider there to be low risk of geohazard or flood at these locations.

Accordingly, we consider the land may be used safely for the use intended, that being subdivision and single-family residential construction undertaken in accordance with the current BC Building Code and pursuant to our recommendations contained herein. Our assessment is provided in consideration of Section 86(d) and 219 of the Land Title Act, pursuant to the Guidelines for Legislated Landslide Assessments for Proposed Residential Developments in BC.

Our assessment has considered a safe building site to be that which is free from hazard or has a low hazard of landslide and is considered safe from a damaging event with a 10% probability of exceedance in 50 years, as well as from seismically induced slope instability associated with a design event having a 2% probability of exceedance in 50 years.

MOTI indicates that where life threatening catastrophic events are known as potential natural hazard to a building lot the Qualified Professional is to consider events having a probability of occurrence of 1 in 10,000 years and should identify areas beyond the influence of these extreme events. In attempting to address the 1:10,000 year event, we note that there is no peak ground acceleration data for a design event with a 0.5% in 50 year return period. Additionally, in

Making a difference...together

DV000089

[redacted] February 11, 2022
Section 41, Clark Road – Otter District, BC

consideration of a flood event, the available short duration rainfall intensity curves from Environment Canada model return periods up to 100 years and when considering climate related sea-level rise the Provincial guidelines project out to the year 2100.

Designing for the 1:10,000 year hazard event is difficult given the timelines for model input data are typically limited to within an approximately 100 year period. In addition, we propose that the intermittent occupancy of a residential structure should be considered when addressing a potential natural hazard having a probability of occurrence of 1 in 10,000 years and that the design life of a residential structure is approximately 75 years.

Based on our observations in the field of mostly thin very dense till based soils with high friction angle atop unstructured massive hard bedrock and a low gradient creek channel which drains a relatively small catchment area and proposed building sites that are positioned in vertically high positions above the creek flow, we expect that the building sites indicated within the proposed subdivision would be beyond the influence of such an extreme event.

We consider the building sites as documented on the attached drawings are safe from geohazard and flood hazard and are safe for residential construction. We expect that other sites within each proposed Lot can be used safely for the use intended but such would require further geotechnical review at the time of development and that this requirement should be documented within a covenant for the proposed subdivision.

Building locations should be prepared by removal of all topsoil/organics and loose/disturbed soil or rock to expose undisturbed native soils or intact bedrock. Where foundations are proposed on bedrock that is sloping greater than approximately 10 degrees from horizontal and not naturally keyed, such should either be chipped level, or foundations dowelled into intact bedrock to resist sliding. The specification for this, if necessary, is typically provided at the time of construction based on review of the specific conditions exposed. Excavation cutslopes should be carried out in conformance with WorkSafeBC criteria, or as per professional review.

Stormwater Considerations

A stormwater management plan for the proposed development should be designed by others. We expect the silt and gravel-based soils observed within the site may suitable for in-ground disposal of stormwater and we can provide further input if/as desired. We recommend appropriate perimeter drainage be provided such as but not limited to conventional perimeter foundation drainage, to prevent buildup of hydrostatic pressure upon foundation walls.

CLOSING

This report has been prepared for the exclusive use of our client and authorized representatives. The Ministry of Transportation and Infrastructure and the Capital Regional District may also rely on this report for the sole purpose of the current subdivision application. The report may be included as a notation on title if required. Any use of this report by a third party, or any reliance on or decisions to be made based on it are the responsibility of such third parties.

Ryzuk Geotechnical Page 10

CRD
Making a difference...together

DV000089

[redacted] February 11, 2022
Section 41, Clark Road – Otter District, BC

We trust the preceding is suitable for your purposes at present. If you have any questions, or require anything further, please do not hesitate to contact us.

Yours very truly,
Ryzuk Geotechnical

PROFESSIONAL PROVINCE OF A. G. GRIMISON 29749341 BRITISH COLUMBIA GEOSCIENTIST

Tony Grimison, P.Geo.
Geoscientist

Association of Professional Engineers and Geoscientists of the Province of British Columbia A. R. JACKSON ENGINEERING LICENSEE Limited Licence 38270

Andrew Jackson, P.Geo., P.L.Eng.
Lead Geoscientist / Engineering Licensee

Attachments –
Site Plan - Regional Location of Proposed Subdivision Parcel
Tentative Plan of Subdivision – J.E. Anderson & Associates
Site Plan – Parcel Subdivision, Topography and Photo Locations
Photo Log – Images Captured by Ryzuk Geotechnical January 21, 2022
Appendix D: Landslide Assessment Assurance Statement
Appendix I: Flood Assurance Statement

Ryzuk Geotechnical Page 11

Making a difference...together

DV000089

References

Guthrie, Richard. (2005). Geomorphology of Vancouver Island: Extended Legends to Nine Thematic Maps. 10.13140/RG.2.1.3411.8640.

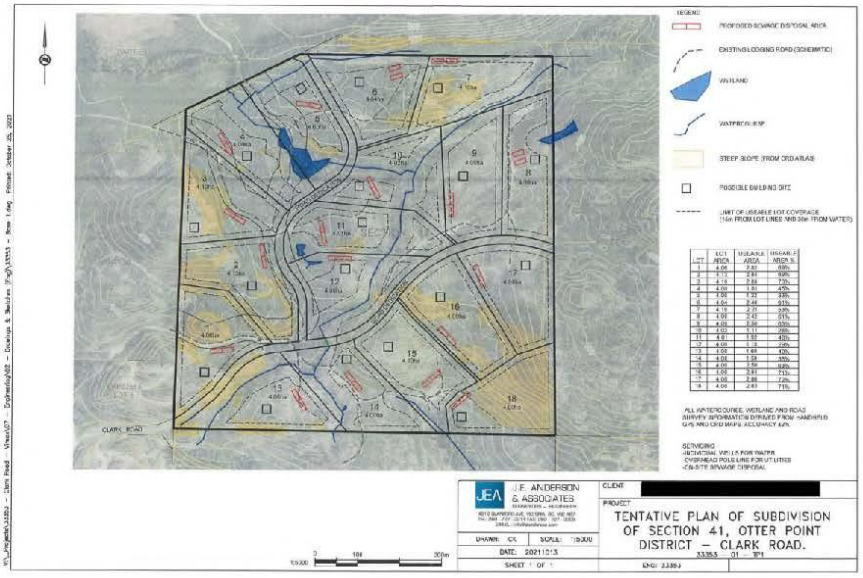
H.E. Blyth, N.W. Rutter 1993. *Surficial Geology of the Spoke Area 1993-25*. British Columbia Geological Survey.

BC Water Resources Atlas (2022) Groundwater Wells. https://maps.gov.bc.ca/ess/hm/wrbc/

Province of British Columbia, Ministry of Forests, Lands, Natural Resource Operations and Rural Development. Open LiDAR Data Portal https://governmentofbc.maps.arcgis.com/apps/MapSeries/index.html?appid=d06b37979b0c4709b7fcf2a1ed458e03

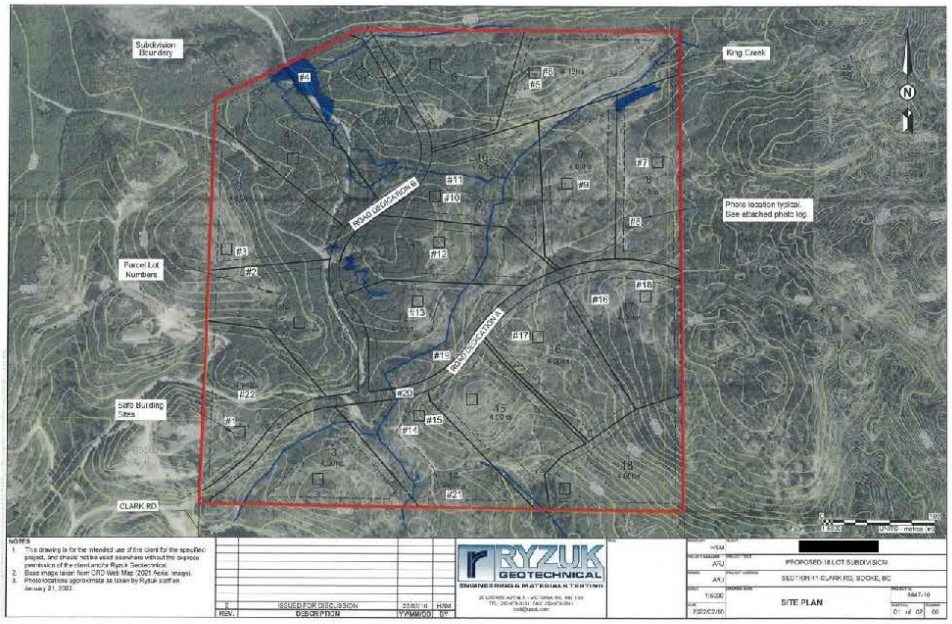
Making a difference...together

DV000089



Making a difference...together

DV000089



CRD
Making a difference...together

DV000089

RYZUK GEOTECHNICAL
ENGINEERING & MATERIALS TESTING
Practical. Innovative. Experienced.

Project: Proposed 18 Lot Subdivision
Client: [redacted]

Date of Site Visit: January 21, 2022
Location: Clarke Road, Otter Point, BC

Inspector: TGG/ARJ
Ryzuk Job Number: 8447-10

Photographic Log

Photo 1 – Looking from the proposed building site on Lot 1 atop an exposed rounded bedrock high to the west.

Page 1 of 22

Making a difference...together

DV000089

Photo 2 – Looking southeast toward proposed building site on Lot 2, shallow soils supporting pine tree growth atop shallow bedrock

Page 2 of 22

19

Making a difference...together

DV000089

Photo 3 – Exposed weathered bedrock knoll at the proposed Lot 3 Building Site – looking east

Page 3 of 22

20

Making a difference...together

DV000089

Photo 4 – Shallow drainage course which flows under the gravel road between proposed Lots 4 and 5

Page 4 of 22

21

Making a difference...together

DV000089

Photo 5 – Proposed building site at Lot 7 located atop a local topographic high. A veneer of till based soil was observed atop bedrock. A thin cover of grass and juvenile pine trees were observed at this location.

Page 5 of 22

22

Making a difference...together

DV000089

Photo 6 – Looking south from topographic high on Lot 7 downslope across a gravel logging road and the King Creek Valley toward Lot 9.

Page 6 of 22

23

Making a difference...together

DV000089

Photo 7 – Shallow slopes on proposed Building Site on Lot 8, shallow soils covering dense, fine grained crystalline bedrock.

Page 7 of 22

24

Making a difference...together

DV000089

Photo 8 – Shallow surface water run-off flowing west on Lot 8 toward Road 'A'

Page 8 of 22

25

Making a difference...together

DV000089

Photo 9 – Native dense brown silty gravelly soil exposed at the Proposed Building Site on Lot 9.

Page 9 of 22

26

Making a difference...together

DV000089

Photo 10 – Shallow sloping grass covered Building Site on Lot 10

Page 10 of 22

27

Making a difference...together

DV000089

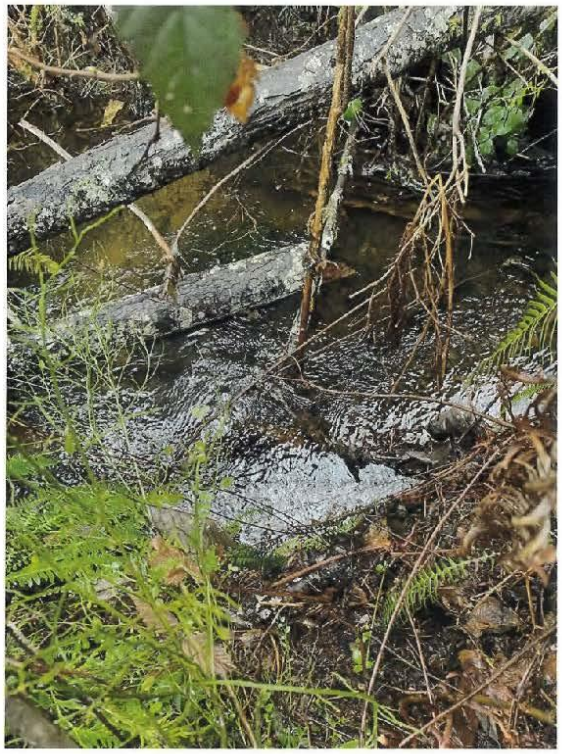


Photo 11 – Small drainage course roughly 1.5 m wide with water flowing east toward King Creek approximately 0.3 m deep

Page 11 of 22

28

Making a difference...together

DV000089

Photo 12 – Lot 11 Proposed Building Site atop an exposed bedrock knoll looking across the King Creek Valley to the east

Making a difference...together

DV000089

Photo 13 – Lot 12 Proposed Building Site on barren exposed bedrock high. Some small bedrock boulders observed at the base of the bedrock knoll.

