A REGULAR MEETING OF THE TOWN OF LADYSMITH COUNCIL AGENDA 5:00 P.M.

Tuesday, August 18, 2020

This meeting will be held electronically as per Ministerial Order No. M192

Pages

1. CALL TO ORDER

Call to Order 5:00 p.m. in Open Session, in order to retire immediately into Closed Session.

Members of the public are welcome to attend all Open Meetings of Council, but may not attend Closed Meetings.

2. CLOSED SESSION

Recommendation

That, in accordance with section 90(1) of the *Community Charter*, Council retire into closed session in order to consider items related to the following:

• personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the municipality - section 90(1)(a)

3. OPEN MEETING (7:00 p.m.)

Please follow this link to view the meeting: https://www.youtube.com/channel/UCH3qHAExLiW8YrSuJk5R3uA/featured

4. AGENDA APPROVAL

Recommendation

That Council approve the agenda for this Regular Meeting of Council for August 18, 2020.

5. RISE AND REPORT- Items from Closed Session

6.

7.

MINU	JIES			
6.1	Minutes of	f the Sp	pecial Meeting of Council held July 27, 2020	6
	Recomme That Cour July 27, 20	ncil app	nove the minutes of the Special Meeting of Council held	
6.2	Minutes of	f the Re	egular Meeting of Council held August 4, 2020	8
	Recomme That Cour August 4,	ncil app	nove the minutes of the Special Meeting of Council held	
6.3	Minutes of	f the Sp	pecial Meeting of Council held August 7, 2020	11
	Recomme That Cour August 7,	ncil app	n_ Prove the minutes of the Special Meeting of Council held	
DEV	ELOPMENT	APPLI	CATIONS	
7.1	Zoning By	law an	d OCP Amendment - Lot A Malone Road	13
	Recomme That Cour		<u>n</u>	
	D	istrict F	at application 3360-20-03 (Lot A District Lot 126 Oyster Plan VIP73132 Except Part in Plan EPP23747) proceed er consideration and;	
	a.	dev plar	ring considered section 475 (consultation during elopment of an OCP) and section 476 (consultation on nning for school facilities) of the <i>Local Government Act</i> ect staff to refer the application to: Stz'uminus First Nation pursuant to the Memorandum of Understanding;	
		ii.	School District 68 (Nanaimo Ladysmith);	
		iii.	The Community Planning Advisory Committee;	
		iv.	The BC Ministry of Transportation and Instructure, BC Transit and BC Hydro;	
		٧.	The Cowichan Valley Regional District; and	

Direct that staff:

2.

Work with the applicant regarding a community amenity contribution and/or land use matters and report back to Council, specifically with regard to the following items:

i. The existing covenants on the property title for stormwater management, road dedication, and community amenities; ii. Dedication of public parkland; iii. A pedestrian trail network through the site; Integration of local commercial and duplex zoning into the proposal; Any other matters as specified by Council; and b. Commence the preparation of an Official Community Plan amendment bylaw and a Zoning amendment bylaw for the proposed development on the subject property. BYLAWS - OFFICIAL COMMUNITY PLANNING AND ZONING 123 Zoning Bylaw Amendment – 1148 Rocky Creek Road Recommendation That Council adopt "Town of Ladysmith Zoning Bylaw 2014, No. 1860, Amendment Bylaw (No. 31) 2020, No. 2040". 128 Gill Road Lift Station Generator Construction Award Recommendation 130

That Council award the contract for the Gill Road Lift Station generator to David Stalker Excavating Ltd. for \$340,861.50 including GST.

9.2 Waterfront Area Watermain Installation

Recommendation

That Council:

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REPORTS

- Direct staff to construct a new watermain from the French Street watermain terminus adjacent to Oyster Bay Drive to the northeast end of the Machine Shop building for an estimated cost of \$371,000; and
- 2. Obtain funding for this project from the Water Reserve and that the 2020-2024 Financial Plan be amended to reflect this change.

133 9.3 Swim Club Rental Rates – Proposed Amendments to Parks, Recreation & Culture Fees and Charges Policy NO. 05-1810-E Recommendation That Council direct staff to amend the "Parks, Recreation & Culture Fees and Charges Policy No. 05-1810-E" as follows: Remove existing language stating that the subsidy does not apply to specialized facilities such as swimming pools; and Add a Registered non-profit youth swim club 15% subsidy for the FJCC swimming pool. 144 9.4 Town of Ladysmith 2019 Statement of Financial Information Recommendation That Council approve the Town of Ladysmith Statement of Financial Information for the fiscal year ended December 31, 2019. 9.5 Town of Ladysmith 2019 Annual Report To view the 2019 Annual Report please follow this link: https://www.ladvsmith.ca/citv-hall/reports-publications Recommendation That Council adopt the Town of Ladysmith 2019 Annual Report. **BYLAWS** 196 10.1 Town of Ladysmith Tax Sale Deferment Bylaw, 2020, No. 2043 The purpose of Bylaw No. 2043 is to defer the annual tax sale for 2020 until September 27, 2021. Recommendation That Council adopt "Town of Ladysmith Tax Sale Deferment Bylaw, 2020, No. 2043". CORRESPONDENCE 197 11.1 Ladysmith Health Food Store Petition regarding the placement of the public toilet (please note two comments were redacted due to inappropriate language). Recommendation That Council receive for consideration the correspondence and petition from the Ladysmith Health Food Store regarding the location of the

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public toilet on 1st Avenue.

12. NEW BUSINESS

13. QUESTION PERIOD

Residents can submit questions to Council via email at info@ladysmith.ca during the meeting.

- Persons wishing to address Council must be Town of Ladysmith residents, non-resident property owners, or operators of a business.
- Individuals must include their name and address for identification purposes.
- Questions put forth must be on topics which are not normally dealt with by Town staff as a matter of routine.
- Questions must be brief and to the point.
- No commitments shall be made by the Chair in replying to a question.
 Matters which may require action of the Council shall be referred to a future meeting of the Council

14. ADJOURNMENT



MINUTES OF A SPECIAL MEETING OF COUNCIL

Monday, July 27, 2020 5:00 P.M. Frank Jameson Community Centre 810 6th Avenue, Ladysmith, BC

Council Members Present:

Mayor Aaron Stone
Councillor Duck Paterson
Councillor Amanda Jacobson
Councillor Rob Johnson

Councillor Tricia McKay Councillor Marsh Stevens Councillor Jeff Virtanen

Guests:

Jerry Berry, JB Consultants Inc. Gary Nason, JB Consultants Inc.

1. CALL TO ORDER

Mayor Stone called this Special Council Meeting to order at 5:00 p.m.

2. AGENDA APPROVAL

CS 2020-227

That Council approve the agenda for this Special Meeting of Council for July 27, 2020.

Motion Carried

3. CLOSED SESSION

CS 2020-228

That, in accordance with section 90(1) of the *Community Charter*, Council retire into closed session at in order to consider items related to the following:

 personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the municipality section 90(1)(a)

Motion Carried

4. RISE AND REPORT- Items from Closed Sessi

Council rose at 7:00 p.m. without report.

5. ADJOURNMENT

CS 2020-229

That this Special Meeting of Council adjourn at 7:01 p.m. *Motion Carried*

Mayor (A. Stone)	Corporate Officer (D. Smith)



MINUTES OF THE REGULAR MEETING OF COUNCIL

Tuesday, August 4, 2020 7:00 P.M. This meeting was held electronically as per Ministerial Order No. M192

Council Members Present:

Mayor Aaron Stone Councillor Tricia McKay
Councillor Duck Paterson Councillor Marsh Stevens
Councillor Rob Johnson Councillor Jeff Virtanen

Staff Present:

Erin Anderson Jake Belobaba

Donna Smith

1. CALL TO ORDER

Mayor Stone called this Regular Meeting of Council to order at 7:00 p.m., recognizing that it was taking place on the traditional unceded territory of the Stz'uminus People.

2. AGENDA APPROVAL

CS 2020-230

That Council approve the agenda for this Regular Meeting of Council for August 4, 2020.

Motion Carried

3. MINUTES

3.1 Minutes of the Regular Meeting of Council held July 21, 2020

CS 2020-231

That Council approve the minutes of the Regular Meeting of Council held July 21, 2020.

Motion Carried

4. REPORTS

4.1 Housing Needs Assessment: Communications and Engagement Plan

CS 2020-232

That Council receive as information the Housing Needs Assessment Communications and Engagement Plan report.

Motion Carried

5. BYLAWS

5.1 Deferment of the 2020 Tax Sale

CS 2020-233

That Council give first, second and third readings to "Town of Ladysmith Tax Sale Deferment Bylaw, 2020, No. 2043".

Motion Carried

6. CORRESPONDENCE

6.1 Rotary Golf Clubs of Ladysmith and Chemainus 10th Annual Fundraising Golf Tournament

CS 2020-234

That Council:

- 1. Allocate \$350 to sponsor a hole at the 9th Annual Rotary Club Fundraising Golf Tournament on September 26, 2020.
- 2. Enter a team in the tournament at their own cost, if there is interest. *Motion Carried*

7. QUESTION PERIOD

There were no questions from the public.

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CS 2020-235

That this Regular meeting of Council adjourn at 7:15 p.m. *Motion Carried*

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Mayor (A. Stone)	Corporate Officer (D. Smith)



MINUTES OF A SPECIAL MEETING OF COUNCIL

Friday, August 7, 2020 9:00 A.M. Oyster Bay Microtel Inn & Suites 12570 Trans Canada Highway

Council Members Present:

Mayor Aaron Stone
Councillor Duck Paterson
Councillor Amanda Jacobson
Councillor Rob Johnson

Councillor Tricia McKay Councillor Marsh Stevens Councillor Jeff Virtanen

Guests:

Jerry Berry, JB Consultants Inc. Gary Nason, JB Consultants Inc.

1. CALL TO ORDER

Mayor Stone called this Special Council Meeting to order at 9:00 a.m.

2. AGENDA APPROVAL

CS 2020-236

That Council approve the agenda for this Special Meeting of Council for August 7, 2020.

Motion Carried

3. CLOSED SESSION

CS 2020-237

That, in accordance with section 90(1) of the *Community Charter*, Council retire into closed session in order to consider items related to the following:

 personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the municipality section 90(1)(a)

Motion Carried

4.	RISE AND	REPORT-	Items from	Closed	Session
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Council rose from Closed Session at 5:00 p.m. without report.

5. ADJOURNMENT

CS 2020-238

That this Special Meeting of Council adjourn at 5:01 p.m. *Motion Carried*

Mayor (A. Stone)	Corporate Officer (D. Smith)

STAFF REPORT TO COUNCIL

Report Prepared By: Julie Thompson, Acting Senior Planner

Meeting Date: August 18, 2020 File No: ZBL 3360-20-03

ZONING BYLAW AND OCP AMENDMENT – LOT A MALONE ROAD RE:

RECOMMENDATION:

That Council:

- Direct that application 3360-20-03 (Lot A District Lot 126 Oyster District Plan VIP73132) Except Part in Plan EPP23747) proceed for further consideration and;
 - a. Having considered section 475 (consultation during development of an OCP) and section 476 (consultation on planning for school facilities) of the Local Government Act direct staff to refer the application to:
 - i. Stz'uminus First Nation pursuant to the Memorandum of Understanding;
 - ii. School District 68 (Nanaimo Ladysmith);
 - iii. The Community Planning Advisory Committee;
 - iv. The BC Ministry of Transportation and Instructure, BC Transit and BC Hydro;
 - v. The Cowichan Valley Regional District; and

2. Direct that staff:

- a. Work with the applicant regarding a community amenity contribution and/or land use matters and report back to Council, specifically with regard to the following items:
 - i. The existing covenants on the property title for stormwater management, road dedication, and community amenities;
 - ii. Dedication of public parkland;
 - iii. A pedestrian trail network through the site;
 - iv. Integration of local commercial and duplex zoning into the proposal;
 - v. Any other matters as specified by Council; and
- b. Commence the preparation of an Official Community Plan amendment bylaw and a Zoning amendment bylaw for the proposed development on the subject property.

EXECUTIVE SUMMARY:

The applicant is proposing to amend the Official Community Plan (OCP) designation and zoning on a 6.8ha property located at the northwest end of Malone Road (see subject property map) to change the mix and configuration of single family and multi-family residential development and allow the proposed single family residential areas of the development to be "small lot



residential". It is recommended that the application proceed for further consideration as it may be supported by several OCP policies.

PREVIOUS COUNCIL DIRECTION:

Resolution # & Meeting Date	Council Resolution & Details
2014-169 May 12, 2014	Moved and seconded: That Town of Ladysmith Official Community Plan Bylaw 2003, No. 1488, Amendment Bylaw (No.38) 2012, No. 1790 be read a third time and adopted. Motion Carried
2014-170 May 12, 2014	Moved and seconded: That Town of Ladysmith Zoning Bylaw 1995, No. 1160, Amendment Bylaw (No. 88) 2012, No. 179 be read a third time and adopted. Motion carried.

INTRODUCTION/BACKGROUND:

The subject property is located along the western edge of the municipal boundary off the end of Malone Road. The total site area is 7.72ha in size; however, a road dedication and three park areas were taken from the parent parcel through the previous rezoning in 2014, leaving the subject property with 6.8ha of land for potential development. The site is further constrained by Streamside Protection and Enhancement Areas (SPEAs) associated with Rocky Creek. The property has an uneven topography with some steeply sloping areas and exposed bedrock, is mostly forested and contains an old logging road and trails. The property is approximately 1.5km from the Town's downtown core.



Figure 1: Subject property and surrounding area.

The following table describes the surrounding properties:

Direction	Use
North	Kinsmen Park & Playground (Brown Drive Park), forested park land, residential
East	Single family and multi-family residential
South	Vacant single family residential zoned land, BC Hydro corridor, CVRD vacant land
West	BC Hydro corridor, CVRD vacant lands

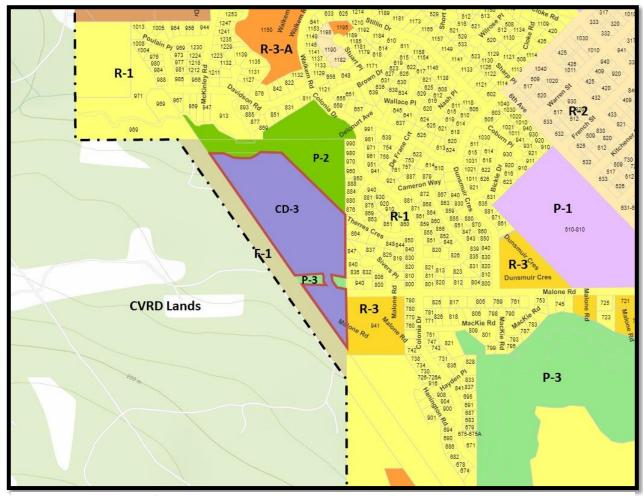


Figure 2: Current zoning of subject property and surrounding area.

The applicant is proposing to amend the subject property's OCP designation and zoning to allow for small lot single family residential development on the portion of the site generally north of Malone Road. The portion south of Malone road will remain multi-family but the applicant is proposing a different multi-family zone for this area. Specifically, the applicant is proposing:

- A 4.46ha single family residential area consisting of 79 lots
- A 0.82ha multi-family residential area on the southern end of the site
- Parkland consisting of a 700.4m² "park staging area" (a parking lot for the adjacent Brown Drive Park) and a 1335.1m² park in the middle of the site
- A pedestrian trail connection to the BC Hydro corridor
- A 6m tree buffer along the length of the western subject property boundary

The applicant's proposal is shown in figure 3 and in the site plan attached to this report.

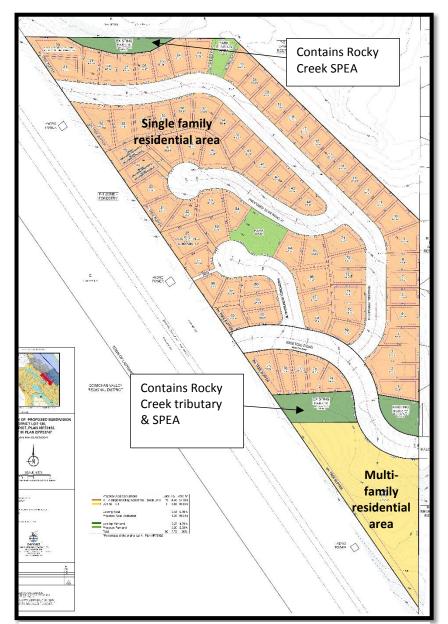


Figure 3: The applicant's proposed site plan. Single family residential is shown within the peach coloured area. Multi-family residential is shown in the yellow area.

designated Multi-Family Residential (see figure 3).

On the proposed single family residential area, the applicant is proposing the Single Dwelling Residential - Small Lot A (R-1-A) zone, with a Single Family Residential OCP designation. On the multi-family residential area, the applicant is proposing the Medium Density Residential (Rzone. The multi-family residential area is already within the Multi-Family Residential OCP designation, which would be retained. The applicant has also expressed interest in duplexes (referred to as 'two family dwellings' in the OCP) and a local commercial area on the multifamily residential site (see Proposed Zoning section for further information).

ANALYSIS:

Official Community Plan Policies:

The subject property is currently designated Multi-Family Residential and Single Family Residential, as shown in figure 4. If the application is approved, the designation of the area north of Malone Road would be designated Single Family Residential and the area south of Malone Road would remain

The Single Family Residential designation provides for low density, ground-oriented residential uses including single family (with suites), duplexes, and small lot single family residential development in neighbourhoods. The proposed change in designation from Multi-Family Residential to Single Family Residential on the proposed single family site would facilitate the applicant's proposal for small lot residential development under the R-1-A zone (Single Dwelling Residential – Small Lot A zone).

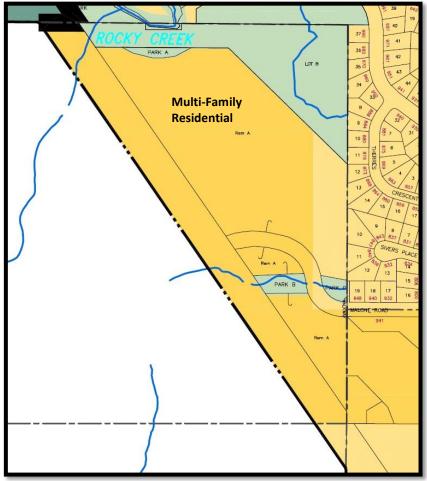


Figure 4: Current OCP designation map of the subject property. The light yellow area is within the Single Family Residential designation and the dark yellow area is within the Multi-Family Residential designation.

Additional OCP policies relevant to the proposal include the following:

OCP Section		Relevant Policy Summary			
3.1.4	Growth Management Policies	 Direct residential growth to 5 general areas in Ladysmith, including North Ladysmith, within the Urban Containment Boundary. Reduction of land consumption through increased residential densities, such as compact lots, is promoted in appropriate locations. 			
3.2.3	Land Use Planning and Community Design Policies & Environment Policies	 Use of ecological features to help determine suitable developable areas for new development. Integrated neighbourhoods that incorporate a variety of housing types and densities and local service commercial development will be encouraged in new neighbourhoods. Encourage protection of Environmentally Sensitive Areas, including riparian areas and steep slopes. Encourage greenway development at time of subdivision; greenways to be used for cycling and walking to link different neighbourhoods. 			
		• Development adjacent to or in proximity to sensitive areas, including steep slopes, is reviewed and approved by a geotechnical engineer and registered professional biologist.			
3.4.3	Transportation	Development applications for larger commercial and residential development will			

OCP Section		Relevant Policy Summary		
	Policies	be examined for their potential to accommodate future transit service.		
3.5.2	Economic Development Policies	Complementary commercial areas to be provided to serve local neighbourhoods.		
3.5.3	Community Facilities and Services Policies	 Parkland shall generally be acquired through land dedication or cash-in-lieu of land payment at subdivision based on the maximum 5% dedication provided for by the Local Government Act. Every household should be within 0.5km of at least one category of park (Community Feature Parks, Community Active Parks, Neighbourhood Parks, Special Areas, and Linear Parks). 		

The proposed development is within the urban containment boundary and is supported by or has the potential to meet all of the OCP policies listed above. Duplex and local commercial development may also be supported. Should the application proceed, it is recommended that the applicant provide for more trails throughout the site to accommodate better pedestrian connectivity with the proposed and surrounding parks and between streets.

Development Permit Areas:

The OCP states that small lot single family development as 'intensive residential development' may require a Development Permit Area (DPA). The proposed single family residential site may be considered 'intensive residential' and thus require a DPA, but further analysis will be required as the site design evolves¹.

Much of the subject property is currently located within Development Permit Area 8 (DPA 8) - Multi-Unit Residential Environmentally Sensitive Area (ESA). DPA 8 provides guidelines for the design of multi-unit residential development. DPA 8 will be retained on the proposed multi-family residential site; however, it is proposed that the DPA 8 designation be removed from the proposed single family residential site and be replaced by different development permit area designations or other regulations which are more suitable for single family residential development, specifically:

- Adding a new boundary for the Riparian Development Permit Area (DPA 6) where riparian areas are found on the subject property.
- Adding a new boundary for the Hazard Lands Development Permit Area (DPA 7) where any areas are found to have hazardous slopes.
- If appropriate, requiring the 6m landscape buffer in a section 219 restrictive covenant.

The applicant has provided a Geotechnical Hazard Assessment and an Ecological Assessment (with an addendum) for the subject property and staff will work with the applicant to use these

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¹ Under policy 3.2.3 (4) of the existing OCP, single family residential is considered 'intensive residential development' if it meets an average density threshold determined on a "parcel by parcel basis". The design may change, which will effect these calculations.

reports to determine the extent of a new DPA 6 and DPA 7 boundary. These reports are described in more detail in the Wildfire, Geotechnical and Environmental Studies section of this report.

Current Zoning:

The subject property is currently zoned Comprehensive Development 3 – Malone Road Residential (CD-3). The zone was adopted through a Zoning Bylaw amendment in 2014. The CD-3 zone consists of three sub zone areas, shown in figure 5:

- Area A: allows Single Unit Dwellings and has a minimum parcel area of 668m².
- Area B: allows Single Unit Dwellings and duplexes and has a minimum parcel area of 668m² for Single Unit Dwellings and a minimum parcel area of 780m² for duplexes.
- Area C: allows Multiple-Unit Dwellings (townhouses and apartments), has a minimum parcel area of 2.5ha, a maximum density of 103 total units, a floor space ratio of 0.66 and a parcel coverage maximum of 33%.

The maximum number of units allowed under the current CD-3 zone is approximately 138-158 units.

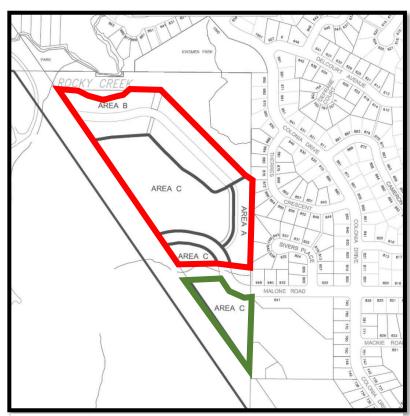


Figure 5: Current CD-3 sub-zone areas and proposed changes rezoned to R-3. The proposed R-1-A zone is represented in a red outline and the proposed R-3 zone is represented in a green outline.

Proposed Zoning:

The applicant is proposing to rezone the northern portion of the subject property (shown in red on figure 5) to the Single **Dwelling** Residential – Small Lot A (R-1-A) zone. The R-1-A zone permits Single Unit Dwelling as a principal permitted use and allows Secondary Suite as an accessory use. With a minimum parcel area of 460m² in the R-1-A zone, the proposed single family residential site would allow a maximum of 131 single unit parcels.

The applicant is proposing a total of 79 single unit dwelling parcels with parcel areas ranging from 460m² to 979m² in size.

The applicant is also proposing to rezone the multi-family residential area (shown in green in figure 5) to the Medium Density Residential (R-3) zone which permits Multiple-Unit Dwellings and Townhouses as principal permitted uses. The maximum number of units permitted in this area under the R-3 zone is approximately 49 units (60 units per hectare). In comparison, the existing zoning simply specifies a maximum of 103 multi-family units for all of "Area C" which equates to 27 units per hectare (103 divided by 3.76 ha equals 27 units per hectare).

In total, if the rezoning is approved as proposed, approximately 180 units will be allowed on the parcel at approximately 26 units per hectare, compared to the current CD-3 zoning, which allows approximately 138-158 units at approximately 20-23 units per hectare. In either scenario, site constraints (such as those noted in the reports below), economic conditions, or developer choice may result in a lower density than the maximum—i.e. there is no minimum density requirement.

The applicant has also expressed interest in incorporating local commercial uses and duplexes into the proposal. The OCP supports a mix of local commercial and multi-family uses and a variety of housing types though economic and land use planning policies (see OCP policies summary). If Council is supportive, staff will work with the applicant to evaluate these options further.

Wildfire, Geotechnical & Environmental Studies:

The applicant has submitted a series of studies relevant to the proposal, which are summarized in the table below. The specific findings of these reports are notable, as they identify site constraints that impact the type and density of development on the site.

Study	Summary of Key Recommendations & Findings	Staff Comments
Geotechnical Hazard Assessment by Lewkowich Engineering Associates Ltd. (April 6, 2020)	 No residence shall be constructed on a bedrock slope that is steeper than 45 degrees. No residence shall be constructed on a soil slope greater than 27 degrees. Rock scaling/removal of the detached boulders to mitigate associated hazard. Setback of 5m to both the crest and toe of each rock bluff. Minimum setback of 30m from Rocky Creek Minimum Flood Construction Level of 3m above the natural boundary of Rocky Creek. Minimum setback of 15m from other watercourses adjacent to the subject property. The geotechnical report should be registered as a Section 219 restrictive covenant. There are safe building sites within each of the lots Provided the recommendations are followed, the land is considered safe for the use intended. 	 Recommendations for steep slope areas can be utilized to inform the application of a Hazard Lands Development Permit Area. However, further geotechnical analysis will be required to determine more precise locations of steep slope areas. Further geotechnical analysis may be required for evaluation of the proposed multi-family residential area. A final version of the geotechnical report may be registered as a Section 219 restrictive covenant.
Ecological	The property is found to be within the Coastal	The northern portion of what was

Study	Summary of Key Recommendations & Findings	Staff Comments
Assessment (Madrone Environmental Services Ltd, May 25, 2010), and Environmental Review addendum (D.R. Clough Consulting, April 22, 2020)	 Douglas Fir, Moist Maritime Subzone. The northern portion of the Environmentally Sensitive Development Permit Area (DPA) slopes and rock outcrops facing Rocky Creek, as well as riparian areas should remain intact to maintain connectivity to the creek and avoid encroachment into the SPEA. Dry, rocky outcrop forest types identified on the property are important environmentally sensitive ecosystems One wildlife tree was found and will ultimately be protected by the SPEA adjacent to one of the Rocky Creek tributaries. Addendum found no significant changes to the property since the 2010 assessment except the trees are larger and there are less invasive species. 	formerly an Environmentally Sensitive DPA area contains a SPEA adjacent to Rocky Creek, and was dedicated as park during the previous rezoning application. The SPEA areas south and north of Rocky Creek tributary were also dedicated as park during the previous rezoning. The applicant is proposing to preserve the rocky outcrop in the centre of the subject property. Further evaluation will be required to determine if this area is suitable as a public park. Further evaluation is required by the QEP to determine the extent of any Riparian Assessment Areas adjacent to Rocky Creek and its tributaries.
Wildland Urban Interface Wildfire Hazard Assessment (Strathcona Forestry Consulting, February 22, 2020)	 The current wildfire threat for the subject property is rated as "Moderate – High". Contributing factors to the high rating include forest fuel loading, hilly terrain, and present lack of fireflow access. High and extreme ratings are unacceptable and must be lowered to low are moderate to ensure a structure or area is safe. Implementation of Firesmart principles outlined in the report should be undertaken. Retaining the moss-covered rocky outcrop in the centre of the site as a "natural area" could be used as a landscaping strategy to prevent wildfire. To preserve the integrity of this feature, installation of fencing around the area is recommended to prevent trampling and soil disturbance, which will encroach encroachment of broom. 	 Recommendations in the report may be included in a Section 219 restrictive covenant. Further analysis may be required to determine how the proposed park on the rocky outcrop may be used, and if fencing around it is an option.

Existing Covenants and Community Amenity Contribution Policy:

Through the Town's Community Amenity Contribution (CAC) Policy, Council encourages rezoning applicants to consider proposing CACs towards needed infrastructure and amenities as a way of ensuring that the proposed development is seen as making a positive contribution to the neighbourhood and the community at large.

There are three restrictive covenants registered on the subject property related to the previous rezoning in 2014 and the current CD-3 zone. These covenants require road dedication, stormwater management, and several community amenities including a single family residential parcel for Habitat for Humanity. Should the application proceed for further

consideration, staff will work with the applicant to maintain these requirements and, if required, align them with the new proposal (i.e. bring forward modifications for Council's approval) Council may also specify amenities it would like to see as part of the application.

DISCUSSION:

The proposed changes to the Zoning Bylaw and OCP would allow for a similar density to that of the existing CD-3 zone and would maintain a combination of multi-family residential and single family residential (and possibly duplex) zoning. As the proposal is consistent with and has the potential to meet several OCP policies, it is recommended that the application proceed for further consideration. If the application proceeds, further analysis will be required to ensure the site will be developed with particular consideration to the topography (steep slopes), riparian areas, environmentally sensitive areas, parks and trail connectivity, future and existing covenants and community amenity contributions.

ALTERNATIVES:

Council can choose to:

- 1. Deny OCP and rezoning application 3360-20-03.
- 2. Direct that changes related to:
 - a. density,
 - b. land use,
 - c. amenities, or
 - d. other elements of the proposal,

be made to the proposal prior to further consideration, as specified by Council.

