Comox Valley REGIONAL DISTRICT

Staff Report

DATE: April 11, 2018

FILE: 3360-20/RZ 3C 18

TO: Chair and Directors
Electoral Areas Services Committee

FROM: Russell Dyson
Chief Administrative Officer

Supported by Russell Dyson
Chief Administrative Officer

R. Dyson

RE: **Proposed Zoning Bylaw Amendment – Forbidden Plateau Road (Fry / Taylor)**
Puntledge – Black Creek (Electoral Area C)
Lot 4, Block 249, Comox District, Plan EPP11657, PID 028-704-550

Purpose
To provide the requested additional information in consideration of the proposed rezoning of a property along Forbidden Plateau Road.

Recommendation from the Chief Administrative Officer:
THAT the board deny application RZ 3C 18 (Fry/Taylor) to rezone Lot 4, Block 249, Comox District, Plan EPP11657, PID 028-704-550, which would have enabled subdivision to create 4 hectare parcels.

Executive Summary

- The property owners are applying to rezone the subject property from Rural Twenty (RU-20) to new zone that would allow for a 4 hectare minimum lot area so the lot could be subdivided into four parcels.
- The Electoral Area Services Committee (EASC) previously considered this application at its meetings on July 9 and September 17, 2018. That last meeting concluded with the resolution seeking additional information from staff regarding egress and emergency access.
- Egress from the subject property is via 10 kilometres of Forbidden Plateau Road downhill to the intersection of Piercy Road. There is no secondary access prior to this intersection. This increases the potential consequences of a hazard affecting the road.
- The draft Community Wildfire Protection Plan has been reviewed by staff and found to not affect this situation.
- The applicants have submitted a new letter (Appendix A) responding the past reports and resolutions.
- Due to this assessment regarding egress and emergency access, along with the other factors noted in the previous staff reports received by EASC, such as lack of fire protection coverage and increasing development in the drinking water supply watershed and the working landscape (forestry), staff recommends refusing the application as the area is appropriately zoned at the lower density end of the Rural Settlement Area's recommended density range of 4 to 20 hectare minimum lot areas.

Prepared by:	Concurrence:	Concurrence:
J. MacLean	***T. Trieu***	***S. Smith***
Jodi MacLean, MCIP, RPP Rural Planner	Ton Trieu, MCIP, RPP Manager of Planning Services	Scott Smith, MCIP, RPP General Manager of Planning and Development Services Branch

Stakeholder Distribution (Upon Agenda Publication)

Applicant	✔

Background/Current Situation

The subject property is an undeveloped 20 hectare lot located off the gravelled portion of Forbidden Plateau Road (Figure 1). The property is zoned Rural Twenty (RU-20) which includes a subdivision requirement that new lots achieve a minimum lot area of 20 hectares. On April 9, 2018, the property owners applied to rezone the parcel so that it may be subdivided to create four lots for residential use and offered a 0.4 hectare area for locating a fire hall.

At that time, the Comox Valley Regional District (CVRD) had commissioned a feasibility study to assess fire protection options for the properties along Forbidden Plateau Road. At the meeting of June 18, 2018, the EASC received this study which recommended against expanding current fire protection boundaries or establishing a new local service area for this purpose but did recommend the residents participate in the regional Community Wildfire Protection Plan and pursue community-led FireSmart projects as grant funding becomes available.

The applicant's rezoning proposal was considered by EASC at the following July 9, 2018 meeting and the following resolution was adopted:

> *"THAT the rezoning application RZ 3C 18 be referred to staff to consider alternatives with the applicant and to further develop an agency referral list to report back to a future meeting of the Electoral Areas Services Committee."*

In response, the applicant's agent met with staff on August 14 and subsequently submitted a revised conceptual subdivision plan along with an explanatory letter. EASC considered this at their September 17, 2018 meeting and the following resolution was adopted:

> *"THAT Zoning Bylaw Amendment Application RZ 3C 18 (Fry/Taylor) to rezone Lot 4, Block 249, Comox District, Plan EPP11657, PID 028-704-550, be deferred pending information from staff regarding egress and emergency access."*

In response to the resolution and comments in previous CVRD staff reports, the applicant submitted a new letter dated March 28, 2019 (Appendix A).

Road access

Beginning at the subject property, Forbidden Plateau Road consists of about 3 km of two-lane gravel surfacing, going downhill (elevation loss of ~200 metres) through two switch-backs to Medicine Bowls Road where a paved surface begins and continues for another 7 km to its intersection with Piercy Road. The proposed subdivision would add another approximate 500 metres of road (with an approximate elevation gain of 45 metres) to access the proposed rear property.

The Piercy Road intersection is the only access to Forbidden Plateau Road – there is no public secondary access. All roads that intersect Forbidden Plateau Road are dead-ends or cul-de-sacs, except for the private forestry road Duncan Bay Main Road which is 1 km from the Piercy Road intersection. A road blockage along Forbidden Plateau Road anywhere uphill of the Inland Highway bridge would prevent egress from the uphill properties and, conversely, access to the properties by in-coming vehicles.

Policy 23.(1) of the Official Community Plan states:

> "*Review all new development proposals to assess the emergency access design. In general, new multi-lot residential and commercial development should have two separate and unobstructed accesses.*"

While the proposed subdivision design would add a dead-end public road along its northern boundary, there also exists a private (easement registered to TimberWest) unmaintained, gravel road across the property following the curved contours of the land to the neighbouring property to the south where it accesses Forbidden Plateau Road. The applicant proposes to utilize this as an alternate means for the new property owners to access Forbidden Plateau Road, however, it will remain private land necessitating easement agreements amongst each other, the existing easement holder, and the neighbour to the south where the road continues onto, as well as winter/summer maintenance into the future to be effective.

Despite any such on-site easement arrangements, the lack of secondary access along Forbidden Plateau Road will remain. Enabling additional residential density in this area, through rezoning, increases the potential consequences of a hazard affecting the road. This, along with the other factors noted in the previous staff reports received by EASC on July 9 (Appendix C) and September 17, 2018 (Appendix D), such as lack of fire protection coverage and increasing development in the drinking water supply watershed and the working landscape (forestry), led staff to recommend the area is appropriately zoned at the lower density end of the Rural Settlement Area's recommended density range of 4 to 20 hectare minimum lot areas.

Community Wildfire Protection Plan

During the September 17, 2018, EASC deliberations, and its resulting resolution, it was thought that the Community Wildfire Protection Plan could have some impact or direction for this particular application. At that time, the Plan was being compiled after community consultation and is now in draft stage being reviewed by the province. The draft plan has been reviewed by the Manager of Fire Services and has determined that it will not address the concerns regarding egress and emergency access.

Policy Analysis

Section 479 of the *Local Government Act* (RSBC, 2015, c. 1) (LGA) authorizes a local government to regulate, through bylaw, the use, density, size and shape of land, buildings and structures. Section 460 of the LGA states that a local government must define procedures by which a property owner may apply for a bylaw amendment.

Options

The board may deny the application or initiate the bylaw amendment process by referring the application to external agencies listed in Appendix B.

Staff recommends the application be refused on the basis of inconsistencies with the Regional Growth Strategy (RGS) and Official Community Plan policies noted in this staff report and the previous staff reports received by EASC on July 9 and September 17, 2018 (Appendix C and D).

Financial Factors
A $2,000 rezoning application fee has been collected under the "Comox Valley Regional District Planning Procedures and Fees Bylaw No. 328, 2014." If the application proceeds, to public hearing, the applicant will incur an additional statutory fee of $1,500. If the property is successfully rezoned, future fees will be incurred during the subdivision and development permit processes.

Legal Factors
This report and the recommendations contained herein are in compliance with the LGA and CVRD bylaws. The LGA authorizes a local government to regulate the use of land and buildings. Part 13 of the LGA requires that all bylaws and services adopted following adoption of an RGS must be consistent with the RGS.

Regional Growth Strategy Implications
See previous staff report, dated June 20, 2018 (Appendix C), and received by EASC on July 9, 2018, for the detailed analysis of the proposal with respect to the RGS.

Intergovernmental Factors
If the application proceeds, Appendix B contains a list of agencies and First Nations which the application may be referred to for comment.

Interdepartmental Involvement
Planning staff consulted with other CVRD departments, including engineering services, fire services, community parks and long range planning. The concerns of these departments are outlined in the background section of this report and the staff reports received by EASC on July 9 and September 17, 2018 (Appendix C and D).

Citizen/Public Relations
If the application proceeds to bylaw preparation, community consultation will be held in accordance with Bylaw No. 328 (i.e. statutory mailing and public hearing).

Attachments: Appendix A – "Letter from agent Colin Burridge, P.Eng., dated March 28, 2019"
Appendix B – "Agency Referral List"
Appendix C – "Staff report dated June 20, 2018"
Appendix D – "Staff report dated September 7, 2018"

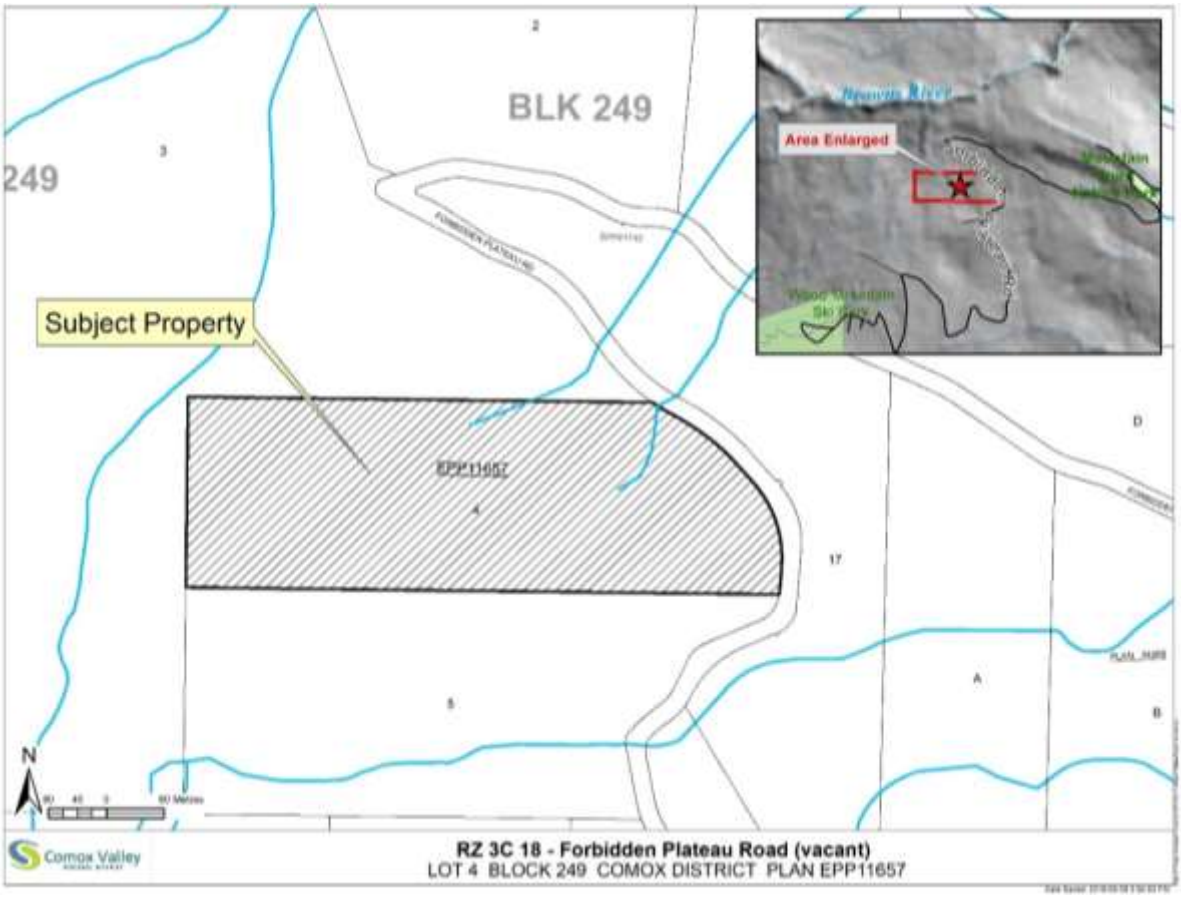


Figure 1: Subject Property

J.E. Anderson and Associates
1250 F Cedar Street
Campbell River, BC V9W 2W5
Ph: 250-287-4865 Fax: 250-287-9502

Our File: 120-072
March 28, 2019

Comox Valley Regional District
Planning and Development Services Branch
600 Comox Road
Courtenay, BC, V9N 3P6

RE: Proposal for Re-Zoning
Lot 4, Block 249, Comox District, Plan EPP11657 – Forbidden Plateau Road
Registered Owners: Fry, Taylor

At the Electoral Area Services Committee (EASC) meeting in September 2018, the issue requiring 2 access points for emergency vehicle access, as per policy 23(1) of the OCP, was brought up by the Regional District staff as this would be required for rezoning approval. The applicant stated that although we understand this policy, we didn't see it as a requirement due to the fact that emergency vehicles at this time will not be traveling any further than 5200 Forbidden Plateau Road, therefore why is it necessary for the applicant to abide by this policy? Mr. Grieve stated verbally that he understands the situation and said that a report contracted by the Regional District was being completed and possibly this report may have a policy which will address this issue, the application was put on hold until this report was completed.

The report is called the Community Wildfire Hazard Threat Assessment Plan. The applicant was told that this report would be completed by the first part of January 2019. Although this did happen, only the rough draft was completed, and it was then sent to the Province of BC for their review prior to being sent back to the Regional District for final review and voted on by the board as being a new Policy. The applicant was told by Mr. James Bast *(Fire Services Manager)* that this may not happen until the month of June 2019 and as of March 25, 2019 the Regional District had yet to receive this report back from the Province of BC. Mr. Bast stated to the applicant, that he would have a meeting with his General Manager to discuss the situation in an attempt to move the rezoning application forward. A meeting was held and the rough copy of the Community Wildfire Hazard Threat Assessment Plan was reviewed by the General Manager and Mr Bast with regard to the rezoning application of Lot 4 and they came to the conclusion that there was no conflict and that the General Manager was going to instruct Jodi Maclean, the planner for the Regional District whom the applicant has been working with, to move forward with the application. In advance of the next EASC meeting to discuss the proposal, the applicant has further addressed issues of concern with planning staff.

Response by Applicant to RDC reports dated June 20, 2018 & Sept 7, 2018
Applicant Summary Report

- The Applicant disagrees with the Regional Districts Staff recommendation to deny the rezoning application regarding the statement stating that it is due to inconsistencies with the Regional Growth Strategy (**RGS**) and the Official Community Plan (**OCP**). As the

applicant has addressed all the required items stated in the **OCP Policies** 23(1), 41, 43(1-5), 44(3), 44(5) and the **RGS policies** 2.3(1), 1A-7, 2A, 2A-1. All these items are referred to below with supporting statements and documentation (Appendix C)

Regional District policies for support of application;

- It is the responsibility of the Regional District to take into consideration the following policies in making an informed decision with regard to the rezoning application. The following policies and support documentation provided to the Regional District support an approval of the rezoning application. **OCP policies** 28(1), 41, 42(1), 44(3), 44(5), 45 and **RGS policies** 2.3(1), 2.4. Objectives 2A, & Supporting policies 2A-1, Growth management 4.4(12). Rural MG policy 2A-2

Policy/Current Situation
Policy 43(1) & MG Policy 2A-2 RGS

- 43(1) OCP & MG Policy 2A-2 RGS states that the minimum lot size in the rural settlement area is between four and twenty hectares. This is also supported by the Zoning Bylaw RU-20 that supports lots ranging between 4 & 20 hectares. The applicant has abided by these guidelines as well as supplied other documentation required by policy 43(1) to support the rezoning be approved for the four lots with the minimum lot size being 4 hectares.

Policy 43(2)

- It is the applicant's request to create 4 lots with the smallest being 4 hectares. This would provide a rural lifestyle vision for people who may now live or want to live in the Comox Valley. This could also create intergenerational living by being able to have 2 to 3 generations of the same family living on the same property. The applicant, at present, has 4 interested parties who want to purchase a lot to do just this and build 2 homes so that they all live together on the same property, as well as 53 other interested parties who just want to build their dream home in a rural forested area with a view.
- **The RGS 4.4(12)** states: *Promote and support growth within Rural Areas, provided that the rural character and primary rural functions are maintained.*
- **The RGS 2.3(1)** states that between 2010 & 2030 the population, in the Comox Valley, will grow by as much as 25,000 people and an additional 10,000 homes will be required to be built. **Section 41 of the OCP** & **section 2 of the RGS** state: *The RGS managing growth policies direct that the rural settlement areas grow at a rate which is no more than 10 per cent of any new residential development in the regional district over the next 25 years.* By creating these 4 new lots it will only be adding a maximum of 2 dwellings per lot as allowed by the RU-20 zoning bylaws for a maximum total of 8 dwellings. The applicant knows of only 11 new dwellings built on Forbidden Plateau Road in the past 6 years. The addition of 8 more dwellings would be a total of 19 which when added to other dwellings built in the rural settlement area in the last 8 years should still be well below the 10% growth rate for all of the rural settlement areas with relation to the new development within the inner City of Courtney/Comox
- **Policy 42(1) of the OCP states:** *To promote land uses that support rural lifestyle in the electoral areas of the Comox Valley.* **Policy 28(1) of the OCP states:** *To provide for mixed housing forms and affordable housing choices in rural settings.* **Policy 29(1) of the OCP states:** *Permit secondary dwellings, secondary suites and carriage houses in*

the settlement nodes, settlement expansion areas and in all rural settlement areas. The 3 previous policies promote and support the rezoning application which the applicant is attempting to have approved.

- An additional estimate of 4 people per dwelling for a total of 32 in population growth in the rural district of Area C if this application is approved. **Section 3 of the OCP** shows a growth in population of 9 people in the 20 years between 2010 & 2030 in Areas A, B, & C. This is well below the 10% population growth as stated in **Section 41 of the OCP** which states: *The rural settlement areas encompass the greatest diversity of land use within the CVRD. The RGS managing growth policies direct that the rural settlement areas grow at a rate which is no more than 10 per cent of any new residential development in the regional district over the next 25 years. Permitted uses in the rural settlement areas include all primary uses such as commercial, industrial, residential and institutional uses.* There have been 11 new homes built on Forbidden Plateau Road in the past 6 years which shows that people want to live in a rural setting and not in the inner city. Rezoning is going to be needed in the future all over the Comox Valley to accommodate the increase in population in all areas of the valley. At the time of this report, the applicant currently has 57 interested parties who wish to purchase one of the lots providing the rezoning application is approved.

FIGURE 2 - CENSUS POPULATION 2006 AND 2011

The overall predicted population growth 2011-2031 in CVRD (30.59%) is higher than elsewhere on Vancouver Island (21.23%) and comparable to the Province of BC (31.47%) (table i). Population growth can be attributed to in-migration rather than natural increase, which is below replacement (-1% due to births minus deaths).

Projected 20 year growth is concentrated in the municipal areas of Courtenay, Comox and Cumberland (48.32%) and not in the rural areas (.02%). Areas A, B and C have collectively dropped in population from 24,800 in 1996 to 22,540 in 2011 (15 years).

Population Projections	Area A[4]	Area B	Area C	Rural CVRD	CVRD	Municipal areas[5]	Vancouver Island excl CRD	BC
2011 census	6,899	6,939	8,325	22,163	63,538	40,998	387,126	4,400,057
2021 projection	6,898	6,938	8,330	22,165	73,341	51,175	426,376	5,164,002
2031 projection	6,896	6,938	8,334	22,168	82,976	60,808	469,329	5,784,669
20 year increase	-0.04%	-0.02%	0.11%	0.02%	30.59%	48.32%	21.23%	31.47%

TABLE i) POPULATION PROJECTIONS *(CENSUS)*

Policy 43(3), (4)

- The applicant has provided a layout proposal drawing (**Appendix C-2**) for an environmental protection area over 4.05 hectares or 20% of the total land area in the form of a conservation covenant pending the acceptance of an authorized covenant holder conforming to **Policy 2A of the RGS**. This follows the guidelines set out in **Policy**

43(g) where a combination of lot sizes is proposed the amount of land required for environmental protection area will be calculated based on the average lot size within the proposed subdivision*. 4(f) 4 hectare lots – where up to 30% of the total area is required for public dedication of greenspace or environmental protection*.

- The applicant is also open to a negotiated value in the form of a monetary amount, which the applicant would donate the agreed upon value to a community project which the Regional District is raising funds for as community amenity contribution.

Policy 43(5)

- Policy 43. (5a) of the OCP states "*Assess new lot development in the RSA proposing to rezone as follows: (a) Soil conditions must be shown to have the capacity to provide long-term sustainable on-site sewage treatment including a primary and secondary onsite sewage disposal field location, in accordance with Subdivision Standards published by Island Health*." In support of this, a report by Ron McMurtrie, P.Eng., of Ron McMurtrie and Associates Consulting Engineers (**Previously Submitted**) examined the site and determined that the soils will support the installation of Type 1 systems in accordance with the BC Sewage System Regulations and that the 4 hectare lot sizes are consistent with the Subdivision Standards with respect to the availability of dispersal areas and soil depths. This statement was also confirmed by a member of the Regional District Staff as there being more than sufficient amount of land available for this type of system to work properly and not affect the ground water in any way.
- Policy 43(5) (b) and(c) *relate to demonstration of ground water capacity and quality for the provision of potable water for the proposed lots.* In support of this, the applicant has provided the well construction report, dated August 16, 2011, (**Previously Submitted**) which was generated for the subject property's well when the parent parcel was subdivided to create this lot. An additional 3 wells will be drilled, 1 on each lot if the application is approved. A letter from the well drilling company who drilled the existing well states that they have drilled a number of wells (14) within a 1.5km area of Lot 4 with 100% success rate with a flow rate between ¾ to 250 GPM all have been potable water wells. (**Appendix C-3**)

- Policy 43(5)(d) of the OCP states *"The proposed development should be a natural extension of an existing subdivision where there is vehicle and pedestrian access connectivity between the existing and proposed subdivision and where the applicant has provided a site plan that illustrates the proposed road and trail connections."* **Policy 25(2) of the OCP states** "*Encourage development of any new roads, and road improvements… to design using the natural topography and conservation of environmental features"* The Regional District stated that the 500 meters of new road would have a 9% grade elevation & two short sections of 20 percent grade elevation. This is not correct as per the attached drawing (**Appendix C-1)**. The new road would have a grade elevation of no more than 9% from the start of the new road to the turnaround at the end. In addition, 80% of this new road will follow the natural topography of the land as shown on the drawing as the contour South to North is very flat contrary to the statement made by the Regional District that it does not follow the natural topography. It will also have 2 new culverts installed to allow the two identified watercourses to continue to flow during the rainy season unimpeded. While only 10% of the existing topography will have to be excavated to complete the specified road grade, as previously stated, the ground would then be reseeded accordingly to prevent soil erosion. The road would be constructed to all applicable Ministry of Transportation standards.

- Policy 43(5)(e) of the OCP states *the applicant must provide a report prepared by a qualified professional that demonstrates how the proposed development addresses and mitigates any risks associated with interface forest fire hazards.* The applicant has submitted a report titled Wildfire Threat Assessment for Lot 4, Block 249; Forbidden Plateau Road prepared by Leigh Stalker, RPF, of Strategic Natural Resource Consultants dated April 5, 2018 (**Previously Submitted**). The report found the subject property is dominated by moderate Wildfire Behavior Threat Class, with cleared areas and roads having a lower rating. The report provides recommendations, based on the guidelines of the Fire Smart program. Fire Smart focuses on mitigating risk to existing development within the interface area and provides guidelines for designing subdivisions where the additional density has been approved. The recommendations for subdivision design include avoiding road curvature radii of less than 30 metres, incorporating a turnaround radius of at least 18 metres at the terminus of dead-end roads, having the access route not exceed 10 per cent gradient, burying electrical lines if possible and providing vegetation maintenance around above-ground lines. The conceptual subdivision plan (**Previously Submitted**) illustrates a new dead-end road, approximately 500 metres long which would climb at about 10 per cent gradient, to a terminus with about a 20-metre radius of right-of-way. The illustrated road is straight, though there are two road curves with less than 30 metre radii along the existing Forbidden Plateau Road before the subject property is reached. The other recommendations of the report are applicable to proposed buildings including structural options (e.g. roofing, siding, chimneys, decks, etc.), water supply maintenance (for fire suppression purposes), and vegetation removal (within 30 metres from a structure). Should the subject property be subdivided, this report would be registered on title for future property owners. **Also, Policy 23(1) states** *"Review all new development proposals to assess the emergency access design. In general, new multi-lot residential and commercial development should have two separate and unobstructed accesses*". The applicant feels that the rezoning application of the 4 lots does not truly fall under the definition of multi lot residential development, as would be the case if developing a new residential area within the inner city of Comox/Courtney. The lot size would be a ¼ of an acre in size or smaller and 20 or more dwellings would be built. The applicant is creating 4 lots the smallest being 4 hectares with a maximum of 2 dwellings per lot as per the RU-20 zoning allows.