Page 13 of 22

30

Making a difference...together

DV000089

Photo 14 – Looking west from Proposed Building Site on Lot 14 toward Building Site on Lot 13

Page 14 of 22

31

Making a difference...together

DV000089

Photo 15 – Lot 14 Proposed Building Site generally flat exposed bedrock high with small sub-vertical slopes at edges

Page 15 of 22

32

Making a difference...together

DV000089

Photo 16 – Looking toward Lots 15 and 16 from propoerty line on Lot 17 –open logged bedrock slopes typical of the parcel

Page 16 of 22

33

Making a difference...together

DV000089

Photo 17 – Typical rounded weathering profile of bedrock exposed on Lots 15, 16 and 17

Page 17 of 22

34

Making a difference...together

DV000089

Photo 18 – Lot 17 Proposed Building Site on barren exposed bedrock high looking north across the subdivision parcel

Page 18 of 22

35

Making a difference...together

DV000089

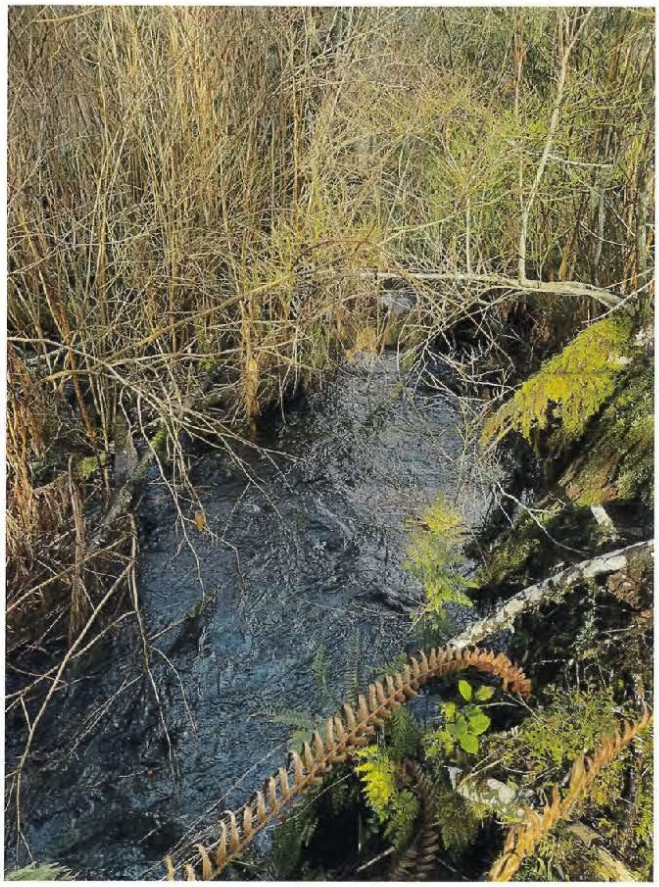


Photo 19 – View of King Creek on Lot 12 creek is approximately 3-4 m wide with water depth roughly 0.3 m

Page 19 of 22

36

Making a difference...together

DV000089

Photo 20 – View of King Creek adjacent to Lot 14. Flow depth is roughly 0.3 m with a creek base of sand and gravel and with some rip-rap placed upstream of a culvert placed beneath proposed roadway 'A'.

Page 20 of 22

37

Making a difference...together

DV000089

Photo 21 – Typical soil exposure on site of brown very dense gravelly silt (till)

Page 21 of 22

38

Making a difference...together

DV000089

Photo 22 – Vertical bedrock slopes observed within Lot 1 adjacent to a gravel entrance road

Page 22 of 22

39

CRD
Making a difference...together

DV000089

APPENDIX D: *LANDSLIDE ASSESSMENT ASSURANCE STATEMENT*

Note: This Statement is to be read and completed in conjunction with the "*APEGBC Guidelines for Legislated Landslide Assessments for Proposed Residential Development in British Columbia*", March 2006/Revised September 2008 ("*APEGBC Guidelines*") and the "2006 BC Building Code (BCBC 2006)" and is to be provided for *landslide assessments* (not floods or flood controls) for the purposes of the Land Title Act, Community Charter or the Local Government Act. Italicized words are defined in the *APEGBC Guidelines*.

To: The *Approving Authority* Date: February 11, 2022

Ministry of Transportation and Infrastructure, Saanich Area Office

240-4460 Chatterton Way, Victoria, BC V8X 5J2

Jurisdiction and address

With reference to (check one):

- ☑ Land Title Act (Section 86) – Subdivision Approval
- ☐ Local Government Act (Sections 919.1 and 920) – Development Permit
- ☐ Community Charter (Section 56) – Building Permit
- ☐ Local Government Act (Section 910) – Flood Plain Bylaw Variance
- ☐ Local Government Act (Section 910) – Flood Plain Bylaw Exemption
- ☐ British Columbia Building Code 2006 sentences 4.1.8.16 (8) and 9.4.4.4.(2) (Refer to BC Building and Safety Policy Branch Information Bulletin B10-01 issued January 18, 2010)

For the Property: 1161333, 377009 Section 41, Otter District

Legal description and civic address of the Property

The undersigned hereby gives assurance that he/she is a *Qualified Professional* and is a *Professional Engineer* or *Professional Geoscientist*.

I have signed, sealed and dated, and thereby certified, the attached *landslide assessment* report on the Property in accordance with the *APEGBC Guidelines*. That report must be read in conjunction with this Statement. In preparing that report I have:

Check to the left of applicable items

- ☑ 1. Collected and reviewed appropriate background information
- ☐ 2. Reviewed the proposed *residential development* on the Property
- ☑ 3. Conducted field work on and, if required, beyond the Property
- ☑ 4. Reported on the results of the field work on and, if required, beyond the Property
- ☑ 5. Considered any changed conditions on and, if required, beyond the Property
- 6. For a *landslide hazard analysis* or *landslide risk analysis* I have:
  - ☑ 6.1 reviewed and characterized, if appropriate, any *landslide* that may affect the Property
  - ☑ 6.2 estimated the *landslide hazard*
  - ☐ 6.3 identified existing and anticipated future *elements at risk* on and, if required, beyond the Property
  - ☐ 6.4 estimated the potential *consequences* to those *elements at risk*
- 7. Where the *Approving Authority* has adopted a *level of landslide safety* I have:
  - ___ 7.1 compared the *level of landslide safety* adopted by the *Approving Authority* with the findings of my investigation
  - ___ 7.2 made a finding on the *level of landslide safety* on the Property based on the comparison
  - ___ 7.3 made recommendations to reduce *landslide hazards* and/or *landslide risks*
- 8. Where the *Approving Authority* has **not** adopted a *level of landslide safety* I have:

CRD
Making a difference...together

DV000089

☑ 8.1 described the method of *landslide hazard analysis* or *landslide risk analysis* used
☑ 8.2 referred to an appropriate and identified provincial, national or international guideline for *level of landslide safety*
☑ 8.3 compared this guideline with the findings of my investigation
☑ 8.4 made a finding on the *level of landslide safety* on the Property based on the comparison
☑ 8.5 made recommendations to reduce *landslide hazards* and/or *landslide risks*
☐ 9. Reported on the requirements for future inspections of the Property and recommended who should conduct those inspections

Based on my comparison between

Check one
☐ the findings from the investigation and the adopted *level of landslide safety* (Item 7.2 above)
☑ the appropriate and identified provincial, national or international guideline for *level of landslide safety* (item 8.4 above)

I hereby give my assurance that, based on the conditions[1] contained in the attached *landslide assessment* report,

Check one
☑ for subdivision approval, as required by the Land Title Act (Section 86), "that the land may be used safely for the use intended"

Check one
☑ with one or more recommended registered covenants.
☐ without any registered covenant.

☐ for a development permit, as required by the Local Government Act (Sections 919.1 and 920), my report will "assist the local government in determining what conditions or requirements under [Section 920] subsection (7.1) it will impose in the permit".

☐ for a building permit, as required by the Community Charter (Section 56), "the land may be used safely for the use intended"

Check one
☐ with one or more recommended registered covenants.
☐ without any registered covenant.

☐ for flood plain bylaw variance, as required by the "Flood Hazard Area Land Use Management Guidelines" associated with the Local Government Act (Section 910), "the development may occur safely".

☐ for flood plain bylaw exemption, as required by the Local Government Act (Section 910), "the land may be used safely for the use intended".

Anthony Grimison, P.Geo.
Name (print)

February 11, 2022
Date

Signature

[1] When seismic slope stability assessments are involved, *level of landslide safety* is considered to be a "life safety" criteria as described in the National Building Code of Canada (NBCC 2005) Commentary on Design for Seismic Effects in the User's Guide, Structural Commentaries Part 4 of Division B. This states:

"The primary objective of seismic design is to provide an acceptable level of safety for building occupants and the general public as the building responds to strong ground motion; in other words, to minimize loss of life. This implies that, although there will likely be extensive structural and non-structural damage, during the DGM (design ground motion), there is a reasonable degree of confidence that the building will not collapse nor will its attachments break off and fall on people near the building. This performance level is termed 'extensive damage' because, although the structure may be heavily damaged and may have lost a substantial amount of its initial strength and stiffness, it retains some margin of resistance against collapse".

Making a difference...together

DV000089

40 Cadillac Avenue - Victoria, BC
Address
V8Z 1S3
250-475-3131
Telephone

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA A. G. GRIMSON 207 #49341 GEOSCIENTIST
(Affix Professional seal here)
PM 1002996

If the *Qualified Professional* is a member of a firm, complete the following.

I am a member of the firm Ryzuk Geotechnical
and I sign this letter on behalf of the firm. (Print name of firm)

CRD
Making a difference...together

DV000089

FLOOD ASSURANCE STATEMENT

Note: This statement is to be read and completed in conjunction with the current Engineers and Geoscientists BC *Professional Practice Guidelines – Legislated Flood Assessments in a Changing Climate in BC* ("the guidelines") and is to be provided for flood assessments for the purposes of the *Land Title Act*, Community Charter, or the *Local Government Act*. Defined terms are capitalized; see the Defined Terms section of the guidelines for definitions.

To: The Approving Authority — Date: February 11, 2022

Ministry of Transportation and Infrastructure, Saanich Area Office

240-4460 Chatterton Way, Victoria, BC V8X 5J2

Jurisdiction and address

With reference to (CHECK ONE):

- ☑ *Land Title Act* (Section 86) – Subdivision Approval
- ☐ *Local Government Act* (Part 14, Division 7) – Development Permit
- ☐ Community Charter (Section 56) – Building Permit
- ☐ *Local Government Act* (Section 524) – Flood Plain Bylaw Variance
- ☐ *Local Government Act* (Section 524) – Flood Plain Bylaw Exemption

For the following property ("the Property"):

Map 1161333, 377009 Section 41, Otter District, BC (Section 41 Clarke Road Otter District, BC)

Legal description and civic address of the Property

The undersigned hereby gives assurance that he/she is a Qualified Professional and is a Professional Engineer or Professional Geoscientist who fulfils the education, training, and experience requirements as outlined in the guidelines.