3. Defer further consideration of the application until the Town has updated its OCP.

FINANCIAL IMPLICATIONS:

N/A

LEGAL IMPLICATIONS:

<u>Section 475 of the Local Government Act</u> requires that when considering an amendment to an OCP, the local government must provide consultation opportunities to stakeholders it considers will be affected and consider whether the opportunities for consultation should be early and ongoing. If Council wishes to proceed with the application, staff recommend that the application be referred to the Stz'uminus First Nation, School District 68 (Nanaimo Ladysmith), the Community Planning Advisory Committee, the Ministry of Transportation and Instructure, BC Transit, BC Hydro and the Cowichan Valley Regional District.

<u>Section 476 of the Local Government Act</u> requires that the local government consult with the local school district board of education where an OCP amendment is proposed, for the purpose of planning for school facilities. If Council wishes to proceed with the report recommendations, the application will be referred to the School District 68 (Ladysmith Nanaimo) Board of Education.

CITIZEN/PUBLIC RELATIONS IMPLICATIONS:

Should the application proceed for further consideration, the Town's procedure bylaws and the *Local Government Act* require the following:

- The applicant will be required to hold a neighbourhood information meeting;
- The application will be referred to the Community Planning Advisory Committee;
- Notification will need to be published/delivered; and
- A public hearing will need to be held.

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS:

The application has been forwarded to Engineering and Parks Recreation & Culture for initial feedback on the proposal. At time of writing this report, written comments have not been received. If the application proceeds, it will also be referred to Building Inspection, Financial Services, and Infrastructure Services for further comment.

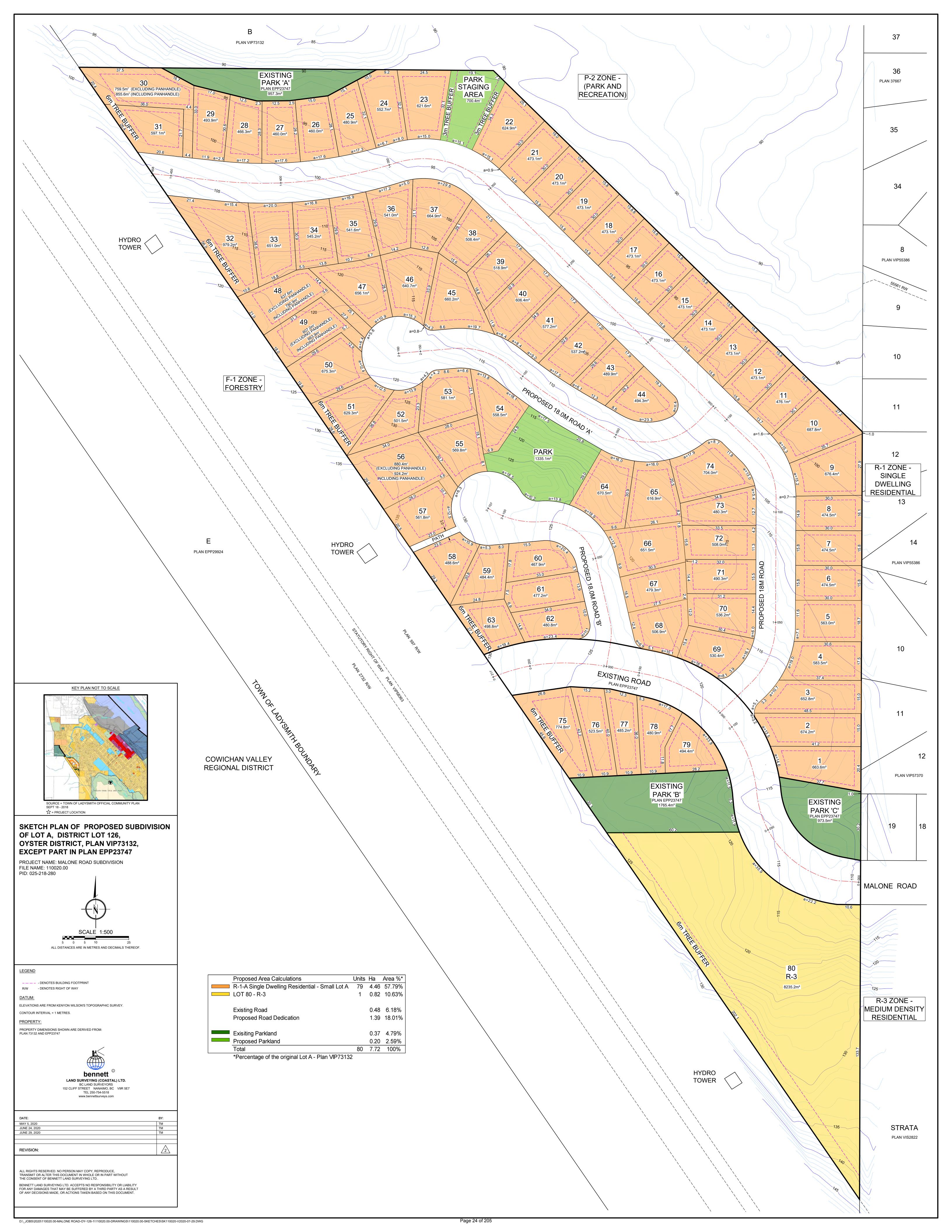
ALIGNMENT WITH SUSTAINABILITY VISIONING REPORT:					
⊠Complete Community Land Use	Low Impact Transportation				
□Green Buildings	☑ Multi-Use Landscapes				
\square Innovative Infrastructure	☐ Local Food Systems				
☐Healthy Community	□ Local, Diverse Economy				
\square Not Applicable					
<u>ALIGNMENT WITH STRATEGIC PRIO</u>	RITIES:				
□Infrastructure	⊠ Economy				
⊠Community	☐ Not Applicable				
\square Waterfront					

I approve the report and recommendation(s).

Erin Anderson, Acting Chief Administrative Officer

ATTACHMENT(S):

- Appendix A: Lot layout proposal
- Appendix B: Geotechnical Hazard Assessment (Lewkowich Engineering Associates Ltd.)
- Appendix C: Ecological Assessment (Madrone Environmental Services, May 25, 2010)
- Appendix D: Environmental Review of Malone Road Property (addendum to Ecological Assessment, D.R. Clough Consulting, April 22, 2020)
- Appendix E: Wildland Urban Interface Wildfire Hazard Assessment (Strathcona Forestry Consulting, February 22, 2020)



GEOTECHNICAL HAZARD ASSESSMENT

Proposed Subdivision of Rem A, Plan VIP73132, District Lot 126, Oyster District

Malone Road, Ladysmith, BC

Prepared For:
Sharpe Sites
chris.sharpe@shaw.ca

Attention: Mr. Chris Sharpe

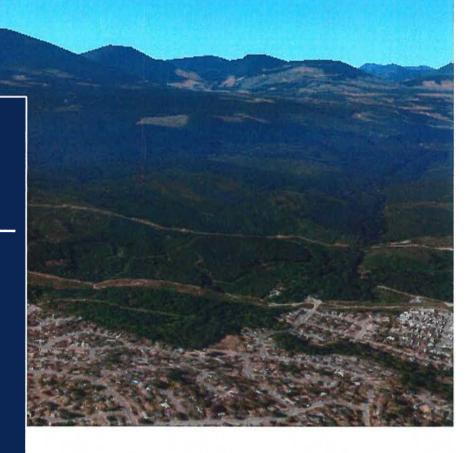
April 6, 2020

File No.: F8036.01 Revision No.: 00

Prepared by: Jeff Scott, P.Eng

Reviewed by: Chris Hudec, M.A.Sc, P.Eng

Lewkowich Engineering Associates Ltd. 1900 Boxwood Road Nanaimo, BC, V9S 5Y2 250-756-0355 (Office) 250-756-3831 (Fax) www.lewkowich.com







FILE NO.: F8036.01



DISCLAIMER

- 1. Lewkowich Engineering Associates Ltd. (LEA) acknowledges that this report, from this point forward referred to as "the Report," may be used by the Town of Ladysmith (ToL) as a precondition to the issuance of a subdivision permit and that this Report and any conditions contained in the Report may be included in a restrictive covenant under Section 56 of the Community Charter and registered against the title of the Property at the discretion of the ToL.
- 2. This report has been prepared in accordance with standard geotechnical engineering practice solely for and at the expense of Sharpe Sites. We have not acted for or as an agent of the ToL in the preparation of this report.
- 3. The conclusions and recommendations submitted in this report are based upon information from relevant publications, a visual site-assessment of the property, anticipated and observed subsurface soil conditions, current construction techniques, and generally accepted engineering practices. No other warrantee, expressed or implied, is made. If unanticipated conditions become known during construction or other information pertinent to the development becomes available, the recommendations may be altered or modified in writing by the undersigned.
- 4. The conclusions and recommendations issued in this report are valid for a maximum of two (2) years from the date of issue. The 2-year team may be reduced as a result of updated bylaws, policies, or requirements by the authority having jurisdiction, or by updates to the British Columbia Building Code. Updates to professional practice guidelines may also impact the 2-year term. If no application of the findings in this report have been made to the subject development within the 2-year term, the conclusions issued in this report become void and re-assessment of the property will be required.
- This report has been prepared by Mr. Jeff Scott, P.Eng., and reviewed by Mr. Chris Hudec, M.A.Sc., P.Eng.
 Messrs. Scott and Hudec are both adequately experienced and are also members in good standing with the
 Engineers and Geoscientists of British Columbia (EGBC).

FILE NO.: F8036.01



EXECUTIVE SUMMARY

- The following is a brief synopsis of the Property, assessment methods, and findings presented in the Report. The reader must read the Report in its entirety; the reader shall not rely solely on the information provided in this summary.
- 2. The subject property, Rem A Malone Road, Ladysmith, BC, from this point forward referred to as "the Property," is located on the east coast of Vancouver Island within the jurisdictional boundaries of the ToL. The proposed development for the Property at the time of this report consists of an eighty-three (83) lot residential subdivision of the subject property.
- 3. A site-specific hazard assessment was conducted to identify potential geotechnical hazards for the subject Property. The primary geotechnical hazards identified relates to slope stability and creek flooding.
- 4. The findings in the Report provide a safe setback of 5.0m from the crest and toe of the rock bluffs identified in the central park area and near proposed Lot 52. Furthermore, construction shall not be permitted on bedrock slopes steeper than 1 Horizontal to 1 Vertical (1H:1V), and soil slopes steeper than 2H:1V.
- 5. The report establishes a Flood Construction Level (FCL) of 3.0m above Rocky Creek, and 1.5m above all other watercourses. Furthermore, a setback of 30m and 15m to the natural boundary of Rocky Creek and all other watercourses, respectively.
- 6. The findings confirm the development is considered safe as proposed, and that there is buildable area within each of the proposed lots.

List of Abbreviations Used in the Report

Abbreviation	Title	
ВСВС	British Columbia Building Code	
ВР	Building Permit	
EGBC	Engineers and Geoscientists of British Columbia	
LEA	Lewkowich Engineering Associates Ltd.	
ToL	Town of Ladysmith	
MoTI	BC Ministry of Transportation and Infrastructure	
CVRD Cowichan Valley Regional District		
MoE BC Ministry of Environment		
FCL	Flood Construction Level	

FILE NO.: F8036.01



TABLE OF CONTENTS

DISCLA	MI	MER	I
EXECU	TIV	VE SUMMARY	11
TABLE	OF	F CONTENTS	III
1.0	11	INTRODUCTION	1
1.1	1	General	1
1.2	2	Background	1
1.3	3	Assessment Methodology	1
2.0	S	SITE CONDITIONS	
2.1	1	Physical Setting	1
2.2	2	Terrain and Features	2
2.3	3	Watercourses	3
2.4	4	Regional Geology	3
2.5	5	Soil Conditions	3
2.6	6	Groundwater	4
3.0		DISCUSSIONS AND RECOMMENDATIONS	4
3.3	1	Covenant Review	4
3.2	2	Debris Slides and Debris Flows	4
3.3	3	Steep Slopes	5
3.4	4	Flooding	5
3.4	4.1	1 Rocky Creek	5
3.4	4.2	2 Other Watercourses	6
3.4	4.3	3 General Flood Discussions	6
3.5	5	Seismic Criteria	7
4.0	c	CONCLUSIONS	7
5.0		ACKNOWLEDGEMENTS	
6.0	L	LIMITATIONS	8
7.0	c	CLOSURE	8
8.0	A	ATTACHMENTS	9
9.0	REFERENCES		

FILE NO.: F8036.01



1.0 INTRODUCTION

1.1 General

As requested, LEA has carried out a Geotechnical Hazard Assessment of the above referenced property. This report provides a summary of our findings and recommendations.

1.2 Background

- a. We understand that the proposed development consists of subdividing the subject parent parcel (the property) to create a total of eighty-three (83) residential strata lots. The proposed subdivision lot layout is shown on the attached *Sketch of Option 2 for Proposed Lot Layout of Rem A, Plan VIP73132, District Lot 126, Oyster District,* prepared by bennet Land Surveying. The total property measures approximately 7.72 hectares, and each strata lot ranges in size from 1,194 to 477 m².
- b. The property is within the jurisdictional limits of the ToL. As per the ToL Official Community Plan, the property is located in two Development Permit Areas; DPA 6 Riparian, and DPA 8 Multi-Unit Residential ESA.

1.3 Assessment Methodology

- a. This assessment included a desktop review of relevant background information, including available development plans, registered covenants on title, aerial photographs, and published geology, topography and floodplain mapping (if any). Please refer to the list of references at the end of this report.
- b. A site reconnaissance was conducted on March 24, 2020 to visually assess current site conditions.
- c. This assessment was prepared with consideration of the referenced EGBC *Guidelines for Legislated*Landslide Assessments for Proposed Residential Development in British Columbia, and Legislated Flood

 Assessments in a Changing Climate in BC. Please see the attached EGBC assurance statements.

2.0 SITE CONDITIONS

2.1 Physical Setting

a. The subject property is located within the ToL near its western extents. The property is immediately bordered to the north by parkland, to the east by single and multi family residential properties, and to the southwest by secondary forest within the CVRD jurisdiction. The property is currently accessed from the western end of Malone Road. Refer to Figure 1 below (Google Maps).

FILE NO.: F8036.01





Figure 1: Property Location

2.2 Terrain and Features

- a. The property lies at the base of the foothills of the Nanaimo Lakes Highlands which rise to the west. The terrain generally rises from the northeast to the southwest, with elevations increasing from approximately 90m to 140m geodetic, for a total vertical relief of 50m. The terrain within the property varies greatly, however can be generally described as gently rolling to hilly (i.e. average slope angles vary between 10 to 40 degrees from horizontal).
- b. Two notable bedrock knolls were observed during the field review. This first one is centrally located in the property and identified as Park on the attached Site Plan. This bedrock knoll includes an approximately 5m high near vertical bluff on its northeast side. In generally, the knoll consists of intact granitic bedrock with widely spaced jointing, however along the crest of the bluff there are widely spaced fractures of noticeable displacement.
- c. A second 5m high near vertical rock bluff was observed near proposed Lot 52. Similarly, widely spaced fractures of noticeable displacement were observed along its crest.
- d. Relatively steeper slopes were observed within proposed Lots 35 to 40. Based on the attached topographic Site Plan and field measurements, these bedrock slopes have average slope angles ranging from 35 to 40 degrees from horizontal. The slopes are uneven with small bedrock mounds and detached boulders.
- e. A steep 4 to 6m soil bank borders the northern limits of the property. The banks are sloped at roughly 60 to 65 degrees, and slope down into the Rocky Creek floodplain area to the north.

FILE NO.: F8036.01



f. At the time of our field review, the property did not contain any buildings or structures. A gravel access road extended off of Malone Road and traversed the property southeast to northwest. Several other community trails and footpaths were observed throughout the property.

2.3 Watercourses

- a. Four watercourses are within close proximity to the subject property.
- b. The first is Rocky Creek, also identified as Tyee Creek on some maps, which is the largest of the three watercourses and is located approximately 25 to 30m north of the property limits. An approximately 20m wide low-lying floodplain area separates the creek and the soil bank that borders the property.
- c. The second is an unnamed tributary creek that joins Rocky Creek approximately 15 to 20m northwest of the property.
- d. The third is a drainage channel that flows south to north through the parkland northeast of the property.
 This shallow drainage channel passes within 10 to 15m of the northeast property limits.
- e. The fourth is an unnamed creek that flows west to east through the strip of parkland within the southern corner of the property. The creek enters the western property limits through a 900mm diameter culvert, and again passes through a 900mm culvert beneath the gravel access road.

2.4 Regional Geology

- a. Based on surficial geology mapping¹, the property is located within a composite soil structure, consisting of the more prominent Squally formation (a colluvium deposit of rapidly-draining, gravelly loamy sand), and the less prominent Shawnigan formation (a moraine deposit of well-draining, gravelly sandy loam).
- b. Bedrock geology for the area² is classified as granodioritic intrusive rock of the Island Plutonic Suite from the early to mid Jurassic period.
- c. There are no known active fault lines that cross the subject property.

2.5 Soil Conditions

- a. A subsurface investigation was not included as part of this Geotechnical Hazard Assessment. Visual inspection of the site allowed for observations of minor soil exposures within the subject property.
- b. Observed soil conditions were consistent with the reported surficial geology mapping, and predominately consisted of silty sands and gravels overlying granitic bedrock at shallow depths. We expect thickness of soil cover would generally be in the range of 0 to 5m, however thicker localized soil deposits may be encountered. This may be particularly true for lots adjacent to the northeast property limits within the lower lying areas of the site. Bedrock outcrops and exposures were observed throughout the property.
- Fill materials were observed in some areas downslope of the access road, presumably placed as part of the cut and fill operations for the road construction.

FILE NO.: F8036.01



2.6 Groundwater

 There was no evidence of ponding water, nor abnormal groundwater conditions observed during our visual reconnaissance of the property.

b. Groundwater levels can be expected to fluctuate seasonally with cycles of precipitation. Groundwater conditions at other times and locations can differ from those observed at the time of our assessment.

3.0 DISCUSSIONS AND RECOMMENDATIONS

3.1 Covenant Review

- a. As part of our assessment we have reviewed the legal title of the subject property, specifically relative to any restrictive covenants that may impact the conclusions or recommendations made in this report.
- b. At the time of this report there were no restrictive covenants registered against the titles of the property.

3.2 Debris Slides and Debris Flows

- a. Debris Slides are very rapid, shallow, mass movements of unconsolidated material that begin as translational failures, but break up as velocity increases and become an avalanche. Debris Flows and Debris Floods are rapid flows of water and debris along a steep channel. These events leave behind sheets of poorly sorted debris ranging from sand to large boulders and logs. These types of events would be expected to initiate in the upper watershed, and be conveyed along confined channels. As the channel gradient drops and/or becomes less confined, sediment is deposited. Deposition can also occur at road crossings, causing debris blockages at culvert crossings which can result in overland flow paths that convey floodwaters along roads and into developed areas. Debris slides and flows are typically considered catastrophic / life-threatening events.
- b. Assessment of potential debris slide and debris flow events was completed by means of a desktop review of published geological history, regional natural hazard assessments (if any), historic aerial photographs, and mapping of topography and watersheds of the immediate and upland areas. A detailed debris slide and/or flow assessment was not completed and is beyond the scope of this report.
- c. We reviewed the referenced MoE *Geomorphology of Vancouver Island: Mass Wasting Potential* report³. The report includes a series of maps which delineates areas of potential mass wasting (open slope failures, debris slides, debris flows) on Vancouver Island. Based on this regional-scale assessment, the property is not within a potential mass wasting zone.
- d. A desktop review of historic aerial photographs (Google Earth) and topographic LiDAR mapping did not reveal any apparent evidence of past catastrophic open slope failures, debris flow runouts or alluvial fans

FILE NO.: F8036.01



within the upper watershed since the last glaciation period. Given that significant earthquakes occur approximately every 300-400 years, 25-30 significant earthquakes have occurred since these slopes have formed. It does not appear that significant slope failures have occurred since the last glaciation.

- e. The terrain immediately upland of the development area can be described as gently to moderately rolling and is generally not characteristic of terrain that would be prone to potential open slope failures. A wide plateau (>1000m across) separates the steeper mountain terrain from the gently to moderately rolling foothills. The major watercourses within the watershed upland of the property are Rocky (Tyee) Creek and Holland Creek. Both creek channels are diverted around the upper plateau and away from the property.
- f. Based on our desktop analysis, we conclude the chance of a life-threatening / catastrophic debris slide or debris flow event impacting the property as very low.
- g. It should be noted that risk of open slope landslides and debris flows can increase due to human activity such as forest clearing, road construction, excavation/mining, etc.

3.3 Steep Slopes

- a. In general, the proposed lots within the property contain gentle to steep slopes which can safely accommodate residential buildings under geotechnical review. No residence shall be constructed on a bedrock slope that is steeper than 1 Horizontal to 1 Vertical (1H:1V, or 45 degrees), or a soil slope that is steeper than 2H:1V (27 degrees). Where applicable, a safe setback to the crest and toe of bedrock slopes steeper than 1H:1V, and soil slopes steeper than 2H:1V, shall be established for each lot at the time of development/building permit application.
- b. As previously described, near vertical 5m tall bedrock bluffs were observed within the central park area and near proposed Lot 52. The rock bluffs consisted of fractures of notable displacement along their crests. We recommend rock scaling (i.e. removal) of the detached blocks along the crest of the rock bluffs in order to mitigate the associated rock fall hazard. A recommended setback of 5.0m to both the crest and toe of each rock bluff shall also apply. Alternatively, the rock bluffs can be reshaped to 1H:1V or less.
- Any detached boulders on slopes steeper than 2H:1V above proposed development shall be removed to mitigate potential sliding and/or rolling hazard for downslope development.

3.4 Flooding

3.4.1 Rocky Creek

- a. Rocky Creek enters the property by passing underneath a bridge west of the property within the powerline right-of-way. The creek passes within 25 to 30m of the northern property limits, before turning north and passing through a culvert under Davidson Road.
- b. A flood of Rocky Creek would be generated by significant rainfall and/or snowmelt. Rocky Creek has been

FILE NO.: F8036.01



previously known to flood, including a partial washout of the 4th Street culvert in January 2018. We understand the culvert has since been replaced and designed for 200-year flood levels. We understand the Davidson Road culvert functioned as intended during the January 2018 flood, however the culvert could be overwhelmed by a significant rainfall in the event the culvert was blocked with debris. A blocked culvert could potentially cause flood waters to accumulate upstream.

- c. Hydrometric data and floodplain mapping are currently not available for Rocky Creek. Detailed hydrologic and hydraulic studies would be required to estimate creek levels during the design storm and flood event, and its effect downstream. In areas without floodplain mapping, the general practice in BC is to follow guidelines established by the provincial government. Based on the referenced provincial *Flood Hazard Area Land Use Management Guidelines*⁴, the creek would be classified as an "ordinary watercourse".
- d. As per the guidelines, a minimum FCL of 3.0m above the natural boundary of Rocky Creek shall apply. As measure perpendicularly from the natural boundary (stream bank) to the proposed building.
- e. Furthermore, all buildings shall have a minimum setback of 30.0m from the natural boundary of Rocky Creek.

3.4.2 Other Watercourses

- a. In addition to Rocky Creek, the property is in proximity to three (3) other watercourses, as previously described in Section 2.3 of this report. Based on the referenced provincial *Flood Hazard Area Land Use Management Guidelines*⁴, these other three watercourses would be classified as "smaller streams".
- b. The creeks were noted to pass through 900mm diameter culverts where they encountered access roads.
- c. As per the guidelines, a minimum FCL of 1.5m above the natural boundary of these three watercourses shall apply. As measure perpendicularly from the natural boundary (stream bank) to the proposed building.
- d. Furthermore, all buildings shall have a minimum setback of 15.0m from the natural boundary of these three watercourses.

3.4.3 General Flood Discussions

- a. The recommended FCLs and setbacks applies to any new structure used for human occupancy, commercial sales, or the storage of goods, possessions or equipment which would be subject to damage by flood waters.
- b. The FCL establishes the minimum elevation of the underside of a wooden floor system or top of concrete slab for habitable buildings, or the ground level or top of pavement pad for manufactured and mobile homes.
- During construction, all footing and floor elevations should be confirmed by qualified survey personnel to

FILE NO.: F8036.01



ensure the finished floor grade is at or above the recommended minimum FCL geodetic elevation.

- d. Any culverts within the property shall be reviewed by the Civil Engineer to ensure they are sized appropriately for the local flood event criteria.
- e. Future construction shall also be carried out within the requirements and recommendations of the environmental consultant (if applicable) and/or any defined jurisdictional setbacks, including any existing restrictive covenants, whichever is more stringent.

3.5 Seismic Criteria

- a. No liquefiable or compressible soils were encountered during our field review, nor are any expected to be encountered during construction.
- b. Based on the 2018 British Columbia Building Code, Division B, Part 4, Table 4.1.8.4.A, "Site Classification for Seismic Site Response," the soil and bedrock strata observed during our field review would be classified as "Site Class C" (very dense soil and soft rock).

4.0 CONCLUSIONS

- a. From a geotechnical point of view, and provided the recommendations in this report are followed, the land is considered safe for the use intended (defined for the purposes of this report as an eighty-three (83) lot residential subdivision), with the probability of a geotechnical failure resulting in property damage of less than:
 - i. 2% in 50 years for geotechnical hazards due to seismic events, including slope stability; and,
 - ii. 10% in 50 years for all other geotechnical hazards.
- Based on our field review of the subject property and the referenced project documentation, there are safe building sites within each of the proposed lots.
- c. We recommend that prior to the issuance of permits or approvals for residential construction on any of the proposed lots, that any proposed building sites are reviewed in the field by qualified engineering personnel.
- d. To ensure safe development of each of the proposed new lots, we recommend that this report and the recommendations herein are registered as a Section 219 restrictive covenant on the property.

5.0 ACKNOWLEDGEMENTS

a. Lewkowich Engineering Associates Ltd. acknowledges that this report may be requested by the Building Inspector (or equivalent) of the ToL as a precondition to the issuance of a subdivision permit. It is acknowledged that the Approving Officers and Building Officials may rely on this report when making a

FILE NO.: F8036.01



decision on application for development of the land. We acknowledge that this report has been prepared solely for, and at the expense of Sharpe Sites. We have not acted for or as an agent of the ToL in the preparation of this report.

6.0 LIMITATIONS

a. The conclusions and recommendations submitted in this report are based upon the information available at the time of this assessment. The recommendations given are based on the anticipated subsurface soil conditions, current construction techniques, and generally accepted engineering practices. No other warrantee, expressed or implied, is made. If unanticipated conditions become known during construction or other information pertinent to the development become available, the recommendations may be altered or modified in writing by the undersigned.

7.0 CLOSURE

a. Lewkowich Engineering Associates Ltd. appreciates the opportunity to be of service on this project. If you have any comments, or additional requirements at this time, please contact us at your convenience.

Respectfully Submitted, Lewkowich Engineering Associates Ltd.

Jeff Scott, P.Eng. Geotechnical Engineer

Chris Hudec, M.A.Sc., P.Eng. Senior Project Engineer

PROJECT: Subdivision of Rem A, Malone Road, Ladysmith, BC

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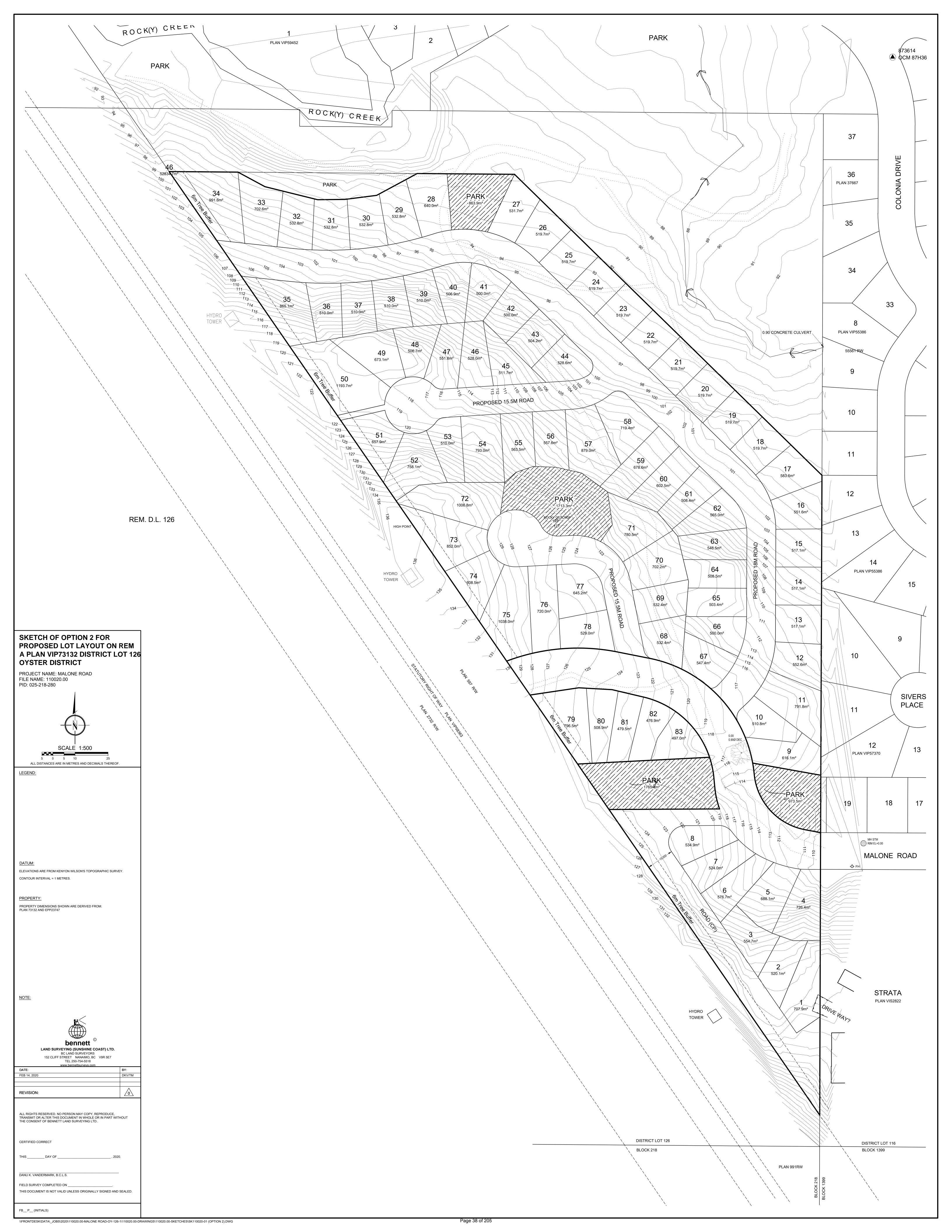


8.0 ATTACHMENTS

- Bennet Land Surveying Ltd., Sketch of Option 2 for Proposed Lot Layout on Rem A Plan VIP73132
 District Lot 126 Oyster District, File 110020.00, dated Feb. 14, 2020.
- 2. EGBC, Appendix D: Landslide Assessment Assurance Statement, signed April 6, 2020.
- 3. EGBC, Appendix I: Flood Assurance Statement, signed April 6, 2020.