  The policy also states that the access is for emergency vehicles. The Fire Protection Feasibility Study (**Appendix C-4**) completed in February 2018 & the Recommendation Paper completed in April 2018 states the emergency vehicle boundary will remain at 5200 Forbidden Plateau Road for the foreseeable future with no extension planned. This boundary is 3.4 km in distant from the property (**Appendix C-6**). There will be no volunteer or remote fire department location on Forbidden Plateau Road planned for the future, even though the applicant did offer to the Regional District at no cost a small parcel of land (.415 hectares) for a future fire department station. This was turned down by the Regional District in their June 30th response. With regard to the secondary access for emergency vehicles, the applicant is more than willing to have the existing road on Lot A & Lot B to remain as a secondary access and to be used for emergency vehicles only, due to the fact that a covenant is registered on the property by the previous owner for the road to remain intact. The initial 30% of the road is required to access the building location on Lot A. The remaining 70% of the road has to remain due to the fact it is located in a riparian area, which a *Riparian Area Regulations Report* (RAR) is registered on the property in the form of a rain water management plan. It should also be noted that the ROW, where the new road would be constructed, is 30

meters wide and cleared of all vegetation which means this is a natural fire break in case of a wildfire or property fire and access to any of the lots would not be impeded due to this fire break. In addition, a road will be built on Lot D that access the Southern portion of a lot for a building site this will also connect the existing logging road to the newly built road. It will not only provide an additional emergency access road thru the neighboring property but also give the neighboring property owner an exit route in case of a forest fire. There is a logging road on the neighboring property which also has a covenant in place which state the logging road must remain in place, this road connects to the logging road on the Southern end of Lot D. (**Appendix C-2)**

- In addition, as the property is now, the applicant is allowed by the RU-20 zoning bylaws to build 2 homes on the property. If the application for rezoning in approved a maximum of only 6 more homes would be able to be built which is a very small increase in the total allowable residential homes which now exist or are approved to be built in the future. This increase should not be considered a large increase in wildfire danger. Property owners all over the valley are responsible to mitigate any and all fire dangers on their property whether they are within the fire boundary or outside the boundary. `

- Policy 43(5) (f) of the OCP states: *The suitability of land for rural residential development must be assessed in relation to the surrounding land uses, environmental features and the accessibility of the land."* The existing (RAR) report, which is registered on the property, shows the 2 wet season drainage ditches which flow downhill from the property towards the Brown's river watershed then into the Puntledge River. This is upstream from the drinking water intake pipe of the Comox Valley Water System, as well as several other local water service areas. These 2 drainage ditches will remain intact due to the fact the protection area around a riparian area is 30 meters and new culverts would be installed in the new road so as not to impede the flow of these 2 water courses. Therefore, there is no affect to the existing watershed. As per a recent news article, the Comox Regional District is accepting construction bids for the new drinking water intake pipes located at Comox Lake. Once construction is completed in (2021) the watershed rain water runoff from the new lots will not need to be a consideration, which means that only the 2020 wet season weather needs to be taken into consideration as to having any affect on the watershed. Any construction work would be done during the dry season so as not to have any impact with regard to rain water runoff.

- Policy 43(5) (g) of the OCP states: *New development should be designed to limit and mitigate any impacts on adjacent working landscapes through buffering and site design that avoids environmentally sensitive features as designated in the sensitive ecosystem inventory."* The applicant will not be affecting any environmentally sensitive areas as stated previously. All work will be conducted during the dry season. With regard to development next to a working landscape, the applicant feels that there would be no conflict and more of an advantage to the Timber Company who owns the property directly North, West and East of the purposed development (**Appendix C-5**). Building the new road would give the Timber Company easier access to their properties unimpeded without having to go thru the property using the existing logging road. The Timber Company has a covenant on title to be able to do so at any time in the future. As the Timber Company harvested 98% of the timber on the properties previously stated approximately 10 years ago and has not replanted the properties as required by the Lands & Forestry policies, which states an area must be replanted within 5 years of being harvested. If the properties were replanted in the next few years it would be 30 or more years before the timber would be of marketable size and the properties would not

have any work being done on it until that time. The Timber Company has also neglected to block any of their existing logging roads the entire length of Forbidden Plateau Road. To prohibit the public from entering their forest lands at this time so the Timber Company doesn't seem to be concerned about a buffer next to their working landscapes and it was the Timber Company who initial subdivided a number of the 20-hectare parcels from their forestry land base.

- The sensitive ecosystem will be protected as previously stated in the form of a RAR, the environmental protection area layout and the installation of the 2 drainage culverts during the dry season.

Please feel free to contact our office at your convenience with any questions or comments you may have.

Sincerely;

Colin Burridge *P.Eng, BCLS,CLS*

Cc. Jim Fry
120-072CVRD3.doc

APPENDIX C-1

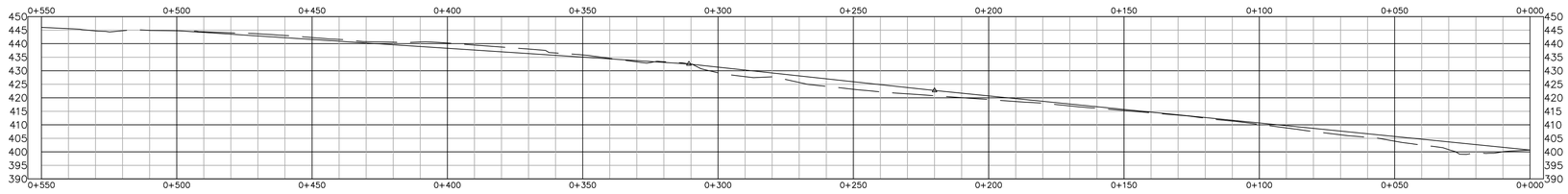
SCALE 1:1000 metric
0 10 20 30 50 100
ALL DISTANCES ARE IN METRES AND DECIMALS THEREOF
ELEVATIONS ARE IN METRES (APPROXIMATE GEODETIC)
CONTOUR INTERVAL 1,0 METRE

TOPOGRAPHIC PLAN TO ACCOMPANY PROPOSED DEVELOPMENT FOR:
LOT 4, BLOCK 249, COMOX DISTRICT, PLAN EPP11657

Forbidden Plateau Road

P.I.D.: 028-704-550

Access PROFILE



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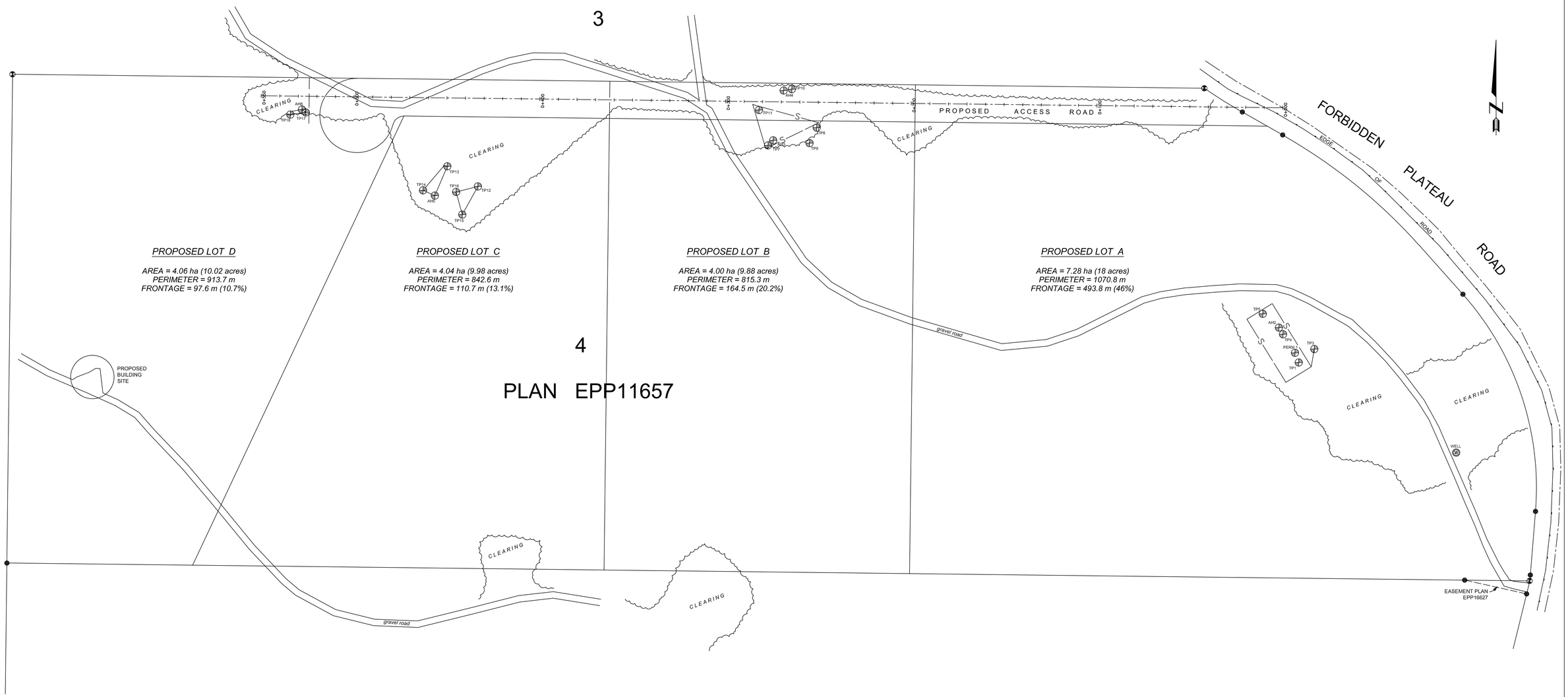

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PLAN EPP11657

J. E. ANDERSON & ASSOCIATES
SURVEYORS — ENGINEERS
F-1250 CEDAR STREET,
CAMPBELL RIVER, BC. V9W 2W5
Phone: (250) 287-4865 Fax: (250) 287-9502
File: 120-072 Projects\dwg\120-072Topo.dwg

APPENDIX C2

PLAN TO ACCOMPANY RE-ZONING APPLICATION:
LOT 4, BLOCK 249, COMOX DISTRICT, PLAN EPP11657

Forbidden Plateau Road

P.I.D.: 028-704-550

SCALE 1:1000 metric 0 10 20 30 50 100
ALL DISTANCES ARE IN METRES AND DECIMALS THEREOF
ELEVATIONS ARE IN METRES (APPROXIMATE GEODETIC)
CONTOUR INTERVAL 1.0 METRE

LEGEND

- Indicates Capped Iron Post
- indicates Iron Pin
- Indicates Test Pit
- Indicates Existing Drilled Well
- PW indicates Proposed Well
- Indicates Fire Assessment Polygon

3

4

PLAN EPP11657

100.0m Rad

30.0m Rad

10.0m Rad

CLEARING

Proposed Dwelling

PW

TP1 TP2 TP3 TP4 TP5 TP6 TP7 TP8 TP9 TP10 TP11 TP12 TP13 AREA

140 METER LONG WITH A 9 DEGREE RISE.

ROAD TO ACCESS THE TOP OF LOT D FOR BUILDING SITE WITH AN INCREDIBLE VIEW.

175 METER LONG WITH A 4 DEGREE RISE

PROPOSED LOT D

AREA = 4.06 ha (10.02 acres)
PERIMETER = 913.7 m
FRONTAGE = 97.6 m
(10.7%)

PROPOSED LOT C

AREA = 4.04 ha (9.98 acres)
PERIMETER = 842.6 m
FRONTAGE = 110.7 m
(13.1%)

PROPOSED LOT B

AREA = 4.00 ha (9.88 acres)
PERIMETER = 815.3 m
FRONTAGE = 164.5 m
(20.2%)

PROPOSED LOT A

AREA = 7.28 ha (18.0 acres)
PERIMETER = 1070.8 m
FRONTAGE = 493.8m
(46.0%)

APPROXIMATE LOCATION OF CREEK 2, NEW RAR REPORT TO BE PREPARED (EXISTING REPORT COVENANT CA2234895 GENERALIZED REPORT FOR ENTIRE ORIGINAL SUBDIVISION)

ACCESS ROAD
PROFESSIONAL ENGINEER TO REVIEW SUITABILITY OF ACCESS ROAD LOCATION/DESIGN AFTER REVIEW OF NEW RAR REPORT AND ADDITIONAL SURVEY DATA.

APPROXIMATE LOCATION OF CREEK 1, NEW RAR REPORT TO BE PREPARED (EXISTING REPORT COVENANT CA2234895 GENERALIZED REPORT FOR ENTIRE ORIGINAL SUBDIVISION)

PROPOSED ACCESS ROAD

FORBIDDEN PLATEAU ROAD

ENVIRONMENTAL PROTECTION
SITE OF CREEK AND AND SIGNIFICANT 2ND GROWTH TREES 2.0 ha±

NEW RAINWATER MANAGEMENT PLAN TO BE PREPARED BY A PROFESSIONAL ENGINEER FOR ALL THE PROPOSED LOTS (EXISTING REPORT COVENANT CA2234893 GENERALIZED REPORT FOR ENTIRE ORIGINAL SUBDIVISION)

ACCESS EASEMENTS FOR PROPOSED LOTS B, C AND D

RIPARIAN AREA INSIDE CLOUDED AREA
15 METERS EITHER SIDE OF THE OLD LOGGING ROAD AND DOWN THROUGH THE TREES TO THE DRAINAGE CULVERT ON FORBIDDEN PLATEAU ROAD.

25m WIDE WILDLIFE CORRIDOR
AREA = 2.05 ha±

gravel road

WELL W

EASEMENT PLAN EPP16627

NOTE:
ENVIRONMENTAL PROTECTION AREAS
TO BE ESTABLISHED AS COVENANTS ON TITLE.

REVISED DATE: 26th March, 2019
This Plan has been Prepared from Field Survey and Land Title Office Records
Certified Correct this 6th day of April, 2018.

Colin A. Burridge, BC. Land Surveyor

J.E. ANDERSON & ASSOCIATES
Surveyors - Engineers
Victoria - Nanaimo - Parksville - Campbell River
F-1250 CEDAR STREET, CAMPBELL RIVER, BC. V9W 2W5
File: 120-072

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Red Williams Well Drilling
& Pump Installations Ltd.

980 Pratt Road, Qualicum Beach, BC V9K 1W5
Telephone (250) 248-5552

Fax (250) 248-4555

Red Williams Well Drilling & Pump Installations has been in business for over 25 years. Ae a company we have drilled 14 registered water wells within a 1.5 km radius of Lot 4 on Forbidden Plateau Road. The well water volume range from ¼ gpm to 250 gpm and all have been potable water wells. It is our opinion that there is sufficient amount of deep ground water to service all the future lots on the proposed subdivision.

Sincerely

Thomas Williams

Fire Protection Feasibility Study
Forbidden Plateau Road Area
February 2018

DISCUSSION PAPER: FIRE PROTECTION OPTIONS & ALTERNATIVES

➢ Introduction

In the fall of 2017, a petition signed by 42 Forbidden Plateau Road area residents was submitted to the Comox Valley Regional District (CVRD) requesting a study to explore options for fire protection, primarily beyond the current Courtenay Fire Protection District (CFPD) boundary (5200 Forbidden Plateau Road). The petition was received by the CVRD's Electoral Areas Services Committee in October 2017, and funds for a feasibility study were approved. The petition specifically requested the CVRD's assistance with reviewing the feasibility of a range of options, including (but not limited to) potential expansion of existing CFPD fire protection boundaries, a first responder vehicle located on Forbidden Plateau Road or a volunteer fire department. Fire protection in rural and remote areas can be logistically challenging and very expensive; however, there are other measures that a community can take to mitigate the risk of damage due to fire. This *Discussion Paper* presents a high-level overview of a range of options in keeping with the petition request, as well as some alternatives for the community's consideration.

Forbidden Plateau Road Area

based on data from the CVRD, BC Assessment and 2016 Census

Upper Forbidden Plateau Road

- # of properties – 70 (55 residential, of which 32 have improvements)
- Estimated population - 70
- Total assessed value - $17,027,400
- Average assessed value - $243,250 ($327,000 for properties with improvements)
- # of properties represented on petition - 17

Lower Forbidden Plateau Road

- # of properties – 103 (102 residential, of which 97 have improvements)
- Estimated population - 213
- Total assessed value - $54,464,989
- Average assessed value - $528,800
- # of properties represented on petition – 8

Figure 1 – Study Area Statistical Information

➢ Fulltime, Recognized Volunteer Fire Department

Establishing a full-time volunteer fire department in the Forbidden Plateau Road area is the only option that would qualify all upper Forbidden Plateau Road area residents for insurance reductions. Though the legislative mechanism exists through which the CVRD could create an area specific service for such a service, there are some significant challenges that erode the feasibility of this option.

Cost - the start-up capital and ongoing operational costs associated with this option are very expensive. Using the cost estimates from a 2003 FUS study for Mount Washington and applying a cost escalation multiplier, the annual cost for establishing and operating a similarly modest-sized/serviced firehall in the Forbidden Plateau Road area could easily exceed $750,000 per year. These costs do not include land acquisition for a firehall, or construction of a waterworks system that meets FUS requirements, which would add hundreds of thousands to the capital cost. Further, the lower Forbidden Plateau Road properties already receive fire protection through the CFPD and City of Courtenay Fire Department, and therefore may be reluctant to share in the cost of this service. In the future, if the CFPD were to convert to a regional district service, there would be an opportunity to review the service boundaries and level of fire protection provided. The feasibility of including the upper portion of Forbidden Plateau Road could be reassessed at that time.

Population density - an organizational structure consisting of fire chief, deputy chief, training officer and fire captains for a total of a minimum of 15 fully trained firefighters would also be required to meet the FUS fully protected status; additional firefighters are preferred. The upper portion of Forbidden Plateau Road currently has approximately 32 developed residential properties - using the average number of people per dwelling in the 2016 census profile for the CVRD, the population is approximately 70 people. At full development, in accordance with the current RGS and OCP, the population of the area is not likely to exceed 200 people in the foreseeable future. Sustaining a minimum 15-member, 24/7 volunteer fire department would be a significant, if not insurmountable, challenge for the community.

Inconsistency with CVRD community plans - The scale of infrastructure, services and population required to establish and operate a full-time volunteer fire department in the Forbidden Plateau Road area is, at present, inconsistent with the vision and policies outlined in the CVRD's Regional Growth Strategy (RGS) and Official Community Plan (OCP).

It is recommended that this option be excluded from the next phase (detailed research) of the study.

➢ Expand CFPD Boundaries

The CFPD has been approached on at least two occasions in the past decade with a request to consider expansion of its service area boundaries to include the upper portion of Forbidden Plateau Road - once by area residents, and once by the CVRD on behalf of area residents.

The CFPD most recently (2013) declined to consider an expansion based on the following reasons, as outlined in a written response to the CVRD:

- *The current boundary is approximately 13.9 km from the fire hall using the Comox Logging Road as a route. This route currently runs through private property and has been shut down for the Courtenay Fire Dept's use in the past.*
- *Most insurance companies won't provide a discounted insurance rate when you exceed 13 km's from a fire station, so there would be no financial benefit to the homeowner.*
- *Taking in more forested land would also increase the potential financial risk to the CFPD. If a large forest fire were to occur in this forest area, the Courtenay Fire Department would have to bring in the Ministry of Forest and possibly contractors to assist with the extinguishment and overhaul. This cost would then be passed on to the CFPD.*[1]

Preliminary discussions with the CFPD indicate that their position has not changed. Even if the CFPD were open to a possible boundary expansion, the Fire Chief for the City of Courtenay has indicated that the Department has no interest in sending its water tanker apparatus any further up Forbidden Plateau Road than the current boundary, which ends at 5200 Forbidden Plateau Road.

➢ Where does this leave us? Fire Protection Alternatives

There are several other fire protection alternatives that may interest the community, depending on the local reasons for wanting fire protection. These alternatives range from planning/prevention activities to basic fire extinguishment response. (See Figure 2) It is important to note that none of the alternatives discussed in this section fully meet FUS standards for insurance reductions, though individual companies may sometimes be willing to offer reduced insurance premiums for more basic levels of extinguishment response.

CVRD Service or Community Initiative?

Different implementation mechanisms exist for each of the alternatives along the fire protection continuum. Generally, implementation will either be achieved through the CVRD (established as a

[1] It appears this concern is related to Division 2 of the *Wildfire Act*, wherein the Minister may issue an order requiring a leaseholder/occupier of Crown land OR owner/leaseholder/occupier of private land to pay fire control costs incurred by the BC Forest Service, and the possibility that an individual receiving such an order could potentially then make a claim against the Improvement District for failing to provide sufficient fire protection service.

would be no need to create a new area specific service. The main benefit of this alternative is that it is an economical, pro-active approach to mitigating risk to life and property from fire. This option could be implemented relatively quickly, depending on the granting schedule and interest/availability of local residents in working with the CVRD on a FireSmart funding application and community project.

Community Fire Prevention Program

A community fire prevention program could engage the services of a fire prevention officer to focus on designing and implementing a localized program for the upper portion of the Forbidden Plateau Road area. It is unlikely that properties in the lower portion would participate in this option as they already receive fire prevention programming through the CFPD / Courtenay Fire Department.

The program could include development of a fire protection plan that prioritizes fire prevention and life safety based on local needs. Given the area's rural, forested surroundings, the program could focus on reducing the risk of both **wildfire and structural** fires through education, inspections (on a volunteer basis) and fire safety initiatives. The fire prevention officer could be engaged on a term contract simply to develop a fire prevention plan, which could then be turned over to residents for implementation on an individual/community basis, or on a longer-term contract, or an ongoing part-time basis to develop and implement the plan in collaboration with residents.

Implementation & Cost Considerations

This service could be established as a CVRD area specific service, or as a community-led initiative. An example of a community-led initiative that utilized this type of approach was at Mount Washington, where Strata 799 worked with a local Comox Valley fire chief to implement a fire protection strategy and various fire prevention measures.

For an ongoing program, preliminary research indicates that this option would cost approximately $60,000 to $70,000 per year, including a part-time fire prevention officer salary, a program budget to support fire safety initiatives for community benefit, and a used 4x4 vehicle for use/storage by the officer. If established as a local area service through the CVRD, a residential property valued at $327,000 (average 2017 assessed value for the upper portion of the Forbidden Plateau Road area), could expect to pay approximately $1,175/year for this option, plus a 5.25% provincial Surveyor of Taxes fee. Elector assent would need to be obtained through a referendum or petition. The program could potentially utilize grants, such as the FireSmart program, to support various aspects of the program.

➢ Along the Continuum: Fire Extinguishment

Basic, Defensive Extinguishment

This alternative includes establishment of a basic, defensive (exterior operations only) fire extinguishment response service aimed at preventing the spread of fire to adjacent properties/buildings/forest. As the lower portion of Forbidden Plateau Road already receives full fire protection, this alternative would again focus on the upper portion of the Forbidden Plateau Road area. The intent would be to provide an initial defensive response while waiting for the BC Forest Service to initiate operations (if applicable, though BCFS does not fight structural fires) and/or emergency responders if there is an immediate threat to life due to fire. Ideally, this option includes preparation of a community fire protection plan as a starting-point to the service.

Implementation & Cost Considerations

This service could be established as a CVRD area specific service, or as a community-led initiative. **If established as a CVRD service**, certain minimum requirements would need to be met to fulfil various legal and administrative obligations, which unavoidably increases the cost of the service. The fire protection service recently approved for Mount Washington proposed a similar type of first-line defensive service. Key elements of that service that could apply to a similar service in the upper Forbidden Plateau Road area include:

- Construction of a double garage-style building, to post disaster standards and withstand snow load (estimate $500,000)

new area specific service), or as a community-led initiative - perhaps through the Forbidden Plateau Road Association, a newly formed community non-profit organization, or simply a group of residents wishing to work together.

One of the key benefits of establishing an area specific service through the CVRD is that the service is clearly defined by bylaw (e.g. service area boundaries, participating properties, service levels, etc.), and funded on a sustained basis through taxation. Community-led programs and initiatives depend on voluntary participation and financial contributions; however, residents sometimes prefer the flexibility and lower costs of community-led programs over regional district services. The focus of this study is to determine the feasibility of an area specific regional district service for fire protection. Recognition of where other community-led options may apply (including examples, where applicable) has been included but not researched or costed in any detail.