I have signed, sealed, and dated, and thereby certified, the attached Flood Assessment Report on the Property in accordance with the guidelines. That report and this statement must be read in conjunction with each other. In preparing that Flood Assessment Report I have:

[CHECK TO THE LEFT OF APPLICABLE ITEMS]

- ☐ 1. Consulted with representatives of the following government organizations:
- ☑ 2. Collected and reviewed appropriate background information
- ☐ 3. Reviewed the Proposed Development on the Property
- ☐ 4. Investigated the presence of Covenants on the Property, and reported any relevant information
- ☑ 5. Conducted field work on and, if required, beyond the Property
- ☑ 6. Reported on the results of the field work on and, if required, beyond the Property
- ☑ 7. Considered any changed conditions on and, if required, beyond the Property
- 8. For a Flood Hazard analysis I have:
  - ☑ 8.1 Reviewed and characterized, if appropriate, Flood Hazard that may affect the Property
  - ☑ 8.2 Estimated the Flood Hazard on the Property
  - ☐ 8.3 Considered (if appropriate) the effects of climate change and land use change
  - ☐ 8.4 Relied on a previous Flood Hazard Assessment (FHA) by others
  - ☐ 8.5 Identified any potential hazards that are not addressed by the Flood Assessment Report
- 9. For a Flood Risk analysis I have:
  - ☐ 9.1 Estimated the Flood Risk on the Property
  - ☐ 9.2 Identified existing and anticipated future Elements at Risk on and, if required, beyond the Property
  - ☐ 9.3 Estimated the Consequences to those Elements at Risk

CRD
Making a difference...together

DV000089

FLOOD ASSURANCE STATEMENT

10. In order to mitigate the estimated Flood Hazard for the Property, the following approach is taken:
- ☐ 10.1 A standard-based approach
- ☐ 10.2 A Risk-based approach
- ☐ 10.3 The approach outlined in the guidelines, Appendix F: Flood Assessment Considerations for Development Approvals
- ☑ 10.4 No mitigation is required because the completed flood assessment determined that the site is not subject to a Flood Hazard

11. Where the Approving Authority has adopted a specific level of Flood Hazard or Flood Risk tolerance, I have:
- ☐ 11.1 Made a finding on the level of Flood Hazard or Flood Risk on the Property
- ☐ 11.2 Compared the level of Flood Hazard or Flood Risk tolerance adopted by the Approving Authority with my findings
- ☐ 11.3 Made recommendations to reduce the Flood Hazard or Flood Risk on the Property

12. Where the Approving Authority has not adopted a level of Flood Hazard or Flood Risk tolerance, I have:
- ☑ 12.1 Described the method of Flood Hazard analysis or Flood Risk analysis used
- ☑ 12.2 Referred to an appropriate and identified provincial or national guideline for level of Flood Hazard or Flood Risk
- ☑ 12.3 Made a finding on the level of Flood Hazard of Flood Risk tolerance on the Property
- ☑ 12.4 Compared the guidelines with the findings of my flood assessment
- ☐ 12.5 Made recommendations to reduce the Flood Hazard or Flood Risk

13. ☐ Considered the potential for transfer of Flood Risk and the potential impacts to adjacent properties

14. ☐ Reported on the requirements for implementation of the mitigation recommendations, including the need for subsequent professional certifications and future inspections.

Based on my comparison between:

[CHECK ONE]

- ☐ The findings from the flood assessment and the adopted level of Flood Hazard or Flood Risk tolerance (item 11.2 above)
- ☑ The findings from the flood assessment and the appropriate and identified provincial or national guideline for level of Flood Hazard or Flood Risk tolerance (item 12.4 above)

I hereby give my assurance that, based on the conditions contained in the attached Flood Assessment Report:

[CHECK ONE]

- ☑ For subdivision approval, as required by the *Land Title Act* (Section 86), "that the land may be used safely for the use intended":

  [CHECK ONE]
  - ☐ With one or more recommended registered Covenants.
  - ☑ Without any registered Covenant.
- ☐ For a development permit, as required by the *Local Government Act* (Part 14, Division 7), my Flood Assessment Report will "assist the local government in determining what conditions or requirements it will impose under subsection (2) of this section [Section 491 (4)]".
- ☐ For a building permit, as required by the Community Charter (Section 56), "the land may be used safely for the use intended":

  [CHECK ONE]
  - ☐ With one or more recommended registered Covenants.
  - ☐ Without any registered Covenant.
- ☐ For flood plain bylaw variance, as required by the *Flood Hazard Area Land Use Management Guidelines* and the *Amendment Section 3.5 and 3.6* associated with the *Local Government Act* (Section 524), "the development may occur safely".
- ☐ For flood plain bylaw exemption, as required by the *Local Government Act* (Section 524), "the land may be used safely for the use intended".

PROFESSIONAL PRACTICE GUIDELINES
LEGISLATED FLOOD ASSESSMENTS IN A CHANGING CLIMATE IN BC

VERSION 2.1 166

CRD
Making a difference...together

DV000089

FLOOD ASSURANCE STATEMENT

I certify that I am a Qualified Professional as defined below.

February 11, 2022
Date

Anthony Grimison, P.Geo.
Prepared by

Anthony Grimison
Name (print)

Signature

40 Cadillac Avenue, Victoria BC
Address
V8Z 1T2

2504753131
Telephone

tgrimison@ryzuk.com
Email

Andrew Jackson, P.Geo, P.L.Eng.
Reviewed by

Andrew Jackson
Name (print)

Signature

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
A. G. GRIMISON
49941
SCIENTIST
DM 1002996

(Affix PROFESSIONAL SEAL here)

If the Qualified Professional is a member of a firm, complete the following:

I am a member of the firm Ryzuk Geotechnical
and I sign this letter on behalf of the firm. (Name of firm)

PROFESSIONAL PRACTICE GUIDELINES
LEGISLATED FLOOD ASSESSMENTS IN A CHANGING CLIMATE IN BC

VERSION 2.1 167

45

Making a difference...together

DV000089

Appendix 3: Riparian Assessment Report

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Riparian Areas Protection Regulation: Assessment Report

Please refer to submission instructions and assessment report guidelines when completing this report.

Date: 2021-11-26

I. Primary QEP Information

First Name	Thomas	Middle Name			
Last Name	Roy				
Designation	R.P. Bio	Company	Cascadia Biological Services		
Registration #	1089	Email	cascadiabiolgical@shaw.ca		
Address	772 Goldstream Ave PO Box 27034				
City	Victoria	Postal/Zip	V9B 5S4	Phone #	250 888-4864
Prov/state	BC	Country	Canada		

II. Secondary QEP Information (use Form 2 for other QEPs)

First Name		Middle Name			
Last Name					
Designation		Company			
Registration #		Email			
Address					
City		Postal/Zip		Phone #	
Prov/state		Country			

III. Developer Information

First Name	[redacted]	Middle Name			
Last Name	[redacted]				
Company	[redacted]				
Phone #	[redacted]	Email	[redacted]		
Address	[redacted]				
[redacted]	Victoria	Postal/Zip	[redacted]		
Prov/state	BC	Country	Canada		

IV. Development Information

Development Type	Other: Subdivision: > 6 Single Family Lots		
Area of Development (ha)	0.32	Riparian Length (m)	2464
Lot Area (ha)	77	Nature of Development	New
Proposed Start Date	2021-12-01	Proposed End Date	2022-12-31

V. Location of Proposed Development

Street Address (or nearest town)	Otter Point							
Local Government	Juan de Fuca Electoral District			City	Sooke			
Stream Name	King Creek							
Legal Description (PID)	009497757			Region	CRD			
Stream/River Type	Stream			DFO Area	South Coast			
Watershed Code	930-027900							
Latitude	48	23	24	Longitude	123	49	15	

Insert that form immediately after this page.

Form 1 Page 1 of 46

46

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Table of Contents for Assessment Report

Page Number

1. Description of Fisheries Resources Values .....

2. Results of Riparian Assessment (SPEA width) .....

3. Site Plan .....

4. Measures to Protect and Maintain the SPEA
(detailed methodology only).
   1. Danger Trees.....
   2. Windthrow.....
   3. Slope Stability.....
   4. Protection of Trees.....
   5. Encroachment .....
   6. Sediment and Erosion Control.....
   7. Floodplain.....
   8. Stormwater Management.....

5. Environmental Monitoring .....

6. Photos .....

7. Assessment Report Professional Opinion .....

CRD
Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Section 1. Description of Fisheries Resources Values and a Description of the Development proposal

(Provide as a minimum: Species present, type of fish habitat present, description of current riparian vegetation condition, connectivity to downstream habitats, nature of development, specific activities proposed, timelines)

WSC - 930-027900

The purpose of this Riparian Areas Protection Regulation (RAPR) assessment is to determine RAPR assessment area boundaries as well as designated Streamside Protection and Enhancement Area (SPEA) zones for one parent property which measures approximately 76.51 hectares. The parent property is being subdivided into 18 4-hectare lots. The lots are located at an unnamed address in the municipality of Otter Point (CRD). From our assessment of the 18 lots, we have determined that there are numerous building sites and ample septic field areas for each of the lots. This includes ancillary development which can all be kept outside of the RAA within each individual lot. There will be no undue hardship applications made for any of the proposed lots as the total developable area far exceeds the maximum allowable footprint for each lot (refer to mapping and table). All proposed lots have building sites outside of the 30m RAA as well as driveway access not requiring stream crossings or intrusions into the RAA.

The subject property is relatively square, encompassing approximately 75 hectares and has a general southern aspect. The property is loosely bounded by Otter Point main to the North and West, Eaglecrest Drive to the East and a logged area undergoing development to the South. The property is largely dominated by third generation mixed coniferous and deciduous forests nearing the mid-successional stage. The property has a history of logging, quadding, motorcycling all using a wide network of logging roads. Our assessment of the subject property in early June to late August 2021, determined there were 5 watercourses that met the definition of a watercourse as identified by the Fish-Stream Identification Guidebook (1998). Stream #1 is the main stem which runs from the northeast corner to the center of the southern boundary of the property. The other streams enter stream #1 primarily from west to east with the southern tributaries entering outside of the property. Please refer to site plan for stream locations and names. All streams flow into King Creek.

Stream #1 Reach #1 (King Creek)
This 3rd order stream exits the property along the southwest corner of the study area and includes flows from six tributaries. It and all of the tributaries are considered fish bearing by default. With an average channel width of 6.76m and an average gradient of 6%, the stream morphology is considered cascade pool. The reach is approximately 400m in length and has a canopy closure is between 70-80% and is composed of older second-generation conifers as well as young mixed forest where previous logging has occurred. The understory vegetation varies with salmonberry, sword fern, skunk cabbage, bracken fern and sedges in the understory closest to the creek with evergreen huckle-berry and oceanspray as you move further up the reach. The stream channel is fairly defined with a substrate dominated by gravel and cobble.

Stream #2 Reach 1
This 2nd order stream enters Stream #1 along the northern boundary of the property. Measuring approximately 300m, the stream drains the largest wetland within our study area. With an average channel width of 3.40m and an average gradient of 5%, the stream morphology is considered cascade pool. The reach has a canopy closure between 65% and 80% and is composed of a mixed young forest as well as smaller polygons of older second generation conifers. The understory vegetation consists of salmonberry, sword fern, skunk cabbage, bracken fern and oceanspray. The stream channel is fairly defined with a substrate dominated by gravel and smaller fines in lesser concentrations.

Form 1 Page 3 of 46

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Stream #2 Reach 2
Reach 2 consists of a large headwater wetland consisting primarily of a mix of western red cedar, western hemlock, Douglas fir, alder, and bitter cherry. Currently most of the thermal regulation is provided by seasonal understory foliage. The wetland itself is dominated by sedges and hardhack with skunk cabbage and salmon berry being co-dominate. Open water was limited to approximately 10% of the entire wetland area. The water depth ranged from 0.25m to 0.78m in deeper areas. The wetland remains wetted for the entire year as water was observed in late July.

Stream #2 Reach 3
This headwater second order reach stream enters the property along the northwestern corner of the site. This stream flows down a southerly aspect with an average slope of 5%. The average bankfull width was 1.88m at the time of survey. As a result, it has been classified as a cascade-pool morphology. This area is thick with salal, sword fern and salmon berry. The canopy is a mix of alder and mixed conifers with an average closure of 60%. At the time of the survey the channel maintained 100% connectivity. The channel is generally well defined and the substrate is dominated by gravel, with cobble in the stepper areas.

Stream #3 Reach 1
This stream is all within a 15-20 year old clear-cut. It begins just below an old logging road in a small draw. This stream flow south-southwest , crosses a logging road and enters into Stream #2. The riparian area is highly composed of coniferous pole/saplings. The dominant understory plants are salmon berry and sword ferns. With a gradient of 5% and a bank-full (Wb) of 1.19m the streams morphological type is cascade-pool. The channels bed load is dominated by gravel and sand in stream and organics in the low gradient areas.

Stream #4 Reach 1
Stream #4 is a short 1st order stream segment within the confines of the property and originates in the lower southeastern corner of the property and soon exits along the same area. Measuring approximately 289m in length, the stream segment has an average bankfull channel width of 1.88m as well as an average gradient of 5% resulting in a cascade-pool morphology. The channels bed load is dominated by gravel and sand in stream and organics in the low gradient areas. The canopy is a mix of alder and mixed conifers with an average closure of 50%. At the time of the survey the channel maintained 100% connectivity.