9.0 REFERENCES

- 1. BC Ministry of Environment, *Soils of South Vancouver Island British Columbia*, Soil Survey Report No. 44, Sheet 1, dated 1986.
- 2. iMapBC interactive web-map, accessed March 2020.
- 3. BC Ministry of Environment, *Geomorphology of Vancouver Island: Mass Wasting Potential*, Report No. RR 01, December 2005.
- 4. BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development, *Flood Hazard Area Land Use Management Guidelines*, Amended January 1, 2018.
- 5. Engineers and Geoscientists of British Columbia, *Professional Practice Guidelines Legislated Flood Assessments in a Changing Climate in BC*, Version 2.1, dated August 28, 2018.
- 6. Engineers and Geoscientists of British Columbia, *Guidelines for Legislated Landslide Assessments for Proposed Residential Developments in BC*, dated May 2010.
- 7. Town of Ladysmith map titled "Official Community Plan, Map 1, Land Use," dated September 18, 2018.
- 8. Town of Ladysmith map titled "Official Community Plan, Map 2, Development Permit Areas," dated September 18, 2018.



APPENDIX D: LANDSLIDE ASSESSMENT ASSURANCE STATEMENT

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

To: The A	Approving Authority	Date: April 6, 2020	File# F8036
Town	n of Ladysmith		
410 E	Esplanade, PO Box 220, Ladysmith, BC V9	G 1A2	
Jurisdio	ction and address		
With refer	rence to (check one):		
L:	and Title Act (Section 86) – Subdivision Appro		
	ocal Government Act (Sections 919.1 and 92)		
	ommunity Charter (Section 56) – Building Pe ocal Government Act (Section 910) – Flood P		
	ocal Government Act (Section 910) – Flood P	lain Bylaw Exemption	
□ B	ritish Columbia Building Code 2006 sentence	s 4.1.8.16 (8) and 9.4 4.4.(2	
a	nd Safety Policy Branch Information Bulletin E	310-01 issued January 18, 2	2010)
For the Pi	roperty: REM A, DISTRICT LOT 126, OYSTER DIS	TRICT, PLAN VIP73132;	
Le	egal description and civic address of the Property		
T		0 "" 10 " 1	5
	rsigned hereby gives assurance that he/she is or <i>Professional Geoscientist.</i>	s a Qualified Professional a	nd is a <i>Professional</i>
Liigiiieei	or Professional Geoscientist.		
	ned, sealed and dated, and thereby certified,		
	n accordance with the APEGBC Guidelines.	That report must be read in	conjunction with this
	t. In preparing that report I have:		
A	e left of applicable items		
	ollected and reviewed appropriate backgroun		
√ 2. R	eviewed the proposed residential developme	· · · · ·	
	onducted field work on and, if required, beyor	• •	
√ 4. R	eported on the results of the field work on and	d, if required, beyond the Pr	operty
√25. C	onsidered any changed conditions on and, if	required, beyond the Prope	rty
	or a landslide hazard analysis or landslide ris	•	
V 6.	1 reviewed and characterized, if appropriate,	any landslide that may affe	ct the Property
V 6.	2 estimated the landslide hazard		
1 6.	3 identified existing and anticipated future ele Property	ements at risk on and, if req	uired, beyond the
V 6.	4 estimated the potential consequences to the	ose elements at risk	
7. W	Where the Approving Authority has adopted a	level of landslide safety I ha	ve:
7.	1 compared the level of landslide safety adop my investigation	oted by the Approving Author	ority with the findings of
7.	2 made a finding on the level of landslide sat	fety on the Property based o	n the comparison
7.	3 made recommendations to reduce landslid	e hazards and/or landslide	risks
8. W	where the Approving Authority has not adopte	d a level of landslide safety	I have:

75	described the method of landslide hazard analysis or landslide risk analysis used
8.2	referred to an appropriate and identified provincial, national or international guideline for <i>level</i> of <i>landslide safety</i>
8.3	compared this guideline with the findings of my investigation
2 8.4	made a finding on the level of landslide safety on the Property based on the comparison
8.5	made recommendations to reduce landslide hazards and/or landslide risks
	orted on the requirements for future inspections of the Property and recommended who should luct those inspections.
Based on n	ny comparison between
Check of	
	the findings from the investigation and the adopted <i>level of landslide safety</i> (item 7.2 above) the appropriate and identified provincial, national or international guideline for <i>level of landslide safety</i> (item 8.4 above)
l hereby g assessmer	give my assurance that, based on the conditions ^[1] contained in the attached <i>landslide</i> of report,
Check or	
W	for <u>subdivision approval</u> , as required by the Land Title Act (Section 86), "that the land may be used safely for the use intended"
	Check one ☐ with one or more recommended registered covenants. ☐ without any registered covenant.
	for a <u>development permit</u> , as required by the Local Government Act (Sections 919.1 and 920), my report will "assist the local government in determining what conditions or requirements under [Section 920] subsection (7.1) it will impose in the permit".
	for a <u>building permit</u> , as required by the Community Charter (Section 56), "the land may be used safely for the use intended"
	Check one
	 with one or more recommended registered covenants. without any registered covenant.
	for flood plain bylaw variance, as required by the "Flood Hazard Area Land Use Management Guidelines" associated with the Local Government Act (Section 910), "the development may occur safely".
	for flood plain bylaw exemption, as required by the Local Government Act (Section 910), "the land may be used safely for the use intended".
Jeff Scott,	P.Eng. April 6, 2020
Name (print)	Date
Sell x	Scott
Signalline	

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

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

1900 Boxwood Road, Nanaimo, BC V9S 5Y2	OFESSION OF
Address	J. W. 600TT # 46419
250-756-0355	(Affix Processional seal here)
Telephone	A GINEE TO THE
If the Qualified Professional is a member of a firm, co	omplete the following.
I am a member of the firm Lewkowich Engineering	g Associates Ltd.
and I sign this letter on behalf of the firm.	(Print name of firm)

FLOOD ASSURANCE STATEMENT

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

To:	The Approving Author	ity	Date: April 6, 202	20 LEA File # F8036
	Town of Ladysmith			*
	410 Esplanade, PO B	Sox 220, Ladysmith, BC V9G 1A2		
	Jurisdiction and address			
With	reference to (CHECK O	NE):		
	^			
		ection 86) – Subdivision Approval nt Act (Division 7) – Development Perr	nit	
		ter (Section 56) – Building Permit		
	· ·	nt Act (Section 524) - Flood Plain Byla	w Variance	
	□ Local Governme	nt Act (Section 524) - Flood Plain Byla	w Exemption	
For	the following property (("the Property"):		
RE	M A, DISTRICT LOT	126, OYSTER DISTRICT, PLAN	VIP73132	
		and civic address of the Property	W. W	
				. <u>.</u>
		ives assurance that he/she is a Qualifice education, training, and experience re		•
l hav	ve signed, sealed, and	dated, and thereby certified, the attach	ned Flood Assessment Report on	the Property in accordance
	•	eport and this statement must be read i	•	• •
	essment Report I have:	•	•	
[CHE	ECK TO THE LEFT OF A	PPLICABLE ITEMS]		
•		epresentatives of the following governr	nent organizations	
		-presentatives of the fellowing governi	none organizations.	
	2. Collected and re-	viewed appropriate background inform	ation	
V	3. Reviewed the Pro	oposed Development on the Property		
V	4. Investigated the	presence of Covenants on the Property	y, and reported any relevant infor	mation
V	5. Conducted field	work on and, if required, beyond the Pr	roperty	
V	6. Reported on the	results of the field work on and, if requ	ired, beyond the Property	
		changed conditions on and, if required	beyond the Property	
	8. For a Flood Haza	ard analysis I have:		
		d and characterized, if appropriate, Flo	od Hazard that may affect the Pro	perty
	/ A	d the Flood Hazard on the Property	•	
	✓ 8.3 Considered The state of the sta	ed (if appropriate) the effects of climate	change and land use change	
		a previous Flood Hazard Assessment	(FHA) by others	
	8.5 Identified	any potential hazards that are not add	ressed by the Flood Assessment	Report
	9. For a Flood Risk	analysis I have:		
	9.1 Estimated	d the Flood Risk on the Property		
		existing and anticipated future Elemen		ond the Property
	9.3 Estimated	the Consequences to those Elements	s at Risk	

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

VERSION.2.0

FLOOD ASSURANCE STATEMENT

	10. In order to mitigate the estimated Flood Hazard for the Property, the following approach10.1 A standard-based approach	pach is taken:
	10.2 A Risk-based approach	
	10.3 The approach outlined in the guidelines, Appendix F: Flood Assessment Co Approvals	nsiderations for Development
	10.4 No mitigation is required because the completed flood assessment determine a Flood Hazard	ned that the site is not subject to
	11. Where the Approving Authority has adopted a specific level of Flood Hazard or Flood11.1 Made a finding on the level of Flood Hazard or Flood Risk on the Property	od Risk tolerance, I have:
	11.1 Indee a finding on the level of Flood Hazard or Flood Risk tolerance adopted by the findings	Approving Authority with my
	11.3 Made recommendations to reduce the Flood Hazard or Flood Risk on the P	roperty
	12. Where the Approving Authority has not adopted a level of Flood Hazard or Flood R 12.1 Described the method of Flood Hazard analysis or Flood Risk analysis used	isk tolerance, I have:
	12.2 Referred to an appropriate and identified provincial or national guideline for 12.3 Made a finding on the level of Flood Hazard of Flood Risk tolerance on the	level of Flood Hazard or Flood Risk
	12.4 Compared the guidelines with the findings of my flood assessment	
-	12.5 Made recommendations to reduce the Flood Hazard or Flood Risk	
V	13. Considered the potential for transfer of Flood Risk and the potential impacts to adja	
V	14. Reported on the requirements for implementation of the mitigation recommendation subsequent professional certifications and future inspections.	s, including the need for
Base	Based on my comparison between:	
CHE	CHECK ONE]	
	The findings from the flood assessment and the adopted level of Flood Hazard or Flood The findings from the flood assessment and the appropriate and identified provincial or r Hazard or Flood Risk tolerance (item 12.4 above)	•
l hei	hereby give my assurance that, based on the conditions contained in the attached Flood As	sessment Report:
ICHE	CHECK ONE]	V Y
W	For <u>subdivision approval</u> , as required by the <i>Land Title Act</i> (Section 86), "that the land m intended":	ay be used safely for the use
	[CHECK ONE]	
	☐ With one or more recommended registered Covenants.	
	☐ Without any registered Covenant.	
	, , , , , , , , , , , , , , , , , , , ,	
	Report will "assist the local government in determining what conditions or requirements of	under [Section 920] subsection (7.1)
_	it will impose in the permit".	
	intended":	be used safely for the use
	[CHECK ONE]	
	☐ With one or more recommended registered Covenants.	
	 □ Without any registered Covenant. □ For flood plain bylaw variance, as required by the Flood Hazard Area Land Use Manage 	mont Cuidolines and the
	Amendment Section 3.5 and 3.6 associated with the Local Government Act (Section 524	
	safely". For flood plain bylaw exemption, as required by the Local Government Act (Section 524)	"the land may be used safely for
J	the use intended".	, are land may be used salely lot

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

VERSION.2.0

FLOOD ASSURANCE STATEMENT

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

April 6, 2020	
Date	*
Jeff Scott, P.Eng	
Prepared by	Reviewed by
Name (print)	Name (print)
fell scott	Cinnahuu
Signature	Signature
1900 Boxwood Road	
Nanaimo, BC V9S 5Y2	
(250) 756-0355	A PESSION AND THE
Telephone	# 46419 # 88H18H-5
jscott@lewkowich.com	S. GINC.
Email	(Affix PROFESSIONAL SEAL here)
If the Qualified Professional is a member of a firm, complete the	
	eering Associates Ltd.
and I sign this letter on behalf of the firm.	(Name of firm)

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

VERSION.2.0



ECOLOGICAL ASSESSMENT MALONE ROAD LADYSMITH, BC

for:

Robin Kenyon Kenyon Wilson Professional Land Surveyors 221 Coronation Avenue, Duncan, BC, V9L 2T1

by:

Jackie Churchill, M. Sc., R.P.Bio, A.Sc.T MADRONE ENVIRONMENTAL SERVICES LTD. 1081 Canada Avenue Duncan, BC, V9L 1V2

May 25, 2010

Dossier 10.0082

TABLE OF CONTENTS

SUMMARY		111
LIST OF AC	RONYMS	v
1.0 INTRO	ODUCTION AND OBJECTIVES	1
	ssment Area	
2.0 METH	ODS OF ASSESSMENT	2
2.1 Pre-1	ield Research	4
2.1.1	Vegetation and Wildlife	4
2.1.2	Sensitive Ecosystems	6
2.1.3	Field Assessments	7
3.0 RESU	LTS – VEGETATION	8
3.1 Gen	eral Habitat Descriptions for the Assessment Area	9
3.2 Ecos	ystem Descriptions	10
3.2.1	Douglas-Fir - Salal	11
3.2.2	Douglas-Fir/Lodgepole Pine - Arbutus	13
3.2.3	Road Surface	15
3.3 Rare	Ecosystems	17
3.4 Sens	itive Ecosystems	17
3.5 Rare	Plants	17
4.0 RESU	LTS - WILDLIFE	18
4.1 Wild	llife Species and Wildlife Sign Detected	18
Table	5. Wildlife species detected during the Ecological Assessment	18
4.2 Spec	ies Suitability Summaries	18
4.2.1	Marbled Murrelet (Red-listed)	19
4.2.2 subspe	Peregrine Falcon (anatum subspecies) (Red-listed) and pealeii ecies (blue listed)	20
4.2.3	Sharp-tailed Snake (Red-listed)	20
4.2.4	Northern Goshawk, laingi subspecies (Red-listed)	21
4.2.5	American Water Shrew (red-listed)	22
4.2.6	Keen's Long-Eared Myotis (Red-listed)	22

	4.2.7	Red-legged Frog (Blue-listed)	22
	4.2.8	Band-tailed Pigeon (Blue-listed)	23
	4.2.9	Northern Pygmy Owl (Blue-listed)	23
	4.2.10	Western Screech Owl (Blue-listed)	24
	4.2.11	Great Blue Heron (subspecies fannini Blue-listed)	24
		Green Heron (Blue-listed)	
	4.2.13	Ermine, anguinae subspecies (Blue-Listed)	25
	4.2.14	Townsend's Big-Eared Bat (Blue-listed)	25
	4.2.15	Bald Eagle (Yellow-listed)	25
	4.2.16	Columbia Black-tailed Deer (Yellow-listed)	25
	4.2.17	Black Bear (Yellow-listed)	26
4.3	3 Ripar	ian Areas	26
4.4	4 Wild	life Trees	29
- 0	Diaci	ICCION AND RECONMENDATIONS	0.0
5.0		USSION AND RECOMMENDATIONS	
5.		lop Permit Areas (DPA)	
5.3		ection of Ecosystems and Riparian Areas	
5.3		rolling Invasive Species	
5.4		Plant Surveys	
5.! -		ding Bird Surveyslife Trees	
5.0	o vvna	inte Trees	33
6.0	REFER	ENCES	36
APP	ENDIX	I NENT LEGISLATION CONCERNING RARE SPECIES	4.0
	PEKII	NENT LEGISLATION CONCERNING RAKE SPECIES	4L
APP	ENDIX	II	
	STAN	DARDIZED STRUCTURAL STAGES	44
4 DD	ENDIX	111	
Arr		LIFE SUITABILITY RATINGS	47
APP	ENDIX		
	TOW	N OF LADYSMITH DPA'S	49

SUMMARY

Madrone Environmental Services Ltd. (Madrone) was retained by Robin Kenyon of Kenyon Wilson Professional Land Surveyors on behalf of Mr. Harvey Raddons to carry out an overview Ecological Assessment (EA) in order to have the property rezoned for potential development. The assessment focused on Lot A of District Lot (DL) 126 located in Ladysmith, B.C, which totals approximately 7.76 ha in area. During April 2010, Madrone staff assessed the project area for significant wildlife and vegetation features. Field work was conducted on April 12th 2010.

The following report details the results of the assessments completed for vegetation and wildlife. The assessment focused primarily on Species at Risk that have the potential to occur within and adjacent to the proposed project area. The project area lies entirely within the Coastal Douglas Fir, Moist Maritime Subzone (CDFmm).

Eight ecosystem polygons were delineated and habitat suitability was evaluated for 17 focal wildlife species. The majority of the assessment area has been previously logged, and currently contains young forested stands and cleared areas. Disturbance and invasive plants are common throughout the assessment area, especially in close proximately to roads and trails.

Overall, habitat suitability was ranked low to very low for most focal wildlife species, with specific areas rated up to moderate at best for some species. One significant ecological feature, a Sensitive Ecosystem Inventory (SEI) polygon is located adjacent to the property and contains a portion of Rocky Creek. This SEI polygon is part of the Environmentally Sensitive Area (ESA) polygon included under Development Permit Area (DPA) 6 by the Town of Ladysmith. Furthermore, portions of riparian habitat associated with Rocky Creek and Rocky Creek Tributary 1 occur in the assessment area and should be maintained according to Riparian Area Regulations (Madrone, 2010). Recommendations will help to guide future development on site and will also help to determine the eventual placement of development footprints.

Summary of Recommendations

- Leaving the northern portion of DPA 6 intact (slopes and rock outcrops facing Rocky Creek), to maintain connectivity to the creek and avoid encroachment into the streamside enhancement and protection area.
- Retain as much intact contiguous forest around the riparian areas to maintain linked corridors and sustain wildlife use in and between these important areas.



- The implementation of a removal program for invasive plant species such as Scotch broom, Himalayan blackberry, evergreen blackberry and English holly is recommended in the future to help prevent the spread of these species and the potential for degradation of adjacent natural ecosystems.
- Nest surveys should be conducted prior to clearing (as per the Migratory Bird Act) if clearing occurs during the breeding bird season (May 1 July 31).
- Wildlife Trees with evidence of use, either in the form of cavity nests, woodpecker feeding sign or perching should be retained wherever possible, although on-site safety concerns associated with dead or dying trees should be taken into account.

LIST OF ACRONYMS

Acronym	Definition
CDC	Conservation Data Centre
CDF	Coastal Douglas Fir biogeoclimatic subzone
CF	Conservation Framework
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CWD	Coarse Woody Debris
CWS	Canadian Wildlife Service
DBH	Diameter at breast height (for tree circumference measurements)
DL	District Lot
DPA	Development Permit Area
EA	Ecological Assessment
EC	Environment Canada
ESA	Environmentally Sensitive Area
GPS	Global Positioning System
MoE	Ministry of Environment
RAR	Riparian Area Regulations
RISC	Resource Inventory Standards Committee
SAR	Species at Risk
SARA	Species At Risk Act
SEI	Sensitive Ecosystem Inventory
SPEA	Streamside Protection and Enhancement Area

MALONE ROAD, LADYSMITH – ECOLOGICAL ASSESSMENT



1.0 INTRODUCTION AND OBJECTIVES

Madrone Environmental Services Ltd. (Madrone) was retained by Robin Kenyon of Kenyon Wilson Professional Land Surveyors on behalf of Mr. Harvey Raddons to carry out an overview Ecological Assessment (EA) in order to have the property rezoned for potential development. The assessment focused on Lot A of District Lot (DL) 126 located in Ladysmith, B.C, which totals approximately 7.76 ha in area (Figure 1). The results of the EA will be used to guide the proposed development and allow informed management decisions to be made based on the protection of ecological attributes.

The main objectives of the ecological assessment were to:

- 1) Develop a description of vegetation for the project area.
- 2) Identify significant species, populations and habitats in the assessment area, including red- and blue-listed, COSEWIC and elements listed under the Federal Species at Risk Act (SARA).
- 3) Assess the distribution of suitable habitat for key wildlife species.
- 4) Complete a Riparian Area Assessment for the project area (stand alone report summarized in Section 4.3; Madrone, 2010).
- 5) Provide management recommendations to ensure the maintenance of significant ecological features.

1.1 Assessment Area

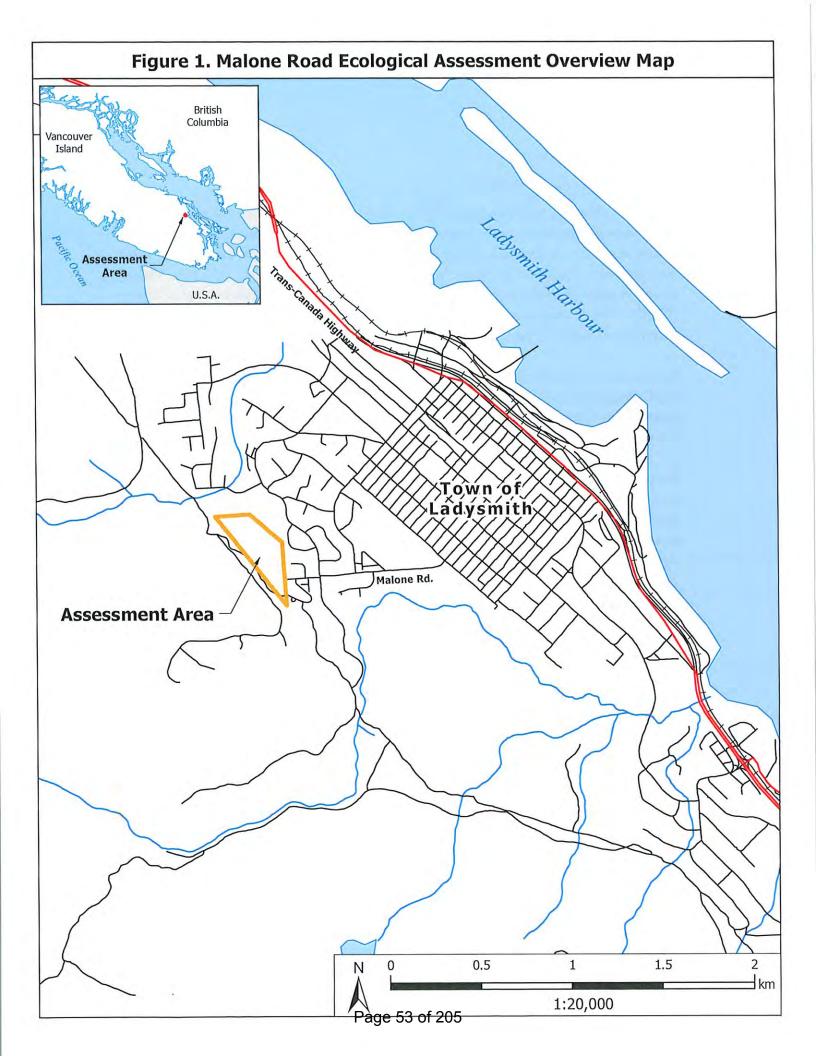
The assessment area occurs within the Coastal Douglas Fir moist maritime (CDFmm) Biogeoclimatic Zone and ranges in elevation from approximately 110 m to 140 m above sea level. The CDFmm covers only a very small proportion of the land mass of B.C., yet it falls within one of the most densely populated areas of the province.

Its mild, warm climate makes it attractive for residential, agricultural, commercial and industrial development. The cool Mediterranean climate and ecosystem conditions that characterize the CDFmm continue south through Puget Sound, with only the northernmost tip in Canada.

The extent and condition of naturally-occurring ecosystems and wildlife have been directly impacted by anthropogenic disturbances such as logging, agriculture, invasive species, land alienation, resource extraction, altered drainage patterns, urban sprawl, and fire suppression. The continuing pressure for disturbance, combined with the restricted distribution of the subzone and its ecosystems, has resulted in mounting interest for comprehensive conservation planning. Numerous ecosystems in the CDFmm are provincially red-listed (e.g. Garry Oak meadows and old (>250 years old) Douglas-fir forests) due to the historical land use pressures that have resulted in the loss of these sites.

2.0 METHODS OF ASSESSMENT

The vegetation and wildlife assessment components involved identifying potential areas of concern through pre-field research. Recommended provincial standards were followed in the methods of assessment. The wildlife and vegetation assessments focused on species/communities that are listed under the *Species at Risk Act* (SARA), or that are provincially or federally listed as endangered, threatened, or of special concern. It should be noted that the provincial lists of rare species/plant communities and their protection generally applies to provincial Crown land. Although the proposed development is occurring on private lands, the provincial lists can still be used as a basis in determining rare elements. Legal protection for rare ecosystems, even on Crown land, is extremely limited.



2.1 Pre-field Research

2.1.1 Vegetation and Wildlife

Prior to fieldwork, federally-listed Species at Risk (SAR) and provincially red- and blue-listed plants, plant communities and wildlife species of potential for occurrence in the area were determined. Other non-listed species of regional importance were also included. Background research included a search of relevant databases, which mainly incorporated the rare species lists compiled by the Conservation Data Centre (CDC). The known-occurrence mapping tool (CDC) was also used as a focused search mechanism to check for rare species occurring in the assessment areas.

Literature on the distribution of rare species, knowledge of local habitat and the CDC tracking lists were applied to create a short-list of focal species with the highest potential to occur in the assessment area. Please refer to Appendix I for a summary of relevant legislation and definitions for Federal and Provincial status ranking systems.

Six provincially red-listed wildlife species were identified as having potential to occur in the general area. These included Marbled Murrelet (*Brachyramphus marmoratus*), Northern Goshawk, *laingi* subspecies (*Accipiter gentilis laingi*), Peregrine Falcon – anatum subspecies (*Falco peregrinus anatum*), Sharp-tailed Snake (*Contia tenuis*), American Water Shrew (*Sorex palustris brooksi*) and Keen's Long-eared Myotis (*Myotis keenii*) (Table 1).

Blue-listed focal species with the potential to occur in the assessment area included Red-legged Frog (Rana aurora), Northern Pygmy Owl (Glaucidium gnoma swarthi), Western Screech-owl (Megascops kennicottii), Band-tailed Pigeon (Columba fasciata), Great Blue Heron, fannini subspecies (Ardea herodias fannini), Green Heron (Butorides virescens), Peregrine Falcon – pealeii subspecies (Falco peregrinus pealeii) and Townsend's Big-eared Bat (Corynorhinus townsendii). Additional site assessments were made to determine if habitats within the proposed development were suitable for the following yellow-listed species: Bald Eagle (Haliaeetus leucocephalus), Columbian Black-tailed Deer (Odocoileus hemionus columbianus), and Black Bear (Ursus americanus).

Furthermore, on a provincial basis, a Conservation Framework (CF) has been developed as a new approach for maintaining the rich biodiversity of the province. Developed by the Ministry of Environment (MoE) in collaboration with other scientists, conservation organizations, industry and government, the CF provides a set of science-based tools and actions for conserving species and ecosystems in BC.

The three goals of the CF are to contribute to global efforts for species and ecosystem conservation, prevent species and ecosystems from becoming at risk and to maintain the diversity of native species and ecosystems. A conservation priority is assigned to each species or ecological community under the CF. A species or ecological community receives a conservation priority of 1 (highest) through 6 (lowest) for each of the three CF Goals (CDC, 2010). The value shown in Table 1 represents the highest priority across the three Goals for each of the focal species.

On a Federal basis, the Sharp-tailed Snake is listed as Endangered under Schedule 1. The Northern Goshawk, *laingi* subspecies and Marbled Murrelet are listed under Schedule 1 as Threatened. The Great Blue Heron (*fannini* subspecies), Red-legged Frog, Western Screech-owl and Peregrine Falcon (*pealeii and anatum* subspecies) are listed under Schedule 1 as Special Concern. The Band-tailed Pigeon is also listed as species of Special Concern under COSEWIC but not listed under SARA. The Keen's Long-eared Myotis is listed as Schedule 3 as Data Deficient (Table 1).

Table 1. Wildlife focal species assessed for the Malone Road, Ladysmith Ecological Assessment.

	经产品的 经复数总统	BC	COSEWIC		
Latin name	Common name	Status	Status	SARA Status	CF Priority
Amphibian					sing plant in the
Rana aurora	Red-legged frog	Blue	Special Concern	Schedule 1 – Special Concern	1
Reptile		11 - 1 1 - 1 - 1 - 1			
Contia tenuis	Sharp-tailed snake	Red	Endangered	Schedule 1 – Endangered	1
Birds		11.5-1			1994 299 299 200
Brachyramphus					1
marmoratus	Marbled Murrelet	Red	Threatened	Schedule 1 - Threatened	
Accipiter gentiles laingi	Northern Goshawk	Red	Threatened	Schedule 1 – Threatened	1
Megascops kennicottii	Western Screech				1
kennicottii	Owl	Blue	Special Concern	Schedule 1 – Special Concern	
Glaucidium gnoma					2
swarthi	Northern Pygmy Owl	Blue	Not listed	Not listed	
Ardea herodias fannini	Great Blue Heron	Blue	Special Concern	Schedule 1 – Special Concern	1
Butorides virescens	Green Heron	Blue	Not listed	Not listed	4
Columba fasciata	Band-tailed Pigeon	Blue	Not listed	Not listed	2
Haliaeetus leucocephalus	Bald Eagle	Yellow	Not listed	Not listed	6
	Peregrine Falcon –				1
Falco peregrinus anatum	anatum subspecies	Red	Special Concern	Schedule 1 – Special Concern	
	Pergrine Falcon –				2
Falco peregrinus pealeii	pealeii subspecies	Blue	Special Concern	Schedule 1 – Special Concern	
Mammals	1000,000,000,000	1115			15 15 15 15 15 15 15 15 15 15 15 15 15 1
	American Water				1
Sorex palustris brooksi	Shrew	Red	Not Listed	Not Listed	
Mustela erminea					2
anguinae	Ermine	Blue	Not listed	Not listed	
	Keen's Long-eared				1
Myotis keenii	Myotis	Red	Data Deficient	Schedule 3 – Special Concern	
- Landerson - Land	Townsend's Big-	T	***************************************		2
Corynorhinus townsendii	eared Bat	Blue	Not Listed	Not Listed	
Odocoileus hemionus	Columbian Black-	1			6
columbianus	tailed Deer	Yellow	Not Listed	Not Listed	
Ursus americanus	Black Bear	Yellow	Not Listed	Not Listed	6

2.1.2 Sensitive Ecosystems

In 1997 a Sensitive Ecosystem Inventory (SEI) was completed for the East Coast of Vancouver Island by a Technical Advisory Group consisting of representatives from Environment Canada (EC), the Canadian Wildlife Service (CWS), MoE and the CDC (Ward et al., 1998). "An ecosystem is defined as a portion of landscape with relatively uniform dominant vegetation; a sensitive ecosystem is one that is fragile and/or rare" (CDC, 2010). Sensitive ecosystems are particularly valuable in that they provide critical habitat for species at risk, they contain a high level of biodiversity, and also form wildlife corridors and linkages.