➢ Along the Continuum: Planning & Prevention

FireSmart (Wildfire) Planning & Activities

FireSmart planning and prevention activities are intended to prevent/mitigate the impacts of wildfire to assets on community and private property. The CVRD is currently in the process of developing a region-wide wildfire protection plan as part of its emergency preparedness program, which will include the Forbidden Plateau area. Once completed, the CVRD will become eligible to apply for grants to support FireSmart education initiatives and related activities (i.e. property risk assessments, vegetation management, etc.) through the Union of BC Municipalities' Community Wildfire Prevention Program. Regional Districts may submit up to three applications per funding intake, which is typically offered annually. Forbidden Plateau Road residents could approach the CVRD about a grant application to support FireSmart education and activities in the area. The project could involve just the upper portion, or all properties on Forbidden Plateau Road, as all properties pay into the regional emergency preparedness program. It would require some local coordination to work with the CVRD and undertake the project, which could possibly be overseen by the Residents Association. This option could be combined with any others in this Discussion Paper.

Implementation & Cost Considerations

Due to the current availability of provincial funding, FireSmart planning and prevention activities is the lowest cost alternative for incrementally increasing fire protection in the community. Communities can request up to 100% of eligible costs, to a maximum of $10,000 per project. Communities can re-apply to the program for additional funding/projects; however, first-time applicants receive preference.

This option would be undertaken in partnership with the CVRD, through the existing regional emergency planning program. As such, there

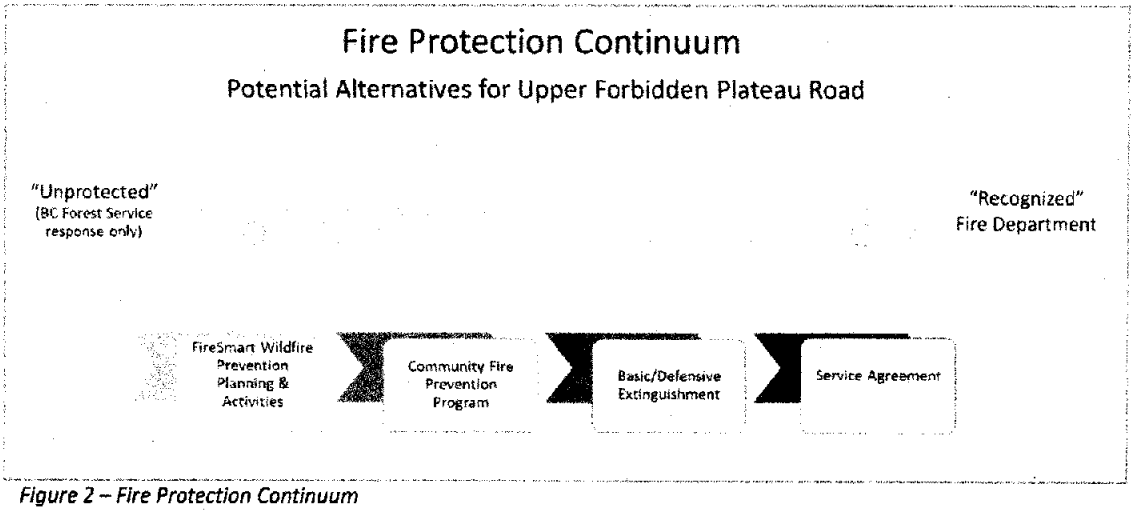


Figure 2 – Fire Protection Continuum

- Two response vehicles appropriate for the mountain terrain (estimate $70,000)
- Selection of start-up equipment (estimate $60,000)
- Training for local volunteers to Level 1 Firefighter (estimate $25,000 annually for CVRD-required minimum of 15 volunteers)
- Program administration (estimate $10,000 annually)

Mount Washington benefited significantly from having dedicated land available (at no additional cost) for construction of the storage building, along with an existing Resort-owned water system and hydrants that met fire flow requirements. Underground fiberglass water storage tanks (see Figure 3) may be a possibility for the upper Forbidden Plateau Road area, but land would need to be acquired (or alternative arrangements made with willing property owners) for equipment/vehicle storage and installation of water tanks.

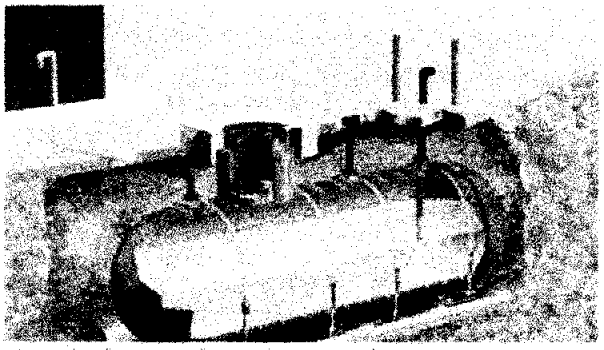


Figure 3: Example of an underground fiberglass water storage tanks for fire protection in rural areas

Allowing for another $125,000 for purchase, engineering and installation of a 25,000-gallon tank (or series of smaller tanks) and $275,000 for land acquisition (which would require rezoning), the annual cost of a defensive service established through the CVRD could be roughly estimated at $155,000 per year.[2]

If established as a local area service through the CVRD, a residential property valued at $327,000 (average 2017 assessed value for the upper portion of the Forbidden Plateau Road area), could expect to pay in the range of $2,435/year for this option, plus a provincial 5.25% Surveyor of Taxes fee.

Elector assent would need to be obtained through a referendum or petition. There are currently no major government grants available for capital costs related to fire protection, including firehalls, apparatus and/or equipment. This level of service would not meet FUS standards, meaning it is anticipated that no insurance premium reductions would apply. As well, a minimum of 15 volunteers would be required for a sanctioned regional district service. As outlined in the previous section, it would be very difficult for the area to support the 15-volunteer requirement, even at full development potential in accordance with the current RGS and OCP.

A **community-led approach** to this alternative would not be subject to the same legal requirements as a regional district service and could most likely achieve cost reductions through the use of private land, donations and/or in-kind contributions towards shared equipment and water-equipped apparatus (for example, water tenders with pumps), along with basic training of available local volunteers. While this is possible on an informal, neighbour-helping-neighbour basis, some communities (including Apex Mountain Resort) have opted to form not-for-profit societies to provide an organizational structure and fundraising capability. It is important to note, however, that not-for-profit status does not exempt organizations from the need to be compliant with WorkSafe BC regulations, insurance obligations and proper administration related to Society organization, training, maintenance and documentation. As well, with a not-for-profit organization, there may be a need to further investigate the possible financial risk referenced by the CFPD, related to cost recovery claims under the *Wildfire Act*.

If residents in the upper portion of the Forbidden Plateau Road area want to set up a community-led service - whether informally as neighbours or as a not-for-profit Society - Regional district staff and/or local Comox Valley fire departments may

[2] Capital costs financed over 10 years at 3.0% per annum; allocated to a capital reserve following debt pay down for equipment and apparatus renewal, replacement or upgrade.

be able to provide recommendations and guidance with regards to selection of fire service apparatus.

Service Agreement

As outlined, the new fire protection service at Mount Washington was designed to have on-site infrastructure, storage of equipment and apparatus, along with trained volunteers for initial response. In addition to that, the service includes an agreement with the Oyster River Fire Department through which it was anticipated that a crew of approximately four trained firefighters would arrive in a four-wheel drive vehicle as soon as safely possible to assume responsibility at the scene, using the local apparatus and equipment.

In that instance, a service agreement was only feasible in combination with the on-mountain water system, storage building, apparatus and equipment to standards specified by the Fire Chief. It is reasonable to assume that similar requirements would apply if a Comox Valley fire department were willing to consider a comparable agreement with the upper Forbidden Plateau Road area residents. Their interest, however, is not guaranteed and must be balanced with the need to maintain service levels in their home communities. If there is any perceived risk in terms of insufficient infrastructure, availability of firefighter personnel and/or any other related service concerns, then an agreement would not be feasible.

Implementation & Cost Considerations

Though it would require further research and consultation with CVRD staff and local fire chiefs, it is not anticipated that a service agreement would be possible at this time – lack of a local water supply system would undoubtedly be a significant concern for local fire departments, along with ensuring sufficient firefighter coverage in their home communities. At a minimum, it could be expected that the cost of an agreement could significantly exceed other areas due to the level of risk. For reference, the service cost is budgeted at $90,000 annually for Mount Washington, which has a full water system and hydrants. The cost of a service agreement for Forbidden Plateau would be in addition to the costs outlined in the previous section to establish on-site storage for firefighting equipment and apparatus, training for local volunteers, water storage tank(s) and land procurement. It still would not satisfy the published FUS standards and requirements for insurance reductions.

➢ Community Conversation – questions for consideration

We need your input! Please plan to attend the **Community Conversation meeting on Sunday, March 11th from 2pm – 4pm at the Dove Creek Hall** (3400 Burns Road) where the consultants will work with residents to determine which alternatives are best aligned with community goals/expectations and require more detailed research. Questions that we hope to cover with residents include the following:

- What do you think about the recommendation to exclude a "fully recognized" volunteer fire department (to FUS standards) from the study?
- Preliminary conversations with the CFPD and City of Courtenay Fire Department indicate that there is not likely to be any consideration given to a boundary expansion – do residents have any follow-up questions or require any further information on this option? Should it be excluded moving forward?
- Which of the alternative(s) presented do you think best meet the goals and expectations of the community and warrant further research?
- Do you think your preferred alternative(s) is best pursued as a regional district service, or a community-led approach? Or perhaps a combination?
- Do you have any other ideas or information you would like to see included as part of the next stage (detailed research) of the study?

Comox Valley

Fire Protection Feasibility Study
Forbidden Plateau Road Area
February 2018

BACKGROUNDER

➤ Introduction

In the fall of 2017, a petition signed by 42 Forbidden Plateau Road area residents was submitted to the Comox Valley Regional District requesting a study to explore options for fire protection, primarily beyond the current Courtenay Fire Protection District boundary (5200 Forbidden Plateau Road). The petition was received by the CVRD's Electoral Areas Services Committee in October 2017, and funds for a feasibility study were approved.

The purpose of the study is to explore options associated with fire protection services on Forbidden Plateau Road, including, but not limited to, impacts to existing and future land use activities, the potential expansion of existing fire protection boundaries, a first responder vehicle located on Forbidden Plateau Road or a volunteer fire department.

It is important that the options evaluated in detail as part of the final report are aligned with the community's expectations, particularly in terms of level of service and cost impacts. This information package is designed to provide residents with important background information and an overview of a broad range of options for the community's consideration. Residents are encouraged to review the information and attend the Community Conversation meeting on Sunday, March 11th from 2pm to 4pm at Dove Creek Hall (3400 Burns Road) to share any thoughts and opinions. Residents who are unable to attend but would like to provide input to the study can contact Sarah Morden of Defero-West Consulting at 1-778-422-0913 or smorden@defero-west.ca.

Community Conversation

Sunday, March 11th
2pm – 4pm
Dove Creek Hall (3400 Burns Road)

➤ Study schedule

The study began in January and is scheduled to conclude in June 2018. Study-related documents will be posted on the CVRD website at www.comoxvalleyrd.ca/ForbiddenPlateau.

This information package is based on the consultants' initial research and consultation with key participants and stakeholders. The Community Conversation is intended to identify the options that best reflect the community needs and expectations. During the next phase, the consultants will explore and compare the short-listed options in more detail for review by the CVRD and the community. A summary of the detailed research will be shared on the CVRD website and by email with the Forbidden Plateau Road Association and residents who sign up at the Community Conversation to receive updates. A comment period will follow, and residents are encouraged to submit feedback at this stage to the consultants by phone or email. The purpose of the comment period is to determine if the community has any strong preferences or concerns with respect to the options and/or to identify any further details or information that needs to be researched before preparing the final report to the CVRD.

➤ Local Government – who does what in the Forbidden Plateau Road area?

There are two local government authorities providing services in the Forbidden Plateau Road area – one is an improvement district (Courtenay Fire Protection District) and the other is a regional district (Comox Valley Regional District).

Improvement districts are a form of local government that typically look after a small number of services for communities that are not located within a municipality. Often these bodies were established prior to the creation of regional districts, which then became responsible for service delivery for areas outside municipalities. Now that regional

districts are in place, the Province no longer creates new improvement districts. In 2006 the Province developed the Policy Statement on Improvement District Governance. The provincial policy supports the continued gradual elimination of improvement districts, with municipalities and regional districts assuming the responsibilities of improvement districts over time.

The **Courtenay Fire Protection District (CFPD)** provides one service - fire protection - within its service area (see Figure 1 or digital version online at www.comoxvalleyrd.ca/forbiddenplateau), which includes properties up to and including 5200 Forbidden Plateau Road. Fire protection is provided to these properties through a service agreement with the City of Courtenay Fire Department. The CFPD was established in 1946 and is currently governed by three volunteer Trustees. The CFPD is a taxpayer funded organization, meaning that property owners pay for fire protection on an annual basis as part of their property taxes, and the total amount paid depends on the assessed value of their property. The net cost of the service to the CFPD taxpayers on their 2017 property tax bill was approximately 43 cents for every $1000 of assessed value. For home insurance purposes, these properties may qualify as "semi-protected", and likely receive a discount on their home insurance accordingly. For those properties beyond 5200 Forbidden Plateau Road, the BC Forest Service Protection Program has wildfire fighting resources to respond to fires on wildlands (forest land, grass land), but does not fight structure fires.

The **Comox Valley Regional District (CVRD)** is one of 28 regional districts in British Columbia. Most regional district boundaries encompass municipalities as well as unincorporated lands, which are divided into smaller areas called electoral areas. The CVRD has three electoral areas – Electoral Areas A, B and C. All properties on Forbidden Plateau Road are within the boundaries of Electoral Area C. Each of the electoral areas has one representative on the CVRD Board of Directors - Area C is represented by Mr. Edwin Grieve. Municipalities within the region (City of Courtenay, Town of Comox, Village of

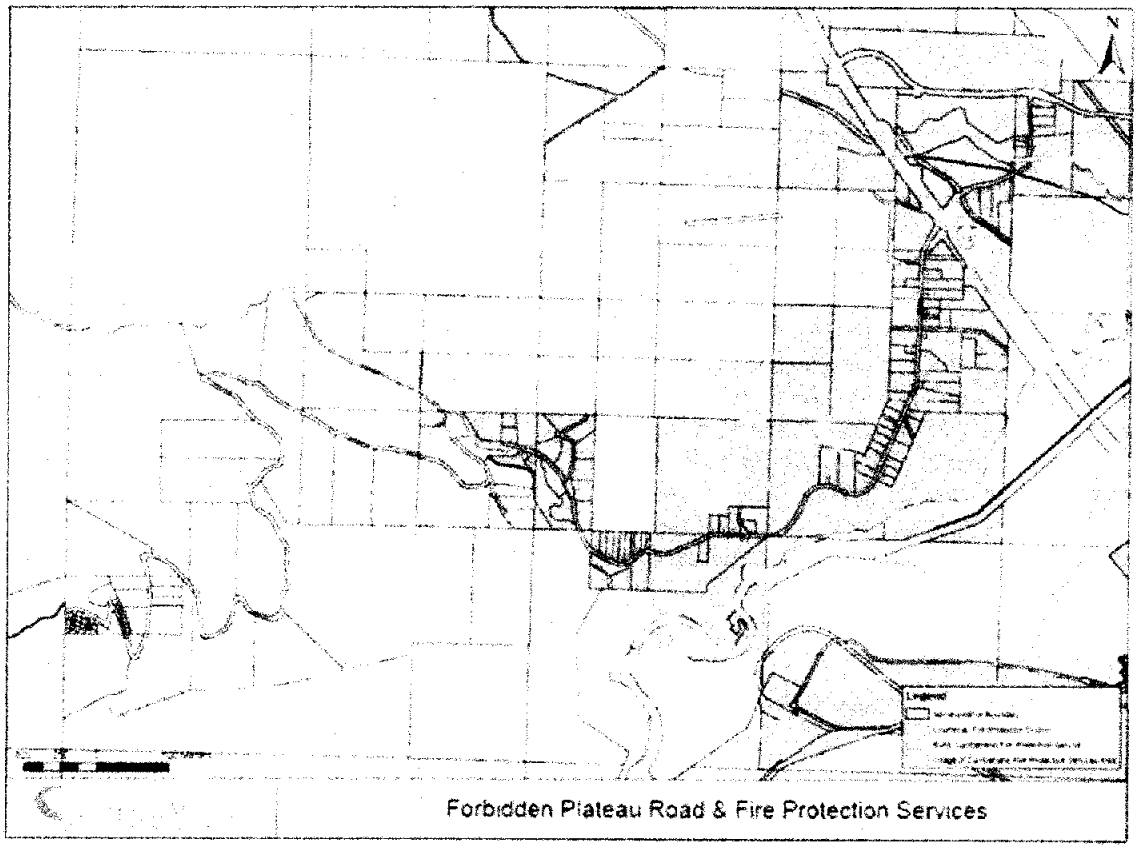


Figure 1 – CFPD Service Area Boundary on Forbidden Plateau Road

Cumberland) are also represented on the Board, which has a total of 10 Directors.

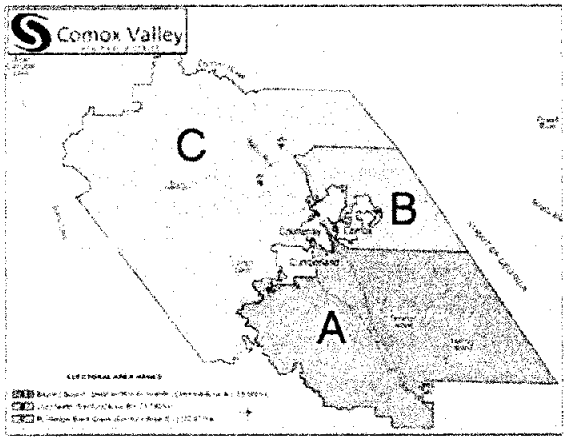


Figure 2 – CVRD Electoral Area Boundaries

➢ How are Regional District Services Established?

Regional districts are flexible structures that can provide a broad range of services, with the exception of a few provincially mandated services (e.g. roads, policing). Services offered are determined by the regional board, with the support of residents. Because the board only provides services that its members, or residents, agree the regional district should provide, the number and type of services varies by regional district and can be different within each electoral area or community. Some services, such as fire protection, may be provided on an area specific basis to a portion of an electoral area, or to a combination of electoral areas. Regional services are those that are provided to all electoral areas and municipalities.

To establish a new service, it must (in accordance with the *Local Government Act*) go through a process to determine its feasibility – this study is the first step in determining the feasibility of a fire protection service for the Forbidden Plateau Road area. If deemed feasible, a service establishing bylaw must receive support from the CVRD board. The bylaw must also be approved by the province's Inspector of Municipalities and supported by the residents that will participate in and pay for the service. Support can be demonstrated through an alternative-approval process,[1] referendum, petition or (in some cases) approval by an electoral area director on behalf of residents of that jurisdiction.

➢ What CVRD services does the Forbidden Plateau Road area currently receive?

Forbidden Plateau Road area residents pay for and receive the following CVRD services:

- Emergency planning and management (earthquake, tsunami, flood, wildfires)
- Community / land use planning
- Building inspection
- Bylaw enforcement
- Homelessness support service
- Recreation (Comox Valley Sports and Aquatics Centers)
- Regional parks
- Solid waste management
- Library[2]
- CVRD Governance / Administration

Residents pay for these services through property taxation and user fees where applicable (e.g. recreation centre fees and garbage tipping fees). In electoral areas, the Province collects property taxes. The Province then transfers funds to the regional districts to cover the cost of the services that the regional district provides, both region-wide and area specific. There is currently no area specific CVRD services that encompass all or part of the Forbidden Plateau Road area.

CVRD Community Planning

The CVRD Regional Growth Strategy (RGS) is an overarching, region-wide plan containing high-level policies to direct growth while preserving the region's quality of life. The RGS was mandated by the Province in 2008 as part of the establishment of the CVRD and was completed in 2011. **All CVRD**

[1] An alternative approval process (sometimes referred to as a counter-petition) is possible only if the service will not exceed 50¢ for each $1,000 of net taxable value of land and improvements included in the service area. Otherwise, a referendum is required unless a petition meeting all of the requirements outlined in the *LGA* can be presented to the Regional District – this includes signatures from owners of at least 50% of the parcels in the service area, representing at least 50% of the net taxable value of all land and improvements in the service area.

[2] Library service is provided to CVRD by the Vancouver Island Regional Library (VIRL). Although not delivered directly by the Regional District, the CVRD participates on the library board and collects taxes on behalf of the regional library board.

bylaws (including the Official Community Plan and Zoning Bylaw), infrastructure and services must be consistent with the RGS. This alignment is very important to consider when any new services are proposed, including fire protection options for the Forbidden Plateau Road area – services that are inconsistent with the RGS are unlikely to garner support from the regional board.

➢ What do the regional plans say about the Forbidden Plateau Road area?

Under the RGS, the Forbidden Plateau Road area is within a "**Rural Settlement Area**", which encompasses all lands within the electoral areas outside of core settlement areas that are not otherwise designated as Agricultural Areas, Resource Areas, or Provincial Parks. The RGS emphasizes the importance of maintaining the rural character and function of these areas and sets out guiding policies with regard to land uses and lot sizes. The RGS also expressly acknowledges the "existing and ongoing pressure" to subdivide lands within Rural Settlement Areas for the purposes of creating small lots of less than 4 hectares in size, which (according to the RGS) would begin to change the character of Rural Areas and could result in the unintentional conversion of those areas into estate residential areas, creating conflict between uses.

The Rural Comox Valley Official Community Plan (OCP) flows from the RGS - under this Plan, the Forbidden Plateau Road area is again within a Rural Settlement Area. Policy objectives for Rural Settlement Areas include supporting rural lifestyles, restricting sprawl and parcel fragmentation, protecting working landscapes and minimizing the impact of new development on existing neighbourhoods. The minimum lot size for properties in the Rural Settlement Area is 20 hectares, unless there is space dedicated for public green space or environmental protection, and then (in accordance with the OCP policies) the minimum lot size may be reduced to as few as 4 hectares.

➢ What sort of development is likely to occur in the Forbidden Plateau Road area?

The current regional planning framework does not envision any significant development or growth in the Forbidden Plateau Road area, and no major reviews of the RGS or OCP are planned in the foreseeable future. Recent residential development projects in the area include Mountain Spirit and Mystic Rise, and a Couverdon application to rezone six parcels (to enable subdivision into the minimum parcel size) is currently before the CVRD. The K'ómoks First Nation has also been offered two Crown parcels (currently Class C Provincial Park) at the top of Forbidden Plateau Road as part of the treaty settlement process – though the parcels have been offered 'with protection' (mainly to ensure public access to Forbidden Plateau and Strathcona Park), the KFN website indicates that they may be interested in developing the land in the future.

➢ Fire Protection and Home Insurance

There are many different reasons that communities desire fire protection, a common one being to reduce the cost of fire insurance. Most insurance companies rely on the Fire Underwriters Survey (FUS) to establish appropriate fire insurance rates for both residential and commercial properties. FUS classification and grading consider a variety of factors, including an area's water system, fire department apparatus, number of trained/responding firefighters, and proximity to the firehall and/or hydrant.

The lower portion of Forbidden Plateau Road (up to and including the property at 5200) receives fire protection through the Courtenay Fire Protection District via a service agreement with the Courtenay Fire Department, which is a "recognized" service provider. According to FUS classification and grading systems, properties within the service area may qualify as "semi-protected" and may receive a reduction on their home insurance. Currently, properties located beyond 5200 Forbidden Plateau Road are considered "unprotected", and do not qualify for reductions on home insurance. For those properties, the BC Forest Service has wildfire fighting resources to respond to fires on wildlands (forest land, grass land), but the BC Forest Service does not fight structure fires.

Comox Valley

Fire Protection Feasibility Study
Forbidden Plateau Road Area
April 2018

RECOMMENDATIONS PAPER

BACKGROUND:

In the fall of 2017, a petition signed by 42 Forbidden Plateau Road area residents was submitted to the Comox Valley Regional District (CVRD) requesting a study to explore options for fire protection, primarily beyond the current Courtenay Fire Protection District (CFPD) boundary, which ends at 5200 Forbidden Plateau Road. The petition was received by the CVRD's Electoral Areas Services Committee in October 2017, and funds for a feasibility study were approved.

In February, an information package containing two documents (a Backgrounder and Discussion Paper) was prepared and mailed to residents. The Discussion Paper provided a high-level overview (including preliminary costing) of a range of service options in keeping with the petition request, as well as some alternatives for the community's consideration. For details regarding the options, please download the Discussion Paper from the project website at www.comoxvalleyrd.ca/forbiddenplateau. Briefly, the options included:

Planning & Prevention Options

- FireSmart wildfire prevention planning & activities
- Establishing a community fire protection program

Extinguishment Options

- Establishing a basic, defensive fire protection service
- Extending the Courtenay Fire Protection District boundaries
- Establishing a local volunteer fire department

The Discussion Paper was used as the basis of discussion for the "Community Conversation" meeting in March, and the community feedback from that meeting was used to develop the recommendations contained in this document.