Stream #5 Reach 1
This stream begins in a small draw in the lower southwestern corner of the subject property. This stream goes through a low gradient area of skunk cabbage and sedges before forming a small well developed stream channel. The average gradient of this stream is 9% and has a average bankfull width of 1.20m. The stream morphological type is classified as step-pool. The substrate is dominated by gravel with cobble in the steeper sections and sand and organics in the lower gradient areas. The canopy is of a pole sapling forest development stage with recent logging documented within the RAA within the last 10-15 years. At the time of the survey the stream showed approximately 75% connectivity.

Previous Disturbances Within the RAA

Our assessment of the property has resulted in the identification of several areas where historical logging has intruded into the RAA. It appears that select logging practices were employed within the property by the previous owner (Timberwest) within the last 10 years. As a result, we assessed whether the previously disturbed areas were adequately replanted or had been revegetated naturally. We determined that the regrowth in its present form is adequate as the vegetation is sufficiently densified and that the majority of

Form 1 Page 4 of 46

49

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

trees growing are in the 5-12 foot range. We expect this density and growth to result in the Proper Functioning Condition (PFC) of the SPEA within the next 5-10 years. No other plantings are required.

Note Addendum July 25 2022:

Most northerly proposed crossing is not being built at the moment as it is only a proposed RoW to lands beyond. The road at this location will stop 30m from the 1st order stream. There are no works proposed within steep unstable slopes associated with the road networks. All new plantings resulting from the C&IA will be protected from future works and disturbances by way of both temporary and permanent fencing as determined by the R.P. Bio.

Note: The 15m SFMZ has been put into place in order to add more of a riparian buffer to the creeks in hopes of an increase in future LWD recruitment

Form 1 Page 5 of 46

50

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Section 2. Results of Riparian Assessment (SPEA width)

2. Results of Detailed Riparian Assessment

Refer to Chapter 3 of Assessment Methodology

Date: 2021-11-26

Description of Water bodies involved (number, type)	1 Stream (S1R1)
Stream	#1
Wetland	
Lake	
Ditch	
Number of reaches	1
Reach #	1

Channel width and slope and Channel Type (use only if water body is a stream or a ditch, and only provide widths if a ditch)

	Channel Width(m)		Gradient (%)
starting point	5.63		
Upstream	6.75		
	7.21		8
	6.80		
	7.22		
Downstream	6.24		
	6.78		4
	7.01		
	7.22		
	8.78	High	
	6.06	Low	
Total: minus high flow	60.86		
Mean	6.76		6
	R/P	C/P	S/P
Channel Type		X	

I, Thomas Roy, hereby certify that:
a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
b) I am qualified to carry out the part of the assessment of the development proposal made by the developer [redacted]
c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report, and
d) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Site Potential Vegetation Type (SPVT)

	Yes	No	
SPVT Polygons		X	Tick yes only if multiple polygons, if No then fill in one set of SPVT data boxes

I, thomas roy, hereby certify that:
a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
b) I am qualified to carry out the part of the assessment of the development proposal made by the developer [redacted]
c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report, and
d) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Polygon No:	1			Method employed if other than TR
	LC	SH	TR	
SPVT Type			X	
Polygon No:				Method employed if other than TR

Form 1 Page 6 of 46

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

	LC	SH	TR	
SPVT Type				

Polygon No:		Method employed if other than TR
SPVT Type		

Zone of Sensitivity (ZOS) and resultant SPEA

Segment No:	1	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)	13.52							
Litter fall and insect drop ZOS (m)	15							
Shade ZOS (m) max	20.28	South bank	Yes	X	No			
Ditch	Justification description for classifying as a ditch (manmade, no significant headwaters or springs, seasonal flow)							
Ditch Fish Bearing	Yes		No		If non-fish bearing insert no fish bearing status report			
SPEA Maximum	20.28	(For ditch use table3-7)						

Segment No:	2	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)	13.52							
Litter fall and insect drop ZOS (m)	15							
Shade ZOS (m) max	20.28	South bank	Yes		No	X		
SPEA Maximum	20.28	(For ditch use table3-7)						

Segment No:		If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)								
Litter fall and insect drop ZOS (m)								
Shade ZOS (m) max		South bank	Yes		No			
SPEA Maximum		(For ditch use table3-7)						

I, Thomas Roy, hereby certify that:
a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
b) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted];
c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
d) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Comments

Segment 1 represents the left bank facing downstream. For the shade ZoS on Reach 1 of King Creek, we are using the 20.28m ZoS and projecting perpendicular to the creek on both sides as opposed to projecting the shade ZoS southerly (drag polygon) as it affords a larger

Form 1 Page 7 of 46

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

protected area.

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Section 2. Results of Riparian Assessment (SPEA width)

2. Results of Detailed Riparian Assessment

Refer to Chapter 3 of Assessment Methodology

Date: 2021-11-26

Description of Water bodies involved (number, type)	1 Stream (S2R1)
Stream	#2
Wetland	
Lake	
Ditch	
Number of reaches	3
Reach #	1

Channel width and slope and Channel Type (use only if water body is a stream or a ditch, and only provide widths if a ditch)

	Channel Width(m)		Gradient (%)
starting point	2.67		
Upstream	2.98		
	2.71		5
	2.79		
	2.95		
Downstream	4.09		
	4.34	High	
	2.56		4
	3.67		
	1.51	Low	
	3.33		
Total: minus high flow	27.75		
Mean	3.08		4.5
	R/P	C/P	S/P
Channel Type		X	

I, Thomas Roy, hereby certify that:
a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
f) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted]
g) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
h) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Site Potential Vegetation Type (SPVT)

	Yes	No	
SPVT Polygons		X	Tick yes only if multiple polygons, if No then fill in one set of SPVT date boxes

I, Thomas Roy, hereby certify that:
a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
f) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted]
g) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
h) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Polygon No:	1		
	LC	SH	TR
SPVT Type			X

Method employed if other than TR

Polygon No:			
	LC	SH	TR
SPVT Type			

Method employed if other than TR

Form 1 Page 9 of 46

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Polygon No:				Method employed if other than TR
SPVT Type				

Zone of Sensitivity (ZOS) and resultant SPEA

Segment No:	1	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)	10							
Litter fall and insect drop ZOS (m)	10							
Shade ZOS (m) max	9.24	South bank	Yes		No			
Ditch	Justification description for classifying as a ditch (manmade, no significant headwaters or springs, seasonal flow)							
Ditch Fish Bearing	Yes		No		If non-fish bearing insert no fish bearing status report			
SPEA Maximum	10	(For ditch use table3-7)						

Segment No:	2	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)	10							
Litter fall and insect drop ZOS (m)	10							
Shade ZOS (m) max	9.24	South bank	Yes		No	X		
SPEA Maximum	10	(For ditch use table3-7)						

Segment No:		If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)								
Litter fall and insect drop ZOS (m)								
Shade ZOS (m) max		South bank	Yes		No	X		
SPEA Maximum		(For ditch use table3-7)						

I, Thomas Roy, hereby certify that:
e) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
f) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted]
g) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
h) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Comments

Segment 1 represents the left bank facing downstream. SPEA being defaulted to 15m in order to add Fisheries Sensitive Zone (FSZ)

Form 1 Page 10 of 46

55

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

2. Results of Detailed Riparian Assessment

Refer to Chapter 3 of Assessment Methodology

Date: 2021-11-26

Description of Water bodies involved (number, type): 1 Stream (S2R2)

Stream	#2
Wetland	
Lake	
Ditch	
Number of reaches	3
Reach #	2

Channel width and slope and Channel Type (use only if water body is a stream or a ditch, and only provide widths if a ditch)

	Channel Width(m)		Gradient (%)
starting point			
Upstream			
Downstream			
Total: minus high flow			
Mean			
	R/P	C/P	S/P
Channel Type			

I, Thomas Roy, hereby certify that:
i) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
j) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted]
k) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
l) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Site Potential Vegetation Type (SPVT)

	Yes	No	
SPVT Polygons		X	Tick yes only if multiple polygons, if No then fill in one set of SPVT data boxes

I, Thomas Roy, hereby certify that:
i) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
j) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted]
k) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
l) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Polygon No:	1			Method employed if other than TR
	LC	SH	TR	
SPVT Type			X	
Polygon No:				Method employed if other than TR
	LC	SH	TR	
SPVT Type				

Form 1 Page 11 of 46

56

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Polygon No:				Method employed if other than TR	
SPVT Type					

Zone of Sensitivity (ZOS) and resultant SPEA

Segment No:	1	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)	15							
Litter fall and insect drop ZOS (m)	15							
Shade ZOS (m) max	15	South bank	Yes		No	X		
Ditch	Justification description for classifying as a ditch (manmade, no significant headwaters or springs, seasonal flow)							
Ditch Fish Bearing	Yes		No		If non-fish bearing insert no fish bearing status report			
SPEA Maximum	15	(For ditch use table3-7)						

Segment No:	2	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)	15							
Litter fall and insect drop ZOS (m)	15							
Shade ZOS (m) max	30	South bank	Yes	X	No			
SPEA Maximum	30	(For ditch use table3-7)						

Segment No:		If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)								
Litter fall and insect drop ZOS (m)								
Shade ZOS (m) max		South bank	Yes		No			
SPEA Maximum		(For ditch use table3-7)						

I, Thomas Slow, hereby certify that:
i) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
j) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted]
k) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
l) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Comments

Segment 1 represents the northern half of the wetland

Form 1 Page 12 of 46

57

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

2. Results of Detailed Riparian Assessment

Refer to Chapter 3 of Assessment Methodology

Date: 2021-11-26

Description of Water bodies involved (number, type)	1 Stream (S2R3)
Stream	#2
Wetland	
Lake	
Ditch	
Number of reaches	3
Reach #	3

Channel width and slope and Channel Type (use only if water body is a stream or a ditch, and only provide widths if a ditch)

	Channel Width(m)		Gradient (%)
starting point	0.87	Low	
Upstream	2.96		
	1.46	High	
	1.82		6
	2.49		
Downstream	2.09		4
	1.84		
	1.19		
	1.14		
	2.12		
	2.84		
Total: minus high /low	16.99		
Mean	1.88		5
	R/P	C/P	S/P
Channel Type		X	

I, Thomas Roy, hereby certify that:
m) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
n) I am qualified to carry out the part of the assessment of the development proposal made by the developer [redacted]
o) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
p) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Site Potential Vegetation Type (SPVT)

	Yes	No	
SPVT Polygons		X	Tick yes only if multiple polygons, if No then fill in one set of SPVT data boxes

I, Thomas Roy, hereby certify that:
m) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
n) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted]
o) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
p) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Polygon No:	1			Method employed if other than TR
	LC	SH	TR	
SPVT Type			X	
Polygon No:				Method employed if other than TR
	LC	SH	TR	
SPVT Type				

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Polygon No:				Method employed if other than TR	
SPVT Type					

Zone of Sensitivity (ZOS) and resultant SPEA

Segment No:	1	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)	10							
Litter fall and insect drop ZOS (m)	10							
Shade ZOS (m) max	5.64	South bank	Yes		No	X		
Ditch	Justification description for classifying as a ditch (manmade, no significant headwaters or springs, seasonal flow)							
Ditch Fish Bearing	Yes		No		If non-fish bearing insert no fish bearing status report			
SPEA Maximum	10	(For ditch use table3-7)						

Segment No:	2	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)	10							
Litter fall and insect drop ZOS (m)	10							
Shade ZOS (m) max	5.64	South bank	Yes		No	X		
SPEA Maximum	10	(For ditch use table3-7)						

Segment No:		If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)								
Litter fall and insect drop ZOS (m)								
Shade ZOS (m) max		South bank	Yes		No			
SPEA Maximum		(For ditch use table3-7)						

I, Thomas Slow, hereby certify that:
m) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
n) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted]
o) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
p) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Comments

Segment 1 represents the left bank facing downstream. Mapping will show shade ZoS as 10m to avoid confusion with landowner. SPEA being defaulted to 15m in order to add Fisheries Sensitive Zone (FSZ)

Form 1 Page 14 of 46

59

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

2. Results of Detailed Riparian Assessment

Refer to Chapter 3 of Assessment Methodology

Date: 2021-11-26

Description of Water bodies involved (number, type)	1 Stream (S3R1)
Stream	#3
Wetland	
Lake	
Ditch	
Number of reaches	1
Reach #	1

Channel width and slope and Channel Type (use only if water body is a stream or a ditch, and only provide widths if a ditch)

	Channel Width(m)		Gradient (%)
starting point	1.19		
Upstream	1.11		
	0.95		
	0.72	Low	5
	1.20		
Downstream	1.85	High	
	1.21		
	1.13		7
	1.05		
	1.65		
	1.21		
Total: minus high /low	10.70		
Mean	1.19		5
	R/P	C/P	S/P
Channel Type		X	