The main objectives of the SEI and mapping were to identify remnants of rare and fragile terrestrial ecosystems, and encourage appropriate management techniques that take into account the fragility of the specific ecosystems. The East coast of Vancouver Island is of particular significance when considering the threats to sensitive ecosystems, due to development pressures associated with a growing population.

The SEI recognizes seven specific sensitive coastal ecosystems, which are:

- Wetlands
- Riparian areas
- · Old forest
- · Woodland
- · Terrestrial herbaceous
- Coastal bluff
- Sparsely Vegetated

Two additional modified sensitive ecosystem types are also included: seasonally flooded agricultural fields and older second growth forest. The results of SEI showed that the land base of East Vancouver Island and the Gulf Islands contained only 7.9% sensitive ecosystems and 11.6% other important ecosystems (Ward et al., 1998).

As part of the background research, the provincial EcoCat web-based database (http://a100.gov.bc.ca/pub/acat/public/viewReport.do?reportId=2124) was accessed to determine whether any known sensitive ecosystems occurred in or around the assessment area.



2.1.3 Field Assessments

Madrone staff conducted field work on April 12th 2010. During the field surveys the following landscape attributes were given priority for evaluation if found within the assessment area:

- Potential habitat for threatened and endangered vertebrate species (provincially red and blue-listed and federally-listed species under SARA).
- Ecologically sensitive habitats such as wetlands and old growth forest.

The GPS position of each assessment plot was noted in the field and plotted on a map of the assessment area. The following habitat and site variables were recorded at each plot:

- Location.
- Slope.
- Aspect.
- Elevation.
- Mesoslope position.
- Average dbh (cm) and range of tree girths.
- Average canopy height (m).
- Canopy closure %.
- Overstory tree species composition.
- Vegetation identification and % composition (shrub, herb and moss layers).
- Ecosystem type.
- Presence of CWD and wildlife trees/snags.
- Landscape factors.
- Evidence of wildlife use.
- Disturbance history.
- Representative habitat photographs.

Plants were identified according to Pojar and MacKinnon (1994) and Douglas et al., (1998 – 2000). Wildlife habitat suitability was also rated in conjunction with each

vegetation plot. A rating of 1 to 6 (with 1 indicating habitat of very high suitability and 6 of nil suitability) was recorded at each plot for each project focal species (RISC, 1999). Only current habitat suitability was assessed. If encountered, Wildlife Trees were labeled with blue flagging and assigned a waypoint position for identification on a map. Trees considered to be important for wildlife *i.e.*, those displaying obvious wildlife sign, or isolated veteran trees, would be marked as Wildlife Trees. It should be noted that a detailed search was not conducted to locate all Wildlife Trees on site, but if encountered during the general assessment, they were marked.

3.0 RESULTS – VEGETATION

A total of seven assessment plots were completed in the eight mapped ecosystem unit polygons within the assessment area (Figure 2). Ecosystem polygons were field checked at level 1 intensity (76% – 100% of polygons checked), as 88% of the assessment area polygons contained assessment plots (RISC, 1998). However, most of the area was traversed during ecological and riparian surveys. A general habitat description for the assessment area can be found in section 3.1, with a summary of the mapped ecosystems for each polygon in Table 2. The status of the mapped ecosystems can be found in Table 3. Detailed ecosystem descriptions are included in section 3.2. Appendix II contains a detailed description of the seven structural stages, as per RISC (1998).

Table 2. Mapped Ecosystems within the Malone Road, Ladysmith Assessment Area.

Ecosystem Unit (Polygon #)	Site Series	Site Series %	Predominant Structural Stage	Previously Logged
1	DS/01	100	Young forest (5)	Yes
	DA/02	80	Young forest (5)	
2	DS/01	20	Young forest (5)	Yes
3	DS/01	100	Young forest (5)	Yes
	DS/01 (cleared)	70	Graminoid dominated (2b)	
	DS/01 (cleared)	20	Low shrub (3a)	
4	DS/01 (cleared)	10	Tall shrub (3b)	Yes
5	DS/01	100	Young forest (5)	Yes
	DS/01 (cleared)	40	Graminoid dominated (2b)	
	DS/01 (cleared)	30	Low shrub (3a)	
6	DS/01	30	Young forest (5)	Yes
7	DS/01	100	Young forest (5)	Yes
8	RZ	100	-	-

Table 3. Ecosystems assessed for the Malone Road, Ladysmith Ecological Assessment.

Scientific Name		Biogeoclimatic Unit				
Pseudotsuga menziesii / Mahonia nervosa	Douglas-fir / dull Oregon- grape	CDFmm/01	S2 (2005)	Red	G2	1
Pseudotsuga menziesii - Arbutus menziesii	Douglas-fir - arbutus	CDFmm/02	S2 (2004)	Red	GNR	1

The assessment area consists of upland forested and recently cleared ecosystems. There is one creek which is a tributary of Rocky (Tyee) Creek (subsequently referred to as Rocky Creek Tributary 1) as well as numerous roads and trails throughout the assessment area. For more detailed descriptions of the riparian areas refer to Section 4.3 and the stand alone Riparian Area Assessment Report (Madrone, 2010). The majority of the assessment area has been previously logged.

3.1 General Habitat Descriptions for the Assessment Area

In forested areas, tree species composition was dominated by young Douglas-fir (*Pseudotsuga menziesii*), arbutus (*Arbutus menziesii*), and western redcedar (*Thuja plicata*). Less common species observed were bigleaf maple (*Acer macrophyllum*) and red alder (*Alnus rubra*).

Forested ecosystems were uniform throughout the assessment area. Canopy cover averaged 30%, and ranged from open (10%) to relatively dense closure (40%). The average height of trees was approximately 15 m, ranging from 12 m – 20 m. The girth of trees averaged approximately 20 cm diameter at breast height (dbh), ranging between 5 cm and 40 cm.

The shrub layer was typically dense and consisted primarily of salal (Gaultheria shallon), dull Oregon-grape (Mahonia nervosa) and red huckleberry (Vaccinium parvifolium). Less common shrubs were oceanspray (Holodiscus discolor), trailing blackberry (Rubus ursinus), baldhip rose (Rosa gymnocarpa), and hairy honeysuckle (Lonicera hispidula).

The herb layer was sparse in the forested sections of the assessment area and consisted mainly of sword fern (*Polystichum munitum*) and bracken fern (*Pteridium*

aquilinum). Less common species included rattlesnake-plantain (Goodyera oblongifolia) and grass species.

Oregon beaked-moss (Eurhynchium oreganum), step moss (Hylocomium splendens) and electrified cat's tail moss (Rhytidiadelphus triquetrus) were the most common moss species found in the understorey. Juniper haircap moss (Polytrichum juniperinum), roadside rock moss (Racomitrium canescens), coastal reindeer (Cladina portentosa) and frog pelt (Peltigera neopolydactyla) lichens also occurred.

The recently cleared areas in the assessment area were dominated by invasive plants such as Scotch broom (Cytisus scoparius), Himalayan blackberry (Rubus discolor), evergreen blackberry (Rubus laciniatus), English holly (Ilex aquifolium) and nonnative grasses. Fireweed (Epilobium angustifolium), bracken fern and regenerating tree species such as red alder were also common in these areas.

The assessment area primarily slopes to the northeast. Slopes on the property ranged from 5% – 50%. Moss covered rocky outcrops occurred along the western assessment area boundary. The most subdued terrain occurred along the northeastern boundary of the assessment area. Due to limited variations in morphology, disturbance, nutrient availability, and moisture regimes, only two upland ecosystem types were found to occur. These two ecosystem types are described in the following sections.

3.2 Ecosystem Descriptions

Figure 2 indicates the polygon distribution throughout the assessment area. The assessment area consists of previously logged forest, recently cleared areas as well as gravel roads and trails. Two ecosystems and one anthropogenic unit are mapped in the assessment area:

- Site series 01: Douglas-fir / salal (DS);
- Site series 02: Douglas-fir-lodgepole pine / arbutus (DA);
- Road Surface (RZ).

The following sub-sections describe the ecosystems and units mapped within the area assessed.



3.2.1 Douglas-Fir - Salal

Site Series: 01 Fd - Salal

Ecosystem: DS

Structural Stages: Herb (structural stage 2) and Shrub/herb (structural stage 3) was mapped in the recently cleared portions of the assessment area. Young forest (5) was the dominant structural stage occurring in the forested areas.

General Distribution/Description: This site series was the most common throughout the assessed area. It occurred throughout the upland areas, in both the forested and recently cleared portions.

Within the natural forested ecosystems the dominant canopy species included Douglas-fir, western redcedar, arbutus and bigleaf maple. The shrub layer was well developed and dominated by salal, dull Oregon-grape, red huckleberry and oceanspray. The herb layer was often sparse but contained sword fern and bracken fern. The most common moss species were Oregon-beaked moss, step moss and electrified cat's tail moss. Canopy closure generally ranged from 30% – 40%.

Within the recently cleared areas invasive plants such as Scotch broom (Cytisus scoparius), Himalayan blackberry (Rubus discolor), evergreen blackberry (Rubus laciniatus), English holly (Ilex aquifolium) and non-native grasses dominated. Fireweed (Epilobium angustifolium), bracken fern and regenerating tree species such as red alder were also common in these areas.

Plots: 1, 2, 3, 6, and 7.



Photo 1. Forested Douglas-fir – Salal ecosystem found in Polygon 5.



Photo 2. Forested Douglas-fir – Salal ecosystem found in Polygon 3.



Photo 3. Small portion of steep forested Douglas-fir – Salal ecosystem found in Polygon 1 adjacent to Rocky Creek.



Photo 4. Cleared Douglasfir – Salal ecosystem found in Polygon 4.



Photo 5. Cleared Douglasfir – Salal ecosystem found in Polygon 4.

3.2.2 Douglas-Fir/Lodgepole Pine - Arbutus

Site Series: 02 FdPl - Arbutus

Ecosystem: DA

Structural Stages: Young forest (5) was the only structural stage occurring in the

forested areas.

General Distribution/Description: This site series occurred along the western assessment area boundary associated with rocky crests and was found in association with the DS ecosystem type.

Within the forested ecosystems the dominant canopy species included Douglas-fir and arbutus. The shrub and herb layers were relatively sparse with salal, dull Oregongrape, oceanspray and rattlesnake-plantain occurring. The moss layer varied from sparse to well developed with Oregon-beaked moss, electrified cat's tail moss, step moss, juniper haircap moss, roadside rock moss, coastal reindeer and frog pelt lichens occurring.

Plots: 4, and 5.



Photo 6. Douglasfir/lodgepole pine – Arbutus ecosystem found in Polygon 2.



Photo 7. Douglasfir/lodgepole pine – Arbutus ecosystem found on rocky crest within Polygon 2.



3.2.3 Road Surface

Unit: RZ

General Distribution/Description: This unit occurred in one polygon within the assessment area and included gravel road and vegetated compacted trail. Disturbance and clearing is prevalent adjacent to these areas. Woody debris piles and invasive plant species such as Scotch broom and Himalayan blackberry commonly occur along the road edges.



Photo 8. Gravel road found within Polygon 8.



Photo 9. Compacted trail found within Polygon 8.



PROJECT: Ecological Assessment Malone Road

ASSESSED BY: Justin Lange, B.Sc., B.I.T. &

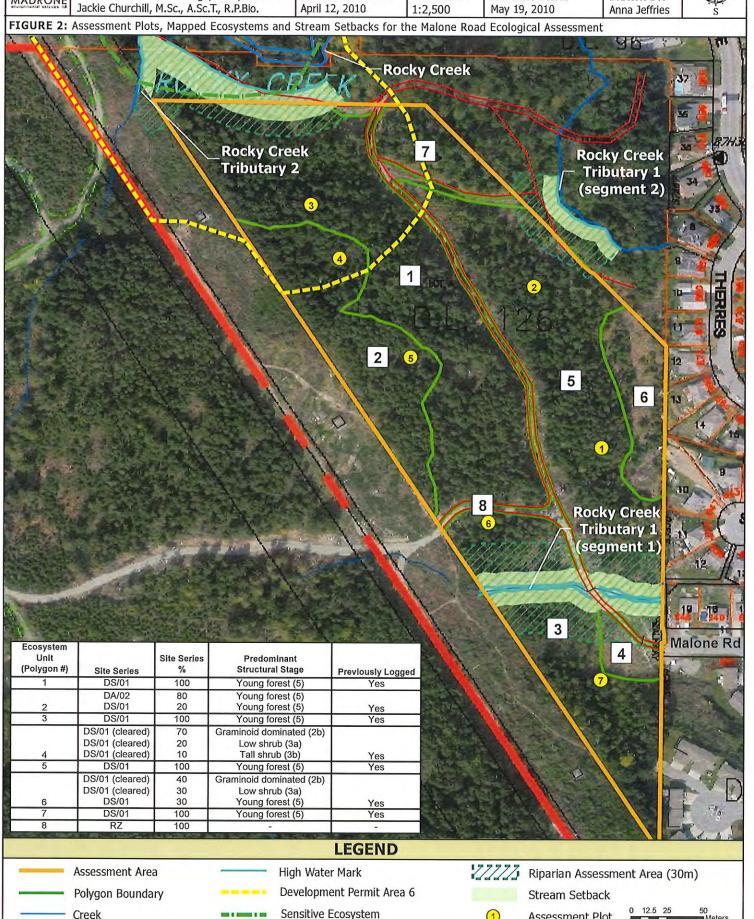
CLIENT: Kenyon Wilson Professional Land Surveyors

MAP SCALE:

INSPECTION DATE:

GEOGRAPHIC AREA: Ladysmith, BC MAPPING DATE:

DOSSIER NO: 10.0082 DRAWN BY:



Page 66 of 205

1

Assessment Plot

3.3 Rare Ecosystems

A significant number of ecosystems are considered rare in the CDFmm zone. However, in order to be considered a rare element occurrence, however, a particular site must be undisturbed by humans, of a certain size requirement and in a natural climax state. The majority of the assessed area has been impacted by previous logging and clearing activities and are not considered to be undisturbed, or functioning, red-listed ecosystems. However, if portions of the larger intact forest stands (Polygons 1, 2, 3, 5 and 7), were left intact they may be able to act as recruitment sites for rare ecosystem representation.

3.4 Sensitive Ecosystems

The background SEI check revealed the existence of one sensitive ecosystem (V0331H) directly adjacent to the assessment area (Figure 2). The SEI polygon is listed as a riparian ecosystem adjacent to Rocky Creek, structural stage 5 and 4 within a gully (RI:5:4:g). Field verification along the northern edge of the assessment area confirmed the SEI polygon did not encroach into the assessment area.

3.5 Rare Plants

As part of the background study as well as during field verification, no rare plants were confirmed as being present within the assessment area. The most likely rare plants to occur within the assessment area can be found in Table 4. It should be noted, however, that an intensive rare plant survey was not completed due to the timing of the assessment being early in the growing season. Rare plant potential for the assessment area is considered to be low.

Table 4. Potential Rare Plants within the Malone Road, Ladysmith Assessment Area.

			S	tatus	
Scientific Name	Common Name	Provincial	BC List	COSEWIC	CF Priority
Isoetes nuttallii	Nuttall's quillwort	\$3 (2001)	Blue		4
Balsamorhiza	deltoid balsamroot				
deltoidea		S1 (2001)	Red	E (2009)	1
Lotus pinnatus	bog bird's-foot trefoil	S1 (2000)	Red	E (2004)	1
Lupinus lepidus	prairie lupine	51 (2008)	Red	E (2009)	1
Navarretia intertexta	needle-leaved				
	navarretia	52 (2000)	Red	<u> </u>	3
Sanicula bipinnatifida	purple sanicle	S2 (2000)	Red	T (2001)	2
Sericocarpus rigidus	white-top aster	S2 (2008)	Red	SC (2009)	1
Viola praemorsa ssp.	yellow montane				
praemorsa	violet	S2 (2005)	Red	E (2007)	1
Allium amplectens	slimleaf onion	S3 (2001)	Blue		4
Glyceria leptostachya	slender-spiked				
	mannagrass	S2S3 (2000)	Blue	<u></u>	2

4.0 RESULTS - WILDLIFE

Madrone assessed the project area for the presence of suitable habitat for six redlisted, nine blue-listed, and three yellow-listed high profile focal wildlife species (refer to Table 1). The field assessments were done coincident with the ecosystem assessments and involved completing seven individual assessment plots (refer to Figures 2 for locations of assessment plots).

4.1 Wildlife Species and Wildlife Sign Detected

During the assessment, encounters of wildlife and wildlife sign were noted. A detailed breeding bird survey was not conducted; rather habitat was assessed for potential use by rare bird species. Incidental observations of all bird and wildlife species were recorded, but do not represent a complete list. Species confirmed in the assessment area and in the immediate vicinity are listed in Table 5:

Table 5. Wildlife species detected during the Ecological Assessment

Birds	Observation Type		
American Robin (Turdus migratorius)	Visual and audio		
Bald Eagle	Visual – flying over assessment area		
California Quail (Callipepla californica)	Visual		
Pileated Woodpecker (Dryocopus pileatus)	Signs of feeding and audio (drumming)		
Red-breasted Nuthatch (Sitta canadensis)	Audio		
Rufous Hummingbird (Selasphorus rufus)	Visual and audio		
Song Sparrpw (Melospiza melodia)	Visual and audio		
Spotted Towhee (Pipilo maculates)	Visual and audio		
Turkey Vulture (Cathartes aura)	Visual – flying over assessment area		
Violet-green Swallow (Tachycineta thalassina)	Visual		
Winter Wren (Troglodytes troglodytes)	Visual and audio		
Mammals	Observation Type		
Columbian Black-tailed Deer	Scat observed within assessment area		
Red Squirrel (Tamiasciurus hudsonicus)	Midden piles observed within assessment area		
Reptiles	Observation Type		
Common Garter Snake (Thamnophis sirtalis)	Visual		

4.2 Species Suitability Summaries

Overall, for most focal species the majority of the assessment area contained low to no suitability due to the young forest which typically lacked important habitat attributes for numerous species (*i.e.*, large trees and branches, CWD, wildlife trees with hollows or cavities). Human presence is common throughout the area due to the numerous roads and trails and proximity to residential areas. Disturbance and clearing is common throughout the assessment area and especially prevalent along roads and trails. These factors likely lead to reduced use by wildlife. However, Rocky



Creek Tributary 1, located within the property may have some potential value for numerous species, especially the upper portion, although it is not of considerable value to any of the focal species.

The following sections summarize pertinent habitat requirements for each focal species and detail the suitability of the habitat in the assessment area. Specific life requisites that were rated for each focal species as well as our estimated likelihood of focal wildlife species occurrence and suitable habitat distribution within the assessment area are given in Table 6.

Habitats are referred to on an ecosystem polygon basis, as per Figures 2. Refer to Appendix III for habitat suitability ranks.

Table 6. Species, seasons and life requisites rated and likelihood of species occurrence within the assessment area.

Species	Season	Limiting Life Requisite Selected for Rating	Likelihood of Occurrence
Marbled Murrelet	Growing	Nesting habitat	Very Low
Northern Goshawk	Growing	Nesting habitat	Very Low
Common Water Shrew	All	Suitable riparian habitat	Very Low
Keen's Long-eared Myotis	All	Maternity sites, roosting sites, hibernacula	Very Low
Peregrine Falcon	Growing	Nesting habitat	None
Band Tailed Pigeon	Growing	Nesting habitat	Low
Northern Pygmy Owl	All	Nest and roost sites	Very Low
Western Screech Owl	All	Nest and roost sites	Very Low
Great Blue Heron	Growing	Nesting habitat	Very Low
Green Heron	Growing	Nesting habitat	Very Low
Townsend's Big-eared Bat	All	Maternity sites, roosting sites, hibernacula	Very Low
Ermine	All	Security habitat; Denning habitat	Very Low
Sharp-tailed Snake	Growing	Security habitat	Low
Red-legged Frog	All	Breeding habitat (eggs/tadpoles); Foraging habitat (juveniles/adults)	Very Low
Bald Eagle	Growing	Nesting habitat	Very Low
Black Bear	All	Denning sites; Foraging habitat	Moderate
Columbian Black-tailed Deer	All	Spring/Summer forage habitat; Winter Security and thermal habitat	High (confirmed)

4.2.1 Marbled Murrelet (Red-listed)

This species typically nests in large-diameter trees in coastal old-growth forests and in mature forests that exhibit old-growth characteristics (Burger, 2002; 2004). For nesting, murrelets require mossy, epiphytic growths on the horizontal limbs or similar platform-like structures in trees that generally are older than 140 years (Nelson, 1997). Clayoquot and Barkley Sounds are important foraging areas for murrelets that nest in the adjacent watersheds (Burger, 2002).

Nesting habitat for Marbled Murrelets was lacking throughout the area assessed, due to a general lack of habitat attributes such as the absence of suitable nesting platforms associated with old, large trees.

4.2.2 Peregrine Falcon (anatum subspecies) (Red-listed) and pealeii subspecies (blue listed)

In British Columbia, anatum Peregrines occur in the lower Fraser Valley, southern Vancouver Island, and in the Okanagan and Cariboo regions (Campbell et al., 1990). The range of the pealeii subspecies is generally further north, although this subspecies was released historically in the southern Gulf Islands region (Campbell et al., 1990). Peregrines nest primarily on ledges and in potholes on vertical cliff faces (Proulx et al., 2003). In BC, the heights of cliffs containing eyrie sites range from 12 m to 366 meters (Campbell et al., 1990). Eyrie sites frequently command a wide view and are near water with plentiful prey in its vicinity (Fraser et al., 1999).

Suitable nesting habitat for Peregrines did not occur in the area assessed as no cliffs are present.

4.2.3 Sharp-tailed Snake (Red-listed)

In BC, the Sharp-tailed Snake is at the extreme northern limit of its distribution in North America. Within BC, its range extends as far north as the southeast coast of Vancouver Island and the Gulf Islands (Proulx et al., 2003). The Sharp-tailed Snake is typically associated with dry Douglas-fir – arbutus stands, forest edges and open meadows (Proulx et al., 2003). Important habitat features include slightly damp microhabitats and forest floors with suitable hiding areas such as rocks, logs, pieces of bark and leaf litter. South-facing rocky slopes are important, in that they provide both hibernation and egg-laying sites (Proulx et al., 2003).

Low rated habitat for this species was found in the dry, rocky outcrop forested ecosystems (Polygon 2) and in the forest on the rocky slopes along the northern boundary of the assessment area (Polygon 1). These areas contained moderate amounts of CWD and rocky crevices, which may provide suitable cover and forage habitat for this species (Photos 10-11).



Photo 10. Dry Douglasfir-arbutus stand typical of Polygon 2. Rocky outcrops and CWD offer potential cover/security habitat for the Sharptailed Snake.



Photo 11. Rocky slope containing potential cover and security habitat for the Sharptailed Snake. Located in Polygon 1 near assessment plot 3.

4.2.4 Northern Goshawk, laingi subspecies (Red-listed)

This species typically nests in mature forest stands with relatively high overstory canopy closure and relatively open subcanopy flyways (McClaren, 2004; USFWS, 2007). Nesting stands are often on benches. Goshawk nests are large stick structures built below the main canopy level in either coniferous or deciduous trees.

Habitat suitability was considered very low to nil throughout the area assessed, due to a lack of required habitat values.

4.2.5 American Water Shrew (red-listed)

This species inhabits riparian habitat adjacent to streams (principally), as well as marshes, ponds and lakes (Beneski and Stinson, 1987). It forages in both aquatic and riparian habitats, with up to 50% of its diet comprising aquatic invertebrates (Lindgren and Craig, 2004). It is not believed to venture far from water (generally only a few meters).

Diverse riparian habitat was generally lacking throughout the assessment area, due to the lack of functioning riparian zones. The upper forested portion of Rocky Creek Tributary 1 offers the only potential habitat throughout the assessment area. In general the assessment area is considered to have very low suitability for this species.

4.2.6 Keen's Long-Eared Myotis (Red-listed)

The Keen's Long-eared Myotis roosts in rock crevices that are solar or geothermally heated. However, cavities in wildlife trees and loose bark are important natural roost sites. A study by van den Driesssche et al., (2000) confirmed the presence of Keen's Long-eared Myotis in Clayoquot Sound with mist-netting sampling. The study also found numerous bat roosts in large diameter redcedar trees using telemetry. Typical roost trees located by this study consisted of dead tops and were in declining health, such as candelabra-type redcedars with extensive cracks leading to hollow centres and areas decayed by heart-rot. Van den Driessche et al., (2000) also confirmed greater bat activity in open forest stands as opposed to denser stands, given the increased effectiveness of echolocation in open areas.

No caves or rock features that might be suitable for use by this species were noted in the assessment area, although the ecosystem units that contain rock outcroppings were not extensively scrutinized. No potential roost sites were observed in trees throughout the forested ecosystems. Habitat suitability for this species ranged from low to very low throughout the assessment area.

4.2.7 Red-legged Frog (Blue-listed)

Red-legged Frogs breed in natural or man-made ponds, pools in streams, and other ephemeral or permanent water bodies that hold water of sufficient depth and duration (>5 months) to allow tadpoles to grow and transform (Maxcy, 2004). Most



high quality breeding sites contain a mix of open-water habitat and emergent vegetation. A broader range of aquatic habitat types are used outside the breeding season. Red-legged Frogs forage both in water and on land, and migrate considerable distances through terrestrial landscapes between breeding and non-breeding habitats (Fellers and Kleeman, 2007). There appears to be no preference for any particular terrestrial habitat type. Proximity to a utilized breeding site is the principal predictor of terrestrial habitat use.

Suitable breeding habitat for Red-legged Frogs did not occur in the assessment area. Forage habitat was considered very low due to lack of moist forest and proximity to breeding habitat.

4.2.8 Band-tailed Pigeon (Blue-listed)

In the Pacific Northwest, this species is found primarily in summer below 1,000 meters. Although wet fir-hemlock-cedar-spruce stands may be preferred (Braun, 1994; Keppie and Braun, 2000), nesting occurs in virtually all forest types that are near habitats rich in berry-producing or nut-producing shrubs and trees. Access to mineral springs or other sources of calcium and salts is also required.

Suitable breeding habitat is probably not limiting for this species on Vancouver Island. In the project area, suitable breeding habitat was ranked low due to the lack of berry-producing or nut-producing shrubs and trees in the area.

4.2.9 Northern Pygmy Owl (Blue-listed)

The Northern Pygmy Owl has been reported breeding in mature and second-growth coniferous forests, mixed riparian forest, and pure deciduous stands, and tends to nest near the edge of forest openings, rather than in interior forest (Johnsgard, 1988; Holt and Peterson, 2000). It is largely dependent on woodpecker cavities for nest and roost habitat. In British Columbia, the Northern Pygmy Owl prefers edges of open coniferous forests or mixed woodlands during the breeding season (Campbell *et al.*, 1990).

Wildlife trees were not abundant throughout the assessment area. Habitat suitability for this species was ranked very low throughout the assessment area.

4.2.10 Western Screech Owl (Blue-listed)

In the northern portion of its range, the Western Screech Owl is generally found in lower elevation forested or treed environments, especially in riparian forests (Johnsgard, 1988). This species roosts in tree cavities, on branches, in nest boxes, and in cliff crevices (Johnsgard, 1988). Like the Northern Pygmy Owl, this species is a secondary cavity nester and is largely dependent on the excavations made by large woodpecker species.

Wildlife trees were not abundant throughout the assessment area. As with the Northern Pygmy Owl, habitat suitability for this species was ranked very low throughout the assessment area.

4.2.11 Great Blue Heron (subspecies fannini Blue-listed)

This species nests colonially (occasionally solitarily), usually in live or dead deciduous trees, although conifers may also be used. In British Columbia red alder (Alnus rubra), black cottonwood (Populus balsamifera) and Douglas-fir (Pseudotsuga menziesii) are the principal tree species used for nesting (Gebauer and Moul, 2001). Colonies often persist at the same location for many years and tend to be located within or adjacent to flooded wetlands, lakes or larger rivers. Nesting sites are usually situated within 2 km – 3 km of principal feeding areas. Foraging habitat consists of broad range of wetland and open aquatic habitats. Most colonies are situated in relatively mature forest stands (Vennesland, 2004).

No nesting colonies occur in the assessment area, and the habitat was generally rated very low.

4.2.12 Green Heron (Blue-listed)

The Green Heron makes use of various habitats, including rivers, lakes, ponds, reservoirs, estuaries, beaches and sloughs (Fraser and Ramsey, 1996). With respect to nesting two main habitat types are important for Green Herons. Shallow and/or slow-moving water represents important forage habitat while dense trees and tall shrubs close to a water body are important nesting habitat. The majority of Green Heron observations (29%) that have been associated with habitat have been in sloughs, marshes and swamps (Fraser and Ramsey, 1996). Fraser and Ramsey (1996) also noted that during the breeding season sloughs, lakes and marshes are the most important habitats.