COMMUNITY CONVERSATION OUTCOMES:

A "Community Conversation" open-house style meeting was held at the Dove Creek Hall on Sunday, March 11th. Approximately 32 residents and/or property owners attended, including 5 who reside, or own properties located beyond the current Courtenay Fire Protection District (CFPD) boundary at 5200 Forbidden Plateau Road. The remainder reside or own property up to/including 5200 Forbidden Plateau Road.

Also in attendance were:

- CVRD Area C Director Mr. Edwin Grieve
- Two CVRD staff: James Warren, General Manager of Corporate Services and Doug DeMarzo, Manager of Parks
- Consultants: Sarah Morden of Defero-West Consulting and Sherry Hurst of Leftside Partners Inc.

Summary of key findings:

- Though the petition and scope of the feasibility study focuses on options for fire services primarily for properties beyond 5200 Forbidden Plateau Road, fire protection and wildfire risk is a shared concern that transcends the CFPD boundary.

- Residents raised several concerns related to emergency planning, including the need to identify and mitigate high-risk areas, establish an escape route(s), identify and engage major stakeholders in fire prevention and enforcement activities (including TimberWest, BC Hydro, BC Parks, BC Forest Service, CVRD Regional Parks and BC Ministry of Highways), and address the ongoing impact/risk of increased recreational use throughout the area.

- Residents were keen to be engaged in the Community Wildfire Protection Plan (CWPP) that is currently being developed by the CVRD, including a community meeting(s) to provide input and participate in the planning process.

- There was broad support to pursue FireSmart funding and activities to reduce the risk of wildfire in the Forbidden Plateau Road area.

- Though residents within the CFPD already receive fire protection, concerns exist around response times and risk of fire spreading.

- Residents generally supported the recommendation to eliminate the option of a fully-recognized volunteer fire department in the local area; achieving fire insurance reductions is not a key goal of the community.

- A request was made to the consultants to follow-up with the CFPD and Courtenay Fire Department to determine their willingness to consider a smaller, incremental boundary expansion that would encompass properties up to and including those located on Mountain Spirit Way.

- The option of a CVRD local service area for a community fire protection officer/program did not receive support, nor did a CVRD local service area for a basic, defensive service.

- There was general agreement that a community-led initiative (as opposed to a regional district service) is best suited to the area at this time, perhaps through or in partnership with the Forbidden Plateau Road Association (FPRA). Such an initiative could be open to residents of the entire Forbidden Plateau Road area but may mostly involve residents/owners of properties outside of the Courtenay Fire Protection District.

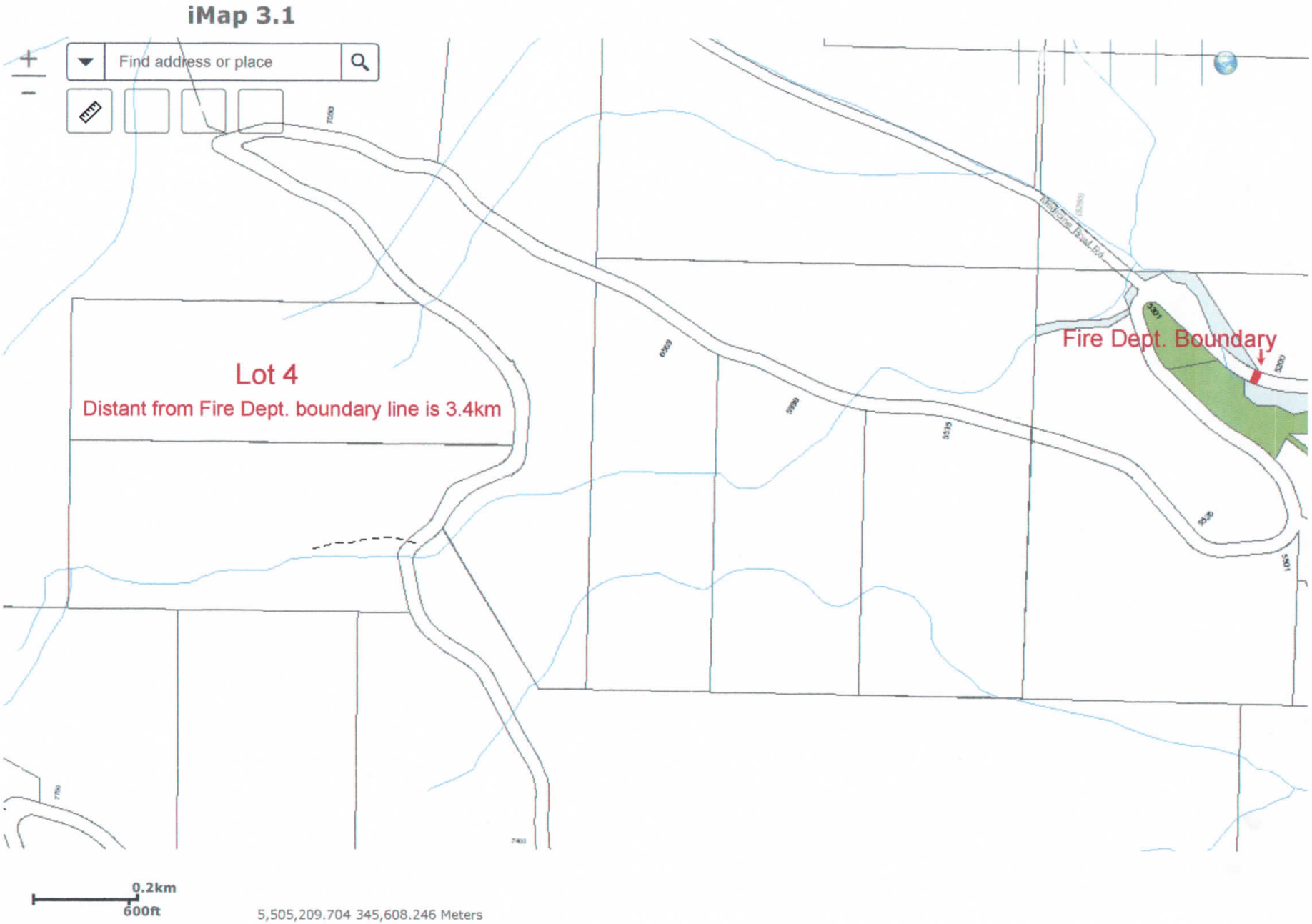
- The FPRA has indicated the organization may be willing to support the start-up of a community-led initiative. (Note - this is an advantage as the Association is a long-standing non-profit organization incorporated under the *Societies Act of BC*, which helps to enable access to grant funding.)

- There are residents in the local area with experience and expertise in fire extinguishment (including firefighter training) who expressed an interest in participating in a community-led initiative.

iMap 3.1


Find address or place
XY
100m
400ft
5,504,974.224 345,437.325 Meters

APPENDIX C-6


iMap 3.1
Find address or place
Lot 4
Distant from Fire Dept. boundary line is 3.4km
Fire Dept. Boundary
0.2km
600ft
5,505,209.704 345,608.246 Meters

Agency and First Nations Referral List

The following agencies will receive a referral of the proposal ☒.

First Nations

☒	K'ómoks First Nation	☒	Homalco (Xwemalhkwu) Indian Band
☒	We Wai Kai Nation of the Laich-Kwil-Tach Treaty Society	☒	We Wai Kum First Nation
☒	Kwiakah First Nation		

Provincial Ministries and Agencies

	Agricultural Land Commission		Ministry of Community, Sport & Cultural Development (responsible for TransLink)
☒	BC Assessment		Ministry of Energy & Mines
	BC Parks	☒	Ministry of Forests, Lands and Natural Resource Operations
	Ministry of Environment	☒	Ministry of Transportation and Infrastructure
	BC Transit		Ministry of Jobs, Tourism & Skills Training (responsible for Labour)
	Ministry of Agriculture		Ministry of Indigenous Relations and Reconciliation

Local Government

	Comox (Town of)		Alberni-Clayoquot Regional District
	Courtenay (City of)		Strathcona Regional District
	Cumberland (Village of)		Regional District of Mount Waddington
	Islands Trust		Regional District of Nanaimo

Other

☒	Puntledge – Black Creek Area 'C' Advisory Planning Commission		Agricultural Advisory Planning Commission
☒	School District No. 71 (Comox Valley)	☒	Vancouver Island Health Authority (Environmental Health)

Comox Valley REGIONAL DISTRICT

Staff report

DATE: June 20, 2018

FILE: 3360-20/RZ 3C 18

TO: Chair and Directors
Electoral Areas Services Committee

FROM: Russell Dyson
Chief Administrative Officer

Supported by Russell Dyson
Chief Administrative Officer

R. Dyson

RE: **Proposed Zoning Bylaw Amendment – Forbidden Plateau Road**
(Fry / Taylor)
Puntledge – Black Creek (Electoral Area C)
Lot 4, Block 249, Comox District, Plan EPP11657, PID 028-704-550

Purpose
To provide an overview of an application (Appendix A) to rezone a 20 hectare property on Forbidden Plateau Road to a zone that would enable its subdivision into four 4 hectare residential lots and recommend that the request be denied.

Recommendation from the Chief Administrative Officer:
THAT the board deny the application to rezone Lot 4, Block 249, Comox District, Plan EPP11657, PID 028-704-550, which would have enabled subdivision to create 4 hectare parcels.

Executive Summary

- The property owners of an undeveloped 20 hectare parcel along Forbidden Plateau Road are requesting a rezoning to allow for the property to be subdivided into residential lots with a minimum lot area of 4 hectares.
- The property is designated as being within the Rural Settlement Areas (RSA) of the Regional Growth Strategy (RGS) and Official Community Plan (OCP).
- The proposal involves potentially gifting 0.4 hectares to the Comox Valley Regional District (CVRD) to be used as a "fire hall lot". A feasibility study concerning fire protection options for the area was recently completed and recommended against the CVRD establishing fire protection service at this time. Therefore, the CVRD does not have a use for a fire hall lot at this location.
- The proposal would add population density in the drinking water supply watershed, into an area outside of all fire protection districts and adjacent to the working landscape.
- According to the conceptual subdivision plan, the proposal involves creating approximately 475 metres of new, dead-end road over an area identified as a Streamside Protection and Enhancement Area (SPEA) to access the proposed four lots.
- Staff recommends that the application be refused on the basis of inconsistencies with the RGS and OCP with respect to adding residential density within the drinking water supply watershed and the working landscape and inconsistency with the OCP's framework for considering requests to rezone for lot sizes between 4 hectares to 20 hectares in the RSA, and policy directions regarding road access.

Prepared by:	Concurrence:
J. MacLean	***A. Mullaly***
Jodi MacLean, MCIP, RPP Rural Planner	Alana Mullaly, M.Pl., MCIP, RPP Acting General Manager of Planning and Development Services Branch

Stakeholder Distribution (Upon Agenda Publication)

Applicant	✔

Background/Current Situation

An application has been received to amend the Zoning Bylaw to enable subdivision of the subject property into four lots. The subject property (Figures 1 and 2) is 20.4 hectares in area, accessed off the gravelled portion of Forbidden Plateau Road. It is predominately forested though an interior access road and potential building sites are cleared.

In support of the application, the applicant submitted a conceptual subdivision plan (Appendix A) that illustrates the intended lot configurations and sizes. It includes four proposed lots ranging in size between 4.00 to 6.86 hectares, with a new road along the northern boundary and a 0.415 hectare area labeled "proposed fire hall lot to be gifted to CVRD". Each proposed residential lot on the plan includes a potential building site illustrating test pits dug for the soils report (see Soil conditions section below), a potential location for a well and one house with 10, 30 and 100 metre vegetation management radii noted in the FireSmart guidelines. To accommodate implementation of the conceptual subdivision plan, a new zone would have to be created that has a minimum lot area of 4 hectares.

Planning Analysis

Regional Growth Strategy

The RGS, Bylaw No. 120, being the "Comox Valley Regional District Regional Growth Strategy Bylaw No. 120, 2010", designates the subject property as being within the RSAs (Figure 3). MG Policy 2A-2 directs that the minimum lot sizes in the RSA be established within the OCP "…*ranging between 4 hectares and 20 hectares, subject to soil conditions, ground water capacity, extension of existing subdivision areas, interface fire hazards and suitability of lands for rural development*." These aspects are reviewed in sections below.

MG Policy 2A-1 states that "*All new development within RSAs must maintain the rural character of its surroundings and support the function of a working landscape. This requires careful consideration of the permitted uses, the form and scale of development and lot sizes*." Working landscapes refer to forestry and agricultural uses. The subject property was formerly used as a part of a block of land in the Private Managed Forest (PMF) program and was last logged about 20 years ago. The subject property was created in a 2011 subdivision and removed from the PMF program once it was sold for rural residential use. A restrictive covenant (privately-enforced) was placed on title in favour of the previous property owner which manages the surrounding forestry land that prohibits sawmills, wood processing, gravel or mineral extraction, and gravel crushing and screening. The company also holds an easement on the subject property for use of the interior road to access its land beyond. The subject property is currently bordered by land within the PMF program on all but the south side. Adding population density and residential development along the edges of a working landscape can bring conflict and should include the use of buffers and transition zones (see Working landscapes section below).

Official Community Plan

The OCP, Bylaw No. 337 being the "Rural Comox Valley Official Community Plan Bylaw No. 337, 2014", follows through with the RGS's RSA policy concerning minimum lot sizes with Policy 43.(3) which states: "*Consider requests to rezone for lot sizes between 4 hectares to 20 hectares using either the density bonusing framework or through the community amenity contributions policy included in this OCP.*" Following this, Policy 43.(4) directs: "*Apply the following framework to proposed rezoning applications in rural settlement areas:*

(a) 20 hectares – basic permitted lot size;
(b) 15 hectare lots – where up to 10 per cent of the total area is required for public dedication of greenspace or environmental protection;
(c) 10 hectare lots – where up to 15 per cent of the total area is required for public dedication of greenspace or environmental protection;
(d) 8 hectare lots – where up to 20 per cent of the total area is required for public dedication of greenspace or environmental protection;
(e) 6 hectare lots – where up to 25 per cent of the total area is required for public dedication of greenspace or environmental protection;
(f) 4 hectare lots – where up to 30 per cent of the total area is required for public dedication of greenspace or environmental protection;
(g) Where a combination of lot sizes is proposed, with an aim to create a diverse community with a range of rural lot sizes of at least 4 hectares, the amount of land required for public dedication of greenspace or environmental protection will be calculated based on the average lot size within the proposed subdivision. The average will be rounded down to the nearest whole number."

According to this policy, the proposed 4 hectare minimum lot area would necessitate approximately 30 per cent of its total area dedicated to public greenspace or environmental protection, which would amount to approximately 6 hectares. The application includes no public dedication of greenspace or environmental protection. The policies allow for consideration of equivalences in community amenity contributions under the direction of policy 72(2). The applicant is proposing dedication of 0.415 hectare for use in the public provision of fire protection services, however this is not included in policy 72(2) as an amenity. The application is not achieving the objective of these OCP policies.

Policy 43(5) of the RSA designation, concerning the assessment of suitability for enabling further subdivision in a rezoning application, states the following factors, among others, should be considered: soil conditions and ground water capacity, connectivity between existing and proposed subdivisions, fire protection, surrounding land uses, and mitigating impacts to working landscapes (Appendix B).

Soil conditions and ground water capacity

Policy 43.(5) of the OCP states "*Assess new lot development in the RSA proposing to rezone as follows: (a) Soil conditions must be shown to have the capacity to provide long-term sustainable on-site sewage treatment including a primary and secondary onsite sewage disposal field location, in accordance with Subdivision Standards published by Island Health.*" In support of this, a report by Ron McMurtrie, P.Eng., of Ron McMurtrie and Associates Consulting Engineers (Appendix A) examined the site and determined that the soils will support the installation of Type 1 systems in accordance with the BC Sewerage System Regulations and that the 4 hectare lot sizes are consistent with the Subdivision Standards with respect to the availability of dispersal areas and soil depths. Policy 43.(5)(b) and (c) relate to demonstration of ground water capacity and quality for the provision of potable water for the proposed lots. In support of this, the applicant provided the well construction report, dated August 16, 2011, (Appendix A) which was generated for the subject property's well when the parent parcel was subdivided to create this lot.

Connectivity

Policy 43.(5) of the OCP states "*Assess new lot development in the RSA proposing to rezone as follows … (d) The proposed development should be a natural extension of an existing subdivision where there is vehicle and pedestrian access connectivity between the existing and proposed subdivision and where the applicant has provided a site plan that illustrates the proposed road and trail connections."* The proposal constitutes a densification of an existing subdivision; it would create four ~4 hectare lots within an area of predominately 20 hectare lots. The conceptual subdivision plan (Appendix A) includes proposed access road that would add approximately 500 metres of dead-end road off the gravelled Forbidden Plateau Road. The proposed access road would have an average grade of about 9 per cent (45 metre elevation gain over 500 metres of road), including two short sections in excess of 20 per cent grade. The cost of constructing the road is borne by the developer with the Ministry of Transportation & Infrastructure taking over maintenance.

In addition to the above policy specific to the RSA, Policy 23.(1) within the OCP's Transportation section concerning new subdivisions in general states, "*Review all new development proposals to assess the emergency access design. In general, new multi-lot residential and commercial development should have two separate and unobstructed accesses.*" The proposed access road is a dead-end road that does not provide two separate and unobstructed accesses. Policy 25.(2), within the OCP's Infrastructure section, states, "*Encourage development of any new roads, road improvements…to design using natural topography and conservation of environmental features.*" The proposed access road is a straight (east-west) road that does not curve with the natural topography and is placed over two identified watercourses (see Working landscapes section below).

Fire Protection

The subject property is outside of all fire protection districts. In response to a petition from Forbidden Plateau Road area residents in the fall of 2017, a fire protection feasibility study for this area, including the subject property, was initiated. The study was prepared for the CVRD by Defero-West Consulting and Leftside Partners and considered fire protection options such as expanding the existing fire protection boundaries to include more properties along Forbidden Plateau Road, maintaining a first responder vehicle on the mountain and creating a new volunteer fire department, as well as voluntary community-led alternatives. At the time of the submission of this application the feasibility study was underway and in that context the applicant has proposed to dedicate 0.415 hectares to the CVRD to be used as a "fire hall lot" should a local service area be created and necessitate a fire hall location. The feasibility study was received by the Electoral Area Services Committee on June 18, 2018, and it did not recommend proceeding with the CVRD-operated local service area. Therefore, presently the CVRD does not have a use for a fire hall lot in this location and should a need for one arise in the future, appropriate locations will be reviewed based on efficiency and best practises with respect to the scope and scale of the service.

Policy 43.(5) of the OCP states "*Assess new lot development in the RSAs proposing to rezone as follows … (e) The applicant must provide a report prepared by a qualified professional that demonstrates how the proposed development addresses and mitigates any risks associated with interface forest fire hazards*." The applicants submitted a report titled Wildfire Threat Assessment for Lot 4, Block 249, Forbidden Plateau Road prepared by Leigh Stalker, RPF, of Strategic Natural Resource Consultants dated April 5, 2018 (Appendix A). The report found the subject property is dominated by moderate Wildfire Behaviour Threat Class, with cleared areas and roads having a lower rating. The report provides recommendations, based on the guidelines of the FireSmart program. FireSmart focusses on mitigating risk to existing development within the interface area and provides guidelines for designing subdivisions where the additional density has been approved. The recommendations for subdivision design include avoiding road curvature radii of less than 30 metres, incorporating a turn-around radius of at least 18 metres at the terminus of dead-end roads, having the access route not

exceed 10 per cent gradient, burying electrical lines if possible and providing vegetation maintenance around above-ground lines. The conceptual subdivision plan (Appendix A) illustrates a new dead-end road, approximately 500 metres long which would climb at about 10 per cent gradient, to a terminus with about a 20 metre radius of right-of-way. The illustrated road is straight, though there are two road curves with less than 30 metre radii along the existing Forbidden Plateau Road before the subject property is reached. The other recommendations of the report are applicable to proposed buildings including structural options (e.g. roofing, siding, chimneys, decks, etc.), water supply maintenance (for fire suppression purposes), and vegetation removal (within 30 metres from a structure). Should the subject property be subdivided, this report should be registered on title for future property owners.

Watershed

Policy 43.(5) of the OCP states "*Assess new lot development in the RSA proposing to rezone as follows … (f) The suitability of land for rural residential development must be assessed in relation to the surrounding land uses, environmental features and the accessibility of the land.*" With respect to surrounding land uses and environmental features, the rear 5 hectares is within the Browns River watershed which is upstream of the CVRD's backup water intake at the confluence of Browns River with the Puntledge River. The remaining front 15 hectares of the subject property are within the watershed that drains into the Puntledge River upstream of the drinking water intake pipe of the Comox Valley Water System, as well as several other local water service areas. The CVRD is intending to move the drinking water intake pipe from its current location on the Puntledge River to Comox Lake which will have the effect of removing the subject property out of the watershed used for drinking water. At present, should this infrastructure project proceed as intended, it is expected to be completed in 2021. It is premature to commit to additional residential density in this watershed prior to the completion of the deep water intake project.

Mitigating impacts to working landscapes

Policy 43.(5) of the OCP states "*Assess new lot development in the RSA proposing to rezone as follows … (g) New development should be designed to limit and mitigate any impacts on adjacent working landscapes through buffering and site design that avoids environmentally sensitive features as designated in the sensitive ecosystem inventory.*" The subject property abuts Privately Managed Forest on its north and west side, as well as across Forbidden Plateau Road to the east. The conceptual subdivision plan (Appendix A) keeps over 100 metres of distance between the western boundary and the closest building site. The proposed access road has been placed along northern which could help act as a buffer but it appears to conflict with a covenant on title which identifies two watercourses, identified in the sensitive ecosystem inventory and a *Riparian Area Regulations* (RAR) report registered on title. The majority of the parcel (the Puntledge River watershed portion) drains towards these watercourses and the methodology used in the RAR Simple Assessment Report dated November 20, 2010, applies a 30 metre SPEA (Figure 4). The covenant requires the property owner to maintain native vegetation within the SPEA, refrain from depositing fill or disturbing soil within the SPEA, and to "*not create structural impervious or semi-impervious surfaces, flood protection works, roads, bridges…or utility corridors within the SPEA*". The covenant allows for a modified SPEA to be created through the preparation of a detailed RAR assessment report.

<u>Rainwater Management</u>

Objectives 4.(6) and (8) of the OCP states "*To ensure all developments within drinking water supply watersheds and recharge areas are reviewed within the context of the precautionary principle*" and "*To maintain or restore the natural hydrological regime in CVRD watersheds, including natural rates of surface runoff, infiltration to shallow groundwater (interflow) and infiltration to deep groundwater with an aim, where possible, to restore the regime*

to its proper functioning condition." A Rainwater Management Plan was prepared by a qualified professional when this 20 hectare subject property was created in 2011 based on its intended 20 hectare lot size and registered on the title. This Rainwater Management Plan does not reflect the current proposal. If the board seeks to advance this application, a revised Rainwater Management Plan should be required that addresses the proposed 4 hectare lot areas while meeting the OCP's objectives of watershed management and protection.

Zoning

The subject property is currently zoned Rural Twenty (Figure 5) which has a minimum lot area of 20 hectares. Under this zone, the subject property has no further subdivision potential but does allow for two single detached dwellings. In addition to residential uses, the current zone permits a range of uses that promote a working landscape, such as sawmills, wood processing, extraction of gravel or minerals, and crushing and screening of gravel, however a restrictive covenant is registered on title, in favour of the owners of the neighbouring forestry parcels prohibiting these uses. This application is requesting a zone be created which has a 4 hectare minimum lot area and allows for residential uses.

Policy Analysis

Section 479 of the *Local Government Act* (RSBC, 2015, c. 1) (LGA) authorizes a local government to regulate, through bylaw, the use, density, the size and shape of land, buildings and structures. Section 460 of the LGA states that a local government must define procedures by which a property owner may apply for a bylaw amendment.

Options

The board may deny the application or direct staff to report back with an external agency referral list based on the application as presented.

Staff recommends the application be refused on the basis of inconsistencies with the RGS and OCP with respect to adding residential density within the drinking water supply watershed and the working landscape and inconsistency with the OCP's framework for considering requests to rezone for lot sizes between 4 hectares to 20 hectares in the RSA, and policy directions regarding road access.

Financial Factors

A $2,000 rezoning application fee has been collected under the "Comox Valley Regional District Planning Procedures and Fees Bylaw No. 328, 2014." If the application proceeds, to the public hearing, the applicant will incur an additional statutory fee of $1,500. If the property is successfully rezoned, future fees will be incurred during the subdivision and development permit processes.