I, Thomas Roy, hereby certify that:
q) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
r) I am qualified to carry out the part of the assessment of the development proposal made by the developer [redacted]
s) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
t) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Site Potential Vegetation Type (SPVT)

	Yes	No	
SPVT Polygons		X	Tick yes only if multiple polygons, if No then fill in one set of SPVT data boxes

I, Thomas Roy, hereby certify that:
q) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
r) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted]
s) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
t) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Polygon No:	1		
	LC	SH	TR
SPVT Type			X

Method employed if other than TR

Polygon No:			
	LC	SH	TR
SPVT Type			

Method employed if other than TR

Form 1 Page 15 of 46

60

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Polygon No:				Method employed if other than TR	
SPVT Type					

Zone of Sensitivity (ZOS) and resultant SPEA

Segment No:	1	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)	10							
Litter fall and insect drop ZOS (m)	10							
Shade ZOS (m) max	3.57	South bank	Yes		No	X		
Ditch	Justification description for classifying as a ditch (manmade, no significant headwaters or springs, seasonal flow)							
Ditch Fish Bearing	Yes		No		If non-fish bearing insert no fish bearing status report			
SPEA Maximum	10	(For ditch use table3-7)						

Segment No:	2	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)	10							
Litter fall and insect drop ZOS (m)	10							
Shade ZOS (m) max	3.57	South bank	Yes		No	X		
SPEA Maximum	10	(For ditch use table3-7)						

Segment No:		If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)								
Litter fall and insect drop ZOS (m)								
Shade ZOS (m) max		South bank	Yes		No			
SPEA Maximum		(For ditch use table3-7)						

I, Thomas Slow, hereby certify that:
q) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
r) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted];
s) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
t) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Comments

Segment 1 represents the left bank facing downstream. Mapping will show shade ZoS as 10m to avoid confusion with landowner. SPEA being defaulted to 15m in order to add Fisheries Sensitive Zone (FSZ)

Form 1 Page 16 of 46

61

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

2. Results of Detailed Riparian Assessment

Refer to Chapter 3 of Assessment Methodology

Date: 2021-11-26

Description of Water bodies involved (number, type)	1 Stream (S4R1)
Stream	#4
Wetland	
Lake	
Ditch	
Number of reaches	1
Reach #	1

Channel width and slope and Channel Type (use only if water body is a stream or a ditch, and only provide widths if a ditch)

	Channel Width(m)		Gradient (%)
starting point	0.87	Low	
Upstream	2.96	High	
	1.46		
	1.82		
	2.49		4
Downstream	2.09		
	1.84		
	1.19		
	1.14		6
	2.12		
	2.84		
Total: minus high flow	16.99		
Mean	1.88		5
	R/P	C/P	S/P
Channel Type		X	

I, Thomas Roy, hereby certify that:
u) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
v) I am qualified to carry out the part of the assessment of the development proposal made by the developer [redacted]
w) I have carried out the assessment of the development proposal and my assessment is set out in this Assessment Report, and
x) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation

Site Potential Vegetation Type (SPVT)

	Yes	No	
SPVT Polygons		X	Tick yes only if multiple polygons, if No then fill in one set of SPVT data boxes

I, Thomas Roy, hereby certify that:
u) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
v) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted]
w) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report, and
x) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Polygon No:	1		
	LC	SH	TR
SPVT Type			X

Method employed if other than TR

Polygon No:			
	LC	SH	TR
SPVT Type			

Method employed if other than TR

Form 1 Page 17 of 46

62

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Polygon No:				Method employed if other than TR
SPVT Type				

Zone of Sensitivity (ZOS) and resultant SPEA

Segment No:	1	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)	10							
Litter fall and insect drop ZOS (m)	10							
Shade ZOS (m) max	5.64	South bank	Yes		No	X		
Ditch	Justification description for classifying as a ditch (manmade, no significant headwaters or springs, seasonal flow)							
Ditch Fish Bearing	Yes		No		If non-fish bearing insert no fish bearing status report			
SPEA Maximum	10	(For ditch use table3-7)						

Segment No:	2	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)	10							
Litter fall and insect drop ZOS (m)	10							
Shade ZOS (m) max	5.64	South bank	Yes		No	X		
SPEA Maximum	10	(For ditch use table3-7)						

Segment No:		If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)								
Litter fall and insect drop ZOS (m)								
Shade ZOS (m) max		South bank	Yes		No			
SPEA Maximum		(For ditch use table3-7)						

I, Thomas Roy, hereby certify that:
v) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
w) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted];
x) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
y) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Comments

Segment 1 represents the left bank facing downstream. Mapping will show shade ZoS as 10m to avoid confusion with landowner. SPEA being defaulted to 15m in order to add Fisheries Sensitive Zone (FSZ)

Form 1 Page 18 of 46

63

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

2. Results of Detailed Riparian Assessment

Refer to Chapter 3 of Assessment Methodology

Date: 2021-11-26

Description of Water bodies involved (number, type): 1 Stream (S5R1)

Stream	#5
Wetland	
Lake	
Ditch	
Number of reaches	1
Reach #	1

Channel width and slope and Channel Type (use only if water body is a stream or a ditch, and only provide widths if a ditch)

	Channel Width(m)		Gradient (%)
starting point	1.23		
Upstream	1.06		
	1.41		8
	0.98		
	1.13		
Downstream	1.23		10
	0.88	Low	
	1.23		
	1.52	High	
	1.13		
	1.42		
Total: minus high /low	10.82		
Mean	1.20		9
	R/P	C/P	S/P
Channel Type			X

I, Thomas Roy, hereby certify that:
y) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
z) I am qualified to carry out the part of the assessment of the development proposal made by the developer [redacted]
aa) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
bb) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Site Potential Vegetation Type (SPVT)

	Yes	No	Tick yes only if multiple polygons, if No then fill in one set of SPVT data boxes
SPVT Polygons		X	

I, Thomas Roy, hereby certify that:
y) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
z) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted]
aa) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
bb) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Polygon No:	1			Method employed if other than TR
	LC	SH	TR	
SPVT Type			X	
Polygon No:				Method employed if other than TR
	LC	SH	TR	
SPVT Type				

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Polygon No:				Method employed if other than TR	
SPVT Type					

Zone of Sensitivity (ZOS) and resultant SPEA

Segment No:	1	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)	10							
Litter fall and insect drop ZOS (m)	10							
Shade ZOS (m) max	3.60	South bank	Yes		No	X		
Ditch	Justification description for classifying as a ditch (manmade, no significant headwaters or springs, seasonal flow)							
Ditch Fish Bearing	Yes		No		If non-fish bearing insert no fish bearing status report			
SPEA Maximum		(For ditch use table3-7)						

Segment No:	10	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)	10							
Litter fall and insect drop ZOS (m)	10							
Shade ZOS (m) max	3.60	South bank	Yes		No	X		
SPEA Maximum	10	(For ditch use table3-7)						

Segment No:		If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)								
Litter fall and insect drop ZOS (m)								
Shade ZOS (m) max		South bank	Yes		No			
SPEA Maximum		(For ditch use table3-7)						

I, Thomas Slow, hereby certify that:
y) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
z) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted]
aa) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
bb) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Comments

Segment 1 represents the left bank facing downstream. Mapping will show shade ZoS as 10m to avoid confusion with landowner. SPEA being defaulted to 15m in order to add Fisheries Sensitive Zone (FSZ)

Form 1 Page 20 of 46

65

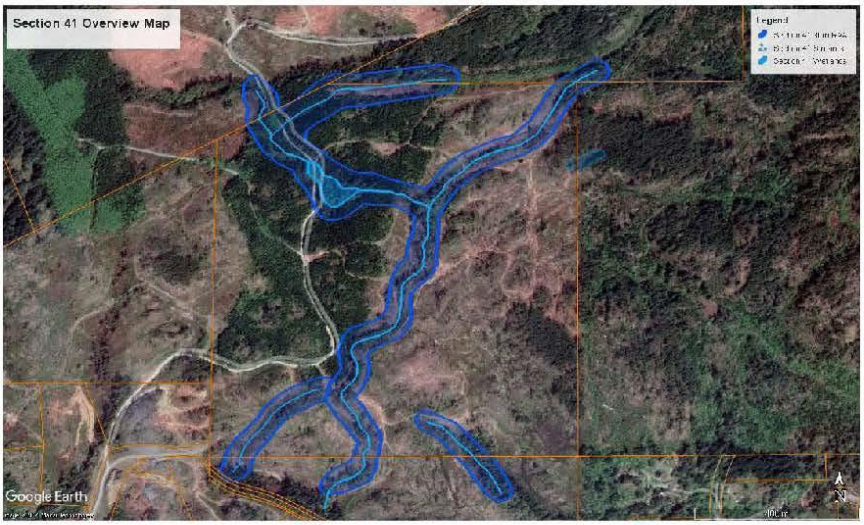
Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Section 3. Site Plan
Insert jpg file below

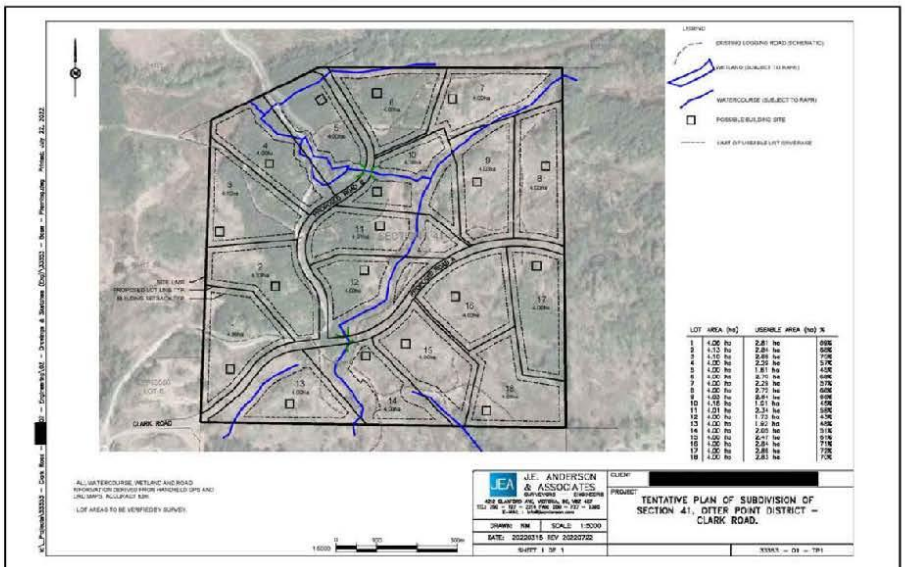
Site Plan



Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

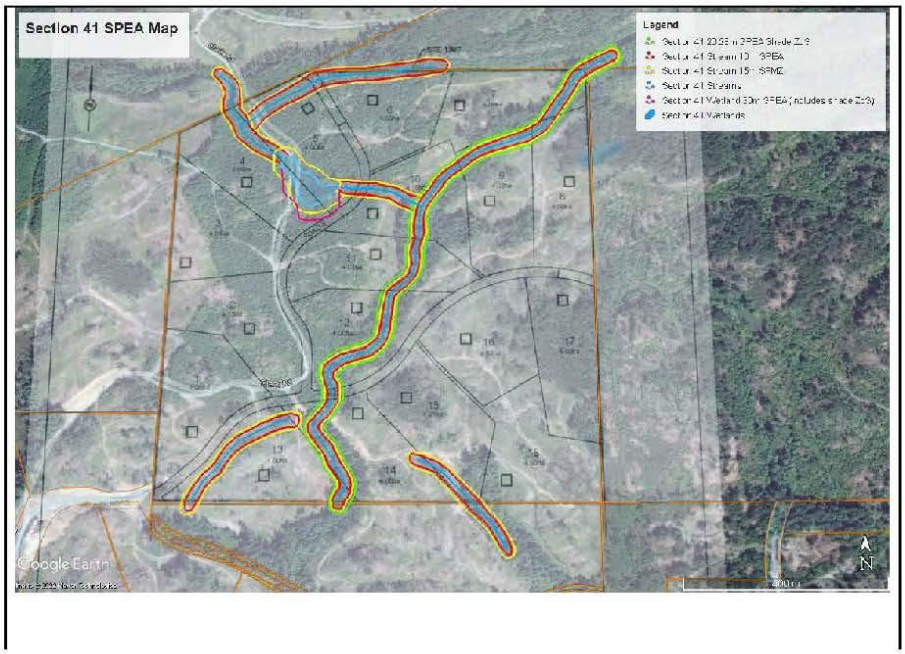


Note: Most northerly proposed crossing not being completed at this point in time. Stream #1 is from center of property to north-easterly corner. Stream #2 is a primary tributary and flows in from west south of Lot 10. Stream #3 is a tributary to Stream 2. Stream #4 is found along the southwestern corner of the property. Stream #5 is found along the south-eastern corner