Habitat suitability was rated very low to nil for this species throughout the assessment area.

4.2.13 Ermine, anguinae subspecies (Blue-Listed)

The anguinae subspecies of the ermine (short-tailed weasel) is endemic to Vancouver Island. This species prefers the cover of coniferous or mixed forests (Maser, 1998) and can also be found in riparian woodlands where prey is abundant (Eder and Pattie, 2001). Snags and CWD are utilized by the ermine for the purposes of hunting (Tripp and Butt, 2009).

Habitat suitability was considered very low throughout the area assessed, due to a lack of required habitat values.

4.2.14 Townsend's Big-Eared Bat (Blue-listed)

The habitat requirements of Townsend's Big-eared Bat are similar to those of Keen's Long-eared Myotis (BC MELP, 1998). No potential roost sites were observed in trees throughout the forested ecosystems. Habitat suitability for this species ranged from low to very low throughout the assessment area.

4.2.15 Bald Eagle (Yellow-listed)

Bald Eagles, although not listed as rare, are an important species of general interest. The main requirement for nesting is the availability of large trees (>75 cm dbh) with stout limbs and a good view of the surrounding landscape (Blood and Andweiler, 1994). Nesting territories generally lie immediately adjacent to aquatic habitats that are rich in fish or aquatic birds. Tall snags (>35 m) serve as perches throughout the year (Campbell *et. al.*, 1990; Johnsgard, 1988).

A Bald Eagle was observed during the assessment circling above the assessment area; however habitat suitability was rated very low for nesting throughout the area due primarily to the lack of large tress and limbs.

4.2.16 Columbia Black-tailed Deer (Yellow-listed)

Deer often occupy warmer aspect slopes with thermal/security cover from a closed forest canopy and frequent dense low-lying shrub areas where they browse and graze. In summer, this species occupies areas rich in berry-producing shrubs and fresh herbaceous plants (e.g. burned areas, roadsides and clearcuts).



Forage and security habitat for deer occurs throughout the assessment area. Deer scat was observed within the assessment area. Habitat suitability for deer in the assessment area was rated moderate to low depending on availability of browse and security habitat. Deer are common throughout eastern Vancouver Island (are not limited by winter range) due to the mild climate.

4.2.17 Black Bear (Yellow-listed)

Forage for bears is occurs in the assessment area, particularly areas with berry-producing shrubs that provide optimal feeding habitat for summer and fall. In consequence, only winter hibernation sites were considered limiting in this context. In coastal BC, Black Bears are known to use exclusively old-growth associated structures for denning, including live or dead large standing hollow trees, stumps, logs, and root boles with a mean diameter of 143 cm (Davis, 1996). Western redcedar and yellow cedar are the predominant tree species utilized, and most den sites occur in mature and old-growth forests.

No evidence of Black Bear use was identified during the assessment, but they are commonly observed on eastern Vancouver Island. Forage habitat was rated as moderate to low throughout the area. Denning habitat did not occur throughout the area assessed, due to the lack of old growth forest and the associated necessary habitat attributes.

4.3 Riparian Areas

One creek (Rocky Creek Tributary 1) was identified within the assessment area (Photos 13 - 15). This stream is a small, seasonal drainage which originates to the west of the assessment area and eventually flows into Rocky Creek, a salmon bearing stream located just north of the assessment area boundary.

Throughout the assessment area, the stream ranges between 0.9 m and 3.9 m wide. The stream consists mainly of an alluvial bed (cobble/gravel dominant), although extended sections of soft organics also exist (*i.e.*, decomposing trees and leaves), or clay material. The creek morphology consists mainly of runs and glides, with some small pool habitat units also present.

Where the stream flows onto the property (upper portion), it flows through a young intact zonal forest within Polygon 3 (Photo 13). The dominant riparian vegetation along this section of the creek consisted of main tree species include Douglas-fir, arbutus, western redcedar, salmonberry (*Rubus spectabilis*), red elderberry



(Sambucus racemosa), dull Oregon-grape, salal, sword fern and lady fern (Athyrium filix-femina). The lower portion of the stream is heavily disturbed prior to flowing under the neighbouring residences of Malone Road (Photo 15). The invasive plant growth is very dense along the lower stretch of the stream and consists mainly of Himalayan blackberry, and English holly. Other dominant riparian vegetation along the lower portion of the creeks is made up of regenerating Douglas-fir, western redcedar, red alder and bigleaf maple as well as Indian-plum (Oemleria cerasiformis), salmonberry, red elderberry, willow species (Salix spp.), sword fern and lady fern.

This vegetated riparian area, especially the upper portion of Rocky Creek Tributary 1, represents an important habitat type that contains representative vegetation assemblages. Fish are likely not present within this creek due to the numerous culverts (some of which are gated) along its length. However, the riparian area and creek still provide habitat attributes for a range of wildlife species.

Based on the Riparian Area Regulations (RAR) Rocky Creek Tributary 1 will have a 10 m SPEA measure from the high water mark (HWM), which must remain intact. Furthermore, Rocky Creek will also have a SPEA of 19.6 m from the HWM, which will encroach slightly into the northern portion of the assessment area due to the wide active floodplain adjacent to Rocky Creek. Protection measures for the riparian area in and within 30 m of the study are further described in the RAR report completed for the assessment area (Madrone, 2010).



Photo 12. Upper forested portion of Rocky Creek Tributary 1 located within the assessment area. Note the orange flagging indicating the High Water Mark of the creek.





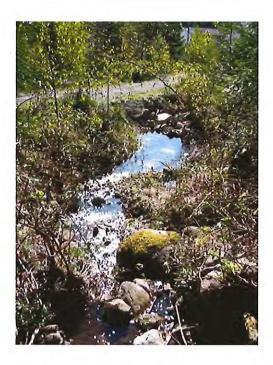


Photo 13. Looking downstream at the end of the upper section of Rocky Creek Tributary 1. The creek continues under the gravel road through a metal culvert. Note the lack of suitable riparian habitat due to previous clearing and disturbance near the road.



Photo 14. Looking upstream at the disturbed lower portion of Rocky Creek Tributary 1 located within the assessment area. Note the orange flagging indicating the High Water Mark of the creek.

May 25, 2010

4.4 Wildlife Trees

The previous logging activity and clearing and subsequent young forest which occurs throughout the assessment area has resulted in a general lack of suitable Wildlife Trees. A total of one Wildlife Tree was marked with blue ribbon in the field (Photo 16; Figures 2). Wildlife Trees were described as such if there was evidence of use, either in the form of cavity nests, woodpecker feeding sign or perching. The one Wildlife Tree flagged is directly adjacent to the upper portion of Rocky Creek Tributary 1 located in the southern portion of assessment area. This tree will be protected due to the 10 m Streamside Protection and Enhancement Area (SPEA) established for this creek following the Riparian Area Regulations (RAR) (refer to RAR report, Madrone 2010).



Photo 15. Snag displaying evidence of use from a Pileated Woodpecker, located near the upper portion of Rocky Creek Tributary 1. Blue ribbon was used to label all identified Wildlife Trees during the assessment.

5.0 DISCUSSION AND RECOMMENDATIONS

The ecological assessment has identified the most significant ecological features on site, which include riparian areas and the proximity to sensitive ecosystems and focal wildlife habitat suitability. This information can be used to help plan the locations of future development footprints and also to formulate appropriate management techniques to account for ecological attributes. Implementation of the recommendations listed below will help in establishing a workable management process for future development.

Based on the Town of Ladysmith Community Plan (2009) ecological features, particularly steep slopes, riparian areas, and Environmentally Sensitive Areas will be used to help determine suitable developable areas for new development. Steep slopes are considered to be land in their natural state that have a slope angle of 30% or greater for a minimum horizontal distance of 10 m. One of the environmental objectives listed within the community plan is to undertake environmental protection, enhancement and remediation of selected creeks, riparian habitat, wildlife corridors, steep slopes, viewscapes and other sensitive environmental features (Town of Ladysmith, 2009).

5.1 Develop Permit Areas (DPA)

The assessment area falls within two Development Permit Areas (DPA) according to the Town of Ladysmith Community Plan (2009) – refer to Figure 2 and Appendix IV.

- Development Permit Area 4 Multi-Family Residential (DPA 4), and
- Development Permit Area 6 Environmentally Sensitive Areas (DPA 6).

Due to the scope of this project only DPA 6 will be discussed in further detail. DPA 6 occurs over the northern portion of the assessment area adjacent to Rocky Creek.

DPA 6 areas are designated for the purpose of the protection of the natural environment, its ecosystems and biological diversity; and for the protection of development from hazardous conditions. The following justification and guidelines for DPA 6 are taken directly from the Town of Ladysmith Community Plan (2009).

Justification:

"Ladysmith contains a number of significant watercourses and estuaries. These environmentally sensitive areas have been identified through a series of environmental inventories and assessments conducted by the Town of Ladysmith. Rocky Creek, Holland Creek, Heart Creek, Russell Creek, and Stocking Creek to the south, each represent natural environments that should be afforded protection from development. Each of the creeks are situated within broader riparian corridors, often characterized by steep slope ravines with mature vegetation. They are also fish-bearing watercourses (including salmonid habitat) which are linked to the ocean estuaries and critical for species propagation. Woodland and rock outcrop ecosystems have also been identified in areas of the community. In the past, development has



been allowed to encroach in portions of these natural environments and steep slope hazard areas. Drainage for stormwater and erosion impacts from development adjacent to these environmentally sensitive areas is also of concern. The objective of this designation is to ensure protection of natural watercourses and their riparian corridors, estuaries, and terrestrial ecosystems designated as DPA 6 within Ladysmith" (Town of Ladysmith, 2009).

Guidelines:

- a) "No alteration of land or vegetation within the Development Permit Area shall be undertaken:
 - Without a Development Permit issued pursuant to this section;
 and
 - This does not restrict owners or occupants of existing structures or landscaped features that now encroach into a DPA 6 area from continuing to use them.
 - A Development Permit is required to build new structures or extensions to existing structures within DPA 6.
- b) Contrary to the terms of a Development Permit issued pursuant to his section.
 - For the purposes of these guidelines, environmentally sensitive areas include: Rocky Creek, Holland Creek, Heart Creek, Russell Creek and Stocking Creek, and their estuaries, which are referred to as the watercourses, as well as terrestrial ecosystems that include significant woodland vegetation and rock outcrop features as identified by environmental inventory or assessment.
- c) Environmentally Sensitive Areas for watercourses are determined in accordance with the provincial "Streamside Protection Town of Ladysmith 61 'Reflecting On Our Future' Community Plan Regulation" of the Fish Protection Act, as outlined in Table 7 of this Plan. Boundaries of Environmentally Sensitive Areas are to be more specifically located by a BC Land Surveyor.
- d) Environmentally Sensitive Areas within DPA 6 shall be maintained free of development and preserved in a natural condition.

- May 25, 2010
- e) Encroachment of development into a DPA 6 area is discouraged unless absolutely necessary, with the onus on the proponent to demonstrate the need for any encroachment.
- f) Where development in a DPA 6 area is deemed necessary, the development will:
 - Take a form that minimizes the area of encroachment into and impact on the area.
 - Be located so as to cause the least impact on the environmental values of the area.
 - Be conducted at the time of year and in a method that minimizes the environmental impact on the area.
- g) No person shall do anything that would, directly or indirectly, foul, obstruct or impede a watercourse.
- h) Drainage from development on lands adjacent a DPA 6 area shall be accommodated on site and directed away from ravine slopes of watercourses.
- i) Any development will prevent the release of sediment to any watercourse, storm sewer or overland or development that creates instability of a stream bank. An erosion and sediment control plan may be required as part of development approval.
- j) The municipality will encourage dedication of Environmentally Sensitive Areas for conservation purposes, and at minimum a dedication of public access to watercourses and through riparian corridors.
- k) Watercourses shall remain above ground and in natural channels. They shall only be enclosed where crossed by highways roads. Clear span bridges are the preferred method of crossing the watercourses" (Town of Ladysmith, 2009).

Based on the above justification, guidelines and our field visit, we recommend that the northern portion of DPA 6, slopes and rock outcrops facing Rocky Creek, should remain intact to maintain connectivity to the creek and avoid encroachment into the streamside enhancement and protection area.

5.2 Protection of Ecosystems and Riparian Areas

The majority of the assessed area has been impacted by previous logging and clearing activities and are not considered to be undisturbed, or functioning, red-listed ecosystems. However, if portions of the larger intact forest stands (Polygons 1, 2, 3, 5 and 7), were left intact, especially areas connecting to riparian areas, they may be

able to act as recruitment sites for rare ecosystem representation. Furthermore, the riparian area within the assessment area, especially the upper portion of Rocky Creek Tributary 1, represents an important habitat type. Fish are likely not present within this creek due to the lack of habitat attributes and numerous culverts (some of which are gated) along its length. However, the riparian area and creek still provide habitat attributes for a range of wildlife species.

Of most importance are Polygons 1 and 2 which are the least disturbed polygons in the assessment area and both contain portions of the dry, rocky outcrop forest types which are important environmentally sensitive ecosystems as per DPA 6. Also, the northern portion of Polygon 1 contains steep rocky slopes adjacent to Rocky Creek. A portion of this area will have to be left intact as the SPEA for Rocky Creek enters into the assessment area on these slopes. Furthermore, Polygon 3 contains Rocky Creek Tributary 1 which will have a 10 m SPEA which must also remain intact. Protection measures for the riparian areas are further described in the RAR report completed for the assessment area (Madrone, 2010).

It is most important to keep intact continuous forest stands where possible to sustain connectively and wildlife use. Our recommendations include maintaining the northern portion of DPA 6, including the slopes and rock outcrops facing Rocky Creek, as well as the riparian areas to maintain connectivity between these important areas.

5.3 Controlling Invasive Species

The occurrence of invasive plant species such as Scotch broom, Himalayan blackberry, evergreen blackberry, English holly and non-native grasses were noted during the assessment. As Scotch broom tends to encroach on disturbed areas (e.g., recently developed areas), it is important to remove this plant where it is found to prevent it from becoming established on the property in the future. Once established, it becomes very hard to eradicate Scotch broom, as its seeds can remain viable in the soil for up to 80 years. Himalayan and evergreen blackberry should be removed by pulling it out of the ground, as cutting the stem anywhere usually encourages vigorous re-growth. While the removal of invasive species such as Scotch broom and blackberry is not a process that is required during the property development phase, the implementation of a removal program is recommended in the future to help prevent the spread of these species. Spread of these species would be particularly degrading to adjacent natural ecosystems ecosystems.

5.4 Rare Plant Surveys

No background rare plants observation records occur for the assessment area and no rare plants were observed during the field assessment. It should be noted, however, that an intensive rare plant survey was not completed due to the timing of the assessment being early in the growing season. Rare plant potential for the assessment area is considered low.

5.5 Breeding Bird Surveys

Due to the scope of this project and lack of development activities at this time, breeding bird surveys were not completed. However, migratory birds have been protected in Canada since 1917 with the Migratory Birds Convention Act. This act was updated and amended in 1994. The Act was designed to protect birds (including eggs and embryos), their nests and habitat, and it applies to the activities of all organizations, industries, and individuals, in order to avoid disturbing and destroying migratory birds. Development activities taking place during the breeding season have the potential of stressing or harming birds; affecting their breeding and nesting success.

Under the Act, no disturbance to nests or nesting birds is allowed during breeding and nesting period, except under authority of a permit (subsection 5(9), Migratory Bird Regulation). Generally, breeding and nesting period in British Columbia is from May 1 to July 31, depending on species and seasonal climate.

Furthermore, protection of birds and their eggs are protected year round (both directly and indirectly) by provincial legislation. Section 34 of the provincial Wildlife Act states:

A person commits an offence if the person, except as provided by regulation, possesses, takes, injures, molests, or destroys:

- (a) A bird or its egg.
- (b) The nest of an eagle, peregrine falcon, gyrfalcon, osprey, heron, or burrowing owl.
- (c) The nest of a bird not referred to in paragraph (b) when the nest is occupied by a bird or its egg.

In this regard, "nest" is defined as "a structure, or part of a structure, prepared by or used by an animal of the class Aves to hold its eggs or offspring".



Therefore, we recommend that breeding bird surveys be completed during the recommended period (May 1 and July 31) if development is to occur in the future during this timeframe.

5.6 Wildlife Trees

Only one Wildlife Tree was marked in the field, included in Figures 2 and represents a tree that offers important value to wildlife. This tree will ultimately be protected by the 10 m SPEA on Rocky Creek Tributary 1 according to the RAR (refer to Madrone, 2010). However, as a detailed search of the property was not conducted for all Wildlife Trees any additional trees with evidence of use, either in the form of cavity nests, woodpecker feeding sign or perching should be retained, although onsite safety concerns associated with dead or dying trees should be taken into account.

Prepared by:

Reviewed by:

Tripp

R.P. Bio #1258

Jackie Churchill, M.Sc., A.Sc.T, R.P.Bio.

lacqueline A Churchill

PP BIC

CAB

Tania Tripp, M.Sc., R.P.Bio.

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APPENDIX I

PERTINENT LEGISLATION CONCERNING RARE SPECIES

Federal Species at Risk Act (SARA)

SARA is federal legislation that aims to protect species at risk from becoming extinct or lost from the wild. It covers all wildlife species listed as being at risk nationally (including critical habitats) by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). Compliance to the act generally applies to Federal Lands, although compliance of private properties is applicable in some cases. Volunteer compliance is encouraged.

G1, N1, S1: Critically Imperiled on a global (G), national (N) or provincial (S) scale. Especially susceptible to extirpation or extinction. Occurrences: 5 or less.

G2, N2, S2: Imperiled. Very susceptible to extirpation or extinction. Occurrences: 6-20.

G3, N3, S3: Vulnerable. Found only in a restricted range (even if abundant at some locations), or susceptible to extirpation or extinction. Occurrences: 21 to 100.

G4, N4, S4: Apparently Secure. Uncommon but not rare, and usually widespread in the province. Occurrences: more than 100 existing.

Federal Ranking System

COSEWIC assesses the status of wild species in Canada. The application of ranking criteria by COSEWIC describes the relative condition of a particular species and gives some indication as to the likelihood of extinction. For example, a species that is "Endangered" faces imminent extirpation or extinction; a species that is "Threatened" is likely to become endangered if limiting factors are not reversed (Table A). Species ranked as G1 are considered of greatest risk for global extinction, and are therefore of highest management priority.

Table A. Federal Species at Risk Ranking and Definitions.

Rank	Description
X – Extinct	Species no longer exists.
XT - Extirpated	Species no longer exists in Canada, but it still occurs elsewhere.
E - Endangered	Species is facing imminent extirpation or extinction.
T - Threatened	Species is likely to become endangered if limiting factors are not reversed
SC - Special Concern	Species that are sensitive to human activities and natural events, but are not considered to be Endangered or Threatened.
DD - Data Deficient	Species with inadequate information to make direct / indirect assessment.
NAR - Not at Risk	Species that have been evaluated, but are considered not to be at risk.

Provincial Rare Element Ranking

Rare and endangered plants, plant communities, and animals in British Columbia have been rated by both provincial and federal classifications.

The B.C. system uses three "lists", associated with a colour, to indicate degree of rarity. The Red List includes any indigenous native species, subspecies, or element (e.g. plant community) considered to be extirpated, endangered, or threatened in B.C. Extirpated species no longer exist in the wild in B.C., but do occur elsewhere. Endangered species are extremely rare, facing imminent extirpation or extinction. Threatened species are likely to become endangered if limiting factors are not reversed. The Blue List includes any rare indigenous species or subspecies (taxa) considered to be of special concern (vulnerable) in British Columbia. Taxa are of special concern because of characteristics that make them particularly sensitive to human activities or natural events. Blue-listed taxa are at risk, but are not extirpated, endangered or threatened. The Blue list also includes species that are generally suspected as being vulnerable, but for which information is too limited to allow designation in another category. The Yellow list includes species that are apparently secure and not at risk of extinction. Unless otherwise indicated as Blue or Red, a plant is considered to be on the Yellow list.

Provincial Ranking System

Within BC, the Conservation Data Centre (CDC) is responsible for assigning provincial status of indigenous species. The CDC is a branch of the Ministry of Water, Land and Air Protection (MWLAP). The coding is by colour, with red indicating species at greatest risk (threatened and endangered species), and yellow indicating the lowest level of risk (Table B).

Table B. Provincial Ranking System and Definitions.

Rank	Description
Yeilow List	Indigenous species, subspecies and natural plant communities deemed not to currently be at risk in B.C.
Blue List	Indigenous species, subspecies and natural plant communities of Special Concern in B.C.
Red List	Indigenous species, subspecies and natural plant communities that are extirpated, endangered or threatened in B.C. These species either have, or are candidates for, official extirpated, endangered, or threatened status in B.C.



APPENDIX II

STANDARDIZED STRUCTURAL STAGES

(As per "Table 3.3" from the Standard for Terrestrial Ecosystem Mapping in British Columbia, Resources Inventory Committee, 1998b.)

Structural Stage	Description
	ges or environmentally induced structural development
1 Sparse/bryoid	Initial stages of primary and secondary succession; bryophytes and lichens often dominant, can be up to 100%; time since disturbance less than 20 years for normal forest succession, may be prolonged (50–100+ years) where there is little or no soil development (bedrock, boulder fields); total shrub and herb cover less than 20%; total tree layer cover less than 10%.
Substages	
1a Sparse	Less than 10% vegetation cover;
1b Bryoid	Bryophyte- and lichen-dominated communities (greater than ½ of total vegetation cover).
Stand initiation stage	es or environmentally induced structural development
2 Herb	Early successional stage or herbaceous communities maintained by environmental conditions or disturbance (e.g., snow fields, avalanche tracks, wetlands, grasslands, flooding, intensive grazing, intense fire damage); dominated by herbs (forbs, graminoids, ferns); some invading or residual shrubs and tress may be present; tree layer cover less than 10%, shrubby layer cover less than or equal to 20% or less than 1/3 of total cover; time since disturbance less than 20 years for normal forest succession; may herbaceous communities are perpetually maintained in this stage.
Substages	
2a Forb- dominanted	Herbaceous communities dominated (greater than ½ o the total herb cover) by non-graminoid herbs, including ferns.
2b Graminoid- dominated	Herbaceous communities dominated (greater than ½ of the total herb cover) by grasses, sedges, reeds, and rushes.
2c Aquatic	Herbaceous communities dominated (greater than ½ of the total herb cover) by floating or submerged aquatic plants; does not include sedges growing in marshes with standing water (which are classed as 2b).
2d Dwarf shrub	Communities dominated (greater than ½ of the total herb cover) by dwarf woody species such as <i>Phyllodoce empetriformis</i> , Cassiope mertensiana, Cassiope tetragona, Arctostaphylos arctica, Salix reticulata, and Rhododendron lapponicum. (See list of dwarf shrubs assigned to the herb layer in the <i>Field Manual for Describing Terrestrial Ecosystems</i>).
3 Shrub/Herb	Early successional stage or shrub communities maintained by environmental conditions or disturbance (e.g., snow fields, avalanche tracks, wetlands, grasslands, flooding, intensive grazing, intense fir damage); dominated by shrubby vegetation; seedlings and advance regeneration may be abundant; tree layer cover less than 10%; shrub layer cover greater than 20% or greater than or equal to 1/3 of total cover.
Substages	
3a Low shrub	Communities dominated by shrub layer vegetation less than 2 m tall; may be perpetuated indefinitely to environmental conditions or repeated disturbance; seedlings and advance regeneration may be abundant; time since disturbance less than 20 years for normal forest succession.
3b Tall shrub	Communities dominated by shrub layer vegetation that are 2–10 m tall; may be perpetuated indefinitely by environmental conditions or repeated disturbance; seedlings and advance regeneration may be abundant; time since disturbance less than 40 years for normal forest succession.

Structural Stage Stem exclusion stage	Description
4 Pole/Sapling	Trees greater than 10m tall, typically dense stocked, have overtopped shrub and herb layers; younger stands are vigorous (usually greater than 10–15 years old); older stagnated stands (up to 100 years old) are also included; self-thinning and vertical structure not yet evident in the canopy – this often occurs by age 30 in vigorous broadleaf stands, which are generally younger than coniferous stand at the same structural stage; time since disturbance ins usually less than 40 years for normal forest succession; u to 100+ years for dense (5,00015,000+ stems per hectare) stagnant stands.
5 Young Forest	Self-thinning has become evident and the forest canopy has begun differentiation into distinct layers (dominant, main canopy, and overtopped); vigorous growth and a more open stand than in the pole/sapling sate; time since disturbance is generally 40–80 years but may begin as early as age 30, depending on tree species and ecological conditions.
Understorey reinitiat	
6 Mature Forest	Trees established after the last disturbance have matured; a second cycle of shade tolerant trees may have become established; understories become well developed as the canopy opens up; time since disturbance is generally 80–140 years for biogeoclimatic group A ⁵ and 80–250 years for group B ⁶ .
Old-growth stage	
7 Old Forest	Old, structurally complex stands composed mainly of shade-tolerant and regenerating tree species, although older seral and long-lived trees from a disturbance such as fire may still dominate the upper canopy; snags and coarse woody debris in all stages of decomposition typical, as are patchy understories; understories may include tree species uncommon in the canopy, due to inherent limitations of these species under the given conditions; time since disturbance generally greater than 140 years for biogeoclimatic group A ⁵ and greater than 250 years for group B ⁶ .



APPENDIX III

WILDLIFE SUITABILITY RATINGS

Dossier 10.0082

Wildlife Suitability Ratings for Malone Road, Ladysmith Ecological Assessment

	Habitat Suitability Rating (RISC 1999) (Plot Number)						
Focal Species		2	3	4	5	6	7
Red Listed							
Marbled Murrelet (nesting habitat)		5	5	5	5	5	5
Northern Goshawk (nesting habitat)	5	5	5	5	5	5	5
Peregrine Falcon – anatum subspecies (nesting habitat)	6	6	6	6	6	6	6
Sharp-tailed Snake (security habitat)	5	5	4	4	4	5	5
American Water Shrew (breeding habitat)	5	5	5	6	6	5	5
Keen's Long-eared Myotis (roosting habitat)	5	5	5	5	5	5	4
Blue Listed							
Band-tailed Pigeon (nesting habitat)	4	4	4	5	5	4	4
Western Screech Owl (nesting habitat)	5	5	5	5	5	5	5
Northern Pygmy Owl (nesting habitat)	5	5	5	5	5	5	5
Great Blue Heron (nesting habitat)	5	5	5	5	5	5	5
Green Heron (nesting habitat)	5	5	5	5	5	5	5
Peregrine Falcon – pealei subspecies (nesting habitat)	6	6	6	6	6	6	6
Townsend's big-eared Bat (roosting habitat)		5	5	5	5	5	4
Ermine	5	5	5	6	6	5	5
Red-legged Frog						1	
Breeding habitat	6	6	6	6	6	6	6
Forage/security habitat	5	5	5	6	6	5	5
Yellow Listed							
Bald Eagle (nesting habitat)	5	5	5	5	5	5	5
Black Bear							
spring/summer forage habitat	3	3	4	4	4	3	3
Winter denning habitat		6	6	6	6	6	6
Columbian Black-tailed Deer						1	-
spring/summer forage habitat		4	4	4	4	4	3
winter thermal/security habitat		4	3	3	3	4	3

Note: A rating of 1 indicates ideal habitat, whereas a rating of 6 indicates completely unsuitable habitat, as per RISC 1999 standard.

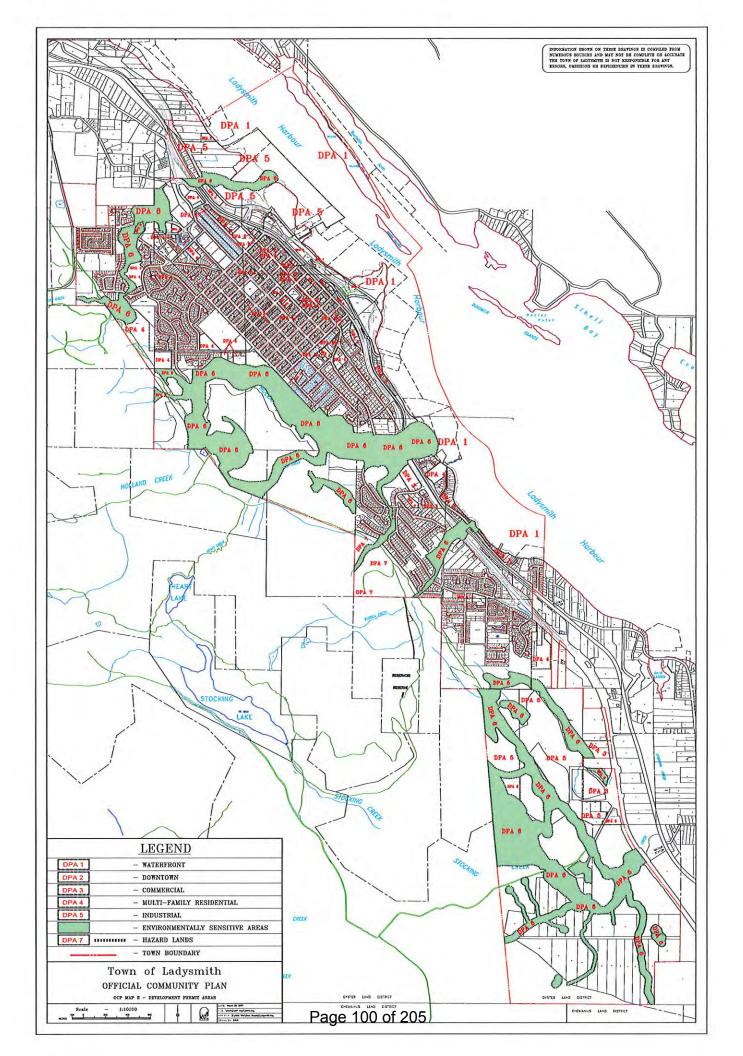




APPENDIX IV

Town of Ladysmith DPA's

Dossier 10.0082



D. R. Clough Consulting

Fisheries Resource Consultants 6966 Leland Road Lantzville B.C. V0R 2H0 Ph/fax: 1-250-390-2901, email: drclough@shaw.ca

April 22, 2020

Attn: Chris Sharpe Land owner, Malone Road chris.sharpe@shaw.ca

RE: Environmental Review End of Malone Road Property, Ladysmith, BC.