Legal Factors

This report and the recommendations contained herein are in compliance with the LGA and CVRD bylaws. The LGA authorizes a local government to regulate the use of land and buildings. Part 13 of the LGA requires that all bylaws and services adopted following adoption of a RGS must be consistent with the RGS.

Intergovernmental Factors

If the application proceeds to bylaw preparation, external referrals to provincial agencies, First Nation organizations and municipalities will be issued.

Interdepartmental Involvement
Planning staff consulted with other CVRD departments, including engineering services, fire services, community parks and long range planning. The concerns of these departments are outlined in this report.

Citizen/Public Relations
If the application proceeds to bylaw preparation, community consultation will be held in accordance with Bylaw No. 328 (i.e. statutory mailing and public hearing).

Attachments: Appendix A – "Application RZ 3B 18"
Appendix B – "OCP sections 41-43: Rural Settlement Areas"

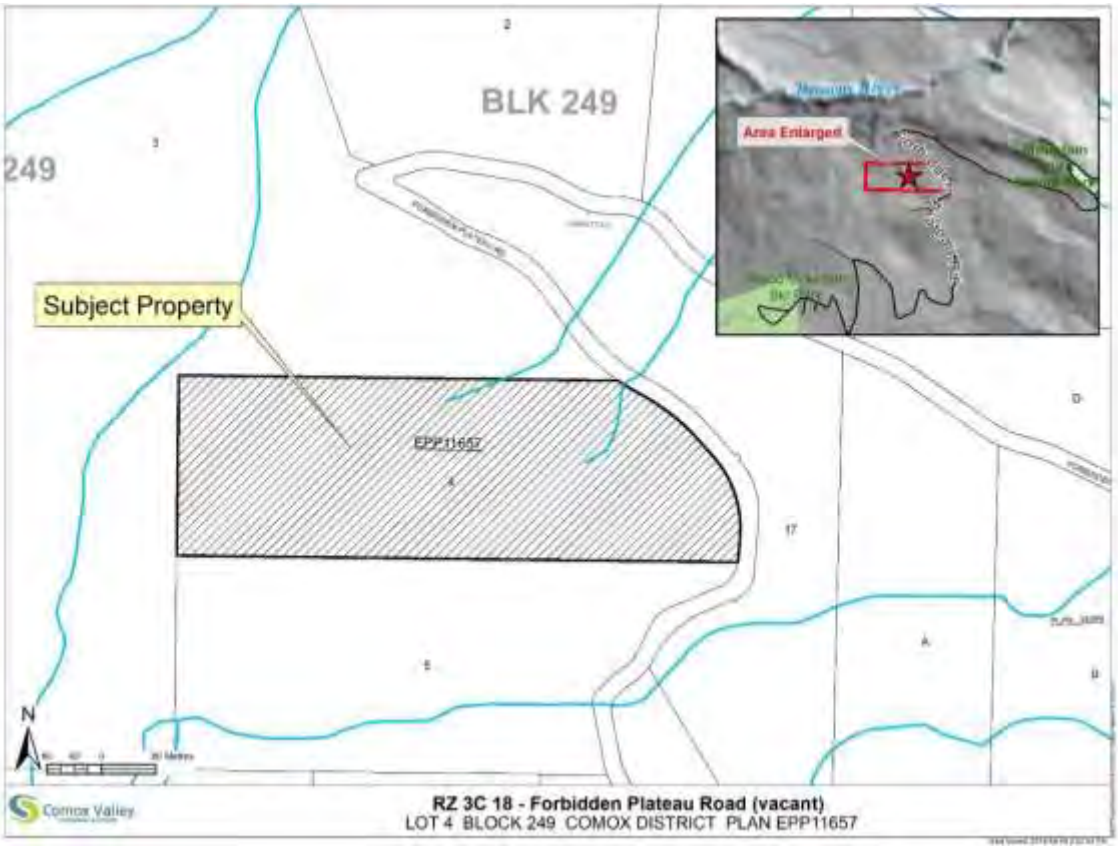


Figure 1: Subject Property

Figure 2: Air Photo (2016)

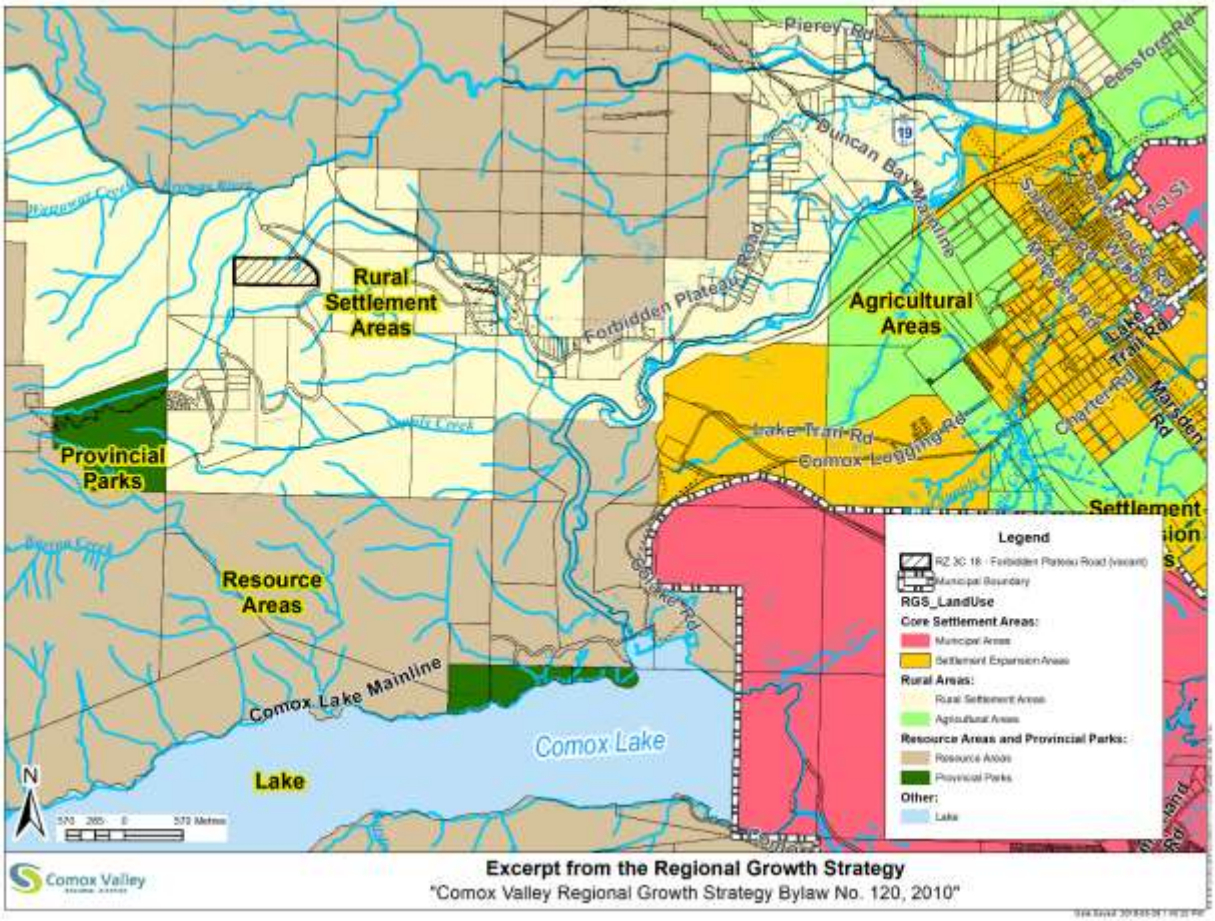


Figure 3: Regional Growth Strategy

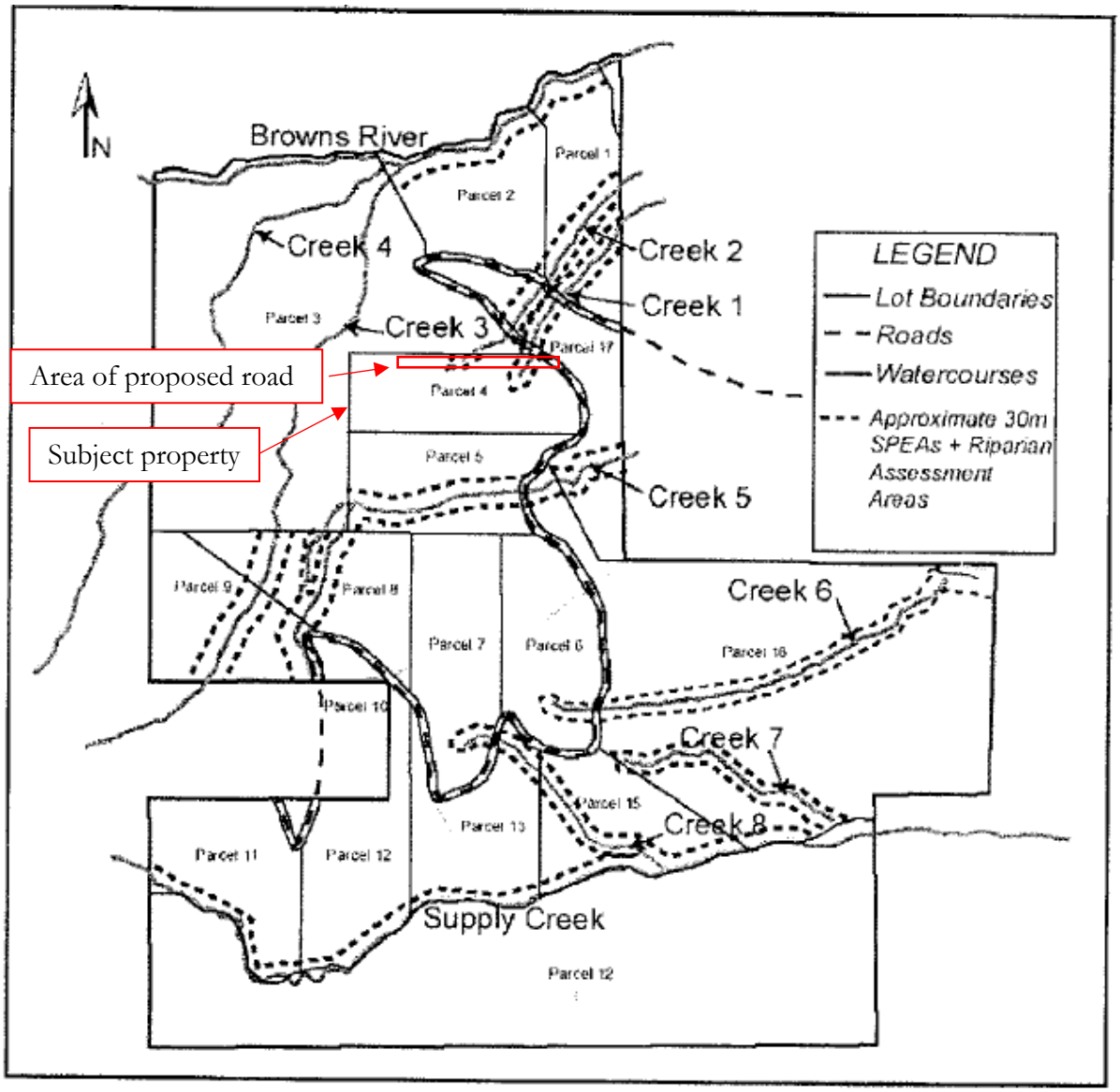


Figure 4: SPEA and Riparian Assessment Areas, from RAR Assessment Report dated November 20, 2010 (Covenant CA2234895)

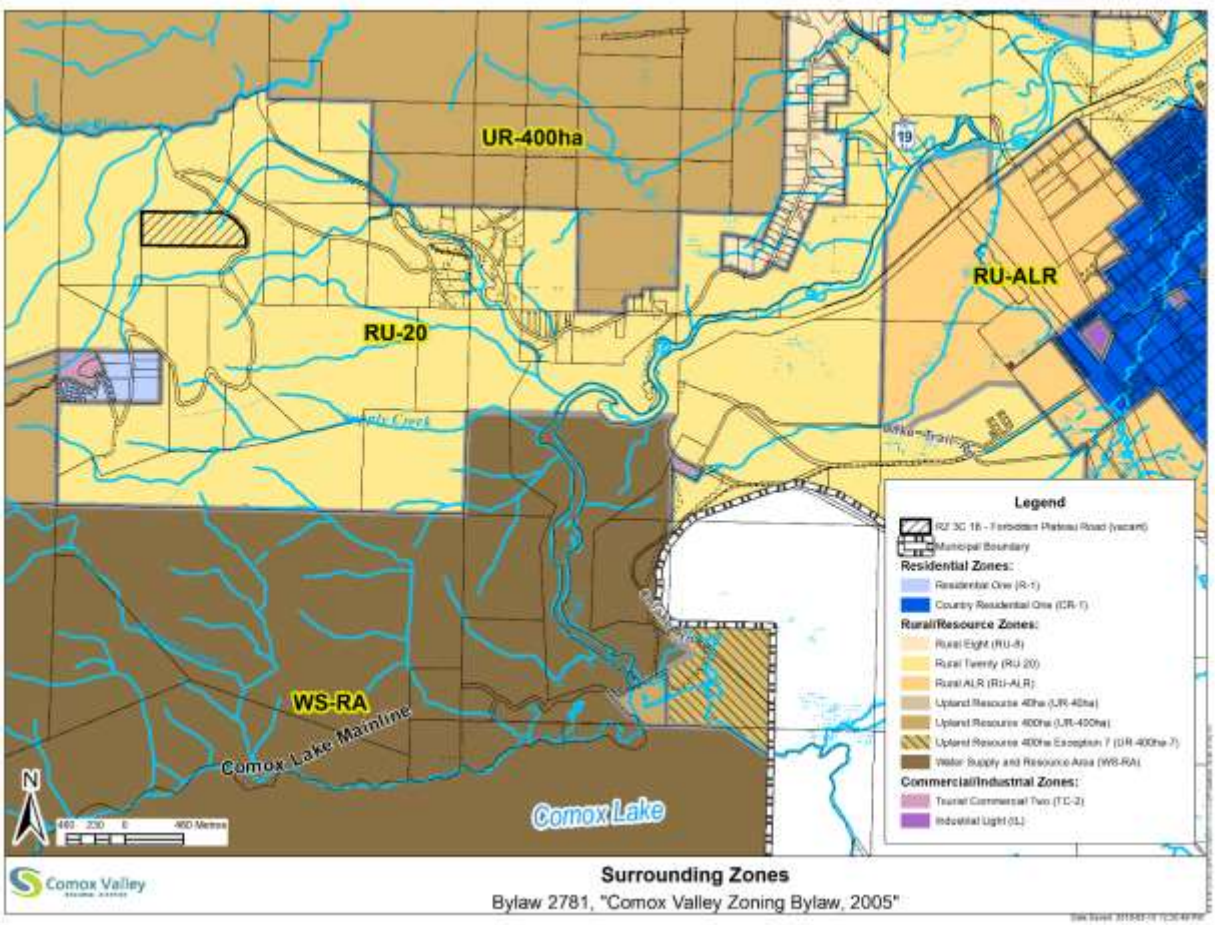


Figure 5: Zoning

SINCE 1959
J.E. ANDERSON & ASSOCIATES

J.E. Anderson and Associates
1250 F Cedar Street
Campbell River, BC V9W 2W5
Ph: 250-287-4865 Fax: 250-287-9502

Our File : 120-072

April 6, 2018

Comox Valley Regional District
Planning and Development Services Branch
600 Comox Road
Courtenay, BC, V9N 3P6

Attn. Alana Mullaly, MCIP RPP

RE: Proposal for Re-Zoning
Lot 4, Block 249, Comox District, Plan EPP11657 – Forbidden Plateau Road
Registered Owners: Fry, Taylor

I, Colin Burridge, have been retained by the owners to act as their agent for this re-zoning application. I have enclosed the following items to accompany the application:

- Current title search of the subject property
- BC Assessment roll report
- Copies of all registered covenants and easements for the subject property
- Well construction report for the existing well
- Sewerage system and soil evaluation report
- Wildfire Threat assessment report
- Site plan
- Application form
- Cheque in the amount of $ 2,000.00 for the application fee

Development Proposal:

The current zoning for the property is RU-20 which provides for a minimum lot area of 20 ha. Our clients are interested in subdividing the property in the future and wish to re-zone to a suitable designation which would allow for a minimum lot area of 4.0 ha, this being consistent with the Regional Growth strategy. There is an existing gravel road providing access to the property from Forbidden Plateau Road, a new access road is proposed along the north boundary of the lot. Our field survey and computed profile indicate a road design meeting MoTI standards is feasible in this location.

Fire protection for this area is currently not provided and is certainly an issue as outlined in the Fire Protection Feasibility Study for the Forbidden Road, prepared in February, 2018. Our clients propose to gift to the CVRD a one acre parcel for a future fire hall, the exact location and size within the proposed Lot A would be negotiated. This firehall parcel could be subdivided through the provisions of Section 99 (1) (h) of the Land Title Act.

The soils study that has been performed indicate the proposed new lots are all suitable for on-site sewerage systems. Proposed dwelling locations have been identified on the site plan and have been chosen based on the proximity to soils test locations and proposed access roads.

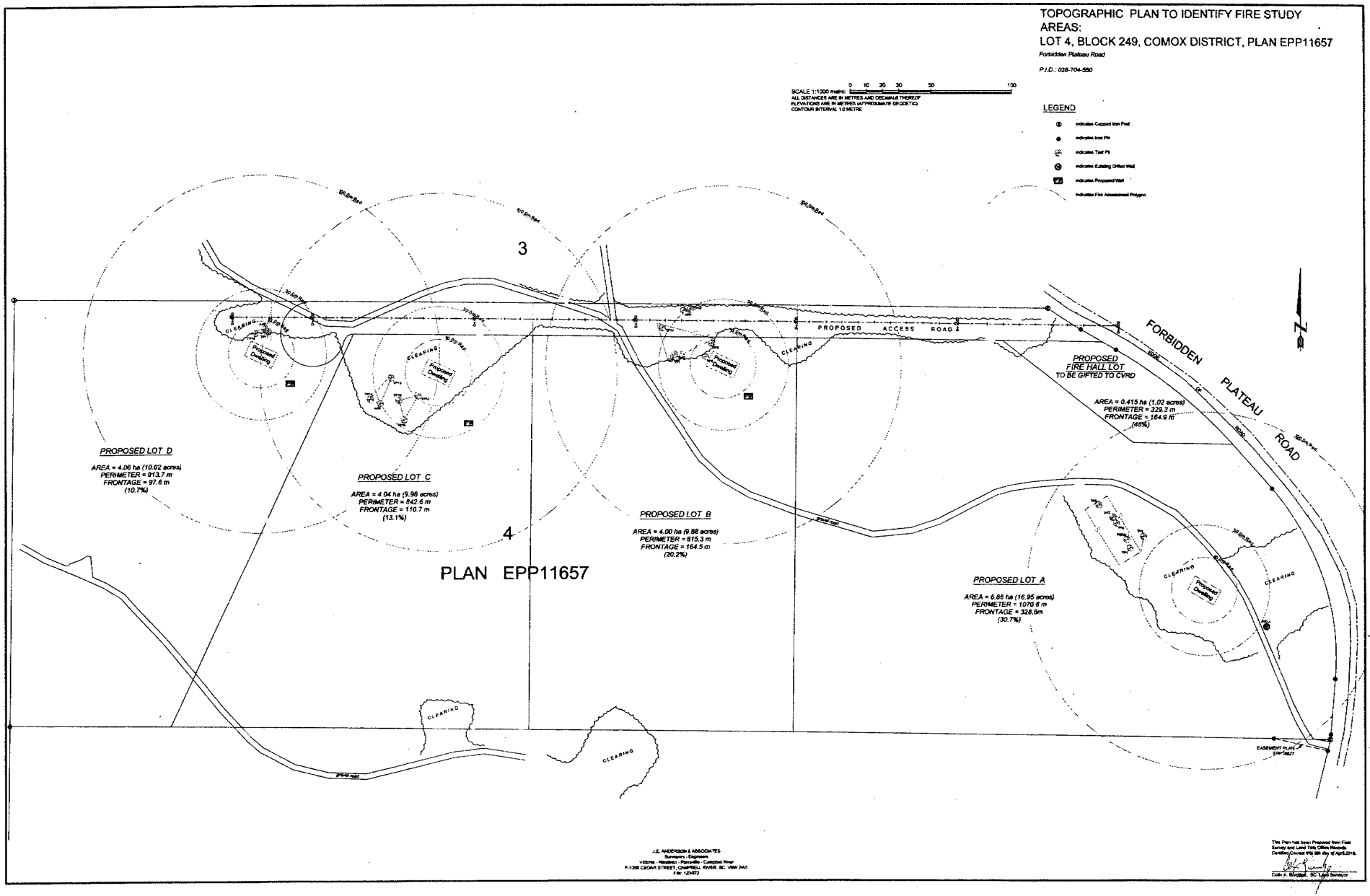
Please contact our office at your convenience with any questions or comments regarding this application.

Sincerely;

Colin Burridge P.Eng, BCLS,CLS

cc. Jim Fry

120-072CVRD1.doc


TOPOGRAPHIC PLAN TO IDENTIFY FIRE STUDY AREAS:
LOT 4, BLOCK 249, COMOX DISTRICT, PLAN EPP11657
Forbidden Plateau Road
P.I.D.: 028-704-550
SCALE 1:1000 metric
0 10 20 30 50 100
ALL DISTANCES ARE IN METRES AND DECIMALS THEREOF
ELEVATIONS ARE IN METRES (APPROXIMATE GEODETIC)
CONTOUR INTERVAL 1.0 METRE
LEGEND
indicates Capped Iron Post
indicates Iron Pin
indicates Test Pit
indicates Existing Drilled Well
indicates Proposed Well
Indicates Fire Assessment Polygon
3
4
PLAN EPP11657
PROPOSED ACCESS ROAD 2
FORBIDDEN PLATEAU ROAD
PROPOSED FIRE HALL LOT
TO BE GIFTED TO CVRD
AREA = 0.415 ha (1.02 acres)
PERIMETER = 329.3 m
FRONTAGE = 164.9 m
(48%)
PROPOSED LOT D
AREA = 4.06 ha (10.02 acres)
PERIMETER = 913.7 m
FRONTAGE = 97.6 m
(10.7%)
PROPOSED LOT C
AREA = 4.04 ha (9.98 acres)
PERIMETER = 842.6 m
FRONTAGE = 110.7 m
(13.1%)
PROPOSED LOT B
AREA = 4.00 ha (9.88 acres)
PERIMETER = 815.3 m
FRONTAGE = 164.5 m
(20.2%)
PROPOSED LOT A
AREA = 6.86 ha (16.95 acres)
PERIMETER = 1070.6 m
FRONTAGE = 326.5m
(30.7%)
Proposed Dwelling
CLEARING
gravel road
EASEMENT PLAN EPP78627
J.E. ANDERSON & ASSOCIATES
Surveyors - Engineers
Victoria - Nanaimo - Parksville - Campbell River
#-1258 CEDAR STREET, CAMPBELL RIVER, BC V9W 2W5
File: 12-072
This Plan has been Prepared from Field Survey and Land Title Office Records
Certified Correct this 6th day of April, 2018.
Colin A. Bongard, BC Land Surveyor

BRITISH COLUMBIA The Best Place on Earth | Ministry of Environment

☑ Well Construction Report ☐ Well Closure Report ☐ Well Alteration Report

DRILLWELL ENTERPRISES LTD.
4994 Polkey Road
Duncan, B.C. V9L 6W3
Phone: 250-746-5268

Ministry Well ID Plate Number: 306 3 of 26
Ministry Well Tag Number:
☐ Confirmation/alternative specs. attached
☐ Original well construction report attached

Red lettering indicates minimum mandatory information. See reverse for notes & definitions of abbreviations.