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

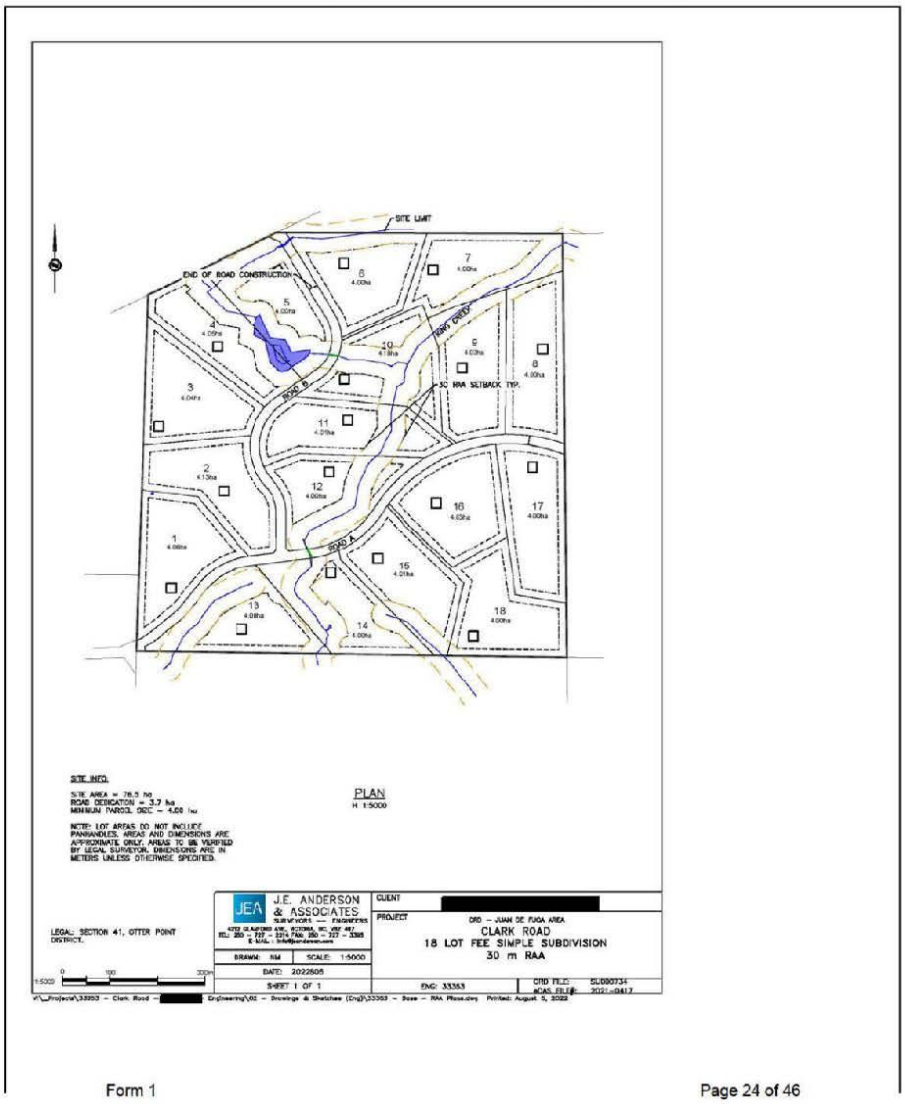


Form 1 Page 23 of 46

CRD
Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report



Form 1

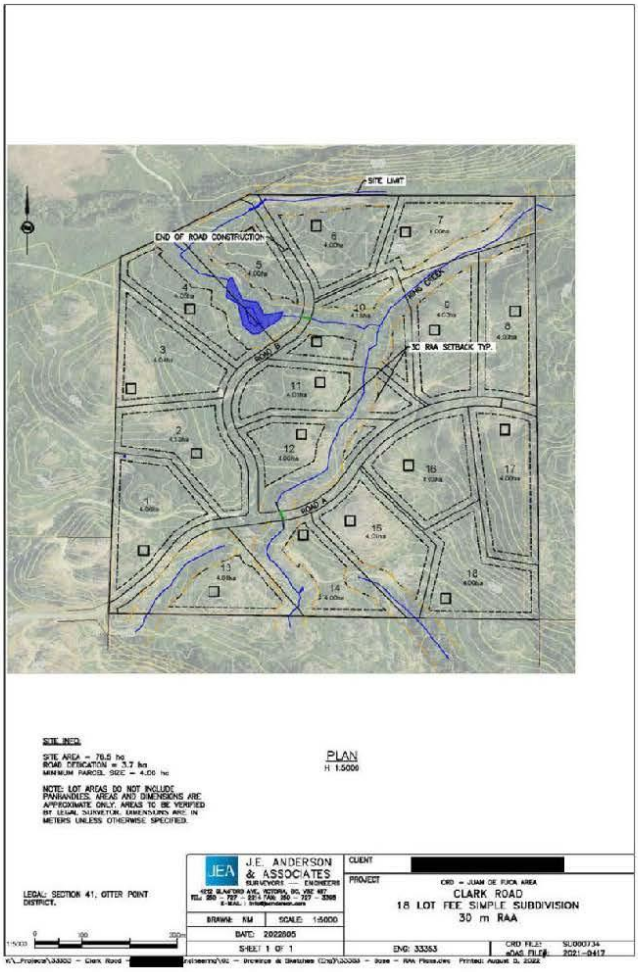
Page 24 of 46

69

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report



Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Section 4. Measures to Protect and Maintain the SPEA

This section is required for detailed assessments. Attach text or document files, as need, for each element discussed in chapter 1.1.3 of Assessment Methodology. It is suggested that documents be converted to PDF *before* inserting into the assessment report. Use your "return" button on your keyboard after each line. You must address and sign off each measure. If a specific measure is not being recommended a justification must be provided.

1. Danger Trees	No works are proposed within the RAPR assessment area except for those areas requiring a Section 11 Notification associated with stream crossings (2 road crossings). Within these areas, works within the SPEA will be monitored through the Notification process and recommendations set within the permit. No works are proposed within the RAA for individual lots. No danger trees identified within the RAA
I, Thomas Kay, hereby certify that: a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*, b) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report, and in carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
2. Windthrow	No works are proposed within the RAPR assessment area except for those areas requiring a Section 11 Notification associated with stream crossings (2 road crossings). Within these areas, works within the SPEA will be monitored through the Notification process and recommendations set within the permit. No works are proposed within the RAA for individual lots. No windthrow issues identified within the RAA as the site has been free to grow since 2010 and the grounds are stable
I, Thomas Kay, hereby certify that: a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*, b I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report, and in carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
3. Slope Stability	No works are proposed within the RAPR assessment area except for those areas requiring a Section 11 Notification associated with stream crossings (2 road crossings). Within these areas, works within the SPEA will be monitored through the Notification process and recommendations set within the permit. No works are proposed within the RAA for individual lots. No slope stability issues identified within the RAA as the site has been free to grow since 2010 and the grounds are stable
I, Thomas Kay, hereby certify that a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*, b I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report, and in carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
4. Protection of Trees	No works are proposed within the RAPR assessment area except for those areas requiring a Section 11 Notification associated with stream crossings (2 road crossings). Within these areas, works within the SPEA will be monitored through the Notification process and recommendations set within the permit. No works are proposed within the RAA for individual lots. Measures for the

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

	protection of trees will be developed for each individual lots when/if works are proposed either within or adjacent to the RAA. Overall, it is proposed to have split cedar rail to demarcate the SPEA once lots are developed/registered
I, Thomas Roy, hereby certify that: a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*, b I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report, and in carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
5. Encroachment I, Thomas Roy, hereby certify that a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*, b I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report, and in carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	Same as above
6. Sediment and Erosion Control I, Thomas Roy, hereby certify that: a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*, b I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report, and in carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	Sediment fencing and bails of straw will be placed by a designated QEP along the RAA if works are proposed within 15m of the riparian area. Measures for the protection of trees will be developed for each individual lots when/if works are proposed either within or adjacent to the RAA
7. Stormwater Management I, Thomas Roy, hereby certify that: a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*, b I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report, and in carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	No works are proposed within the RAPR assessment area except for those areas requiring a Section 11 Notification associated with the 2 stream crossings. Within these areas, works within the SPEA will be monitored through the Notification process and recommendations set within the permit. Measures for stormwater management will be developed for each individual lots when/if works are proposed either within or adjacent to the RAA
8. Floodplain Concerns (highly mobile channel) I, Thomas Roy, hereby certify that: a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*, b I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report, and in carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	No works are proposed within the RAPR assessment area except for those areas requiring a Section 11 Notification associated with the 2 stream crossings. Within these areas, works within the SPEA will be monitored through the Notification process and recommendations set within the permit. No works are proposed within the RAA for individual lots. Measures for protection in terms of floodplain concerns will be developed for each individual lots when/if works are proposed either within or adjacent to the RAA

Form 1 Page 29 of 46

74

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Section 5. Environmental Monitoring

Attach text or document files explaining the monitoring regimen. Use your "return" button on your keyboard after each line. It is suggested that all documents be converted to PDF before inserting into the PDF version of the assessment report.
Include actions required, monitoring schedule, communications plan, and requirement for a post development report.

Specific Recommendations for Works Within the Proposed Subdivision

November 26th 2021

Works Within the 30m RAPR assessment area of designated waterbodies.

- Areas designated as the RAA will be flagged with high visibility flagging tape and temporary fencing prior to future works proposed in or near the RAA.
- Prior to construction or tree removal within the 30m RAR assessment area (if any), a detailed sediment and erosion control plan will be developed to prevent the discharge of sediment laden water into the RAA. This will include the installation of sediment fencing/hay bales as determined by on-site biologist prior to the initiation of construction activities.
- Prior to construction or tree removal within the 30m RAR assessment area (if any), a detailed plan as to which areas will have work done within the RAA should be may available to government bodies and approved by a QEP.
- No works shall be undertaken within areas designated as RAA (refer to maps) except for proposed stream crossings when and if required (Section 11 Instream Works Permit required).
- All works Scheduled Within 30m of a Watercourse will adhere to all recommendations as outlined in the BMP - Develop with Care: Environmental Guidelines for Urban and Rural Land Development in British Columbia. As well:
    - Ensure construction will proceed smoothly without harmful alteration of habitat;
    - Provide long-term monitoring for disturbed sites until green-up is established and the soils at the site are stable.

Form 1 Page 30 of 46

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

- Heavy equipment (excavators etc.) working outside the SPEA and within 30m of any of the identified watercourses will be monitored for leaks (oil, hydraulic fluid etc.).
- Disturbed areas (future proposed works) within 30m of a waterbody will be revegetated with native plants of a size that will quickly re-establish riparian cover when construction activities are deemed complete.
- Detailed direction to contractors will be given to ensure that no erosion or sediment movement will occur and that no silt will be released to the RAPR assessment area during the construction and post construction phase.
- The site will be monitored by the designated QEP (once every two weeks or as required due to high rainfall events - >30mm/24 hour period) during the construction period (if proposed). Any contraventions of the RAPR will be communicated to the developer as well as local municipal staff and RAPR staff.
- A post construction report generated by the designated QEP will be submitted to RAPR and local municipal staff when activities are deemed complete (if proposed).