Dear sir,

Introduction:

There is an application into the Town of Ladysmith to have this property rezoned. As part of the rezoning, the town has asked for clarification on environmental aspects pertaining to the new zoning.

- review the past environmental assessment and confirm it applies to the current zoning
- confirm the development plans includes protection of the environmental areas rocky outcrops, wildlife trees and riparian areas.

Methods:

The property is Rem A, Plan VIP 73132 District Lot 126 Oyster District. PID 025-218-280. A site inspection was conducted in March 17, 2020 by Dave Clough RPBio with the property owner. The environmental features such as rocky outcrops and stream riparian areas were inspected.

Results:

A review of the property confirmed there had been no significant changes to the property since the 2010 assessment.

Roadways/trails: The property has a gravel road running east to west from Malone Road. There is an existing cross culvert in the road for Tributary 1. There is an over growing logging road being used as a foot trail at the north end along the edge of Rocky Creek. These attributes do not appear to have changed appreciably.

Drainages: the Madrone (2010) report identifies three waterways; Tributary 1, & 2 and Rocky (Tyee) Creek. Tributary 1 on the south was flowing through a culvert under the property access road then to the gate where it runs off Malone Road into a manhole. Water flow was up after recent rains. There was no signs of overflowing or changes to the channel.

¹ Madrone Environmental Services, May 25, 2010, Ecological Assessment Malone Road, Ladysmith B.C.

Tributary 1 was dry. This ephemeral channel is on the west border and heads into Rocky Creek over a steep bank. Rocky Creek was flowing outside the north property line. This channel is braided and runs along a 10m wide flood plain. It has indications the 3-4 m wide channel moves laterally across the floodplain due to instability indicators of gravel and log debris from historic logging disturbance. Since the 2010 evaluation, there are indications the channel has shown some recovery of instability with trees and shrubbery establishing on old meanders.

Terrestrial Ecosystem: Overall, the Coastal Douglas Fir eco-zone has continued to grow from its last harvest. The invasive plants identified in the 2010 report as a concern (i.e. Himalayan Blackberry) are diminished by the shade of 10 years tree growth. The site has had no detected significant disturbance such as fire, logging or disease. There are likely some new foot trails developed in the 10 years; one was found running north-south connecting gravel roads. The route was opportunistic and used existing clear areas with no noticeable vegetation removal.

Rock Outcrops: identified in the Madrone report as well as by the Town of Ladysmith planning department as preferential park areas. There is a small rock outcrop along a small ridge line that runs north to south through the property. There was one opening approximately 5.0 by 5.0 m in the central area of the property, this area has been identified as a Park Area on the property plan (Fig. 1).

Park Areas: The four Park areas were inspected. They include the higher value areas identified in the Madrone Report.

- Southeast Park- protects the riparian area of the lower segment of Tributary 1
- Southwest park protects the upper riparian area of Tributary 1
- Northwest Park- protects the largest rock bluff area
- Northeast park protects the riparian area of Rocky Creek

Wildlife Habitat: A wildlife tree in the Madrone report will be protected in the Park/riparian reserve area of tributary 1. In the March 2020 walk, there were no significant wildlife observations; the property had at least three groups walking or riding bikes during the 2 hour walk. Large wildlife and many birds are very likely disturbed by the human activity reducing our chances.

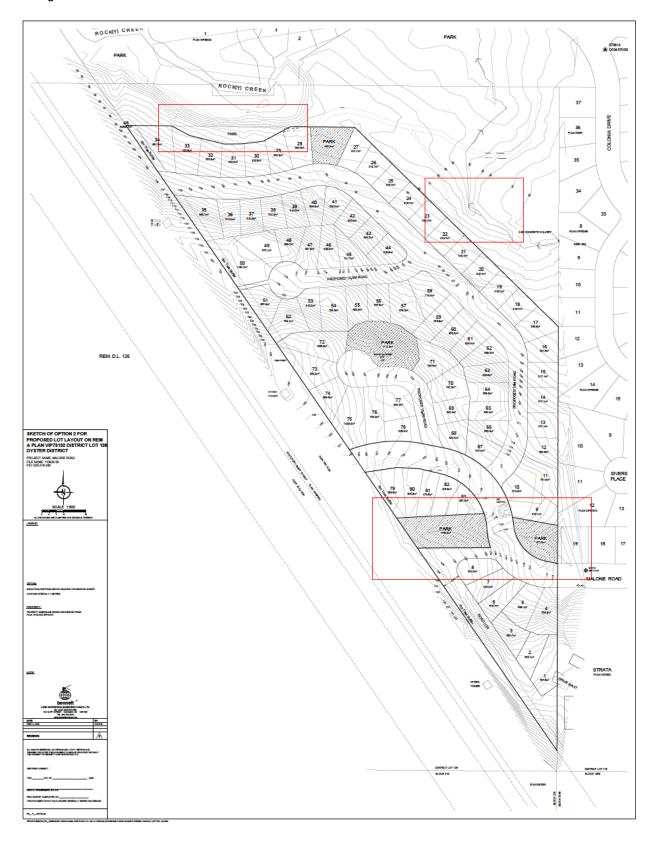
Conclusions

The condition of the property has not changed for the worse in 10 years since the Madrone assessment. The trees are taller, there are less invasive species and Rocky Creek channels is more entrenched. The development has accommodated the environmental features identified in the report.

Regards

Dave Clough, RPBio

Figure 1 – Site Plan Malone Road with Park Areas.









Strathcona Forestry Consulting strathcona.fc@shaw.ca

Wildland Urban Interface Wildfire Hazard Assessment: End of Malone Road Rezoning Application Town of Ladysmith



<u>Prepared for:</u> Mr. Chris Sharpe

Attn: chris.sharpe@shaw.ca

Prepared by:

Margaret Symon, RPF PCP LFR Strathcona Forestry Consulting PO Box 387 Stn. Mn. Duncan BC V9L 3X5 strathcona.fc@shaw.ca C 250 715-6983

22 February 2020



Wildfire Interface Hazard Assessment: End of Malone Road Rezoning Application

Executive Summary

In accordance with the Town of Ladysmith's Development Approval Bylaws, Mr. Chris Sharpe retained Strathcona Forestry Consulting to conduct a wildfire interface assessment of property proposed for rezoning for residential development at the end of Malone Road in Ladysmith.

Assessment of the current wildland urban interface (WUI) / wildfire threat rating at the subject property is High. Contributing factors for the current rating include the extent and continuity of woody fuels at the site and in surrounding lands, hilly terrain, and present lack of fireflow and access. Under the provincial Wildfire Threat Rating system, ratings must be moderate or less to be considered acceptable.

This report provides FireSmart recommendations for vegetation management, construction options, and infrastructure improvements. In my professional opinion, if the recommendations contained in this report are followed during planning and development of the subject proposal, the risk of wildfire can be reduced to ensure the safety of the intended development.

Fire prevention and protection in the interface zone are ongoing processes. Long-term implementation of FireSmart mitigation is essential to ensure protection for life, property, and ecological processes in the Town of Ladysmith's wildfire interface zone.



Background: In accordance with the Town of Ladysmith's Development Approval Bylaws, Mr. Chris Sharpe retained Strathcona Forestry Consulting to conduct a wildfire hazard assessment of a development proposal at the end of Malone Road.

The <u>interface</u> (wildland urban interface/wildland residential interface) describes any area where combustible wildland fuels are found adjacent to homes or other buildings. Under Section 919.1(1) (a) of the Local Government Act, development permits may be designated where protection of Natural Hazard Lands is justified. Natural hazards, including wildfires, may put life and property, and local biodiversity, at risk if development is inappropriately situated and not well planned.

Hazard Assessment: This report describes the vegetation, terrain, and infrastructure on and around the subject property, and provides recommendations to reduce the risk of wildfire. Assessment criteria are based on Rating Interface Wildfire Threats in British Columbia (https://www2.gov.bc.ca/), FireSmart (FireSmart, Protecting Your Community From Wildfire (Second Edition. Partners in Protection Partners in Protection, 2003 (https://www.firesmartcanada.ca/), and the Home Owners FireSmart Manual (BC Edition - https://www2.gov.bc.ca/assets/gov/public-safety-and.../homeowner-firesmart.pdf). Fire behavior modeling is standardized with the Canadian Forest Fire Danger Rating System (CFFDRS). Fuel Types listed in this assessment are customized from the CFFDRS Fuel Type list for applicability in south coastal BC. Assessment complies with current BC Building Code standards, and conforms to fire hazard planning authorized by Section 3(2) of the BC Fire Services Act.

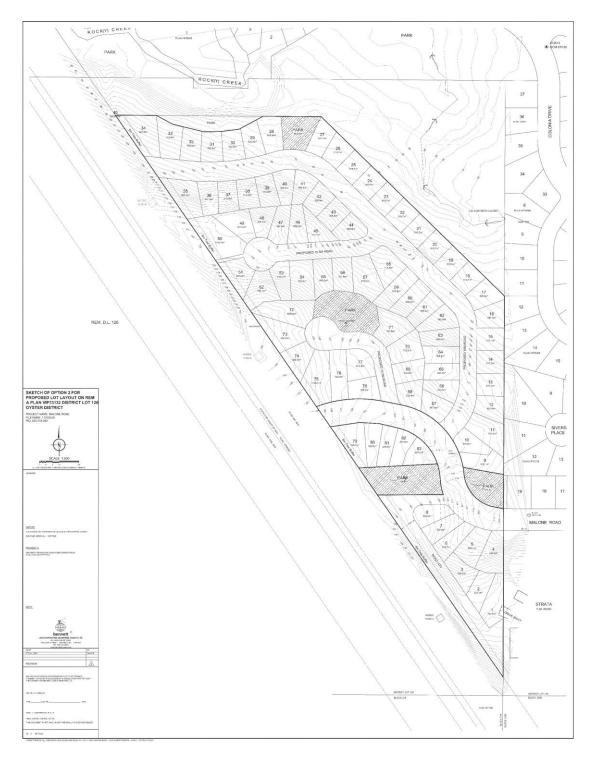
Field Inspection: Field investigation entails an analysis of the interface fire hazard that the land is exposed to, from the perspective of the general area, local site, and proposed and existing structures in the general vicinity, up to 100+ m from property boundaries, where feasible. Strathcona Forestry Consulting conducted a field visit on February 14, 2020 with Mr. Chris Sharpe. The property owner was onsite at the time.

Location and Description of Proposal: The subject proposal is located at the distal end of Malone Road, on the western fringe of the Town of Ladysmith (see Site Plan pg. 4; GoogleEarth map pg. 5; photos Appendix 3). Residential development and a school property lie along the eastern border of the proposal. Rocky Creek Park borders the northern and northeastern boundaries. A BC Hydro powerline Right-of-way (RoW0 forms the western border of the proposal. The subject proposal is located strategically between Rocky Creek Park and a trail that follows the BC Hydro RoW. The subject proposal is gated, but the property owner told me that the gate has been vandalized a number of times, and trespassers drive around the gate to access the property. At the time of the assessment, I observed several hikers walking through the property.

Undeveloped private forest lands extend to the south, north, and west.

A 6 m wide buffer of tree cover is to be maintained along the western boundary of the proposal (along the Hydro RoW).

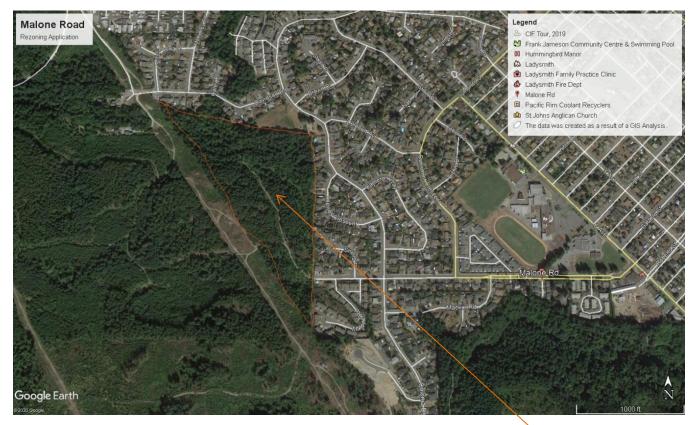




na ion 70s 10s ios 50s ios

Site Plan (provided by client)





Google Earth map – Malone Road rezoning application.



Wildfire Hazard and Risk.

<u>Wildfire hazard</u> is a process, a phenomenon or a human activity that may cause loss of life, injury, or other health impacts, property damage, social and economic disruption or environmental degradation. Wildfire hazard can be described qualitatively as a fire environment—fuel, weather, topography, and ignitions.

<u>Risk assessment</u> for wildfire and its impacts to communities considers both the likelihood of a wildfire and the potential consequence associated with that likelihood. For example, if the fuel (i.e. the hazard) ignites and the fire spreads towards the community (probability), the wildfire can become a threat to life and property (consequence) with an associated risk of loss.

Determination of the <u>wildfire hazard</u> and <u>risk</u> involves a detailed assessment of potential fire behaviour, field reviewed fuel characteristics, proximity of fuel to the community, local fire spread patterns, topographical considerations and local factors.

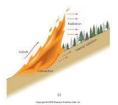
Fire Behaviour. Fire behavior predicts how forest and wildland fuels (vegetation) will burn under different conditions. Fire behaviour is governed by weather (discussed below under Biogeoclimatic Classification), topography (discussed below under Terrain), and fuel (discussed below under Vegetation).

Biogeoclimatic Classification. The subject proposal is located in the moist maritime Coastal Douglasfir moist maritime (CDFmm) biogeoclimatic subzone. Summers are warm and dry, while winters are moist and mild. Growing seasons are long, and often feature pronounced water deficits on zonal (average) and drier sites. Periods of drought are not uncommon during the fire season (April to October).

Prevailing winds in the local area are generally southeast (to southwest). Strong northerly winds associated with high pressure outflow systems can occur during summer.

Terrain. Physical site characteristics affect fire behavior by affecting ignition potential and the rate of fire spread. The site occupies moderately sloping terrain.

Fires tend to burn uphill. Developments located on upper slopes are generally at higher risk from wildfire compared to areas downslope. The subject property is located midslope; aspect is generally northeast (cooler aspect compared with southerly and westerly aspects). A fire start in the surrounding forest lands would have the propensity to spread, especially if fanned by winds. The Hydro Right-of-way could provide somewhat of a fire break providing broom encroachment is managed. Currently the broom is low and scattered.



Wildfires typically burn uphill.



Vegetation. Fire behavior predicts how forest and wildland fuels (vegetation) will burn under different conditions. Fuel hazard means the potential fire behaviour, without regard to the state of weather or topography, based on the physical fuel characteristics, including fuel arrangement, fuel load, condition of herbaceous vegetation and the presence of ladder fuels.

Benchmark vegetative fuel types developed by the Canadian Forest Fire Danger Rating System Fire Behavior System (CFFDRS) are used to forecast how a wildfire will react (cwfis.cfs.nrcan.gc.ca) (refer to Appendix 2).

The subject proposal will be cleared of vegetation in conjunction with development. Major Fuel Types represented at the subject property include:

Fuel Types				
	Description	Forest Floor & Surface Fuels	Ladder Fuels	Wildfire Behaviour (why and how a fire spreads)
C-5 Mature coniferous forest	Fragmented coniferous second-growth stand	Mostly continuous needle litter; ground cover a combination of surface fuels and needle litter. Pockets of fine fuels	Discontinuous to continuous shrub cover; discontinuous vertical crown fuel continuity; light to moderate standing downed and dead woody fuel	Moderate potential for surface fire – moderate intensity. Fuel breaks resulting from surrounding roads, cleared areas, will reduce spread of wildfire
C-1 Open stands; mossy rock outcroppings common	Continuous lichen/moss layer; woody surface fuel accumulation light and scattered (discontinuous low broom maintained by BC Hydro)	Very sparse herb /shrub cover and downed woody fuels; no trees on Hydro RoW; scattered arbutus / Fd on mossy rock outrcroppings within proposal site	Negligible on Hydro RoW; sparse at rocky moss outcroppings within the stand	Potential for surface fire in warmer months when ground surface fully exposed to heat and drying from sun

Risk of Ignition. Fire behavior is also affected by ignition risk. Risk of ignition represents the potential for fire starts. Risk of ignition could come from existing property owners residing in the local area, construction activities associated with development of the site, recreating public (nearby Rocky Creek Park and Hydro RoW, and illegal trespass (the current property owner told me that the gate has been vandalized several times; quad trails were evident around the gate).

Risk of ignition at the subject proposal and surrounding area is rated moderate to high.

Fire Spread and Intensity. Under warm, dry conditions, there is sufficient continuity of surface and ladder fuels to enable a fire to start. Dry, windy conditions would increase the rate of spread. To the east, the extent of fire spread could be limited by surrounding fuel breaks resulting from the school grounds, roads, and cleared back yards.

Spotting Potential. Spotting is a fire behavior characteristic in which sparks or embers are carried up by the wind and/or convective column and fall into other downwind fuels to ignite additional fires beyond the zone of direct ignition by the main fire (Firewise.org). During the process of combustion in a



wildland fire, a vegetation fuel is reduced to flammable vapors, soot, and ash. During the decomposition of the fuel, and before complete consumption, particles of varying size (firebrands) break away from the main fuel source and are lofted upwards by the fire's convection column.

The danger of spotting in wildland fires is that when conditions exist to loft firebrands into the air, the probability exists for multiple subsequent ignitions over a wide area depending on the intensity of the convection and the wind speed and direction. Multiple ignitions can overwhelm any firefighting force.

As was seen in the Fort McMurray wildfire (2016), fire spotting is one of the major ways that fires spread and homes are ignited and destroyed in wildland/urban interface fires. Firebrands can come down on and ignite combustible roofs, combustible items stored adjacent to homes, and other nearby combustible fuels. The resulting spot fires may go unnoticed and thus unsuppressed when an area has been evacuated of residents, when firefighters are spread too thin, or when spot fires are too numerous.

Fire spotting is related to fire danger ratings:

LOW	Fuels do not ignite readily from small firebrands. There is little danger of spotting.
MODERATE	Fires can start from most accidental causes, but with the exception of lightning fires in some areas, the number of starts is generally low. Short-distance spotting may occur, but is not persistent.
HIGH	All fine dead fuels ignite readily and fires can start easily from most causes. Short-distance spotting is common. Fires may become serious and their control difficult.
VERY HIGH	Fires start easily from all causes and spread rapidly after ignition and quickly increase in intensity. Spot fires are a constant danger. Fires burning in fine fuels may quickly develop high-intensity characteristics, such as long-distance spotting when they burn into coarse fuels.
EXTREME	All fires are potentially serious. Long-distance spotting is likely.

The maximum spotting distance in a particular fire varies according to several factors, including overall fire intensity, wind speed, fuel type, initial size of the ember when lofted up, and how rapidly it is burning (Firewise.org). Many embers burn up completely before landing, but larger embers of slow-burning fuels can keep burning for up to six minutes and travel for several kilometres.

Definitive data about spotting potential in the area are not available. If there was a fire start during high/extreme windy fire weather, there is a moderate possibility of spotting in the general area where the property is located.

Fire Protection. The subject property lies within the service area of Ladysmith Fire Rescue a volunteer fire department. The main firehall is 330 6 Ave, Ladysmith. Ladysmith Fire Rescue provides fire protection to the Town of Ladysmith, parts of Saltair and the Diamond Improvement District.

According to the Fire Chief of Ladysmith Fire Rescue (discussion, February 14, 2020), the subject proposal is within an acceptable response time. Fire department response time is the elapsed time, in



minutes, from when the first firefighting unit is dispatched to when the first fire fighting unit arrives at the emergency scene. Fire department intervention time is crucial in determining the consequences of a fire in terms of deaths, injuries, and loss of property and damage to the environment. An early aggressive and offensive primary interior attack on a working fire is usually the most effective strategy to reduce the loss of lives and property damage.

The British Columbia Building Code addresses situations where the firefighter response time 'exceeds 10 minutes in 10% or more of all calls' by requiring higher levels of non-combustible construction and reductions on allowable areas of unprotected openings. The Building Code should address Fire Department concerns.

The Fire Chief noted that several new developments are expanding west into the Town's interface.

<u>Mutual Aid</u>. Fire Departments within the Cowichan Valley Regional District operate under a mutual aid agreement with other fire departments within the region. In the case of a serious fire, mutual aid from nearby fire departments can benefit fire suppression by pooling manpower and resources (water supply, water tenders, etc.). Mutual aid may, however, not always available, especially during a wildfire interface emergency.

<u>Wildfires</u>. Ladysmith Fire Rescue automatically responds to structure fires and small, easily accessible bush fires inside their fire service protection area. The BC Wildfire Service generally responds to forested areas outside a Fire Protection Area.

<u>Water Supply</u>. An adequate and reliable water supply for firefighting is an essential part of a community's fire protection system. The Fire Underwriters Survey (FUS) Guidelines outline water specifications for fire protection. The BC Building Code governs the minimum water requirements for buildings.

In fire protection areas served by a community water system, water supply for fire protection generally consists of a piped system in common with domestic potable water.

The subject proposal will be connected to municipal water. Water main size, fire hydrant capabilities, and servicing will comply with the Fire Underwriters Survey (FUS) and the Town of Ladysmith Engineering specifications.

The development proposal is currently planning single-family homes. Development of multi-family units would require booster pumps due to the elevation gradients at the hilly site.

Access. FireSmart infrastructure and access increase the resident and firefighter safety, and facilitate quick response by firefighters. Developments should have sufficient access for emergency vehicles, including 2-way road access in and out of any site, and safe driveway accesses. FireSmart infrastructure and access increase the resident and firefighter safety, and facilitate quick response by firefighters. Ideally, developments should have sufficient access for emergency vehicles, including 2-way road access in and out of any site, and safe driveway accesses. Local government standards for



public roads generally follow the BC Building Code and Geometric Design Guide for Canadian Roads (www.tac-atc).

The subject proposal will be accessed from Malone Road, which will merge into a new road that will loop through the site. Secondary access at the northern portion of the proposal is proposed in the form of a small parking lot to facilitate continuity for hiking access from Rocky Creek Park.

Wildland Urban Interface Wildfire Threat Assessment Results: Scoring from the WUI Wildfire Threat Rating system and associated risk assessment modelling tools rate the current Wildfire Threat as "Moderate - High" at the subject property. Contributing factors for the <u>current</u> elevated rating include forest fuel loading at the subject and surrounding lands, hilly terrain, and present lack of fireflow and access. Under the provincial Wildfire Threat Rating system, high and extreme threat rating levels are unacceptable; ratings must be low or moderate to ensure a structure and/or area is safe (see Risk Rating Table next page).

Implementation of FireSmart mitigation can be expected to reduce the wildfire risk rating.

System:	Subcomponents	CURRENT ratings	Projected Ratings post- development*
MFLNRO WUI			actolopillolit
Wildfire Threat			
Assessment			
	Fire Behaviour: Fuel, Weather, Topography	High	Moderate
	Structural (includes vicinity)	Moderate (High)	Moderate
WUI Threat Class		High	Moderate
Wildfire		High	Moderate
Behaviour			
Threat Class			
Total Wildfire		High	Moderate
Threat Score			
HIRV Model	Hazard	Moderate - High	Moderate
nik v iviouei	Impact	High	Moderate
	Risk	High	Moderate
	Vulnerability	Moderate - High	Moderate
Risk of Ignition		Moderate to High	Moderate
Overall WUI		High	Moderate
Wildfire			
Hazard/Threat			
Ranking			

^{*}Projected ratings conditional upon incorporation of recommendations outlined in this report.

Risk of wildfire at the subject site is currently assessed as High (probability x consequence).



RELATIVE WILDFIRE RISK Low Moderate High Extreme

Fire Risk Classes

Low (Green): The combination of the local fuel hazard, weather influences, topography, proximity to the community, fuel position in relation to fire spread patterns, and known local wildfire threat factors make it a lower potential for threatening a community. These stands will support surface fires, single tree or small groups of conifer trees could torch/ candle in extreme fire weather conditions. Fuel type spot potential is very low, low risk to any values at risk.

Moderate (Yellow): The combination of the local fuel hazard, weather influences, topography, proximity to the community, fuel position in relation to fire spread patterns and known local wildfire threat factors make it possible that a wildfire in this area would threaten the community. Areas of matted grass, slash, conifer plantations, mature conifer stands with very high crown base height, and deciduous stands with 26 to 49% conifers. These stands will support surface fires, single tree or small groups of conifer trees could torch/ candle. Rates of spread would average between 2-5 meters/ minute. Forest stands would have potential to impact values in extreme weather conditions. Fuel type spot potential is unlikely to impact values at a long distance (<400m).

High (Orange): The combination of the local fuel hazard, weather influences, topography, proximity to the community, fuel position in relation to fire spread patterns, and known local wildfire threat factors make it likely that a wildfire in this area would threaten the community. This includes stands with continuous surface/ crown fuel that will support regular torching/ candling, intermittent crown and/or continuous crown fires. Rates of spread would average 6 -10 meters/ minute. Fuel type spot potential is likely to impact values at a long distance (400 -1 000m).

Extreme (Red): The combination of the local fuel hazard, weather influences, topography, proximity to the community, fuel position in relation to fire spread patterns, and known local wildfire threat factors make it very likely that a wildfire in this area would threaten the community. Stands with continuous surface/ crown fuel and fuel characteristics that tend to support the development of intermittent or continuous crown fires. Rates of spread would average >10 meters/ minute. Fuel type spot potential is probable to impact values at a long distance (400 -1 000m or greater). These forest stands have the greater potential to produce extreme fire behaviour (long range spotting, fire whirls and other fire behaviour phenomena.



Recommendations

Living in a fire-prone ecosystem involves taking the necessary steps to protect homes, property, and community from wildfire. Over time, FireSmart principles have shown that they are effective at reducing the risk related to losses in the most extreme wildfire conditions. Vegetation management, construction options, and infrastructure / regulatory improvements are basic tenets of the FireSmart program. Using simple strategies, developers and homeowners can contribute to increasing property, neighbourhood and community resiliency to wildfire (FireSmart BC).

Vegetation Management

Precautions During Land Clearing and Construction

- Ensure any land clearing activities are conducted in compliance with BC's Wildfire Act local bylaws.
- As per the BC Wildfire Act, if a high risk activity (i.e., land clearing) is taking place between 1 April and 31 October, the operator must keep at the activity site fire fighting hand tools, in a combination and type to properly equip each person who works at the site with a minimum of one fire fighting hand tool, and an adequate fire suppression system (onsite portable water tanker and fire fighting tools shovels, pulaskis, portable water backpacks). In addition, efforts must be made to maintain an adequate fire break between any high risk activity and areas of continuous forest to ensure a fire originating at the site does not escape the site.
- During landclearing, develop an Emergency Plan of Action, listing key contact information in case of fire and/or other emergency at the site.
- Hazard abatement (removal of slash/disposal of debris piles) must take place in compliance with Town of Ladysmith bylaws and BC's Wildfire Act.
- Ensure construction workers are made aware of the risk of fire in the interface zone, especially during dry summer weather.

FireSmart Zones - (see Appendix 1)

Priority Zone 1a: 0-1.5 m

A noncombustible surface should extend for 1.5 m around the entire home and any attachments, such as decks.

- Landscape with noncombustible landscaping materials, such as gravel, brick, or concrete in this
 critical area adjacent to the home
- Avoid woody shrubs, trees, or tree branches in this zone
- Create a noncombustible zone underneath and for 1.5 m around any trailers/vehicles
- Mitigate sheds, detached garages, and other structures to the same standards as those of the home

FireSmart Priority Zone 1: 0-10 m

Establish and maintain an environment around the home and other structures that will not support fire. Focus on fuel removal, conversion, and reduction.

Plant a low density of fire resistant plants and shrubs.

12 •



- Avoid having any woody debris, including bark mulch, as it provides potential places for fires to start
- Store items such as firewood piles, construction materials, patio furniture, tools and decorative pieces at least 10 m from the homes and any structures
- Maintain grass to a minimum of 10 cm in height

• FireSmart Priority Zone 2: 10-30 m

Extend the fuel modified area 10-30 m around all structures. Conduct FireSmart thinning, pruning, and fuel reduction strategies in this zone to reduce fuel loading.

- Thin and prune evergreen trees to reduce hazard in this area
- Within 30 m of home and structures, selectively remove evergreen trees to create at least 3 m of horizontal space between the single or grouped tree crowns, and remove all branches to a height of at least 2.5 m from the ground on the remaining evergreen trees. (For smaller evergreen trees, the general rule of thumb is to prune branches up to a third the height of the tree)
- If possible, prune the trees located up to 100 m from the homes
- Regularly clean up accumulations of fallen branches, dry grass and needles from the ground to eliminate potential surface fires

FireSmart Priority Zone 3: 30-100 m

Where fuel modification in PZ1 and PZ2 is insufficient to protect structures and/or property, thin and prune trees in order to create an environment that will not support high-intensity crown fires.

- Look for opportunities to create a fire break by creating spaces between trees and other potentially flammable vegetation
- Thin and prune overgrown trees to reduce hazard
- Regularly clean up accumulations of fallen branches, dry grass, and needles from the ground to eliminate potential surface fires

General Principles of FireSmart Landscaping

- Incorporate FireSmart landscaping by using fire-resistive, widely spaced trees, native shrubs and groundcover in combination with stone and/or water features and/or maintained lawn areas. See FireSmart Guide to Landscaping.
 - https://www.firesmartcanada.ca/resources-library/firesmart-guide-to-landscaping
- Promptly re-vegetate any areas of soil disturbed during clearing and construction with approved landscaping materials and/or native plant species to prevent encroachment from invasive plant species (i.e., broom, which is highly combustible).

Other Landscaping Strategies

As discussed with Mr. Sharpe during the site visit, retain the moss-covered rocky outcrop in the
centre of the proposal as a "natural area." In order to preserve the integrity of this feature, install
split rail fencing around it to prevent trampling and soil disturbance, which will encourage
encroachment of broom.