Owner name: Couverdon Real Estate
Mailing address: #3 - 4890 Rutherford N. Town Nanaimo Prov. B.C. Postal Code V9T4Z

Well Location: Address: Street no. Street name Town
(or) Legal description: Lot 4 Plan EPP11657 D.L. Block 249 Sec. Twp. Rg. Land District Comox
(or) PID: (and) Description of well location (attach sketch, if nec.):

NAD 83: Zone: 10 (see note 2) (and) UTM Easting: 345624 m UTM Northing: 5504523 m (or) Latitude (see note 3): Longitude:

Method of drilling: ☑ air rotary ☐ cable tool ☐ mud rotary ☐ auger ☐ driving ☐ jetting ☐ excavating ☐ other (specify): Dual Rotary
Orientation of well: ☑ vertical ☐ horizontal Ground elevation: 1415 ft (asl) Method (see note 4): GPS
Class of well (see note 5): Water Supply Sub-class of well: Domestic
Water supply wells: indicate intended water use: ☑ private domestic ☐ water supply system ☐ irrigation ☐ commercial or industrial ☐ other (specify):

Lithologic description (see notes 7-14) or closure description (see notes 15 and 16)

From ft (bgl)	To ft (bgl)	Relative Hardness	Colour	Material Description (Use recommended terms on reverse. List in order of decreasing amount, if applicable)	Water-bearing Estimated Flow (USgpm)	Observations (e.g., fractured, weathered, well sorted, silty wash), closure details
0	10	m	Br	Till		
10	345	h	gr	Bedrock green with grey layers		
				325	34	
				345	34	

Casing details

From ft (bgl)	To ft (bgl)	Dia in	Casing Material / Open Hole	Wall Thickness in	Drive Shoe
0	10	10	steel, Recovered		
0	18	6	steel	.219	no
18	345	6	open hole		

Surface seal: Type: Bentonite Depth: 18 ft
Method of installation: ☑ Poured ☐ Pumped Thickness: 2 in
Backfill: Type: Depth: ft
Liner: ☐ PVC ☐ Other (specify):
Diameter: in Thickness: in
From: ft (bgl) To: ft (bgl) Perforated: From: ft (bgl) To: ft (bgl)

Screen details

From ft (bgl)	To ft (bgl)	Dia in	Type (see note 18)	Slot Size

Intake: ☐ Screen ☐ Open bottom ☐ Uncased hole
Screen type: ☐ Telescope ☐ Pipe size
Screen material: ☐ Stainless steel ☐ Plastic ☐ Other (specify):
Screen opening: ☐ Continuous slot ☐ Slotted ☐ Perforated pipe
Screen bottom: ☐ Bail ☐ Plug ☐ Plate ☐ Other (specify):
Filter pack: From: ft To: ft Thickness: in
Type and size of material:

Developed by:

☑ Air lifting ☐ Surging ☐ Jetting ☐ Pumping ☐ Bailing
☐ Other (specify): Total duration: hrs
Notes:

Well yield estimated by:

☐ Pumping ☑ Air lifting ☐ Bailing ☐ Other (specify):
Rate: 3/4 USgpm Duration: 1 hrs
SWL before test: 10 ft (btoc) Pumping water level: ft (btoc)

Obvious water quality characteristics:

☑ Fresh ☐ Salty ☐ Clear ☐ Cloudy ☐ Sediment ☐ Gas
Colour/odour: Water sample collected: ☐

Well driller (print clearly):

Name (first, last) (see note 19): Rick Bourne
Registration no. (see note 20): WD 0412-1406
Consultant (if applicable; name and company):

DECLARATION: Well construction, well alteration or well closure, as the case may be, has been done in accordance with the requirements in the *Water Act* and the Ground Water Protection Regulation.

Signature of Driller Responsible

Final well completion data:

Total depth drilled: 345 ft Finished well depth: 345 ft (bgl)
Final stick up: 20 in Depth to bedrock: 10 ft (bgl)
SWL: 10 ft (btoc) Estimated well yield: 3/4 USgpm
Artesian flow: USgpm, or Artesian pressure: ft
Type of well cap: Steel, welded Well disinfected: ☑ Yes ☐ No
Where well ID plate is attached: clamped to casing

Well closure information:

Reason for closure:
Method of closure: ☐ Poured ☐ Pumped
Sealant material: Backfill material:
Details of closure (see note 17):

Date of work (YYYY/MM/DD):

Started: 11/08/15 Completed: 11/09/16
Comments:

PLEASE NOTE: The information recorded in this well report describes the works and hydrogeologic conditions at the time of construction, alteration or closure, as the case may be. Well yield, well performance and water quality are not guaranteed as they are influenced by a number of factors, including natural variability, human activities and condition of the works, which may change over time.

white: Customer copy
canary: Driller copy
pink: Ministry copy

Sheet ____ of ____

Ron McMurtrie and Associates, Consulting Engineers
Wastewater System Specialists
Comox/Hornby Island, BC 250-335-2685 jasbreez@island.net

March 5, 2018

Mr. Jim Fry
c/o J.E. Anderson and Associates
F-1250 Cedar Street
Campbell River, BC V9W 2W5

RE: PROPOSED SUBDIVISION OF LOT 4, BLOCK 249, COMOX DISTRICT, PLAN EPP11657 - SEWERAGE SYSTEM SITE AND SOIL EVALUATION
OUR FILE: 0898
MOTI FILE:

Dear Sir:

The following report summarizes our site and soil evaluation for onsite sewerage systems regarding the proposed subdivision of the above noted property. This report has been prepared with regard to the following documents: 1. VIHA Subdivision Standards, July 2013 and; 2. BC Sewerage System Regulation, Standard Practice Manual (SPM), Version 3, September 2014.

BACKGROUND AND PROPOSED DEVELOPMENT

The subject property (Lot 4, Plan EPP11657) has an area of 19.38 hectares. The proposed subdivision is for 4 lots: Lots A, B, C and D as shown on the attached plan. Proposed minimum lot size is 4.0 hectares. Primary and reserve septic field areas to service the proposed lots with onsite sewerage systems are also shown on the plan. Each lot will have its own drilled well for domestic water supply.

SITE AND SOIL EVALUATION

A site and soil evaluation was carried out by the author at the above noted property to locate potential areas for primary and reserve dispersal areas for sewerage systems serving the proposed Lots A , B, C and D. Machine dug test pits and permeability testing was carried out between September 14 to 21, 2017 and wet-season conditions and groundwater observations were made on December 13, 2017. A summary of the soil conditions, permeability test results and groundwater conditions are included in the tables below.

The property is generally forested (conifers) with cleared areas for road right of way and potential building sites. The proposed dispersal areas are primarily in the cleared areas with the exception of Lot D which is in the forest at the edge of the clearing. There are no major drainage channels or streams on the property that conflict with the proposed septic field areas.

Land slope in the proposed septic field areas ranges from 5 to 10% in Lots A, B and C. Lot D slopes range from 6 to 12% and from 15 to 20%.

Soils on the property and in the proposed septic field areas are predominantly: *Reddish brown sandy loams, of moderate to strong blocky structure and friable consistence and they are gravelly (>15% coarse fraction)*. Typical depth of this soil layer varied from 45 to 70cm as observed in the test pits. They are considered favorable for the treatment and dispersal of wastewater. They are underlain by a layer of: *Massive sandy loam, dense to moderately cemented and of lower permeability*. This is considered a flow restrictive layer and is unfavorable for the treatment of wastewater. A layer of *organics (duff and forest litter)* of 5 to 15cm typical depth covers the site.

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The following table summarizes the measured depths of observed features in the test pits and indicates the available soil depth for treatment for each pit in the final column:

	SOIL TEST PIT SUMMARIES (MEASURED DEPTHS)					
TEST PIT #	**RESTRICTVE LAYER (cm)**	**ROOT DEPTH (cm)**	**REDOXI-MORPHIC (cm)**	**GROUND-WATER (DEC 13, 2017) (cm)**	**SOIL TEXTURE AND STRUCTURE, CONSISTENCE Note 1**	**DEPTH TO LIMITING LAYER (AVAILABLE SOIL DEPTH) (cm)**
LOT A						
TP1	55	60	55	60	SL-G BLK S/A-FAV	**55**
TP2	50	55	55	80	SL-G BLK S/A-FAV	**50**
TP3	30	35	30	NIL	SL-G BLK S/A-FAV	**30** Note 2
TP4	40	40	40	60	SL-G BLK S/A-FAV	**40**
TP5	55	60	55	70	SL-G BLK S/A-FAV	**55**
TP6	50	50	50	60	SL-G BLK S/A-FAV	**50**
LOT B						
TP7	50	50	50	60	SL-G BLK S/A-FAV	**50**
TP8	50	50	55	60	SL-G BLK S/A-FAV	**50**
TP9	55	55	55	60	SL-G BLK S/A-FAV	**55**
TP10	50	50	50	50	SL-G BLK S/A-FAV	**50**
TP11	45	45	50	60	SL-G BLK S/A-FAV	**45**
LOT C						
TP12	70	60	65	70	SL-G BLK S/A-FAV	**60**
TP13	50	50	50	75	SL-G BLK S/A-FAV	**50**
TP14	60	60	60	80	SL-G BLK S/A-FAV	**60**
TP15	60	55	60	>85	SL-G BLK S/A-FAV	**55**
TP16	75	60	50	80	SL-G BLK S/A-FAV	**60**

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LOT D						
TP17	60	55	60	>80	SL-G BLK S/A-FAV	55
TP18	70	70	70	>85	SL-G BLK S/A-FAV	70
TP19	60	55	60	>75	SL-G BLK S/A-FAV	60
TP20	75	75	60	>90	SL-G BLK S/A-FAV	60
TP21	75	65	65	>85	SL-G BLK S/A-FAV	65
Note 1: SL - Sandy Loam; G - gravelly; BLK-S/A - Blocky Sub-angular structure; FAV - Favorable grade and consistence.						
Note 2: TP3 is located outside of the proposed dispersal area.						

The site is underlain by bedrock and there are a number of shallow exposed bedrock layers and outcroppings on the property. The proposed septic field areas do not contain any bedrock outcrops or other negative effects from shallow bedrock.

Soils in the field areas are generally well drained and free of negative effects from surface water runoff and do not contain areas with poorly drained or seasonally wet soils. Wet season observations made on December 13, 2017 confirmed this assumption. Groundwater observations in the test pits ranged from 50 to 90cm on this date. Groundwater depths exceeded typical rooting and mottling depths observed in the pits.

There are no known wells on the property or neighbouring properties within 30m of the proposed septic field areas.

There are no potential effluent break-out points within 15m of the proposed septic field areas.

Permeability testing was carried out using a 4" Permeameter in hand-augured holes typically about 30cm deep. The results of the tests are shown in the table below including calculations of Hydraulic Conductivity in mm/day. It is noted that the median field saturated hydraulic conductivity (Kfs) is 1109 mm/day. This is consistent with the expected values for a sandy loam soil.

PERMEAMETER TEST RESULTS - 4" DIAMETER						
Auger Hole#	**Location**	**Depth (cm)**	**Diameter (cm)**	**Stable Fall (mm/min)**	**Soil Factor (CS)**	**K_{FS} (mm/day)**
LOT A						
AH1	Near TP1	30	9	26	47.2	1227
AH2	Near TP2	30	9	8	47.2	378
LOT B						
AH3	Near TP7	30	8	53	52.5	2783[1]
AH4	Near TP10	30	9	10	47.2	472
LOT C						
AH5	Near TP14	30	8	72	52.5	3780[1]
AH6	Near TP15	30	9	21	47.2	991

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LOT D						
AH7	Near TP20	30	9	11	47.2	519
AH8	Near TP17	30	8	78	52.5	4095[1]
Design K_{FS}					**Median**	**1109**
Note 1. High readings due to presence of coarse gravel						

PRIMARY AND RESERVE DISPERSAL AREAS

The proposed septic field areas for Lots A, B, C and D are summarized in the following table and are as shown on the attached plan. All septic field areas shown exceed the VIHA Subdivision Standards shown in Table B for lots served by individual wells in "Loam" soils (715 sq.m. for primary and reserve areas). The minimum contour length of 25m in the VIHA Standard has been met or exceeded for the 4 areas.

SEPTIC FIELD AREA SUMMARY (PRIMARY AND RESERVE AREAS)					
	LOT AREA (hectares)	**SOIL TYPE**	**SOIL DEPTH (cm)**	**PRIMARY AND RESERVE AREA (sq.m.)**	**CONTOUR LENGTH (lin.m.)**
LOT A	7.28	LOAM	50	720	45
LOT B	4.00	LOAM	50	750	25
LOT C	4.04	LOAM	50 - 60	750	30
LOT D	4.06	LOAM	60	750	25

Proposed Lot A (7.28 ha)

The proposed dispersal area for Lot A (primary and reserve area) measures 16m x 45m (across the slope). The slope in the field area is approximately 5%.

Soil depth in the dispersal area of 50cm exceeds the VIHA Subdivision Standards which specify a depth of 46cm for 2.0 hectare lots with less than 15% slope.

Proposed Lot B (4.00 ha)

The proposed dispersal area for Lot B (primary and reserve area) measures 30m x 25m (across the slope). The slope in the field area is approximately 10%.

Soil depth in the dispersal area of 50cm exceeds the VIHA Subdivision Standards which specify a depth of 46cm for 2.0 hectare lots with less than 15% slope.

Proposed Lot C (4.04 ha)

The proposed dispersal area for Lot C (primary and reserve area) measures 25m x 30m (across the slope). The slope in the field area is approximately 10%.

Soil depth in the dispersal area of 50 to 60cm exceeds the VIHA Subdivision Standards which specify a depth of 46cm for 2.0 hectare lots with less than 15% slope.

Ron McMurtrie and Associates, Consulting Engineers
Wastewater System Specialists
Comox/Hornby Island, BC 250-335-2685 jasbreez@island.net

Proposed Lot D (4.06 ha)

The proposed dispersal area for Lot D (primary and reserve area) measures 30m x 25m (across the slope). The slope in the field area varies from approximately 6 to 12% in part of the area and exceeds 15% in the other part.

Soil depth in the dispersal area of 60cm exceeds the VIHA Subdivision Standards which specify a depth of 46cm for 2.0 hectare lots with less than 15% slope. It does not however meet the VIHA Standard of 90cm for >15% slope.

SUMMARY AND CONCLUSIONS

In general it is concluded that site and soil conditions on the property are suitable and favorable and that sufficient area is available to provide primary and reserve dispersal areas for the proposed subdivision. The site and soils will support the installation of Type 1 systems in accordance with BC Sewerage System Regulations and the BC Standard Practice Manual (SPM-V3). The 4.0 hectare minimum lot size is considered adequate for properties served by individual wells.

1. Soils in dispersal areas for proposed Lots A ,B, C and D are generally favorable for the treatment of sewerage system effluent using Type 1 (septic tank) treatment method.

2. Soil depth for proposed Lots A, B, and C (50 to 60cm) is greater than the 46cm depth in the VIHA Standards. A Type 1 system in accordance with the Standard Practice Manual (SPM-V3) is suitable for use on the lots.

3. Soil depth for proposed Lot D (60cm) is greater than the 46cm depth in the VIHA Standards for areas less than 15% slope, but less than the 90cm depth for greater than 15% slope. However, Type 1 systems in accordance with the Standard Practice Manual (SPM-V3) can be safely constructed in the proposed field area.

4. The dispersal areas (720 to 750 sq.m. for primary and reserve) for proposed Lots A, B, C and D meet the recommended area for loam soils (715 sq.m.) as per Table A of the VIHA Subdivision Standards.

5. Dispersal areas for proposed Lots A ,B, C and D meet horizontal setback criteria of the VIHA Subdivision Standards (>30m to drinking water wells; >15m to potential breakout points; >30m to surface water bodies).

6. If installed and maintained in accordance with the BC Sewerage System Regulation, Type 1 systems installed in the above noted areas will not cause, nor contribute to a health hazard.

It is concluded that the property is suitable for the installation of on-site sewerage systems to serve the proposed Lots A, B, C and D. All specifications of the VIHA Subdivision Standards have been met with one minor exception on Lot D. All lots can support the installation of a sewerage system in accordance with SPM-V3. Based on site observations there are likely several areas on each property in addition to the proposed dispersal areas that are suitable for system installation. It is recommended that the property be approved for subdivision based on the generally favourable site and soil conditions observed in the septic field areas.

Ron McMurtrie and Associates, Consulting Engineers
Wastewater System Specialists
Comox/Hornby Island, BC 250-335-2685 jasbreez@island.net

I trust the foregoing meets your needs regarding the proposed subdivision of your property. Please contact the undersigned at your convenience if you have any questions or wish to discuss this report further.

Yours truly,

Ron McMurtrie, P.Eng.

Attached: Proposed Subdivision and Septic Field Area Plan

STRATEGIC

April 5, 2018

Wildfire Threat Assessment

Lot 4, Block 249, Forbidden Plateau Road

Submitted By:

Leigh Stalker, RPF

PROFESSIONALLY RESOURCEFUL

1 Contents

Wildfire Threat Assessment

for Lot 4, Block 249, Forbidden Plateau Road

Submitted to:

Jim Fry

Submitted by:

Leigh Stalker, RPF (#4744)

Strategic Natural Resource Consultants Inc.

I certify I personally completed the work described herein.

2 Introduction

Strategic Natural Resource Consultants (SNRC) was retained in March 2018 to provide a wildfire threat assessment for a potential development on Lot 4, Block 249, Forbidden Plateau Road. Recommendations are to be based on outcomes of the assessment. This report is a requirement for a rezoning application the developer intends to submit to the Comox Valley Regional District. The development proposal is a four lot strata subdivision which requires a zoning amendment to allow minimum lot area of four hectares.

3 Study Area Description

Lot 4, Block 249 ("study area") is located off of Forbidden Plateau Road in the Comox Valley Regional District, west of the City of Courtenay. It totals 20.0 hectares (ha) which is made up of proposed Lot A (6.86 ha), Lot B (4.00 ha), Lot C (4.04 ha), Lot D (4.06 ha). Utility lines are located within the study area.

The property is bordered by private land. Adjacent properties which contain structures are considered "intermix" developments. This refers to a rural interface[1] condition where larger lots or acreages are prevalent and wildland vegetation is found around structures.

Located on the lower slopes of Forbidden Plateau, the topography consists of predominantly continuous, uniform slopes in the middle slope positions. A few small streams or non-classified drainages are found on the property. The gentle slopes (0 to 10%, some to 15%) are predominantly on a northeast aspect. The study area has an elevation range from approximately 400 to 485m.

Lot 4 is found within the Biogeoclimatic Ecosystem Classification unit CWHxm – Very Dry Maritime Coastal Western Hemlock Subzone. This unit is characterized by warm, dry summers and moist, mild winters with relatively little snowfall[2]. Growing seasons are long, and feature water deficits on zonal sites. The forest cover is largely made up of Douglas-fir with some western red cedar, western hemlock, western white pine and red alder scattered throughout. Understory vegetation includes Douglas-fir, western red cedar, western hemlock, red huckleberry, dull Oregon grape, salal. Roadside vegetation consists of red alder, willow, block cottonwood, bitter cherry, salmonberry and Scotch broom. Recently cleared areas consist of red alder, regenerating conifer species (predominantly Douglas-fir), salal and bracken.

[1] The wildland urban interface, or 'interface', is a term used to describe an area where various structures and other human development meet wildland vegetation.
[2] Green, R. N. and K. Klinka. 1994. A field guide to site identification and interpretation for the Vancouver Forest Region. Land Management Handbook Number 28. Victoria, BC.

4 Methodology

A wildland urban interface (WUI) wildfire threat assessment (WTA) involves determining the ability of a unique area of forest land, usually located adjacent to, surrounding or abutting a community, group of buildings or individual structures, to support a wildfire. The assessment is designed to provide an *estimate* of the wildfire threat posed by the unique area of forest land based on the forest fuel within the area, local topography, general weather conditions, and position of the forest land relative to the development[3]. This method does not consider house characteristics, yard maintenance, emergency response or water availability, but, as indicated above, does quantify fuels, topography, weather and position of structures.

The 2012 "Wildland Urban Interface Wildfire Threat Assessments in BC"[3] was used for this assessment. This WTA method is polygon based; vegetation types (forest and other) within Lot 4 were divided into polygons for assessment purposes. Polygons are areas of relatively homogenous forest cover, surface plant composition and topography that will likely exhibit similar wildfire behaviour under the same weather conditions.[3] A user-defined approach was used to delineate assessment polygons, based on proposed dwelling sites on each lot with the three FireSmart[4] Priority Zone buffers of 0-10m, 10-30m and 30-100m. Areas within the buffers but outside the legal lines were not assessed. Ortho-imagery (Bing, Google Earth), topographic plans (including FireSmart Priority Zones) provided by J.E. Anderson & Associates and local knowledge from the landowner and surveyor formed the office review to roughly delineate the area of interest into polygons of similar forest cover and topography. A field review on 20 March 2018 verified the polygon boundaries.

A WUI WTA Worksheet is completed for each vegetation type, or polygon. This worksheet rates a polygon to determine the Wildfire Behaviour Threat Class which is an estimate of the potential wildfire behaviour on a unique area of vegetation type, or polygon, based on the vegetation, topography and fire weather within the polygon[3]. A tally method is used that rates and assigns points under each component. If the first component (fuels) points do not add up to a specific amount, the polygon does not have adequate fuel volume or continuity to support a wildfire and thus the rest of the assessment is not relevant due to the lack of forest fuel available for combustion and wildfire spread. For definitions of Very Low, Low, Moderate, High and Extreme classes, see Appendix B. The WUI Wildfire Threat Assessment System is consistent with FireSmart, a national program endorsed by governments across Canada, the insurance industry and many other groups. It is a widely recognized manual that aims to give communities and individuals the information and tools they need to confront interface fire protection issues.

[3] Morrow, B., K. Johnston and J. Davies. 2013. Wildland Urban Interface Wildfire Threat Assessments in BC. A report submitted to the Ministry of Forests, Lands and Natural Resource Operations, Victoria, BC, Canada.

[4] Partners in Protection. 2003. FireSmart: Protection Your Community from Wildfire. Second Edition. Edmonton, Alberta.

For the purpose of this Wildfire Threat Assessment system:

> *An assessment polygon is not FireSmart unless it receives a Wildfire Behaviour Threat Class assessment of low or moderate. The structural condition of the building and structures is not factored into this assessment system. This assessment system only quantifies the ability of a wildfire in a forested area to impact a structure, or the ability of a structure fire to spread into the adjacent forest land. It does not quantify the ability of a structure to withstand a wildfire on the adjacent forestland*[5].

A minimum of one worksheet per vegetation type (polygon) was completed. This was deemed appropriate to accurately reflect the total variation identified within the assessment area. Five WTA worksheets were completed at representative sites throughout Lot 4. The results of these assessment plots were extrapolated to the general vegetation types. Three photographs were taken at each plot to show representative surface fuels, ladder fuels and aerial fuels. See next section, Table 2 for worksheet results.

The final step in the assessment process included the extrapolation of polygon classes into an output map. Colour codes are used to represent general vegetation types, and dotting/hatching for Wildfire Behaviour Threat Classes. The assessment outcome can assist in identifying wildfire threats over both the short and long term, and may provide a basis for prioritizing and implementing fuel (vegetation) management strategies to reduce wildfire threats in and around the assessed community/structures[5]. Specifically in the pre-development phase, it can encourage a landowner to consider how the position of their home can influence wildfire threat.

5 Results

Three general vegetation types were found within Lot 4. These types are described in Table 1 below and shown in Figure 1. Results of the WTA plots are in Table 2.

[5] Morrow et al., 2013.

Table 1. General vegetation type descriptions.

Type	Description
Type 1	Immature conifer stand. Approximately 20 years old. Tree species include Douglas fir, western hemlock, western red cedar, western white pine. Generally, crown base height is low. Understory vegetation consists of salal, red huckleberry and regenerating conifers (Douglas fir, western hemlock and western red cedar). Slopes are approximately 0 to 12%. Aspect is northeast. Soils are well drained.
Type 2	Mature conifer stand. Approximately 60 years old. Tree species include Douglas fir, western hemlock and western red cedar. Generally, crown base height is high. Understory vegetation consists of salal (patchy, approximately 25-50cm tall), scattered red huckleberry, dull Oregon grape and regenerating conifers (Douglas fir, western red cedar and western hemlock). Slopes are approximately 0 to 15%. Aspect is northeast. Soils are well drained.
Type 3	Recently cleared land and road right of way. Includes gravel road surfaces. Some areas have vegetation beginning to grow which includes red alder, regenerating conifer species (predominantly Douglas-fir), salal and bracken. Roadside vegetation consists of red alder, willow, black cottonwood, bitter cherry, salmonberry and Scotch broom. Slopes are approximately 0 to 15%. Aspect is north east. Soils are predominantly well drained with small areas of poor drainage/seepages.

Table 2. Wildfire Threat Assessment Worksheet (plot) results.

Plot #	Location (UTM)	General Vegetation Type	Date (dd/mm/yy)	Component			Wildfire Behaviour Threat Score	Wildfire Behaviour Threat Class
				Fuel	Weather	Topography		
L1	345000.81 mE 5504668.76 mN	Immature conifer stand	20/03/18	61	8	12	81	Moderate
L2	345146.09 mE 5504657.09 mN	Immature conifer stand	20/03/18	51	8	8	67	Moderate
L3	345258.64 mE 5504699.11 mN	Recently cleared	20/03/18	28	n/a	n/a	28	Low
L4	345317.18 mE 5504676.0 mN	Mature conifer stand	20/03/18	67	8	8	83	Moderate
L5	345599.78 mE 5504593.50 mN	Mature conifer stand	20/03/18	53	8	12	73	Moderate

Table 3 describes the Wildfire Behaviour Threat Class found within the FireSmart Priority Zones of each proposed lot.