Form 1 Page 31 of 46

76

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Section 6. Photos

Plate #1	Stream #1 – Reach 1 facing upstream

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Plate #2	Stream #1 – Reach 1 facing downstream

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Plate #3

Stream #2 Reach 1

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Plate #1	Stream #2 Reach 2 facing upstream

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Plate #5	Stream #2 – Reach 3 facing upstream from mid reach

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Plate #6

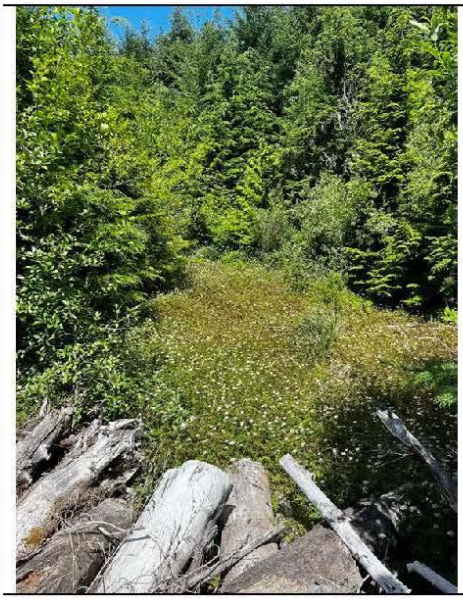
Stream #3 – Reach 1 facing downstream

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Plate #7	Stream #3 – Reach 1 facing downstream



Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Plate #8

Stream #4 – Reach 1 facing downstream

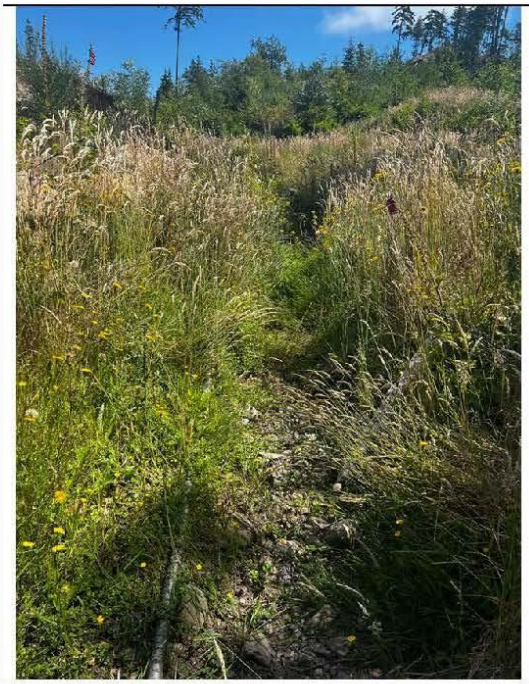
Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Plate #9

Stream #4 – Reach 1 facing downstream



Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Plate #10

Stream #5 facing downstream

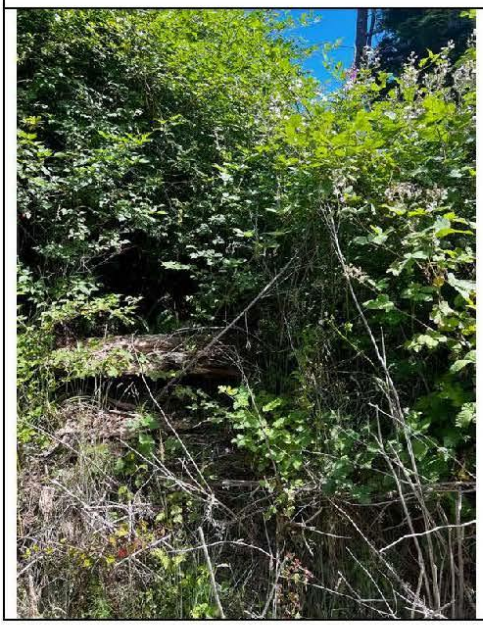
Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Plate #11

Stream #5 facing downstream



Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Plate #12	View of previously cut areas within the RAA (5-10 years ago) and current regrowth

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Plate #13	View of previously cut areas within the RAA (5-10 years ago) and current regrowth

Making a difference...together

DV000089

FORM 1
Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Section 7. Professional Opinion

Qualified Environmental Professional opinion on the development proposal's riparian assessment.

Date 2021-11-26

1. I/WeThomas Roy

(Please list name(s) of qualified environmental professional(s) and their professional designation that are involved in assessment.)

hereby certify that:

a) I am/We are qualified environmental professional(s), as defined in the Riparian Areas Protection Regulation made under the *Riparian Areas Protection Act*;
b) I am/We are qualified to carry out the assessment of the proposal made by the developer [redacted] which proposal is described in section 3 of this Assessment Report (the "development proposal").
c) I have/We have carried out an assessment of the development proposal and my/our assessment is set out in this Assessment Report; and
d) In carrying out my/our assessment of the development proposal, I have/We have followed the specifications of the Riparian Areas Protection Regulation and assessment methodology set out in the minister's manual; AND

2. As qualified environmental professional(s), I/we hereby provide my/our professional opinion that:

a) N/A the site of the proposed development is subject to undue hardship, **(if applicable, indicate N/A otherwise)** and
b) X the proposed development will meet the **riparian protection standard** if the development proceeds as proposed in the report and complies with the measures, if any, recommended in the report.

[NOTE: **"Qualified Environmental Professional" means an individual as described in section 21 of the Riparian Areas Protection Regulation.**]

Form 1 Page 45 of 46

90

Making a difference...together

DV000089

Submission Instructions
Riparian Areas Regulation – Qualified Environmental Professional – Assessment Report
RAR-QEP-AR

Forms you will need to complete are

- Form 1 which has the database information, the description of the fisheries resources, development site plan, measures to protect and maintain the SPEA, and environmental monitoring.
- Form 2, if more QEPs are part of the project team.
- Either Form 3 the detailed assessment form(s) or Form 4 simple assessment form(s) which is for the results of the riparian assessment (SPEA width). Use enough copies of the form to complete the assessment of the site.
- Form 5 is the photo form(s). Duplicate for additional photos.

NB: See the Guidelines and the Assessment Methods for detailed instructions on the information required for completing the Assessment Report.

A complete Riparian Assessment Report based on the template forms must be converted to a *single* Portable Document Format PDF file prior to uploading onto the Notification System.

The Assessment Report must be complete, by submitting the information specified, and posted to provide notification to the local government, Ministry of Water, Land and Air Protection and the Department of Fisheries and Oceans Canada.

Tips for working with MS Word Template Forms
Using the forms

- Before beginning, print a hard copy of the form and the guidance files for reference
- Open the template
- Enter data into the shaded fields on the form
- Use TAB to move from one field to another; SHIFT-TAB to go in reverse
- Text and digital photos may be inserted from other applications
- The amount of text that can be entered in each box is limited and cannot be changed by the user; boxes with date information, for example, require input like: yyyy-mm-dd.

Saving the completed form

- Assign name to the completed form
- Save a word document (*.doc file)
- Do not overwrite the Template (*.dot file) with your completed form
- If you do overwrite the template, you can download a new copy from this web site

Making a difference...together

REPORT TO THE JUAN DE FUCA LAND USE COMMITTEE
MEETING OF TUESDAY, OCTOBER 18, 2022

SUBJECT **Zoning Amendment Application for Strata Lot A (3692 Waters Edge Drive) & Strata Lot B (12051 West Coast Road), Section 2, Renfrew District, Strata Plan VIS6939, Together with an interest in the Common Property in proportion to the unit entitlement of the Strata Lot as shown on Form V**

ISSUE SUMMARY

Landowners of a non-conforming two-lot building strata property at the corner of Waters Edge Drive and West Coast Road have submitted a joint application to amend Bylaw No. 2040 by changing the zone from Rural Residential 2A (RR-2A) to the Rural Residential 1 (RR-1) zone for the purposes of dissolving the strata and subdivision.

BACKGROUND

The 0.94 ha property is located in Jordan River on the corner of Waters Edge Drive of West Coast Road and is subject to the Rural Residential 2A (RR-2A) zone under Bylaw No. 2040 (Appendix A). The property is designated as Pacific Acreage under the Shirley-Jordan River Official Community Plan (OCP), Bylaw No. 4001.

The property is a non-conforming two-lot building strata that was constructed prior to adoption of the bylaw that zoned the land RR-2A, which permits only one dwelling unit per parcel. Buildings and structures cover approximately 3% of the property and are arranged as two limited common property areas aligned with the siting of the two existing one-family dwellings. The eastern dwelling and related land area is identified as “A” (Strata Lot A – 3692 Waters Edge Drive) with the western lands, dwelling and detached accessory suite identified as “B” (Strata Lot B – 12051 West Coast Road).The dwelling units are serviced by separate well and septic systems.

The landowners have made an application to change the zone from RR-2A (Appendix B) to Rural Residential 1 (RR-1) (Appendix C). The RR-1 zone would allow for a subdivision application that would dissolve the building strata and divide the property into two 0.4 ha fee-simple parcels that complement the existing arrangement of buildings (Appendix D). Staff have prepared Bylaw No. 4519 for consideration (Appendix E).

ALTERNATIVES

Alternative 1
That staff be directed to refer proposed Bylaw No. 4519, "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 159, 2022", to the Shirley-Jordan Advisory Planning Commission, First Nations, appropriate CRD departments and the following external agencies for comment:

BC Hydro
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
Pacheedaht First Nation
RCMP
Sooke School District #62
T’Sou-ke First Nation

Alternative 2
That proposed Bylaw No. 4519 not be referred

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*). Therefore, staff recommend referring the proposed amendment bylaw 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 Land will be sent notice of the proposed bylaw amendment and the public hearing would 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 (OCP) area is consistent with the OCP, it does not proceed to the full CRD Board for a determination of consistency with the RGS. The proposed zoning amendment is consistent with the Shirley-Jordan River OCP.

Land Use Implications

The subject property is on the southwestern corner of the intersection between Waters Edge Drive and West Coast Road. The abutting parcels are subject to the RR-2A zone; with the property on the opposite side of Waters Edge Drive in the Resource Land (RL) zone, and a large 130.8 ha property split with Wildwood Terrace Neighbourhood Commercial (C-1A) and Wildwood Terrace 4 (WT-4) zoning. The Shirley-Jordan River OCP, Bylaw No. 4001, designates the subject property as Pacific Acreage. The intent of the Pacific Acreage land use designation is to support residential uses; suites and duplexes to create housing affordability; home based businesses; agriculture; small-scale commercial and tourism activities generally on parcels in the 2 ha range; which is larger than the proposed minimum parcel size.

Notwithstanding the development policies for the Pacific Acreage designation, the Shirley-Jordan River OCP allows for consideration of rezoning applications of building strata properties for subdivision, provided that the subject strata was registered prior to the adoption of the OCP. In particular, the OCP stipulates that the total number of parcels that can be created as a result of such a rezoning application must be equivalent to the number of existing dwellings. Registration of the subject building strata occurred during April, 2010, prior to adoption of the Shirley-Jordan River OCP in July, 2018. Proposed Bylaw No. 4519 changes the current RR-2A zone to the proposed RR-1 zone, which is consistent with the OCP allowing a uniform transfer of density where the potential quantity of parcels is accordant to the existing number of dwellings.

The proposed RR-1 zone authorizes agriculture as a permitted use, whereas the RR-2A zone only permits horticulture accessory to a residential use. Furthermore, the RR-1 does not permit an additional camper/travel trailer residence; and category three home based businesses, which are listed as permitted within the current RR-2A zoning. The proposed RR-1 zone grants a minimum parcel size of 0.4 ha; one two-family dwelling per parcel, community care facilities, and agriculture, which are densities and uses that are excluded from the RR-2A zone. While both the current and proposed zones allow for either one secondary or one detached accessory suite; suites are not permitted on properties with a two-family dwelling and must adhere to Part 1, Subsection 4.19 or 4.20 of Land Use Bylaw No. 2040.

Should Bylaw No. 4519 be approved, an application could be made to dissolve the building strata and subdivide the property into two fee-simple parcels through the Ministry of Transportation and Infrastructure. Based on the information provided by the applicants and the policies of the OCP, staff recommend referral of the rezoning application to the Shirley-Jordan River APC, First Nations, appropriate CRD departments, and external agencies for comment.

CONCLUSION

The purpose of Bylaw No. 4519 is to amend the Juan de Fuca Land Use Bylaw No. 2040 by changing the zone of the subject property from RR-2A to RR-1. Staff have prepared proposed Bylaw No. 4519 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. 4519, "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 159, 2022", to the Shirley-Jordan Advisory Planning Commission, First Nations, appropriate CRD departments and the following external agencies for comment:

BC Hydro
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
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 Rural Residential 2A Zone – RR-2A
Appendix C: Proposed Rural Residential 1 Zone – RR-1
Appendix D: Proposed Strata Conversion
Appendix E: Proposed Bylaw No. 4519

Appendix A: Subject Property and Zoning Map

Appendix B: Current Rural Residential 2A Zone – RR-2A

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

6A.0 RURAL RESIDENTIAL 2A ZONE - RR-2A

Bylaw 3689

6A.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 are permitted in the Rural Residential 2A RR-2A Zone:

a) One-family dwelling;
b) Horticulture, accessory to a residential use;
c) Two Boarders or Lodgers;
d) Home Based Business Categories One, Two and Three; *Bylaw 3705*
e) One travel trailer or one camper may be permitted in conjunction with a permitted residential use on a lot, which may be used but not rented for the temporary accommodation of guests or visitors
f) Secondary Suite pursuant to Part 1, Subsection 4.19;
g) Detached Accessory Suite pursuant to Part1, Subsection 4.20.