- The Town of Ladysmith has mandated retention of a 6 m wide buffer of trees along the western boundary of the proposal.
 - Prior to commencement of work in the area, a Danger Tree Assessment will be required
 - Surface and ladder fuels should be brushed in the buffer area under supervision of a QERP.

Construction

- Use fire-retardant roof covering assemblies rated Class A, B, or C (i.e., metal, tile, ULC- rated asphalt) and feature non-combustible siding materials (i.e., stucco, metal siding, brick, cement shingles or cementitious materials, poured concrete, or ULC-rated wood siding) on new structures. Metal, clay tile, and rated asphalt shingles are the most fire resistant roofing materials. Siding materials such as stucco, metal, brick and concrete offer superior fire resistance to wildfire. Logs and heavy timbers are a little less effective, while wood and vinyl siding offer very little protection.
 - Follow FireSmart guidelines for design, construction, and maintenance of window and door glazing, eaves and vents, and decking https://www.firesmartcanada.ca/
- Ensure structures are equipped with working smoke alarm(s).
- Do not allow fire pits.

Water Supply / Fire Protection

- Ensure water main, fire hydrant capabilities and servicing meet Town of Ladysmith specifications.
- Encourage homeowners to maintain hoses, sprinklers, and firetools (shovels, buckets) to be used in an emergency.

Access

- Ensure road and driveway access requirements meet BC Building Code and Town of Ladysmith Engineering requirements.
- Ensure address signage is clearly evident during the construction phase and at build-out.
 Letters, numbers, and symbols should be at least 10 cm high, with a 12 mm stroke, contrast with the background colour of the sign, and be reflective.
- Ensure new structures are mapped on fire department "pre-org" (fire planning) maps.

Regulatory Provisions

 Conduct follow-up assessments (at building permit) to ensure appropriate mitigation measures have been implemented.



Appendix 1. FireSmart Interface Priority Zones

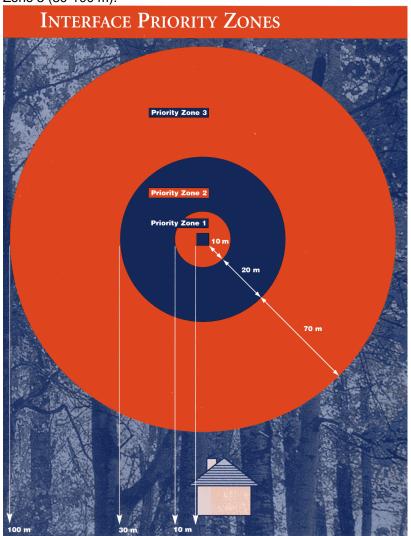
In interface areas, FireSmart advocates the establishment and maintenance of Fuel Management Zones* extending outward from structures and along access routes:

Zone 1 a (0-1.5m)

Zone 1 (0-10 m).

Zone 2 (10-30 m).

Zone 3 (30-100 m).



(FireSmart, 2003; updated 2019)

Zone 1a (0-1.5 m): This is the noncombustible zone, where it is very important not to have any combustibles next to buildings.

Zone 1 (0-10 m): The main objective of vegetation management is to create an environment that will not support fire. Vegetation management focuses on fuel removal, conversion, and reduction.

Zone 2 (10-30 m): Where treatment in PZ 1 is not sufficient to significantly reduce the fire hazard due to fuel loading, extend the fuel modified area with a variety of thinning and pruning actions.

Zone 3 (30-100 m): Where fuel modification in PZ1 and PZ2 is insufficient to protect structures and/or property, FireSmart advocates treatment in Priority Zone 3 with a variety of thinning and pruning actions in order to create an environment that will not support high-intensity crown fires.

15 •

^{*}Setback Zone distances may be extended depending on aspect, slope, fuel loading, etc.



Appendix 2. Generic Fuel Types (adopted from CFFDRS).

Fuel Type	Description	Wildfire Behaviour Under High Wildfire Danger
Coniferous:		Ingil IIIani Dangor
C1	Terrestrial herbaceous ecosystem: mossy rock outcroppings	High potential for surface fire, especially if high moss/lichen
C2	Dense regeneration to pole-sapling (immature) forest with crowns almost to ground	High potential for crown fires; low to very high fire intensity and rate of spread
C3	Fully stocked, mature forest, crowns separated from ground; sparse understorey	Surface and crown fire, low to very high fire intensity and rate of spread
C4	Dense, pole-sapling (immature) forest, heavy standing dead and down, dead woody fuel; continuous needle litter; continuous vertical crown fuel continuity	High potential for crown fires, high to very high fire intensity and rate of spread
C5	Moderately well-stocked, mature forest, moderate dense understorey crowns well separated from ground; continuous needle litter	Low to moderately fast-spreading, low to moderate intensity surface fire
C6	Fully stocked conifer plantation; absent understorey; tree crowns separated from ground; continuous needle litter	Surface fire may spread rapidly to become high intensity fire with high rate of spread
C7	Open, mature coniferous stand; uneven-aged; discontinuous understorey; tree crowns mostly separated from ground	Surface, torching, rarely crowning (except on steeper slopes), moderate to high intensity and rate of spread
D (Deciduous)	Moderately well-stocked deciduous stands; moderate medium to tall shrubs and herb layers D-1 Leafless D-2 In leaf	Typically a surface fire; low to moderate rate of spread and fire intensity
M	Moderately well-stocked mixed stand of conifers and deciduous tree species; moderate shrub understorey;	Surface, torching and crowning; moderate to very high intensity and spread rate (varies with slope and % vegetation cover)
(Mixed Forest)	conifer crowns extend nearly to ground M-1 Leafless M-2 in Leaf	Fine fuel % and cedar foliage retention will result in faster ignition and spread
S (Slash)	Slash from logging and land clearing	Rapid spreading, moderate to high intensity surface fire
01-Long	Continuous standing grass – fuel loading is 0.3 kg/m2; scattered trees 01-a Matted 01-b Tall	The taller, and more cured the grass, the more rapid spread; low to moderate intensity surface fire
01-Short	Continuous human modified short grass	Typically low rate and spread and low fire intensity.



Appendix 3. Photos



Access gate at west end of Malone Rd. Right: view looking east. Left: view looking west.



Old logging roads traverse the property.



View from the BC Hydro RoW looking northeast towards the subject proposal.





A 6 m tree buffer is to be retained on the western boundary of the proposal along the BC Hydro RoW



A moss-covered rocky outcropping in the centre of the subject proposal will be retained.



Residential development and a school extend southeast from Rocky Creek Park.



Limitations

This report provides an assessment of WUI hazard and risk. Evaluation is based on professional judgment. The investigation involved a field observation. Recommended treatment pertains only to the particular site as disclosed at the time of inspection. The report was prepared considering site-specific circumstances and conditions. It is intended only for use by the client for the purpose for which it was commissioned and for use by local government regulating the activities to which it pertains.

STAFF REPORT TO COUNCIL

Report Prepared By: Julie Thompson, Acting Senior Planner

Meeting Date: August 18, 2020

File No: **ZBL 20-01**

RE: **ZONING BYLAW AMENDMENT – 1148 ROCKY CREEK ROAD**

RECOMMENDATION:

That Council adopt "Town of Ladysmith Zoning Bylaw 2014, No. 1860, Amendment Bylaw (No. 31) 2020, No. 2040".

EXECUTIVE SUMMARY:

The purpose of Bylaw 2040 is to allow Cannabis Cultivation and Cannabis Processing uses on the subject property, 1148 Rocky Creek Road. Bylaw 2040 has been signed by the Ministry of Transportation and Infrastructure (MOTI) and Council is now being asked to consider adoption of Bylaw 2040.

PREVIOUS COUNCIL DIRECTION:

Resolution # &	Resolution Details
Meeting Date	
CS 2020-161 June 2, 2020	That Council proceed with first and second reading of Town of Ladysmith Zoning Bylaw 2014, No. 1860, Amendment Bylaw (No. 31) 2020, No. 2040. Motion Carried
CS 2020-132 June 2, 2020	That Council waive the requirement for a public hearing for Town of Ladysmith Zoning Bylaw 2014, No. 1860, Amendment Bylaw (No. 31) 2020, No. 2040 as per Section 467 of the Local Government Act. Motion Carried OPPOSED: Councillors Jacobson and Paterson
CS 2020-204	That Council:
July 7, 2020	 Proceed with third reading of Town of Ladysmith Zoning Bylaw 2014, No. 1860, Amendment Bylaw (No. 31) 2020, No. 2040; and
	 Direct staff to refer Town of Ladysmith Zoning Bylaw 2014, No. 1860, Amendment Bylaw (No. 31) 2020, No. 2040 to the Ministry of Transportation and Infrastructure pursuant to section 52 of the Transportation Act.

INTRODUCTION/BACKGROUND:

On June 2, 2020 Council gave Bylaw 2040 first and second reading and waived the requirement for a public hearing as the proposal is consistent with the Official Community Plan. On July 7, 2020 Council gave Bylaw 2040 third reading and authorized that it proceed to the Ministry of



Transportation and Infrastructure (MOTI) for signature. Bylaw 2040 is now returning to Council for adoption as it has been signed by MOTI.

Bylaw 2040 amends the Light Industrial (I-1) zone on a site specific basis to allow Cannabis Cultivation and Cannabis Processing within an enclosed building on the subject property, 1148 Rocky Creek Road.

The applicant is proposing to operate a cannabis cultivation and processing facility within two enclosed buildings on the subject property, requiring standard cannabis licenses from Health Canada under the Federal *Cannabis Act* and its regulations. Cannabis uses requiring the standard cultivation and processing licenses from Health Canada are not currently permitted in the I-1 zone. The I-1 zone currently allows Cannabis Micro-Cultivation and Cannabis Micro-Processing, requiring micro licenses from Health Canada, as well as Cannabis Research and Development.

ALTERNATIVES:

Council can choose to:

- 1. Refer Bylaw 2040 to a future Council meeting.
- 2. Refer Bylaw 2040 back to staff for further review, as specified by Council.
- 3. Amend Bylaw 2040.
- 4. Defeat Bylaw 2040.

FINANCIAL IMPLICATIONS:

N/A

LEGAL IMPLICATIONS:

Pursuant to section 52 of the *Transportation Act*, the application was referred to MOTI following third reading of Bylaw 2040, as the subject property is located within 800m of a controlled access highway. MOTI has approved Bylaw 2040 with no conditions.

CITIZEN/PUBLIC RELATIONS IMPLICATIONS:

N/A

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS:

N/A

NING REPORT:
\square Low Impact Transportation
☐ Multi-Use Landscapes
☐ Local Food Systems
□ Local, Diverse Economy

ALIGNMENT WITH STRATEGIC PRIC	<u> PRITIES:</u>
□Infrastructure	⊠ Economy
☐ Community	☐ Not Applicable
□Waterfront	
I approve the report and recommen	ndation(s).
Erin Anderson, Acting Chief Admini	strative Officer
Lim Anderson, Acting Chief Admini	strative officer
ATTACHMENT(S):	
Town of Ladysmith Zoning Bylaw 2014,	No. 1860, Amendment Bylaw (No. 31) 2020, No. 2040

BYLAW NO. 2040

A bylaw to amend "Town of Ladysmith Zoning Bylaw 2014, No. 1860"

WHEREAS pursuant to the *Local Government Act*, the Municipal Council is empowered to amend the Zoning Bylaw;

AND WHEREAS Council considers it advisable to amend "Town of Ladysmith Zoning Bylaw 2014, No. 1860";

NOW THEREFORE the Council of the Town of Ladysmith in open meeting assembled enacts as follows:

(1) Schedule A – Zoning Bylaw Text of "Town of Ladysmith Zoning Bylaw 2014, No. 1860" is hereby amended as follows:

LIGHT INDUSTRIAL (I-1)

- (a) Section 12.2 (9) is hereby amended as follows:
 - i. Add a new subsection (d) to Site Specific Regulations as follows::

"d) For the *Parcel* legally described as Parcel E (being a consolidation of Lots A and B, see CA7024627) District Lot 38 Oyster District PLN EPP36585 (1148 Rocky Creek Road), *Cannabis Cultivation* and *Cannabis Processing* are permitted principal uses, subject to being contained entirely within an enclosed *Building*.

CITATION

(2) This bylaw may be cited for all purposes as "Town of Ladysmith Zoning Bylaw 2014, No. 1860, Amendment Bylaw (No.31) 2020, No. 2040"

READ A FIRST TIME	on the 2 nd	•	
READ A SECOND TIME	on the 2 nd	day of June,	2020
PUBLIC HEARING WAIVED pu	irsuant to Secti	on 464(2) of the	e Local Government Act
READ A THIRD TIME	on the 7 th	day of July,	2020
APPROVED pursuant to s. 52(3)(a) of the <i>Transp</i>	ortation Act	
	on the 30 th	day of July,	2020
ADOPTED	on the	day of ,	2020
			Mayor (A. Stone)
			Corporate Officer (D. Smith)

BYLAW NO. 2040

A bylaw to amend "Town of Ladysmith Zoning Bylaw 2014, No. 1860"

WHEREAS pursuant to the Local Government Act, the Municipal Council is empowered to amend the Zoning Bylaw;

AND WHEREAS Council considers it advisable to amend "Town of Ladysmith Zoning Bylaw 2014, No. 1860";

NOW THEREFORE the Council of the Town of Ladysmith in open meeting assembled enacts as follows:

Schedule A – Zoning Bylaw Text of "Town of Ladysmith Zoning Bylaw 2014, No. 1860" (1) is hereby amended as follows:

LIGHT INDUSTRIAL (I-1)

- Section 12.2 (9) is hereby amended as follows: (a)
 - Add a new subsection (d) to Site Specific Regulations as follows::

"d) For the *Parcel* legally described as Parcel E (being a consolidation of Lots A and B, see CA7024627) District Lot 38 Oyster District PLN EPP36585 (1148 Rocky Creek Road), Cannabis Cultivation and Cannabis Processing are permitted principal uses, subject to being contained entirely within an enclosed Building.

CITATION

This bylaw may be cited for all purposes as "Town of Ladysmith Zoning Bylaw 2014, No. (2)1860, Amendment Bylaw (No.31) 2020, No. 2040"

on the 2nd **READ A FIRST TIME** day of June, 2020 **READ A SECOND TIME** on the 2nd day of June, 2020 PUBLIC HEARING WAIVED pursuant to Section 464(2) of the Local Government Act on the 7th day of July, 2020 **READ A THIRD TIME** APPROVED pursuant to s. 52(3)(a) of the Transportation Act on the day of 2020 **ADOPTED** day of , on the 2020

Approved pursuant to section 52(3)(a) of the Transportation Act

dav of [\]

Mayor (A. Stone)

Ministry of Transportation and Infrastructure

Corporate Officer (D. Smith)

JAMIE LEIGH HOPKINS A Commissioner for taking affidavits within the Province of British Columbia 2100 Labieux Road, Nanaimo BC V9T 6E9

STAFF REPORT TO COUNCIL

Report Prepared By: Infrastructure Services **Meeting Date:** August 18, 2020

File No:

RE: Gill Road Lift Station Generator Construction Award

RECOMMENDATION:

That Council award the contract for the Gill Road Lift Station generator to David Stalker Excavating Ltd. for \$340,861.50 including GST.

EXECUTIVE SUMMARY:

Staff have tendered the construction of the Gill Road Lift Station generator. Three bids were received, with the lowest bid from David Stalker Excavating Limited.

PREVIOUS COUNCIL DIRECTION

N/A

INTRODUCTION/BACKGROUND:

Staff has completed the design and tendered the Gill Road Lift Station generator. The invitation to tender was issued on July 7, 2020, with a closing date of July 31, 2020. This project will allow operation of the lift station during power outages. Gill Road is one of three lift stations that have been prioritized for generator applications and is the most complicated of the three lift stations due to its size and proximity to residential houses.

Three tenders were received as follows:

1.	Houle Electric	\$373,916.68
2.	David Stalker Excavating Ltd	\$340,861.50
3.	Copcan Civil Ltd	\$400,799.93

ALTERNATIVES:

Council can choose to award the tender to one of the other bidders as outlined in the staff report.

FINANCIAL IMPLICATIONS;

This project is being funded from a one-time increase in Gas Tax funding and there is sufficient funds in the budget to complete this project as tendered.



LEGAL IMPLICATIONS;	
N/A	
CITIZEN/PUBLIC RELATIONS IMPLICATIONS IMPLICATIONS	ATIONS:
INTERDEPARTMENTAL INVOLVEME	NT/IMPLICATIONS:
N/A	
ALIGNMENT WITH SUSTAINABILITY	VISIONING REPORT:
☐ Complete Community Land Use	
☐Green Buildings	☐ Multi-Use Landscapes
	☐ Local Food Systems
☐ Healthy Community	☐ Local, Diverse Economy
☐ Not Applicable	
ALIGNMENT WITH STRATEGIC PRIO	RITIES:
⊠Infrastructure	☐ Economy
☐ Community	☐ Not Applicable
□Waterfront	
I approve the report and recommen	dation(s).
Erin Anderson, A/Chief Administrat	ive Officer

STAFF REPORT TO COUNCIL

Report Prepared By: Infrastructure Services **Meeting Date:** August 18, 2020

File No:

RE: WATERFRONT AREA WATERMAIN INSTALLATION

RECOMMENDATION:

That Council:

- 1. Direct staff to construct a new watermain from the French Street watermain terminus adjacent to Oyster Bay Drive to the northeast end of the Machine Shop building for an estimated cost of \$371,000; and
- 2. Obtain funding for this project from the Water Reserve and that the 2020-2024 Financial Plan be amended to reflect this change.

EXECUTIVE SUMMARY:

Water service for both the Machine Shop and Ladysmith Maritime Society (LMS) is currently provided by a 150 cast iron main that was constructed in the early 40's. The main is now leaking and needs to be replaced. The Waterfront Area Plan Servicing Study proposes that this main be abandoned and replaced with a main connection from French Street. The cost to do this work are estimated at \$371,000.

PREVIOUS COUNCIL DIRECTION

N/A

INTRODUCTION/BACKGROUND:

Water service for both the Machine Shop and LMS is currently provided by a 150 cast iron main that is now leaking. Staff have tried to repair the leak, but due to the pipe's condition more leaks have developed. The pipe has exceeded its functional lifespan and needs replacement.

Replacing this main is complicated as the terminus of the cast iron section is just north of the highway requiring works on Island Corridor Foundation lands including a rail crossing. The Waterfront Area Plan Servicing Study includes abandoning this main and contemplates a main connecting at the terminus of the French Street watermain just north of the highway and extending along Oyster Bay Drive to the Machine Shop. The cost to do this work is estimated at \$371,000. A detailed plan showing the existing and proposed watermains is attached to this report.



ALTERNATIVES:

Council can choose to direct staff to replace the existing 150 diameter cast iron main in place.

FINANCIAL IMPLICATIONS;

The cost to complete this work is estimated to be \$371,000. Staff propose that this project be funded from the Water Reserve. As the project was not contemplated in the 2020 Financial Plan, an amendment to the Plan is required.

LEGAL IMPLICATIONS;

N/A

CITIZEN/PUBLIC RELATIONS IMPLICATIONS:

N/A

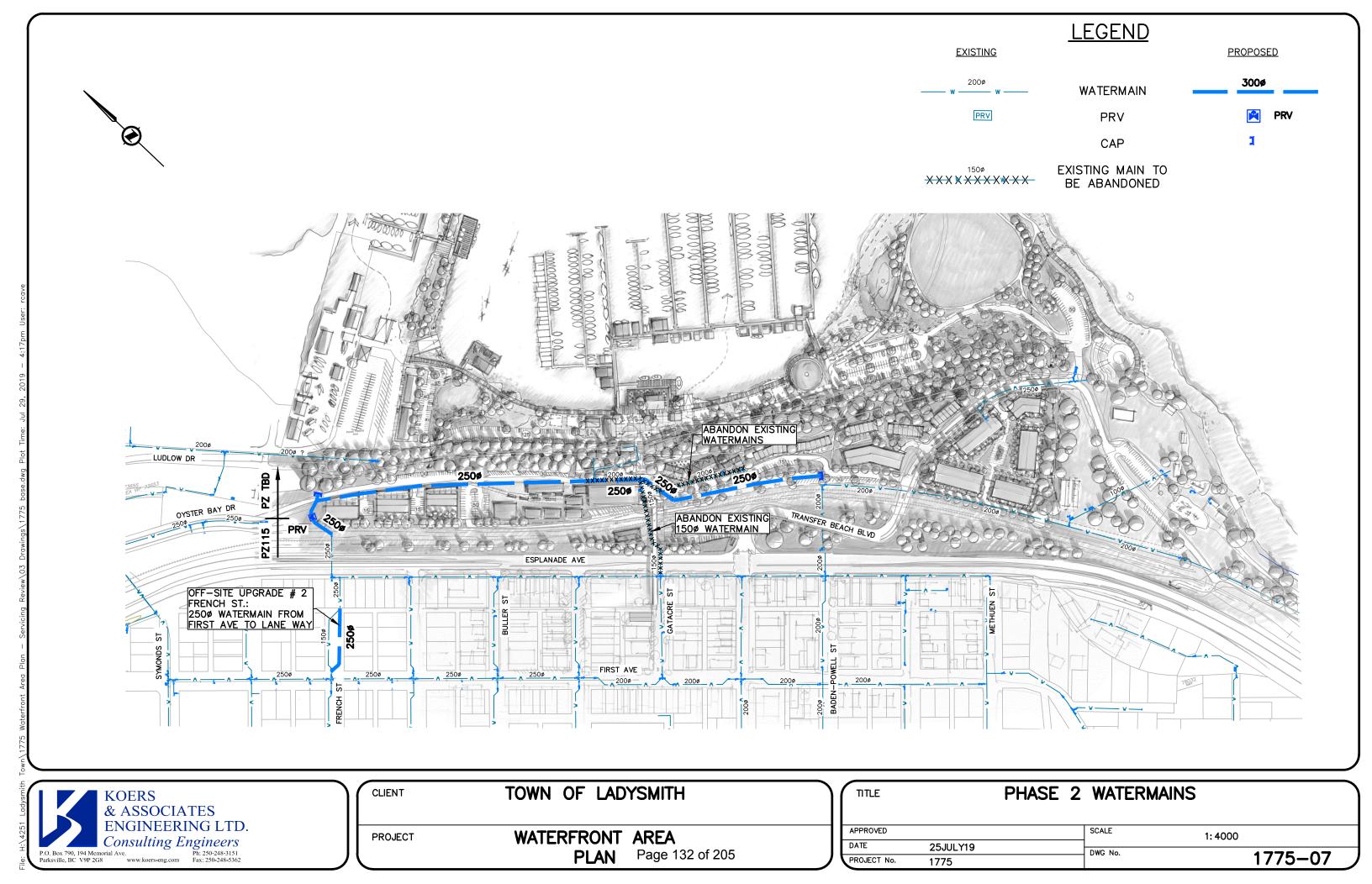
INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS:

This project will be designed and managed by the Town's water consultant. The project will be tendered and completed during the winter months.

ALIGNMENT WITH SUSTAINABILITY 	VISIONING REPORT:
☐ Complete Community Land Use	\Box Low Impact Transportation
☐Green Buildings	☐ Multi-Use Landscapes
	☐ Local Food Systems
☐ Healthy Community	☐ Local, Diverse Economy
☐ Not Applicable	
ALIGNMENT WITH STRATEGIC PRIOR ☑ Infrastructure ☐ Community ☐ Waterfront	RITIES: □ Economy □ Not Applicable
I approve the report and recommend	dation(s).
Erin Anderson, Acting Chief Adminis	trative Officer

ATTACHMENT:

• Waterfront Area Plan Phase 2 Watermains – existing and proposed



STAFF REPORT TO COUNCIL

Report Prepared By: Chris Barfoot, Director of Parks, Recreation & Culture

Meeting Date: August 18, 2020

File No:

SWIM CLUB RENTAL RATES - PROPOSED AMENDMENTS TO RE:

PARKS, RECREATION & CULTURE FEES & CHARGES POLICY NO. 05-1810-E

RECOMMENDATION:

That Council direct staff to amend the "Parks, Recreation & Culture Fees and Charges Policy No. 05-1810-E" as follows:

- 1. Remove existing language stating that the subsidy does not apply to specialized facilities such as swimming pools; and
- 2. Add a Registered non-profit youth swim club 15% subsidy for the FJCC swimming pool.

EXECUTIVE SUMMARY:

This report is provided in response to the request from the Ladysmith-Chemainus Swim Club (Orcas) Society for a reduction in pool rental rates through the addition of a non-profit youth swim club rate within the PRC Fees and Charges Policy No. 05-1810-E for pool time used by the Club.

PREVIOUS COUNCIL DIRECTION

CS 2020- 181		That Council refer the correspondence from the Ladysmith-Chemainus Swim Club Society regarding pool rental rates to staff for review and report back to Council.
CS 2015- 421		That Council: 1. Approve a reduction of pool rental fees for the Orcas Swim Club at Frank Jameson Community Centre to \$35.00 per hour from January 1, 2016 to August 31, 2016, which includes the cost of a single lifeguard. 2. Direct staff to continue to work with the Orcas Swim Club to develop a plan to ensure long term viability of the Club and report back to Council regarding possible opportunities.
CS 2015- 360		That Council direct staff to work with the Ladysmith Chemainus Swim Club to develop possible options and recommendations for ways the town can assist the Swim Club with its challenging financial situation.
CS 2010- 401	09/07/2010	It was moved, seconded and carried that staff be directed to work with the Ladysmith Orca Swim Club to establish a five-year sustainable plan for use of the Frank Jameson Community Centre pool, and that the Orcas' request for a reduction in fees be referred to the Parks, Recreation and Culture Commission for consideration and recommendation.
CS 2010- 240		It was moved, seconded and carried that the request from the Orcas Swim Club to reduce the hourly rental rate for the pool from \$38.46 to \$25.64 be referred to staff for the preparation of a report outlining options to consider to support the Swim



Club.

INTRODUCTION/BACKGROUND:

Council will recall that at its meeting held June 16, 2020 the Ladysmith-Chemainus Swim Club made a presentation to Council with a request for a non-profit youth swim club rate to be added to the PRC Fees and Charges Policy. Staff have drafted an amendment to the policy, attached as Appendix A.

The current policy states that the regular subsidy (discounts of 50% to non-profit community leisure groups) does "not apply to major specialized facilities such as the pools". It is this wording that requires the Club to periodically negotiate a different rate. For this reason, staff are suggesting that the wording be removed and add a 30% subsidy for the Swim Club to use the FJCC pool.

For 2019-20, the standard hourly single pool rental rate is \$81.65. The Club is currently receiving a significant discounted rate of \$50.42 per hour. On an annual basis, the Club uses approximately 300 hours of pool time with the annual pool rental cost being approximately \$15,100 (regular rate would be approximately \$24,500). The rationale at the time for this discount was based on historical practice and on an understanding that the swim coach would have provided the necessary back-up for emergency response. In order to meet the minimum standards of bather-to-lifeguard ratio as outlined in the <u>Public Pool Safety Standards for Canadian Swimming Pools</u>, there should be at least 2 lifeguards on duty at FJCC during swims. The cost of 2 lifeguards is \$73.55 (2020 rate) per hour including benefits.

There are many variables in pool rates from one pool to another, including the challenge with Ladysmith's 4-lane pool. Fixed costs are consistent with other full pool rentals within the region; comparisons are based on an hourly full pool rental. A per-lane comparison is not necessarily used as larger pools can rent a portion of the pool and still remain open for general admission. This is not an option for Ladysmith's 4-lane pool. In comparing pool rental costs within neighbouring communities, the current costs the Ladysmith-Chemainus Swim Club pays are much less than the average. Appendix B shows an average of the comparison municipalities of \$88.04 for regional pool youth rates.

Adding the youth non-profit aquatic swim club rate is an effective way to provide non-profit youth swim clubs the ability to plan and adjust their membership fees and the ability for the Town to monitor and adjust fees accordingly. This would also be consistent with the Town's field user rates for youth sports non-profit organizations. However, unlike the sports fields, the swimming pool has fixed costs including the requirement of having two lifeguards during these booked times and other utility and operation costs.

COVID-19

Unfortunately, due to COVID-19, the pool will not be open to the public in September. For the swim club specifically, there are a number of approvals that must be authorized by other agencies and authorities before the Club can utilize the Town's pool.

ALTERNATIVES:

Council can choose to:

- Continue to provide the Ladysmith–Chemainus Swim Club with the existing arrangement for using the swimming pool at FJCC for 2020-2021.
- Provide a lesser or greater percentage of subsidy for the use of the swimming pool at FJCC than what is recommended.
- Make no changes to the existing policy and not apply any percentage of subsidy to specialized facilities such as swimming pools.
- Direct staff to increase the hourly charge.

FINANCIAL IMPLICATIONS;

At present, the Town is subsidizing the Ladysmith-Chemainus Swim Club to a fairly significant level. Any adjustments to the current pool rental rate for non-profit aquatic clubs will impact FJCC's operating budget. At this point, the existing usage estimates and fees collected are included in the 2020 budget for the FJCC swimming pool.

LEGAL IMPLICATIONS;

N/A

CITIZEN/PUBLIC RELATIONS IMPLICATIONS:

There are a number of examples of reduced rates for user groups at Town facilities. Major specialized facilities such as swimming pools have an established fee structure and rental revenues to offset ongoing maintenance of these facilities.

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS:

N/A

ALIGNMENT WITH SUSTAINABILITY VISION	IING REPORT:
☐ Complete Community Land Use	\square Low Impact Transportation
☐ Green Buildings	☐ Multi-Use Landscapes
☐ Innovative Infrastructure	☐ Local Food Systems
	\square Local, Diverse Economy
☐ Not Applicable	
ALIGNMENT WITH STRATEGIC PRIORITIES:	
□Infrastructure	☐ Economy
☐ Community	
□Waterfront	

I approve the report and recommendation(s).