Table 3. Wildfire Behaviour Threat Classes by proposed lot.

Proposed Lot	Lot Size (ha)	Wildfire Behaviour Threat Class Overlap		
		Priority Zone 1 (0-10m)	Priority Zone 2 (10-30m)	Priority Zone 3 (30-100m)
A	6.86	Low	Low, Mod	Low, Mod
B	4.00	Low, Mod	Low, Mod	Low, Mod
C	4.04	Low	Low, Mod	Low, Mod
D	4.06	Low, Mod	Low, Mod	Low, Mod

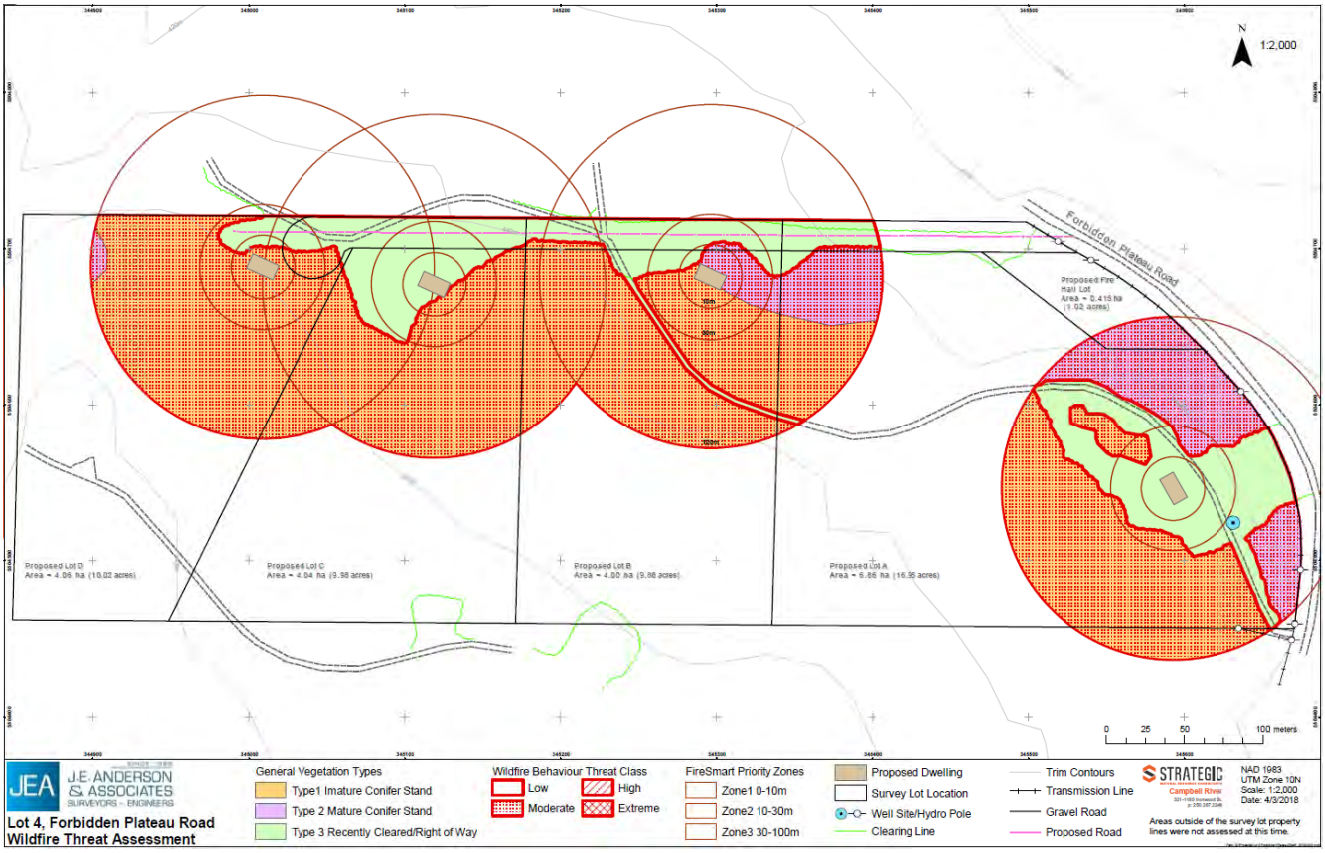


Figure 1 General vegetation types with Wildfire Behaviour Threat Classes within each FireSmart Priority Zone (see Appendix A for full size map).

Threat assessments for vegetation types 1 and 2 resulted in moderate Wildfire Behaviour Threat Class. Vegetation type 3 did not reach the minimum point requirement to continue past the fuel component and thus received a low Wildfire Behaviour Threat Class.

6 Conclusion and Recommendations

As shown in section 5 (Results) above, Lot 4 is dominated by moderate Wildfire Behaviour Threat Class, with cleared areas and right-of-ways having a low rating. Although a majority of the lots consist of mostly moderate Wildfire Behaviour Threat Class, considerations must be given to the fact that any structure built on any of the lots will still be built in the interface and thus could be exposed to wildfire at some point in time. In addition, the fuel component (i.e. increase in surface fuels continuity, duff depth, crown closure) will change over time as a stand matures or there is an alteration of the forest stand, both of which have the potential to increase the Wildfire Behaviour Threat Class.

The results of the assessment were used to recommend the use of particular FireSmart mitigation measures in order to reduce the threat posed by interface fire on potential structures within Lot 4. This section provides recommended actions using FireSmart's three principal aspects for interface fire hazard mitigation: vegetation management, infrastructure and structural options. Table 4 summarizes recommended actions on a lot by lot basis.

Table 4. Recommended FireSmart actions.

Proposed Lot	Lot Size (ha)	Wildfire Behaviour Threat Class Overlap	Recommended Actions				
			FireSmart Infrastructure	FireSmart Structural	FireSmart Vegetation Management		
					Priority Zone 1	Priority Zone 2	Priority Zone 3
A	6.86	Low, Moderate	✓	✓	✓	✓	
B	4.00	Low, Moderate	✓	✓	✓	✓	
C	4.04	Low, Moderate	✓	✓	✓	✓	
D	4.06	Low, Moderate	✓	✓	✓	✓	

6.1 *FireSmart Infrastructure Options*

FireSmart infrastructure (in relation to road ways, water supply and utilities) cannot increase the probability of structure survival because this is determined by vegetation management and the use of FireSmart structural options[6]. However, implementation of FireSmart infrastructure at the planning stage of new development is encouraged to increase resident and firefighter safety and to facilitate quick response by firefighters in the event of a wildfire. Firefighters in the wildland urban interface are already working at a disadvantage, without an adequate water system and potentially on narrow roads, steep grades, and underbuilt bridges[6]. In addition, tackling these issues at an early stage will prevent more costly implementation measures at a later date.

Below is a summary of the FireSmart recommended guidelines, followed by specific recommendations for Lot 4.

[6] Partners in Protection. 2003.

6.1.1 Access Routes

Roads are access routes for emergency vehicles, escape routes for residents during a wildfire, and may also serve as fire breaks to provide fire protection and assist firefighting efforts in the interface.

FireSmart recommended guidelines for roads:

- Roadways should allow for simultaneous access for emergency vehicles and public evacuation with a traveled way of not less than 6.1m horizontally and 4.1m vertically. Where parking is permitted, an additional 2.7m of improved road width should be provided.
- Road curvature radius should be at least 30m from the centerline.
- Road gradients should not exceed 10%.
- Dead-end roadways more than 90m in length should have a turn-around at the terminus having no less than 36m outside diameter of traveled way. Fire officials may authorize a 'hammer-head T' turn around. Dead-end roads should be posted as such.
- Any gated roads should have the gates located at least 9m from the public right-of-way and should not open outward. Fire Service personnel should have keys for all gates.
- Roads should have a hard all-weather surface capable of supporting any fire apparatus likely to be operated on the road. All-weather gravel roads are acceptable.

FireSmart recommended guidelines for fire service access driveways:

- Driveways more than 45m in length should be a minimum of 3.7m in width and provide 4.1m vertical clearance over the full width.
- Turnouts shall be spaced so that drivers can see from one turnout to the next. Turnout requirement is waived where the fire service access width is 6.1m or more.
- Driveway turns should not restrict the access of the largest emergency vehicle likely to be operated on the driveway.
- Gradients, dead-ends, gates and surfacing shall be as the recommended guidelines for roads above.
- Signs and house numbers should be clearly visible and legible from the road.

6.1.2 Water Supply

Lot 4 is outside the City of Courtenay Fire Protection District; therefore, fire protection capabilities will be limited. Residents of communities without a fire department depend entirely on water sources they have developed[7]. All buildings proposed and existing within interface areas should have a water supply for the purpose of firefighting. FireSmart recommended guidelines for water supply are found below.

[7] Partners in Protection. 2013.

FireSmart recommended guidelines for water supply:

Interface homeowners with no fire department protection have a much lower level of fire preparedness and may choose to implement some or all of the following measures:

- At minimum, have garden hose connections plumbed on the exterior of the building. In addition, consider standpipes located 15m from building.
- Keep enough garden hose at each interface building to allow a water stream to be directed on all exterior surfaces of the building, including the roof. Equip each hose with a nozzle and keep it connected during the fire season.
- Provide access to the roof in order to wet it down or suppress spot fires that may ignite the roof. Connect a sprinkler to the hose and nail it to the roof, but turn it on only if fire is an immediate risk.
- Homeowners should consider a number of alternatives in installing water sources for fire suppression purposes:
    - At minimum, interface buildings without a pressurized water system should have at least one large water barrel and a 10 litre fire pail.
    - Consider additional water storage capability though tanks, ponds, pools or underground cisterns.
    - If well water is supplied by electrical pumps, consider having an auxiliary gasoline-powered generator that can be wired directly to the electrical pump.
    - If near a water source, consider a gasoline-powered fire pump sufficient enough to supply firefighting needs. Property owners may wish to increase the effectiveness of their firefighting water supplies by considering the use of approved firefighting foam concentrates, gels and wetting agents.

6.1.3 Utilities – Electric and Gas

Overhead power lines have the potential to be a major source of ignition for interface fires (primary distribution lines are a particular problem). Propane tanks surrounded by dense concentrations of vegetation are potential bombs in an interface fire. FireSmart recommended guidelines for utilities are found below.

FireSmart recommended guidelines for electrical utilities:

- Underground power distribution offers the greatest fire safety. Consider where feasible and supported by BC Hydro.
- Utilities, wire owners, or wire service providers should keep vegetation cleared to appropriate distances from the powerline to prevent vegetation from making contact.

FireSmart recommended guidelines for propane:

- Propane tanks should have all vegetation within 3m cleared away. Locate tanks at least 10m from any building.

Recommendation 1: The developer should incorporate FireSmart infrastructure options into the design of the subdivision. These include access routes and electric utilities.

Recommendation 2: Landowners should incorporate FireSmart infrastructure options into the design of their homes and property. These include access routes, utilities (electric and gas) and minimum water supply as per the recommended guidelines.

6.2 *FireSmart Structural Options*

All structures in the study area will be built in the interface and thus should be constructed to FireSmart design standards to increase the ability of the structure to withstand an interface fire event. Below is a summary of the recommended guidelines, followed by specific recommendations for Lot 4.

FireSmart recommended guidelines for roofing:

- Use only fire-retardant roofing rated Class A, B or C.
- Clear roofs of all overhanging branches or needles and combustible debris buildup on roof surfaces or in gutters.

FireSmart recommended guidelines for chimneys or stovepipes:

- Use approved spark arrestors.
- Chimney outlets should have at least 3m clearance from all vegetation and obstructions. Chimney outlets must be 0.6m higher than any part of the roof within 3m.

FireSmart recommended guidelines for exterior siding:

- Any material used for siding purposes should be fire resistant, at least 12mm thick and extend from the ground level to the roofline.

FireSmart recommended guidelines for windows and door glazing:

- Clear concentrations of vegetative fuels that are within 10m of glazed openings.
- Consider smaller, thermal pane, tempered glass windows.
- Consider solid shutters or exterior metal fire-screens.

FireSmart recommended guidelines for eaves, vents and openings:

- Consider solid shutters or exterior metal fire-screens on all eaves, attic and underfloor openings.

FireSmart recommended guidelines for balconies, decks and porches:

- Build balcony and deck surfaces of non-combustible or fire-resistant materials.
- Provide access to below slotted deck surfaces so that debris may be removed on a regular basis (i.e. needle litter).

FireSmart recommended guidelines for on-site firefighting equipment:

- Keep a shovel and a grubbing tool readily available from the exterior of the building during fire season. Maintain the minimum water supply as per Section 6.1.2 (Water Supply).

Recommendation 3: Landowners should use FireSmart structural options in the design of their homes and any other structures on their property.

6.3 *FireSmart Vegetation Management Options*

The goal of vegetation management is to create a fuel-reduced buffer between structures and flammable vegetation to reduce the intensity and rate of spread of wildfire approaching or leaving the development[8]. Vegetation management is broken down into three approaches: fuel removal, fuel reduction and fuel conversion. Below is a summary of the recommended guidelines, followed by specific recommendations for Lot 4.

An interface building will not continue to be FireSmart without occasional maintenance of previously treated areas[9]. Maintenance schedules depend on factors such as vegetation type, soil and moisture regimes, and specific weather events.

6.3.1 Priority Zone 1 (0 to 10m from structure)

This area is immediately adjacent to a given building and extends outward in all directions for a recommended minimum of 10m in flat terrain. The main objective of vegetation management in this zone is to create an environment that will not support fire of any kind. Fuel removal and conversion are the principal vegetation management strategies.

FireSmart recommended guidelines for Priority Zone 1:

- Annual grasses within 10m of buildings should be mowed to 10cm or less.
- Ground litter and downed trees should be removed annually.
- Overmature, dead, and dying trees with potential to ignite and carry fire should be removed.
- Vegetation conversion to less fire-prone species is encouraged.
- Vegetation existing away from the immediate area of the building should be thinned and pruned to prevent a fire from being carried toward or away from the building.
- Where slope and aspect increase the hazard to buildings, fuelbreaks should be provided.
- Remove piled debris and other combustibles away from the building.

[8] Walkinshaw, S. 2012. Inuvik Community Wildfire Protection Plan. Prepared for the Government of the Northwest Territories, Environment and Natural Resources – Forest Management Division.
[9] Partners in Protection. 2003.

6.3.2 Priority Zone 2 (10 to 30m from structure)

This area begins 10m from the building and extends to 30m from the building. The main objective of vegetation management within this zone is to create an environment that will only support fires of lower intensity and rate of spread. Fuel reduction (rather than removal) is the main strategy for vegetation management.

FireSmart recommended guidelines for Priority Zone 2:

- On sloped terrain, the width of Priority Zone 2 must be extended downslope.
- Thin the forest canopy and the understory. Prune lower branches.
- Keeping deciduous trees is encouraged.

6.3.3 Priority Zone 3 (30 to 100m from structure)

This area begins 30m from the building and extends to 100m or farther from the building. This area further extends the fuel modified area by reducing flammable vegetation using strategies and standards for vegetation management are similar to those applied in Priority Zone 2. Fuel reduction and conversion (rather than removal) are the principal vegetation management strategies. Vegetation management in this area is required where there is a high hazard that is not reduced to desired levels by vegetation management in Priority Zone 2.

In the case of Lot 4, no high threat areas exist at this point in time; low and moderate threat classes dominate. Existing and proposed access roads also provide a break in fuel continuity.

FireSmart recommended guidelines for Priority Zone 3:

- On sloped terrain, the width of Priority Zone 3 must be extended downslope.
- Thin the forest canopy and the understory. Prune lower branches.
- Keeping deciduous trees is encouraged.

Recommendation 4: Landowners should ensure FireSmart vegetation management and maintenance in Priority Zones 1 (0-10m) and 2 (10-30m) for all structures. Vegetation management in Priority Zone 3 (30-100m+) is at the landowners' discretion.

Recommendation 5: Landowners are strongly encouraged to review suggested FireSmart vegetation/landscaping publications such as:

- FireSmart Guide to Landscaping. Partners in Protection. Edmonton, Alberta
- Fire-resistant Plants for Home Landscapes: Selecting plants that may reduce your risk from wildfire. Oregon State University. PNW 590, August 2006.

Recommendation 6: Landowners are strongly encouraged to have their property FireSmart assessed immediately following construction, and then again at five years to re-assess FireSmart compliance over time due to changes in vegetation structure and continuity.

7 Appendix A

Map 1, General vegetation types and Wildfire Behaviour Threat Class Map

N

1:2,000

344900 345000 345100 345200 345300 345400 345500 345600

5504800 5504700 5504600 5504500 5504400

420m 440m 460m 480m 380m 400m

Forbidden Plateau Road

Proposed Fire Hall Lot
Area = 0.415 ha
(1.02 acres)

10m 30m 100m

Proposed Lot D
Area = 4.06 ha (10.02 acres)

Proposed Lot C
Area = 4.04 ha (9.98 acres)

Proposed Lot B
Area = 4.00 ha (9.88 acres)

Proposed Lot A
Area = 6.86 ha (16.95 acres)

0 25 50 100 meters

JEA J.E. ANDERSON & ASSOCIATES SINCE 1959
SURVEYORS - ENGINEERS

Lot 4, Forbidden Plateau Road
Wildfire Threat Assessment

General Vegetation Types
- Type1 Imature Conifer Stand
- Type 2 Mature Conifer Stand
- Type 3 Recently Cleared/Right of Way

Wildfire Behaviour Threat Class
- Low
- Moderate
- High
- Extreme

FireSmart Priority Zones
- Zone1 0-10m
- Zone2 10-30m
- Zone3 30-100m

- Proposed Dwelling
- Survey Lot Location
- Well Site/Hydro Pole
- Clearing Line
- Trim Contours
- Transmission Line
- Gravel Road
- Proposed Road

STRATEGIC NATURAL RESOURCE CONSULTANTS
Campbell River
321-1180 Ironwood St.
p: 250.287.2246

NAD 1983
UTM Zone 10N
Scale: 1:2,000
Date: 4/3/2018

Areas outside of the survey lot property lines were not assessed at this time.

Path: G:\Projects\Lot 4 Forbidden Plateau\Draft_20180403.mxd

8 Appendix B

Wildfire Behaviour Threat Class definitions from the document, "Wildland Urban Interface Wildfire Threat Assessments in BC" by Morrow, Johnston and Davies (2013).

Very Low (Blue)

These are lakes and water bodies that do not have any forest or grassland fuels. These areas cannot pose a wildfire threat and are not assessed.

Low (Green)

This is developed and undeveloped land that will not support significant wildfire spread.

Examples: Urban/suburban, farm areas with modified forest fuels; irrigated, managed, and heavily grazed fields; gravel pits; severely disturbed land; fully developed residential and commercial areas not directly adjacent to forested or undeveloped land; areas with no readily combustible vegetation on site.

Moderate (Yellow)

This is developed and undeveloped land that will support surface fires only. Homes and structures could be threatened.

Examples: Unmanaged fields with more than one year of matted grass in a cured state at some time during the fire season; grass fields with shrubs and a deciduous tree overstorey; grass fields with coniferous shrubs and tree overstorey with less than 20% canopy coverage; patches of isolated coniferous stands less than 0.5 ha in size.

High (Orange)

Landscapes or stands that:

- are forested with continuous surface fuels that will support regular candling, intermittent crown and/or continuous crown fires;
- often include steeper slopes, rough or broken terrain with generally southerly and/or westerly aspects;
- can include a high incidence of dead and downed conifers;
- are areas where fuel modification does not meet an established standard.

Examples: Areas of continuous beetle killed pine trees; forested land with coniferous coverage exceeding approximately 40% canopy closure; steep, gullied slopes with a continuous coniferous cover; Douglas-fir stands with a high incidence of dead, dying and downed trees from root rot infestation; open grown coniferous stands with low live crowns that would allow candling of large trees.

Extreme (Red)

Consists of forested land with continuous surface fuels that will support intermittent or continuous crown fires. Polygons may also consist of continuous surface and coniferous crown fuels. The area is often one of steep slopes, difficult terrain and usually a southerly or westerly aspect.

Examples: Forested land with relatively continuous coniferous canopy closure, in excess of 40%, continuous dead pine; steep, gullied, forest slopes with a continuous coniferous forest cover.

Rural settlement areas

41. The rural settlement areas encompass the greatest diversity of land use within the CVRD. The RGS managing growth policies direct that the rural settlement areas grow at a rate which is no more than 10 per cent of any new residential development in the regional district over the next 25 years. Permitted uses in the rural settlement areas include all primary uses such as commercial, industrial, residential and institutional uses.

Rural settlement area - objectives

42. (1) To promote land uses that support rural lifestyles in the electoral areas of the Comox Valley.

(2) To provide opportunity for alternative and affordable forms of housing.

(3) To promote the use of agriculturally viable land for agricultural purposes.
(4) To restrict sprawl and parcel fragmentation in rural areas, per the RGS.
(5) To protect working landscapes from encroachment by residential or other uses.
(6) To minimize the impact of new development on existing neighbourhoods.
(7) To direct new commercial, industrial and institutional uses requiring public servicing into the settlement nodes.

Rural settlement areas – policies (subdivision)

43. (1) The minimum lot size in the rural settlement area is between four hectares and twenty hectares, subject to soil conditions, ground water capacity, extension of existing subdivision areas, interface fire hazards and suitability of lands for rural development.
(2) Use the density bonusing framework below, through site specific rezoning, to support establishment of communities with shared common social, spiritual, economic or lifestyle visions, such as agriculture, co-living arrangement or intergenerational living.
(3) Consider requests to rezone for lot sizes between four hectares to twenty hectares using either the density bonusing framework or through the community amenity contributions policy included in this OCP.
(4) Apply the following framework to proposed rezoning applications in rural settlement areas:
    (a) 20 hectare – basic permitted lot size;
    (b) 15 hectare lots – where up to 10% of the total area is required for public dedication of greenspace or environmental protection;
    (c) 10 hectare lots – where up to 15% of the total area is required for public dedication of greenspace or environmental protection;
    (d) 8 hectare lots – where up to 20% of the total area is required for public dedication of greenspace or environmental protection;
    (e) 6 hectare lots – where up to 25% of the total area is required for public dedication of greenspace or environmental protection;
    (f) 4 hectare lots – where up to 30% of the total area is required for public dedication of greenspace or environmental protection; and
    (g) Where a combination of lot sizes is proposed, with an aim to create a diverse community with a range of rural lot sizes of at least four hectares, the amount of land required for public dedication of greenspace or environmental protection will be calculated based on the average lot size within the proposed subdivision. The average will be rounded down to the nearest whole number.

(5) Assess new lot development in the rural settlement areas proposing to rezone as follows:
    (a) Soil conditions must be shown to have the capacity to provide long-term sustainable on-site sewage treatment including a primary and secondary

onsite sewage disposal field location, in accordance with *Subdivision Standards* published by Island Health.

(b) Ground water capacity must be demonstrated, by way of a water flow report provided by the applicant to show a source of potable water for each proposed lot. In the majority of cases, new rural residential development will be expected to provide potable water from a well.

(c) Ability to meet the *Guidelines for Canadian Drinking Water Quality* and requirements of the *Drinking Water Protection Act* for two or more connections, and the *Health Hazard Regulations* which establish the duty of landlords to provide potable water.

(d) The proposed development should be a natural extension of an existing subdivision where there is vehicle and pedestrian connectivity between the existing and proposed subdivision and where the applicant has provided a site plan that illustrates the proposed road and trail connections.

(e) The applicant must provide a report prepared by a qualified professional that demonstrates how the proposed development addresses and mitigates any risks associated with interface forest fire hazards.

(f) The suitability of land for rural residential development must be assessed in relation to the surrounding land uses, environmental features and the accessibility of the land.

(g) New development should be designed to limit and mitigate any impacts on adjacent working landscapes through buffering and site design that avoids environmentally sensitive features as designated in the sensitive ecosystem inventory.

Comox Valley REGIONAL DISTRICT

Staff report

DATE: September 7, 2018

FILE: 3360-20/RZ 3C 18

TO: Chair and Directors
Electoral Areas Services Committee

FROM: Russell Dyson
Chief Administrative Officer

Supported by Russell Dyson
Chief Administrative Officer

R. Dyson

RE: **Proposed Zoning Bylaw Amendment – Forbidden Plateau Road (Fry / Taylor)**
Puntledge – Black Creek (Electoral Area C)
Lot 4, Block 249, Comox District, Plan EPP11657, PID 028-704-550

Purpose
To update the board regarding its request for staff to meet with the applicants to consider alternatives and an agency referral list.