6A.02	**Minimum Lot Size for Subdivision Purposes**	Minimum lot size is 1ha.
6A.03	**Number of Residential Buildings**	One one-family dwelling is permitted on a lot.
6A.04	**Height**	Maximum height shall be 9m.
6A.05	**Lot Coverage**	Lot coverage shall not exceed 25 percent.
6A.06	**Maximum Size of Residential Buildings**	Provided applicants having either met the *Sewerage System Regulation* (e.g., a filing) or acceptance by VIHA via referral: *Bylaw 3705* a) 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 418m^2, whichever is less; b) On lots of 1ha or more in size, residential buildings and structures shall not exceed a Floor Area Ratio of 0.45.
6A.07	**Yard Requirements**	(a) Front yards shall be a minimum of 7.5m; (b) Side yards shall be a minimum of 6m; except that for lots of greater than 1ha in size and where residential uses exceed a Total Floor Area of 418m^2, minimum side yards shall be 15m each side; (c) Flanking yards shall be a minimum of 6m CTS; (d) Rear yards shall be a minimum of 10m.

Appendix C: Proposed Rural Residential 1 Zone – RR-1

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

5.0 RURAL RESIDENTIAL 1 ZONE - RR-1

5.01 Permitted Uses

In addition to the uses permitted in Section 4.15 of Part 1 of this Bylaw, the following uses and no others shall be permitted in the Rural Residential RR-1 Zone:

(a) One-family dwelling;
(b) Two-family dwelling;
(c) Home Based Business Categories One and Two; *Bylaw 3705*
(d) Community Care Facilities;
(e) Agriculture;
(f) Two Boarders or Lodgers;
(g) Secondary suite pursuant to Part 1, Subsection 4.19; *Bylaw 2674*
(h) Detached Accessory Suites pursuant to Part 1, Subsection 4.20. *Bylaw 3605*

5.02 Minimum Lot Size for Subdivision Purposes Minimum lot size shall be 0.4ha.

5.03 Number of Residential Buildings One one-family dwelling or one two family dwelling is permitted on a lot.

5.04 Height Maximum height shall be 9m.

5.05 Lot Coverage Lot coverage shall not exceed 25 percent.

5.06 Maximum Size of 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 418m^2, 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.

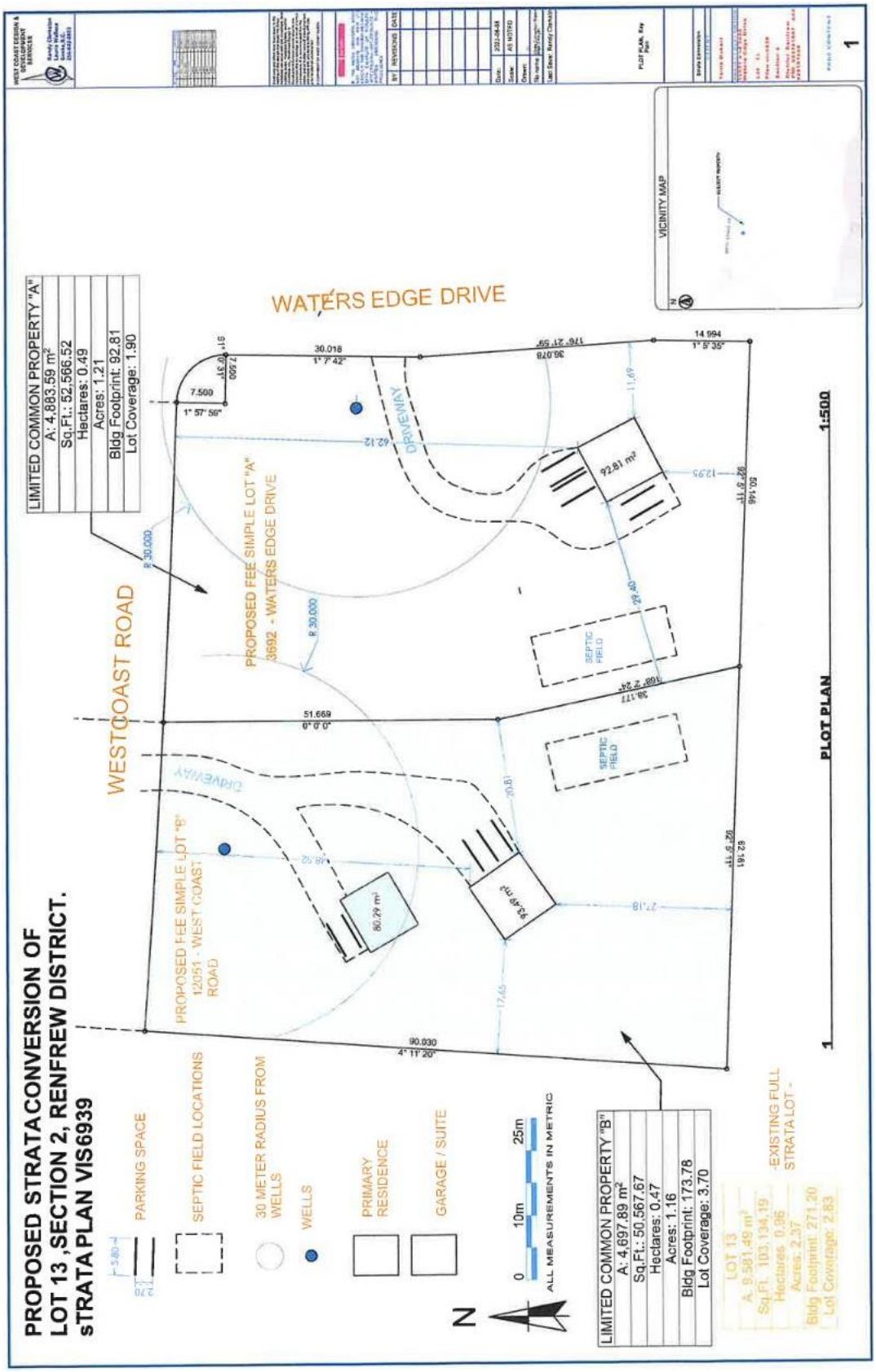
5.07 Yard Requirements

(a) Minimum front yard shall be 7.5m;
(b) Minimum side yard shall be 6m; except that for lots of greater than 1ha in size and where residential uses exceed a Total Floor Area of 418m^2, minimum side yards shall be 15m each side;
(c) Minimum flanking yard shall be 6m CTS;
(d) Minimum rear yard shall be 10m.

5.08 Setbacks for Agricultural Uses Buildings and structures for agriculture use shall be not less than 30m from the front lot line and not less than 15m from any other lot line; excludes greenhouses accessory to residential uses.

5.09 Minimum Lot Frontage The minimum frontage of lots for subdivision purposes shall be 6m.

Appendix D: Proposed Strata Conversion



ADDENDUM TO REZONING APPLICATION – DISSOLVING STRATA – VIS6939

To support our application and to provide further information for the consideration of dissolving our strata, please note the following:

i. **Wells/Septic Systems**
- As per the BC Public Health Act – Sewerage System Regulation, and as can be noted on the Plot Plan with this application:
  - the sewerage systems for both properties are more than 30 metres (100 feet) from the wells.
  - As per Section 42, both wells meet the requirement to be set back at least 30 metres (100 Feet) from possible sources of contamination, ie. the distance of the wells from the septic field and holding tanks, and the placement, elevation and flow of the septic fields do not have the potential to contaminate wells.

ii. **Shirley – Jordan River OCP Alignment**
- Currently designated as Pacific Acreage and once strata is dissolved and each property rezoned, both properties will continue to meet the Pacific Acreage designation.
- Once re-zoned, both properties will continue to meet the criteria in the OCP as Rural A.
- Will continue to meet Water Policies in the OCP as water needs will remain the same, ie. wells and septic systems have always been separate and will remain separate. Going forward water use will continue to be used for residential purposes only on each property.

iii. **Support for Rezone to RR1**
- To sub-divide the common property in 2010 into separate lots, a strata was formed. As per Strata Plan VIS6939 drawings completed by Island Land Surveying Ltd. in 2010 a property line was formed between the common property. Each property owner has considered this property line their boundary in which they have followed for placement of buildings, structures, and fences.
- The boundary line that separates the common property proposed on the Plot Plan submitted with this application is inline with the same boundary line that is on the current strata plan.
- All buildings, structures and fences do not need to be disturbed, moved, dismantled or re-claimed with the proposed property lines on the Plot Plan.

iv. **Rezone Fit with Existing Community and Surrounding Properties**
- Currently the common property lot size does not fit the current zoning of RR-2A as per Bylaw No. 2040.
- RR-2A requires a minimum lot size of 1 ha for minimum lot size for subdivision purposes. The total common property lot size is approximately .94 ha, which is less than the 1 ha requirement. We are already sub-divided and do not meet the 1 ha requirement.
- Once the strata is dissolved, each property will be just over the 0.4 ha minimum lot size for subdivision purposes requirement to meet the RR-1 zone, as requested in this application for rezoning.
- The RR-1 zoning will fall in line with surrounding residential properties, which also fall into the RR-1, RR-2 and RR-2A zones.
- Both property lot owners have been long term Jordan River residents, each original owners of their property for 10+ years. Both use their property for residential purposes – raising families – and follow permitted uses within their zone.

v. **Bylaw No. 2040 Compliance**
- The application and additional information provided for the purposes of the rezone and dissolve of the current strata adheres to the compliance with the regulations of Bylaw No. 2040.

Appendix E: Proposed Bylaw No. 4519

CAPITAL REGIONAL DISTRICT
BYLAW NO. 4519

****

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 B, Map No. 3 – SHIRLEY JORDAN RIVER ZONING

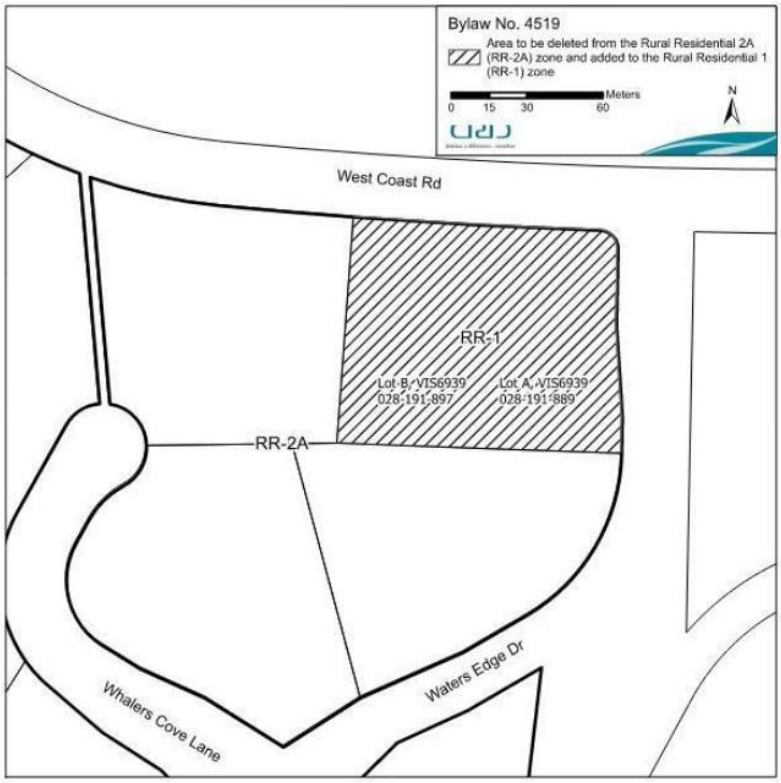
(a) By deleting

Strata Lot A Section 2 Renfrew District Strata Plan VIS6939;

Strata Lot B Section 2 Renfrew District Strata Plan VIS6939; and

Together with an interest in the Common Property in Proportion to the Unit Entitlement of the Strata Lots as Shown on Form V from the Rural Residential 2A (RR-2A) zone and adding to the Rural Residential 1 (RR-1) zone, as shown on Plan No. 1.

Plan No. 1 of Bylaw No. 4519, an amendment to Bylaw No. 2040



2. This bylaw may be cited as "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 159, 2022".

READ A FIRST TIME THIS	day of	, 2022.
READ A SECOND TIME THIS	day of	, 2022.
READ A THIRD TIME THIS	day of	, 2022.
ADOPTED THIS	day of	, 2022.

CHAIR CORPORATE OFFICER