Recommendation from the Chief Administrative Officer:
THAT the board deny application RZ 3C 18 (Fry/Taylor) to rezone Lot 4, Block 249, Comox District, Plan EPP11657, PID 028-704-550, which would have enabled subdivision to create 4 hectare parcels.

Executive Summary

- At its meeting of July 9, 2018, the Electoral Areas Services Committee (EASC) received the rezoning proposal concerning the above noted property and the staff report recommending it be refused on the basis of inconsistencies with the Regional Growth Strategy (RGS) and the Official Community Plan (OCP).
- EASC approved the resolution "*That the rezoning application RZ 3C 18 be referred to staff to consider alternatives with the applicant and to further develop an agency referral list to report back to a future meeting of the Electoral Areas Services Committee.*"
- The applicant's agent met with staff on August 14, 2018.
- On September 4, 2018, the applicant provided an updated proposal attached as Appendix A. In contrast to the original, it deletes the proposed fire hall lot and identifies 4.7 hectares that may be held in a conservation covenant subject to the agreement of an authorized covenant holder. The updates also acknowledge that an updated *Riparian Area Regulation* Assessment Report and Rainwater Management Plan will be required to replace existing covenants.
- The rezoning request remains unchanged: creation of a zone that would allow for subdivision of the property into four lots with a minimum lot area of 4 hectares.
- Staff recommends that the application be refused on the basis of inconsistencies with the RGS and OCP with respect to road access and increasing density and residential investment in the watershed, working landscape, and forest interface area with no fire protection coverage.
- If the board opts to advance this application to external agency referral instead, an agency referral list is included as Appendix B.

Prepared by:	Concurrence:
J. MacLean	***A. Mullaly***
Jodi MacLean, MCIP, RPP Rural Planner	Alana Mullaly, M.Pl., MCIP, RPP Acting General Manager of Planning and Development Services Branch

Stakeholder Distribution (Upon Agenda Publication)

Applicant	✔

Background/Current Situation

At its meeting of July 9, 2018, the EASC received the rezoning proposal (File RZ 3C 18) concerning the above noted property, an undeveloped 20 hectare lot located off the gravelled portion of Forbidden Plateau Road (Figure 1). The property is zoned Rural Twenty (RU-20) which includes a subdivision requirement that new lots achieve a minimum lot area of 20 hectares. It is the applicant's objective to subdivide the property into four lots with a minimum lot area of 4 hectares so that they can be developed for residential use.

The staff report, also received by EASC at the July 9, 2018 meeting, provides an analysis of the proposal based on policies and objectives of the RGS and OCP. The property's RSA designation states that minimum lot areas should be established somewhere between 4 and 20 hectares based on the considerations outlined in the policies. Based on this analysis, the staff report recommended the proposed rezoning be refused citing issues such as:

- Increasing the density within the drinking water supply watershed;
- Increasing the residential density and development within the working landscape (forestry);
- Inconsistency with the framework for public dedication of greenspace or environmental protection;
- Necessity of 500 metres of new dead-end road over steep terrain to access the rear three proposed lots without secondary access; and
- Residential development in the forest interface area with a lack of fire protection coverage.

At the July 9, 2018 meeting, in consideration of the proposal and the staff report, EASC approved the following resolution:

> *"THAT the rezoning application RZ 3C 18 be referred to staff to consider alternatives with the applicant and to further develop an agency referral list to report back to a future meeting of the Electoral Areas Services Committee."*

In response, the applicant's agent met with staff on August 14, 2018 and discussed both the rezoning proposal and the staff report. Subsequently, on September 4, 2018, the applicants submitted a revised conceptual subdivision plan along with an explanatory letter (Appendix A).

While the rezoning requests remains the same, the applicant is seeking to address some of the concerns noted in the report. Specifically, the proposed road overlapping with a Streamside Protection and Enhancement Area (specified in a *Riparian Area Regulation* report registered on title as a covenant); the technical inability to provide alternative road access at Forbidden Plateau Road; the need to update the rainwater management plan registered on title as a covenant to address the new lot areas; the deletion of the proposed "fire hall lot"; and inclusion of a proposal for environmental protection over 4.7 hectares in the form of a conservation covenant pending the acceptance of an authorized covenant holder.

While the revision makes progress in addressing the proposal's inconsistency with Policy 43(4) of the OCP concerning the framework for applying new lot areas established through a rezoning process with respect to greenspace and environmental protection, the proposal remains inconsistent with the RGS and OCP policies (noted above) concerning road access and increasing density and residential investment in the watershed, working landscape, and forest interface area with no fire protection coverage.

Policy Analysis
Section 479 of the *Local Government Act* (RSBC, 2015, c. 1) (LGA) authorizes a local government to regulate, through bylaw, the use, density, the size and shape of land, buildings and structures. Section 460 of the LGA states that a local government must define procedures by which a property owner may apply for a bylaw amendment.

Options
The board may deny the application or refer the application to external agencies listed in Appendix B.

Staff recommends the application be refused on the basis of inconsistencies with the RGS and OCP policies.

Financial Factors
A $2,000 rezoning application fee has been collected under the "Comox Valley Regional District Planning Procedures and Fees Bylaw No. 328, 2014." If the application proceeds, to public hearing, the applicant will incur an additional statutory fee of $1,500. If the property is successfully rezoned, future fees will be incurred during the subdivision and development permit processes.

Legal Factors
This report and the recommendations contained herein are in compliance with the LGA and Comox Valley Regional District (CVRD) bylaws. The LGA authorizes a local government to regulate the use of land and buildings. Part 13 of the LGA requires that all bylaws and services adopted following adoption of an RGS must be consistent with the RGS.

Regional Growth Strategy Implications
See previous staff report, dated June 20, 2018, and received by EASC on July 9, 2018, for the detailed analysis of the proposal with respect to the RGS.

Intergovernmental Factors
If the application proceeds, Appendix B contains a list of agencies and First Nations which the application may be referred to for comment.

Interdepartmental Involvement
Planning staff consulted with other CVRD departments, including engineering services, fire services, community parks and long range planning. The concerns of these departments are outlined in the Background section of this report.

Citizen/Public Relations
If the application proceeds to bylaw preparation, community consultation will be held in accordance with Bylaw No. 328 (i.e. statutory mailing and public hearing).

Attachments: Appendix A – "Letter and conceptual subdivision plan dated September 4, 2018"
Appendix B – "Agency Referral List"

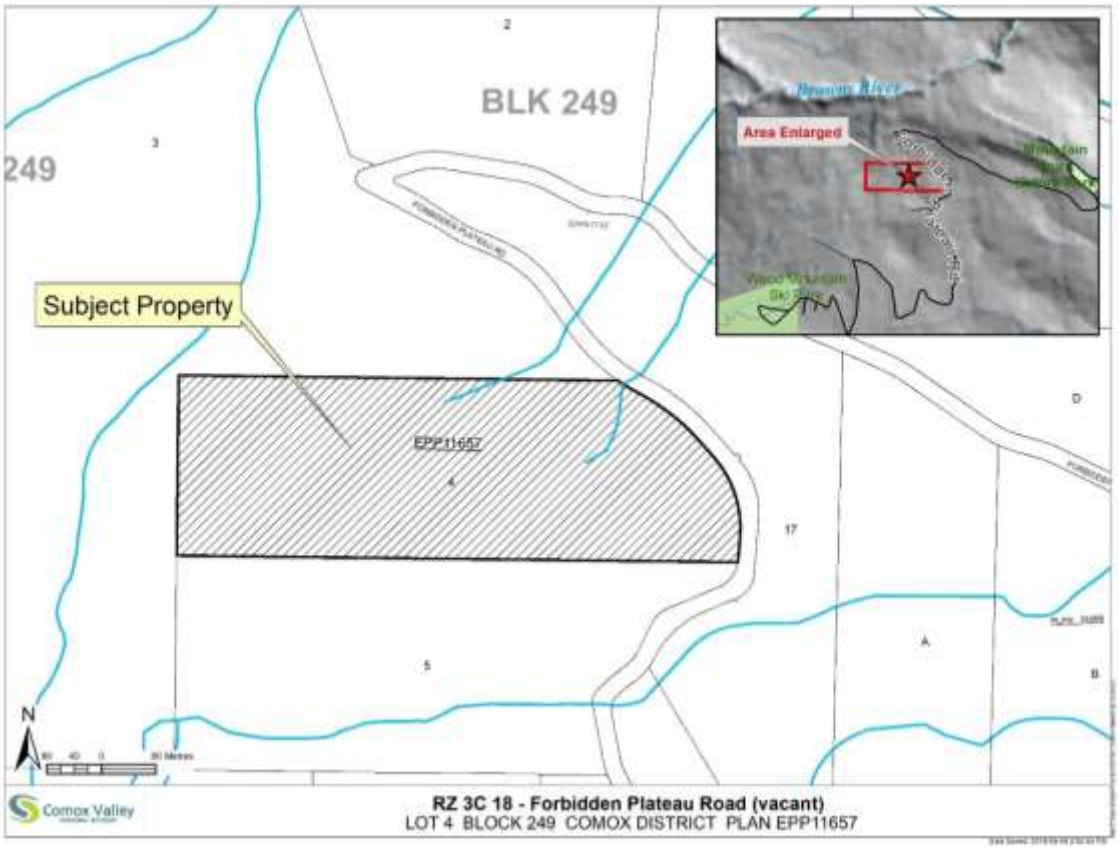


Figure 1: Subject Property

J.E. Anderson and Associates
1250 F Cedar Street
Campbell River, BC V9W 2W5
Ph: 250-287-4865 Fax: 250-287-9502

Our File : 120-072

September 4, 2018

Comox Valley Regional District
Planning and Development Services Branch
600 Comox Road
Courtenay, BC, V9N 3P6

RE: Revisions of Proposal for Re-Zoning
Lot 4, Block 249, Comox District, Plan EPP11657 – Forbidden Plateau Road
Registered Owners: Fry, Taylor

A presentation of our proposal was made at the Electoral Service Committee meeting on July 9, 2018, a decision was reached to consider alternatives to our proposal to better address aspects of the planning staff report. A meeting was held with Jodi MacLean, Rural Planner on August 14, 2018, where alternatives were discussed. The following changes to the proposal are summarized below.

1. *Proposed Road Location:*

There is some concern that the access road location as proposed would cross riparian zones, two of which have been identified in covenant CA2234895. The Map included in the RAR report prepared by Steve Toth, R.P. Bio, is limited in scope with regards to the portions of the creeks within Lot 4, identified as Creek 1 and 2, map attached. We propose to obtain a more detailed RAR report from a QEP to address these two riparian zones and confirm whether the proposed road would be feasible. A professional Engineer would be retained to review the RAR report and consider an alternative road alignment if necessary.

An easement over the existing logging road would be created to provide alternative access when necessary to the new lots proposed, due to poor sighting distances on Forbidden Plateau road at the logging road entrance, a new road in this location is not feasible.

2. *Watershed Concerns:*

There is some concern that the proposed development, particularly the front 15 hectares would adversely affect Puntledge River watershed and the Comox Valley water System. The existing rainwater management plan contained within covenant CA2234893, is generalized applying to the entire original subdivision with one paragraph devoted to Lot 4 (attached). We would propose to have a new storm water management plan for Lot 4 prepared by a Professional Engineer to address the concerns of what impact the development may have on the watershed.

3. *Green Space, Environmental Protection and Community Amenities:*

In our initial proposal, we had proposed dedication of a 1 acre lot for a fire hall, however subsequent to our application it had been decided that the CVRD would not establish fire protection services for this area. The Regional Growth strategy suggests up to 30 % of a development containing 4 hectare lots be dedicated as green space, environmental protection or contributions for community amenities as described in the OCP. We are proposing to provide for 2 areas for environmental protection, one being part of the proposed Lot A where a creek exists and a significant stand of second growth trees exists (+/- 2 ha). The second area would be a 25 meter wide buffer along the west and south boundaries for a wild life corridor (+/- 2.7 ha). The two areas would total 4.7 ha being 23.5 % of the 20 ha parcel. Covenants on title would be established for these 2 areas, we would approach a nature trust to be the covenant holder, 3 possibilities being the Nature Trust of BC, Nature Conservancy of Canada or the Comox Valley Land Trust, they have not been contacted at this stage. We would also consider a contribution for community amenities, we have not identified what would be appropriate at this point, we would be open to suggestions from the CVRD.

Please find a revised map to accompany this proposal revision and please feel free to contact our office at your convenience with any questions or comments you may have.

Sincerely;

Colin Burridge P.Eng, BCLS,CLS

cc. Jim Fry

120-072CVRD2.doc

Parcel 2

Parcel 2 is situated immediately to the west of Parcel 1 and is also bounded on the south by Forbidden Plateau Road and on the north by Browns River. Medicine Bowls Road extends through Parcel 1 and into the northern portion of Parcel 2.

The traverse of Parcel 2 continued along Medicine Bowls Road with a loop down to Browns River and two small loops off Forbidden Plateau Road.

In general, the ground surface within Parcel 2 is irregular and broadly convex across the slope. The slope extends down from Forbidden Plateau Road at about 20° to a break to 5° to 15° that continues to Medicine Bowls Road. Similar to Parcel 1, a steep break of up to 45° extends below Medicine Bowls Road to Browns River.

Two test pits were excavated on this parcel. Test Pit #22 was located at the approximate centre of the southern boundary and Test Pit #25 was located in the north-eastern corner of the parcel. Soils observed in both of these pits were generally similar to those in Parcel 1, with a 0.05 to 0.10 m surficial layer of dark brown to black organics consisting of forest litter, organic debris, and roots overlying a 0.6 to 0.7 m thick weathered, red-brown zone of loose silt and sand with some gravel and trace cobbles. The loose zone transitioned through a dense, light brown layer of similar composition to hard, grey, sandy gravelly silt till with trace cobbles and boulders that begins (on average) at 1.0 m depth. Soils were interpreted to have "blanket" thickness down to the steep slopes within 50 m of Browns River. The near vertical sidewall of the Browns River channel exposed basaltic bedrock.

No water courses or standing water was observed on the parcel.

Parcel 3

Parcel 3 is scheduled for future timber harvesting and is not being considered for development at this time.

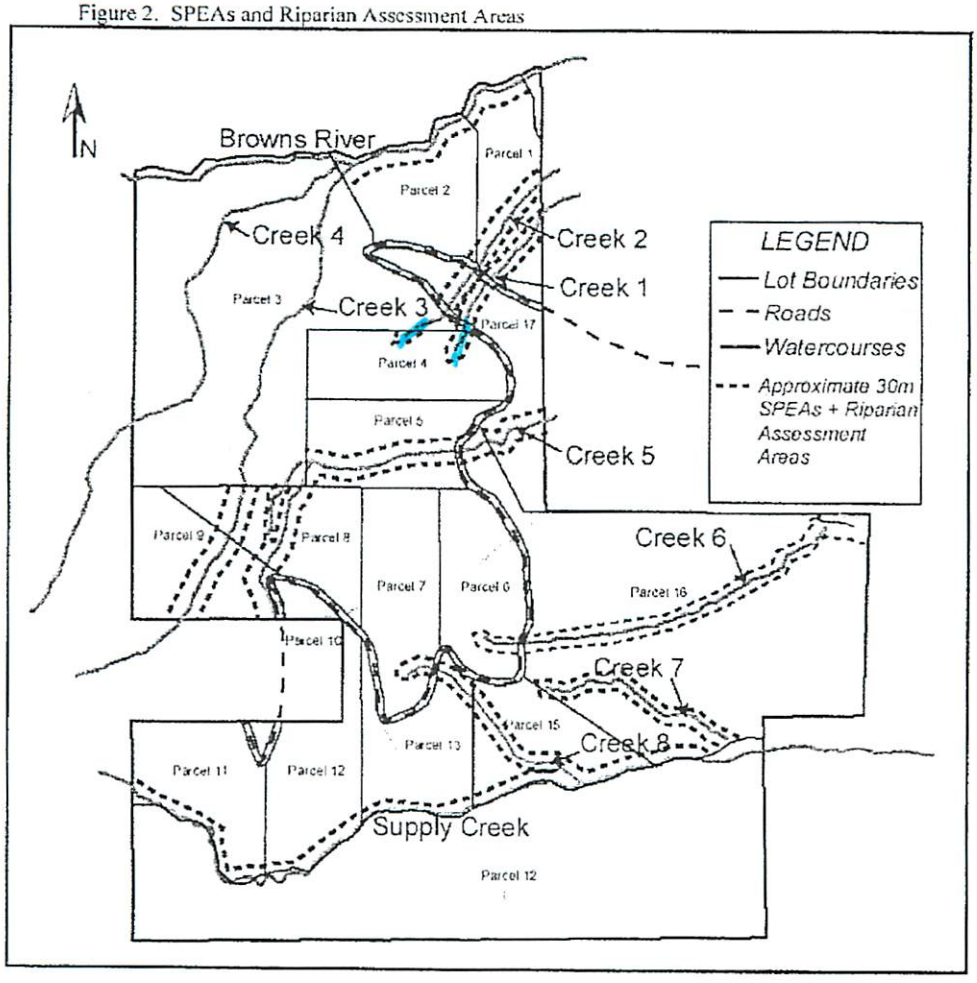
Parcel 4

The primary field traverse of Parcel 4 followed an existing forestry road (BR276) that entered the lot near the southeast corner and extended across the parcel to the north property line near the northwest corner. The secondary traverse followed an existing spur road from Parcel 5 (BR291) that intercepted the southwest corner of Parcel 4.

In general, the ground surface within the parcel sloped gently down to the east/northeast at about 10° to 15° from horizontal. The sloped ground surface was typically straight and slightly regular. There were some areas of local steepening to 20° to 25°.

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

Figure 2. SPEAs and Riparian Assessment Areas



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

Table 1. RAR assessable streams on PID 005-632-153.

Watercourse	Length on Property (m)	Affected Parcels	Flows to	Avg. Grade (%)	Channel Form
Browns River	1800	1, 2, and 3	Puntledge River	4.7	Canyon / Ravine >60m
Supply Creek	2820	11, 12, 13, 14, 15	Puntledge River	11.7	Not in ravine
Creek 1	647	1, 4, 16	Puntledge River	23.2	Ravine <60m
Creek 2	831	1, 3, 4, 16	Puntledge River	21.1	Ravine <60m
Creek 3	1940	2, 3, 8, 9	Browns River	18.9	Ravine <60m
Creek 4	1500	2, 3	Browns River	18.1	Ravine <60m
Creek 5	1620	5, 8, 9, 15, 16	Puntledge River	10.4	Ravine <60m
Creek 6	1620	6, 15	Puntledge River	14.6	Not in ravine
Creek 7	880	15	Supply Creek	14.5	Not in ravine
Creek 8	895	7, 13, 14	Supply Creek	7.1	Not in ravine

All of the assessable watercourses on the property have existing or potential streamside vegetation areas >30m in width, resulting in a Vegetation Category of 1 (Table 2). SPEA distances are 30m based on fish-bearing status or non fish-bearing permanent stream status (Figure 2), except Browns River which is located in a ravine > 60m in width and therefore has a 10m SPEA from top of ravine bank.

Table 2. SPEA setbacks

Watercourse	Vegetation Category	Fish Bearing	SPEA Width (m)	Avg. Grade (%)	SPEA Measured from:
Browns River	1	Yes	10	4.7	Top of Canyon / Ravine Bank
Supply Creek	1	Yes	30	11.7	Edge of active floodplain
Creek 1	1	No	30	23.2	Top of Ravine Bank
Creek 2	1	No	30	21.1	Top of Ravine Bank
Creek 3	1	No	30	18.9	Top of Ravine Bank
Creek 4	1	No	30	18.1	Top of Ravine Bank
Creek 5	1	No	30	10.4	Top of Ravine Bank
Creek 6	1	No	30	14.6	Edge of active floodplain
Creek 7	1	No	30	14.5	Edge of active floodplain
Creek 8	1	No	30	7.1	Edge of active floodplain

I, Steve Toth, 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 Couverdon ;
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

PLAN TO ACCOMPANY RE-ZONING APPLICATION:
LOT 4, BLOCK 249, COMOX DISTRICT, PLAN EPP11657

Forbidden Plateau Road

P.I.D.: 028-704-550

SCALE 1:1000 metric 0 10 20 30 50 100

ALL DISTANCES ARE IN METRES AND DECIMALS THEREOF
ELEVATIONS ARE IN METRES (APPROXIMATE GEODETIC)
CONTOUR INTERVAL 1.0 METRE

LEGEND

- indicates Capped Iron Post
- indicates Iron Pin
- indicates Test Pit
- (W) indicates Existing Drilled Well
- PW indicates Proposed Well
- indicates Fire Assessment Polygon

APPROXIMATE LOCATION OF CREEK 2, NEW RAR REPORT TO BE PREPARED (EXISTING REPORT COVENANT CA2234895 GENERALIZED REPORT FOR ENTIRE ORIGINAL SUBDIVISION)

ACCESS ROAD
PROFESSIONAL ENGINEER TO REVIEW SUITABILITY OF ACCESS ROAD LOCATION/DESIGN AFTER REVIEW OF NEW RAR REPORT AND ADDITIONAL SURVEY DATA.

APPROXIMATE LOCATION OF CREEK 1, NEW RAR REPORT TO BE PREPARED (EXISTING REPORT COVENANT CA2234895 GENERALIZED REPORT FOR ENTIRE ORIGINAL SUBDIVISION)

PROPOSED ACCESS ROAD 5

NEW RAINWATER MANAGEMENT PLAN TO BE PREPARED BY A PROFESSIONAL ENGINEER FOR ALL THE PROPOSED LOTS (EXISTING REPORT COVENANT CA2234893 GENERALIZED REPORT FOR ENTIRE ORIGINAL SUBDIVISION)

ENVIRONMENTAL PROTECTION
SITE OF CREEK AND AND SIGNIFICANT 2ND GROWTH TREES 2.0 ha±

ACCESS EASEMENTS FOR PROPOSED LOTS B, C AND D

25m WIDE WILDLIFE CORRIDOR
AREA = 2.7 ha±

PROPOSED LOT D
AREA = 4.06 ha (10.02 acres)
PERIMETER = 913.7 m
FRONTAGE = 97.6 m
(10.7%)

PROPOSED LOT C
AREA = 4.04 ha (9.98 acres)
PERIMETER = 842.6 m
FRONTAGE = 110.7 m
(13.1%)

PROPOSED LOT B
AREA = 4.00 ha (9.88 acres)
PERIMETER = 815.3 m
FRONTAGE = 164.5 m
(20.2%)

PROPOSED LOT A
AREA = 7.28 ha (18.0 acres)
PERIMETER = 1070.8 m
FRONTAGE = 493.8m
(46.0%)

3

4

PLAN EPP11657

FORBIDDEN PLATEAU ROAD

EDGE OF ROAD

EASEMENT PLAN EPP16627

Proposed Dwelling

CLEARING

30.0m Rad.

100.0m Rad.

10.0m Rad.

gravel road

NOTE:
ENVIRONMENTAL PROTECTION AREAS
TO BE ESTABLISHED AS COVENANTS ON TITLE.

J.E. ANDERSON & ASSOCIATES
Surveyors - Engineers
Victoria - Nanaimo - Parksville - Campbell River
F-1250 CEDAR STREET, CAMPBELL RIVER, BC, V9W 2W5
File: 120-072

REVISED DATE: 4th September, 2018
This Plan has been Prepared from Field Survey and Land Title Office Records
Certified Correct this 6th day of April,2018.

Colin A. Burridge, BC. Land Surveyor

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Agency and First Nations Referral List

The following agencies will receive a referral of the proposal ☒.

First Nations

☒	K'ómoks First Nation	☒	Homalco (Xwemalhkwu) Indian Band
☒	We Wai Kai Nation of the Laich-Kwil-Tach Treaty Society	☒	We Wai Kum First Nation
☒	Kwiakah First Nation		

Provincial Ministries and Agencies

	Agricultural Land Commission		Ministry of Community, Sport & Cultural Development (responsible for TransLink)
☒	BC Assessment		Ministry of Energy & Mines
	BC Parks	☒	Ministry of Forests, Lands and Natural Resource Operations
	Ministry of Environment	☒	Ministry of Transportation and Infrastructure
	BC Transit		Ministry of Jobs, Tourism & Skills Training (responsible for Labour)
	Ministry of Agriculture		Ministry of Indigenous Relations and Reconciliation

Local Government

	Comox (Town of)		Alberni-Clayoquot Regional District
	Courtenay (City of)		Strathcona Regional District
	Cumberland (Village of)		Regional District of Mount Waddington
	Islands Trust		Regional District of Nanaimo

Other

☒	Puntledge – Black Creek Area 'C' Advisory Planning Commission		Agricultural Advisory Planning Commission
☒	School District No. 71 (Comox Valley)	☒	Vancouver Island Health Authority (Environmental Health)