Erin Anderson, Acting Chief Administrative Officer

ATTACHMENT(S):

- Appendix A Fees and Charges Policy PRC 05-1810-E proposed amendments
- Appendix B Regional Comparison for Pool Rental Rates for youth Non-Profit

APPENDIX A

TOWN OF LADYSMITH

POLICIES AND PROCEDURE MANUAL

TOPIC: FEES & CHARGES – Dept. Parks Recreation & Culture

APPROVED BY: Council DATE: August 6, 2013

RESOLUTION #: 13-267

(Amended from) Oct 7, 2002

<u>Criteria to Use When Considering Grant Requests</u> 1 (low) through 5 (high)

- Indirect benefit to residents of the community i.e. Youth Event. Proactive approach to policing / social services Event designed to encourage positive behaviour amongst youth.
- Socially worthwhile

 i.e. Contributes to sense of community
- Immediate Economic impact within the community
- Long term economic impact / exposure to the community
- Contributes to the quality of life experience for all residents

FEES AND CHARGES POLICY

The following policy pertains to the Department's three major service areas of pre-registered programs, general admissions and facility rentals. This policy is consistent with, and derived from, the preceding Fees and Charges principles and Leisure Services justification. It will provide the guidelines for the development of the additional policy, which may be necessary to address specific and at times, changing community needs, e.g. employee wellness, economically disadvantaged, etc.

Fees and charges policy development, implementation and evaluation is a dynamic process. Regular policy review and adjustment will occur to ensure that the policy addresses current community needs. Fees and charges will be reviewed annually and any pricing adjustments will be effective September1st.

A. PRE-REGISTERED PROGRAMS

Principles:

Fees for programs sponsored directly by the Department will be based on the following principles:

- The fees will be partially based on recovery of direct cost.
- The fees will encourage maximum public participation and at the same time, minimize, within reason, the tax subsidy.

Page 137 of 205

^{*} Minimum score of 15 to be advanced for resolution.

• Users will be responsible for financially contributing to their recreation activity.

Aug 6/13

Direct Cost Recovery:

Registered programs are to recover the direct costs of the program. Direct program costs include:

- Materials: Includes all items necessary to ensure the program meets recognized standards. This includes items such as arts and crafts supplies, balls and nets, camping equipment, vehicle and equipment rental, tools and parts, stationery and printing, program cards and badges, candidate fees, etc.
- Leadership: Includes all persons directly involved in the teaching, coaching and immediate supervision of a program or activity. This category refers to all leaders, instructors and activity supervisors, whether paid by wage, honorarium (and/or contract).
- Transportation: Includes vehicle lease, rentals, tolls, fuel and labour costs.
- Facilities: Includes admission rates or rentals of non-district recreation facilities.
- Administrative Surcharge: A 10% surcharge, (15% for aquatic programs) based on the total amount of all other direct program costs, will be included as part of the Direct Program Cost. The surcharge is to compensate for other indirect costs associated with the program production, e.g. administration / supervision, facility fixed charges, advertising, etc.

Pricing for programs will reflect fees based on staff and material costs and contribute a portion to administrative services.

Target margin:

<u>Dryland Programs</u>	Aquatic Programs
Preschool programs – 5%	Beginners – 15%
Youth programs – 10%	Advanced – 25%
Adult programs – 20%	

Fees will be determined through a program cost analysis to be reviewed annually.

Factors for Consideration:

Other factors which may be taken into account when establishing program fees are:

- Program fees charged by other agencies and municipalities for similar services.
- Grants: If the Department is successful in obtaining provincial or federal grant funding or funding from corporate sponsors, the standard program fees may be decreased in order to encourage greater participation, e.g. summer playgrounds, community special events, special interest programs, etc.
- Developmental Programs: May not initially recover costs but are continued at a loss in order to encourage and promote interest. It is expected however, that over a period of time, these programs will break even.

• "Loss Leader" or "Service" programs are programs which provide service to patrons of other functions within the operation. These "Loss Leaders" are considered necessary for the success of other "profitable" operations within the facility, e.g. child minding, free introductory sessions, etc.

B. GENERAL ADMISSION PROGRAMS

The Town of Ladysmith is one of several leisure delivery agencies operating within the geographic region of the CVRD. If one organization is not price consistent with other agencies providing comparable service, the demand for their service will vary accordingly.

Consistent with the principle outlined in this policy, general admission fees should not be so high as to prohibit the participation of the majority of the public, but not so low as to ignore the obligation of the user to pay for service and minimize the cost to the taxpayer.

In consideration of the above, and within the principles and rationale of the Fees and Charges policy, the following General Admission pricing policy will apply. *User Classifications:*

Adult 19 years of age and older
Senior Citizens 60 years of age and older
Youth 13 years of age to 18 years
Child 3 years of age to 12 years
Tot 0 to 36 months of age

Family – Parent(s) or guardian(s) with dependent children aged 18 or under. *Family rate pays for one or both parents/guardians plus up to four (4) children, whether related or not, or all the children in the same family even if there are more than four.

General Admission Programs will include but not necessarily be limited to: swimming, aerobics and recreational sports. A base rate for all General Admission Programs which will be equal to the adult admission rate and will be determined by:

- a) a market analysis of comparable services in the CVRD and
- b) consideration of inflationary costs providing the service.

Degree of Subsidy:

The fee structure as a percentage of the base rate for the respective user classification will be as follows:

1225 00 0111110225, 2 0 011110000 1105 0, 10	FEES & CHARGES,	Dept. PR&C	Aug 6/13	Page 4 of 6
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0%	Adult	→
25%	Seniors	
50%	Children	
25%	Students	
100%	Pre-school	
	Families	The rate equal to 2 adults

Free General Admission access to any member of the community who is 80 Years or older.

Strip or multiple admission tickets may be available for up to 20% off applicable single rates for multiple admissions.

Other passes may be developed where appropriate to facilitate long term use, e.g. three to twelve month passes may be available at 24 and 75 times their respective single admission rates.

The Director of Parks, Recreation and Culture will have the authority to waive or reduce set fees for programs and services not identified in the Fees and Charges scheduled to provide for unusual, promotional and /or experimental purposes.

C. FACILITY RENTALS

Principles:

Fees for facilities run by the Department will be consistent with the rationale and principles described in this policy and with specific consideration given to:

- CVRD market rate for facility services of same or similar nature.
- Users contribution to the voluntary provision of recreation opportunities for the Ladysmith community.
- Users ability to pay.
- The encouragement of responsible and efficient use of facilities.
- Maximize revenue potential to recover maintenance, capital and labour costs and minimize financial burden to the taxpayer.
- Ensure fee equity to facilities of same or similar size and quality.

The base rate for all facility rentals will be established and consistent with the rate of same or comparable facilities in the CVRD market. Variations of the base rate in consideration of the aforementioned principles will be designated to various categories

of use. The categories are as follows:

User Categories:

- 1.) Official Town functions and special status groups/events sanctioned by the Town of Ladysmith.
- 2.) Registered non-profit volunteer groups that use facilities for the provision of leisure-oriented activities that are open to all citizens or the neighbourhood and/or community.
- 3.) Private, educational, religious, labour, government, political and social service agencies, social/sports clubs, groups, and/or individuals.
- 4.) Commercial / Business

Degree of Subsidy:

Facility subsidy will increase with the degree to which the user group generally supports and/or contributes to the Municipality's mandate of providing public leisure services and are as follows (figures shown reflect percentage subsidy of regular rate):

	Users	Percentage of Subsidy
1	Town	100
2	Registered non-profit volunteer community leisure groups/service clubs	50
3	Private, Religious, Political, Government	0
<mark>4</mark>	Registered non-profit youth swim club (s)	<mark>15</mark>
5	Commercial/Business	(20)

The above subsidies apply to the rental fees only of general purpose program spaces within the Department's Community Recreation Facilities. Additional direct costs such as materials, custodial services, etc., will be borne 100% by the renter. The subsidies do not apply to major specialized facilities such as the pools. Subsidies for those facilities may be considered on an individual basis and in the context of the CVRD market and the principles provided in this policy. Reductions in fees may be made for groups and low priority times to facilitate maximum use of facilities in conjunction with other section managers.

Requests for Waiving of Fees:

The Department cannot waive fees but it can work cooperatively with organizations on joint programs where there is clear proof of benefit. All requests for joint initiatives will be

addressed to the Director of Parks, Recreation & Culture and forwarded to the Parks and Recreation Commission for their consideration.

Council will not waive the fee but will provide a grant to the group to cover all, or a portion of the fee.

The following items should be considered in recommending whether Council provides a grant:

- a) Parks, Recreation & Culture Department recommendation
- b) grants will be limited to fund raising events
- c) grants will only be considered for Ladysmith-based non-profit organizations.
- d) only one grant per organization will be considered in one calendar year
- e) Criteria rating form.

NOTE* Volunteer non-profit groups will be provided space at no charge for public service functions such as registrations, equipment swaps, etc. Each group would be limited to three per year and provided only on availability of the facility.

APPENDIX B

REGIONAL POOL YOUTH RATE COMPARISON

							Approximate							
Region	Location	# of lane	s Cos	t to rent	Cost pe	r lane	Subsidy %	Sul	sidy\$	Subsidy per lane	Net	cost per pool	Net cost per lane	
Ladysmith	FJCC						0%	\$	-	\$ -	\$	81.65	\$ 20.41	CURRENT RATE
Ladysmith	Current Swim Club	4	\$	81.65	\$	20.41	38%	\$	31.23	\$ 7.81	\$	50.42	\$ 12.60	CURRENT SWIM CLUB
Ladysmith	Proposed Swim Club						15%	\$	12.25	\$ 3.06	\$	69.40	\$ 17.35	PROPOSED
North Cowichan	Aquatic Centre	8	\$	158.20	\$	20.35	25%	\$	39.55	\$ 4.94	\$	118.65	\$ 15.41	
RDN	Ravensong	6	\$	142.44	\$	22.74	33%	\$	47.01	\$ 7.83	\$	95.43	\$ 15.45	
Nanaimo	Bowen	6	\$	124.16	\$	20.69	50%	\$	62.08	\$ 10.35	\$	62.08	\$ 10.35	
Port Alberni Youth Rate	Echo Pool	6	\$	152.00	\$	25.33	50%	\$	76.00	\$ 12.67	\$	76.00	\$ 12.67	
Comparison Average		6	\$	144.20	\$	22.28	39.5%	\$	56.16	\$ 8.95	\$	88.04	\$ 13.47	



TOWN OF LADYSMITH STATEMENT OF FINANCIAL INFORMATION YEAR ENDED DECEMBER 31, 2019



Financial Information Act

STATEMENT OF FINANCIAL INFORMATION

YEAR ENDED DECEMBER 31, 2019

TABLE OF CONTENTS

Audited Financial Statements which provide:

- Management Report
- Statement of Assets and Liabilities
- Operational Statement
- Notes to the Financial Statements

Schedule of Debt

Schedule of Guarantee and Indemnity Agreements

Schedule of Elected Official Remuneration and Expenses

Schedule of Employee Remuneration and Expenses

Statement of Severance Agreements

Schedule of Payments for Goods and Services

Statement of Financial Information Approval

Council Minutes Approving Financial Information



CONSOLIDATED FINANCIAL STATEMENTS

DECEMBER 31, 2019

AUDITED



INDEX TO THE FINANCIAL STATEMENTS DECEMBER 31, 2019

Management Report	
Independent Auditor's Report	
Consolidated Financial Statements	
Consolidated Statement of Financial Position	1
Consolidated Statement of Operations	2
Consolidated Statement of Cash Flows	3
Consolidated Statement of Changes in Net Financial Assets	4
Notes to the Consolidated Financial Statements	5-31
<u>Schedules</u>	

Consolidated Statement of Tangible Capital Assets - 2018 & 2019

32-33

34-35

Statement of Operations by Segment – 2018 & 2019

П

STATEMENT OF MANAGEMENT'S RESPONSIBILITY

The accompanying Consolidated Financial Statements are the responsibility of the management of the Town of Ladysmith and have been prepared in compliance with legislation, and in accordance with Canadian Public Sector Accounting standards.

In carrying out its responsibilities, management maintains appropriate systems of internal and administrative controls designed to provide reasonable assurance that transactions are executed in accordance with proper authorization, that assets are properly accounted for and safeguarded, and that financial information produced is relevant and reliable.

MNP LLP as the Municipality's appointed external auditors, have audited the Consolidated Financial Statements. The Auditor's report is addressed to the Mayor and members of Council and appears on the following page. Their opinion is based upon an examination conducted in accordance with Canadian Auditing Standards, performing such tests and other procedures as they consider necessary to obtain reasonable assurance that the Consolidated Financial Statements are free of material misstatement and present fairly the financial position and results of the Municipality in accordance with Canadian Public Sector Accounting Standards.

Guillermo Ferrero

Chief Administration Officer

Independent Auditor's Report

To the Mayor and Council of the Town of Ladysmith:

Opinion

We have audited the consolidated financial statements of the Town of Ladysmith (the "Town"), which comprise the consolidated statement of financial position as at December 31, 2019, and the consolidated statements of operations, changes in net financial assets and cash flows and related schedules for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Town as at December 31, 2019, and the results of its operations and cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Town in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

Management is responsible for the other information. The other information comprises the annual report, which is expected to be made available to us after the date of this auditor's report.

Our opinion on the consolidated financial statements does not cover the other information and we will not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

When we read the annual report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Town's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Town or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Town's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements



As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Town's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Town's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Town to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Town to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Nanaimo, British Columbia

May 5, 2020

MNPLLP

Chartered Professional Accountants



TOWN OF LADYSMITH CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS AT DECEMBER 31, 2019

		2019			2018
Financial Assets					
Cash and short-term deposits	(Note 2)	\$	24,653,055	\$	22,025,702
Accounts receivable	(Note 4)		5,653,020	•	4,435,613
			_		
		-	30, 306, 075		26,461,315
Liabilities					
Accounts payable and accrued liabilities	(Note 5)		3,560,551		3, 372, 143
Post-employment benefits	(Note 6)		262,400		232,400
Deferred revenue	(Note 7)		611,478		563, 199
Refundable deposits and other	(Note 8)		819,767		878,031
Restricted reserves	(Note 9)		474,480		442, 190
Development cost charge reserve	(Note 10)		3,714,388		3, 163, 671
Federal gas tax reserve	(Note 11)		1,474,035		1,506,769
Equipment financing	(Note 12)		915,645		986,306
S hort-term financing	(Note 13)		952,700		952,700
Debenture debt	(Note 14)		16,962,428		11,598,532
			29,747,872		23,695,941
Net Financial Assets			558,203		2,765,374
Non-Financial Assets					
Tangible Capital Assets	(Schedule II)		110,605,787		97, 692, 141
Prepaids			95,485		89,387
Inventory			64,550		74,232
			110,765,822		97,855,760
Accumulated Surplus	(Note 19)	\$	111,324,025	\$	100,621,134

Commitments and Contingencies (Note 15) Subsequent Events (Note 28)

Director of Financial Services

TOWN OF LADYSMITH CONSOLIDATED STATEMENT OF OPERATIONS AS AT DECEMBER 31, 2019

		2019	Budget 2019 (Note 20)	2018
Revenue				
Taxation	(Note 22)	\$ 11,600,354	\$ 11,597,913	\$ 10,691,844
Sale of Services	(Note 23)	3,976,114	3,981,458	3,731,971
Investment Income		528,984	155,000	263,939
Licence, Permits, Rentals & Penalties	(Note 24)	1,018,152	773,807	965,424
Grants	(Note 25)	6,842,495	21,185,687	3,658,040
Donations and contributed tangible capit	al assets	2,114,949	2,168,500	348,214
Loss on foreign exchange		(15,931)	-	(51,120)
Gain (loss) on disposal of tangible capital	assets	(104,904)	10,000	(1,205)
Development fees		77,000	982,750	43,000
Gas tax funds utilized	(Note 11)	893,245	1,422,054	398,071
		26,930,458	42,277,169	20,048,178
Expenses				
General government services		2,780,011	2,971,091	2,698,993
Protective services		1,443,022	2,124,537	1,742,911
Transportation services		2,250,325	2,392,845	2,338,580
Garbage services		527,606	525,121	511,805
Cemetery services		29,068	30,033	28,609
Development services		573,622	732,906	578,671
Recreation and cultural services		2,897,536	3,068,405	2,887,980
Parks operation services		1,093,968	1,043,464	930,872
Sewer		2,854,002	3,574,857	2,787,753
Water		1,778,406	2,091,788	1,360,108
		16,227,567	18,555,047	15,866,282
Annual Surplus		10,702,891	23,722,122	4,181,896
Accumulated Surplus, beginning of year		100,621,134	100,621,134	96,439,238
Accumulated Surplus - end of year		\$111,324,025	\$124,343,256	\$100,621,134

TOWN OF LADYSMITH CONSOLIDATED STATEMENT OF CASH FLOWS AS AT DECEMBER 31, 2019

	2019	2018
Operating Transactions		
Annual Surplus	\$ 10,702,891	\$ 4,181,896
Less non-cash items included in surplus:	, ,	, ,
Amortization	3,489,917	3,336,032
Loss on disposal of tangible capital assets	104, 904	1,205
Actuarial adjustments on debenture debt	(46,059)	(40,824)
Contributed tangible capital assets	(1,949,543)	(269,830)
	12,302,110	7,208,479
Change in		
Accounts receivable	(1,217,407)	(1,551,415)
Prepaid expenses	(6,098)	(17, 934)
Inventory	9,682	(7,842)
Accounts payable and accrued liabilities	188,408	984,727
Post employment benefits	30,000	(1,700)
Deferred revenues	48, 279	25,668
Refundable deposits and other	(58, 264)	317,044
Restricted reserves	32,290	7,334
Development cost charge reserve	550,717	490,827
Gas tax reserve	(32,734)	25,258
Cash provided by operating transactions	11,846,983	7,480,446
Capital Transactions		
Proceeds on sale of tangible capital assets	50,552	-
Cash used to acquire tangible capital assets	(14,609,476)	(6,884,740)
Cash used by capital transactions	(14, 558, 924)	(6,884,740)
Financing Transactions		
Proceeds of long-term financing	6,000,000	952,700
Proceeds of equipment loans	, , , <u>-</u>	626,869
Repayment of debt	(660,706)	(590,045)
Net Increase in cash from financing	5,339,294	989,524
Increase in Cash and Short-Term Deposits	2,627,353	1,585,230
Cash and Short-Term Deposits - Beginning of Year	22,025,702	20,440,472
Cash and Short-Term Deposits - End of Year	\$ 24,653,055	\$ 22,025,702

TOWN OF LADYSMITH CONSOLIDATED STATEMENT OF CHANGES IN NET FINANCIAL ASSETS AS AT DECEMBER 31, 2019

	2019	Budget 2019 (Note 20)	2018
Annual Surplus	\$ 10,702,891	\$ 23,722,122	\$ 4,181,896
Acquisition of tangible capital assets Amortization of tangible capital assets Loss (gain) on sale of tangible capital assets Proceeds from sale of tangible capital assets Decrease (Increase) in inventories Decrease (Increase) in prepaids	(16,559,019) 3,489,917 104,904 50,552 9,682 (6,098)	(42, 358, 680) 3, 436, 284 - - -	(7, 154, 570) 3, 336, 032 1, 205 - (7, 842) (17, 934)
Change in Net Financial Assets	(2,207,171)	(15,200,274)	338,787
Net Financial Assets, beginning of year	2,765,374		2,426,587
Net Financial Assets, end of year	\$ 558,203		\$ 2,765,374

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

The Town of Ladysmith (the Town) was incorporated in 1904 under the provisions of the British Columbia Municipal Act. Its principal activities are the provision of local government services in the Town, as governed by the *Community Charter* and the *Local Government Act*.

Note 1 - Significant Accounting Policies

The notes to the consolidated financial statements are an integral part of these financial statements. They provide detailed information and explain the significant accounting and reporting policies and principles that form the basis of these statements. They also provide relevant supplementary information and explanations which cannot be expressed in the consolidated financial statements.

(a) Basis of Presentation

It is the Town's policy to follow Canadian public sector accounting standards for local governments and to apply such principles consistently. The financial resources and operations of the Town have been consolidated for financial statement purposes and include the accounts of all of the funds of the Town.

The consolidated financial statements are prepared using the accrual basis of accounting. The accrual basis of accounting records revenue as it is earned and measurable. Expenses are recognized as they are incurred and measurable based upon the receipt of goods and services or the creation of an obligation to pay.

The consolidated financial statements reflect the assets, liabilities, revenues and expenses and changes in fund balances and financial position of the Town. These consolidated financial statements consolidate the following operations:

General Revenue Fund General Capital Fund
Water Revenue Fund Water Capital Fund
Sewer Revenue Fund Sewer Capital Fund
Reserve Fund

(b) Reporting Entity

The consolidated financial statements include the assets, liabilities, revenue and expenses of the reporting entity. The reporting entity is comprised of all the funds, agencies, local boards, and committees of the Council which are controlled by the Town. Control is defined as the power to govern the financial and reporting policies of another organization with the

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 1 - Significant Accounting Policies - (b) Reporting Entity (continued)

expected benefits or risk of loss to the Town. The controlled organizations are consolidated after adjusting their accounting policies to a basis consistent with the accounting policies of the Town. Interfund and intercompany balances and transactions have been eliminated. The controlled organizations include DL 2016 Holdings Corporation, a wholly owned subsidiary of the Town.

(c) Tangible Capital Assets

Tangible capital assets are recorded at cost less accumulated amortization and are classified according to their functional use. Cost includes all amounts that are directly attributable to the acquisition, construction, development or betterment of the asset. Donated assets are recorded at their estimated fair value upon acquisition. Certain tangible capital assets for which historical cost information is not available have been recorded at current fair market values discounted by a relevant inflation factor. Certain assets are disclosed at a nominal value as the determination of current fair market value was not available. The Town does not capitalize interest charges as part of the cost of its tangible capital assets.

Tangible capital assets are amortized over their estimated useful life on the straight-line method at the following annual rates:

General Tangible Capital Assets

Land	Indefinite
Land Improvements	15 to 75 years
Buildings	25 to 40 years
Equipment, Furniture and Vehicles	5 to 60 years

Engineering Structures

Roads and Sidewalks	20 to 75 years
Storm and Sewer	25 to 75 years
Water	20 to 80 years

Constructions in progress contain capital projects underway but not yet complete or put into use. Once put into use, the asset will be amortized based on the above annual rates for the applicable category of work performed.

Certain assets have historical or cultural value including works of art, historical documents as well as historical and cultural artifacts that are not recognized as tangible capital assets

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 1 - Significant Accounting Policies - (c) Tangible Capital Assets (continued)

because a reasonable estimate of the future benefits associated with such property cannot be made. Intangibles, Crown lands and other natural resources are not recognized as tangible capital assets.

(d) Cash and Short-Term Deposits

Cash and short-term deposits have maturities of three months or less from the date of acquisition, reported in Canadian funds using the exchange rate of the prescribed bank as of December 31.

(e) Restricted Reserves and Deferred Revenues

Receipts which are restricted by the legislation of senior governments or by agreement with external parties are deferred and reported as restricted reserves. When qualifying expenses are incurred, restricted reserves are brought into revenue at equal amounts, in accordance with Revenue Recognition policy 1(i). These revenues are comprised of the amounts shown in Note 9, 10, and 11.

Revenues received from non-government sources in advance of expenses which will be incurred in a later period are deferred until the associated purchase or expense is incurred.

(f) Use of Estimates

The preparation of financial statements in accordance with Canadian public sector accounting standards requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expense during the reporting period. Significant areas requiring the use of management estimates relate to the collectability of accounts receivable, accrued liabilities, post-employment benefits, provisions for contingencies and amortization rates, useful lives and salvage values for determining tangible capital asset values. Actual results could differ from those estimates. Liabilities for contaminated sites are estimated based on the best information available regarding potentially contaminated sites that the Town is responsible for. Adjustments, if any, will be reflected in operations in the period of settlement.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 1 - Significant Accounting Policies (continued)

(g) Revenue Recognition

Taxation revenues are recognized at the time of issuing the property tax notices for the fiscal year. Fees and charges revenue are recognized when the services are rendered. Investment income is accrued as earned. Gain (loss) on foreign exchange has been recognized in the Statement of Operations using the exchange rate in effect on December 31, 2019.

Other revenues are recognized when earned in accordance with the terms of the agreement, when the amounts are measurable and when collection is reasonably assured.

The Town recognizes a government transfer as revenue when the transfer is authorized and all eligibility criteria, if any, have been met. Grants and donations are recognized in the financial statements in the period which the events giving rise to the transfer occur, eligibility criteria are met, and reasonable estimates of the amount can be made. A government transfer with stipulations giving rise to an obligation that meets the definition of a liability is recognized as a liability (deferred revenue). In such circumstances, the Town recognizes the revenue as the liability is settled.

Deferred revenue represents user charges and other fees which have been collected, for which the related services have yet to be provided. These amounts will be recognized as revenue in the fiscal year the services are provided.

(h) Non-financial Assets

Non-financial assets are not available to discharge existing liabilities and are held for use in the provision of services. They have useful lives extending beyond the current year and are not intended for sale in the ordinary course of operations. The change in non-financial assets during the year, together with the excess of revenues over expenses, provides the change in net financial assets for the year.

(i) Inventory

Inventory is valued at the lower of cost and net realizable value, determined on an average cost basis.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 1 - Significant Accounting Policies (continued)

(j) Liability for contaminated sites

A liability for remediation of a contaminated site is recognized at the best estimate of the amount required to remediate the contaminated site when contamination exceeding an environmental standard exists, the Town of Ladysmith is either directly responsible or accepts responsibility, it is expected that future economic benefits will be given up, and a reasonable estimate of the amount is determinable. The best estimate of the liability includes all costs directly attributable to remediation activities and is reduced by expected net recoveries based on information available at December 31, 2019.

Included in tangible capital assets are specific properties that have been determined to be contaminated in excess of Provincial environmental standards and that require remediation activities. As the Town has not accepted responsibility for the contamination, no liability has been recorded for the estimated remediation costs. Future events may confirm the Town's responsibility, at which point a liability would be recorded. Any remediation activities that occur prior to the determination of responsibility will be expensed as incurred.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 2 - Cash and Short-Term Deposits

Cash and short-term deposits were comprised as follows:

	2019	2018
Cash Short-term deposits	\$ 23,845,187 807,868	\$ 21,232,595 793,107
	\$ 24,653,055	\$ 22,025,702

Included in Cash is a deposit of \$191,088 (the equivalent of \$149,377 US Funds based on the exchange rate at the Ladysmith and District Credit Union on December 31, 2019). Short-term deposits consist of short-term investments in the Municipal Finance Authority of B.C. money market fund. The market value is equal to the carrying value.

Included in cash and short-term deposits are the following restricted amounts that are expended in accordance with the terms of the restricted reserves.

	2019		2018		
Restricted reserves	\$	474,480	\$	442, 190	
Federal gas tax reserve		1,474,035		1,506,769	
Development cost charges reserve		3,714,388		3, 163, 671	
Total restricted cash	\$	5,662,903	\$	5,112,630	

Note 3 - Financial Instruments

The Town as part of its operations carries a number of financial instruments. It is management's opinion the Town is not exposed to significant interest, currency or credit risk arising from these financial instruments, except as otherwise disclosed. The Town is exposed to currency risk on its US dollar bank account. Unless otherwise noted in Note 2, the fair value of these financial instruments approximates their carrying values.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 4 - Accounts Receivable

	2	2019		2018	
Property taxes	\$	852,318	\$	911,481	
Other government	3	3,807,963		2,705,974	
User fees and other		981,267		808,059	
Developer receivables		5,139		5,139	
Employee receivables		6,333		4,960	
	\$ 5	5,653,020	\$	4,435,613	

Note 5 - Accounts Payable and Accrued Liabilities

	2019		2018	
General	\$	1,462,671	\$	2,583,733
Other governments		204,763		11,362
Salaries and wages		273,802		261,128
Contractor holdbacks		1,507,649		438,108
Accrued interest		111,666		77,813
	\$	3,560,551	\$	3,372,143

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 6 - Post-Employment Benefits

The Town provides compensated absences to its employees to a maximum of 120 days. The Town also allows employees to defer unused vacation without any maximum. Any deferred vacation time remaining at retirement or termination is paid out at that time. The amount recorded for these benefits is based on an actuarial evaluation done by an independent firm using a projected benefit actuarial valuation method prorated on services. The last actuarial valuation was calculated at August 31, 2017 and has been extrapolated to December 31, 2019. The change in the liability in the financial statements in respect of obligations under the plan amounts to \$30,000 (\$1,700 - 2018).

The accrued post-employment benefits are as follows:

2019		2018		
Balance, beginning of year	\$	232,400	\$	234,100
Current service costs		29,600		29,000
Benefits paid		(17,600)		(26,900)
Actuarial gain		18,000		(3,800)
Past service credit				
Balance, end of year	\$	262,400	\$	232,400

The significant actuarial assumptions adopted in measuring the Town's post-employment benefits are as follows:

	2019	2018
Discount Rate	2.70%	3.30%
Expected Inflation Rate and Wage & Salary Increases	2.50%	2.50%

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 7 - Deferred Revenue

	2019			2018
Licence fees & charges	\$	21,401	\$	17,832
Rental payments		12,441		12,441
Property tax prepayments		441,645		417,460
Subdivisions prepayments		80,515		71,515
Recreation prepayments		30,169		27,512
Utilities prepayments		14,125		12,357
Other		11,182		4,082
		611,478	\$	563,199

Note 8 - Refundable Deposits and Other

	 2019	 2018	
Developer performance deposits Damage deposits Other	\$ 373,978 279,000 166,789	\$ 475,996 233,450 168,585	
	\$ 819,767	\$ 878,031	

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 9 - Restricted Reserves

There are two reserves, LRC Capital and B&G Capital for the replacement of specific building components located at $630 \, 2^{nd}$ Avenue and $220 \, High$ Street.

Description	Balance c. 31, 2018	Interest		Сог	ntributions	ons Expenditures		Balance c. 31, 2019
Parking	\$ 74,979	\$	2,251	\$	30,000	\$	-	\$ 107,230
Green Streets	1,480		38		-		-	1,518
Amphitheatre	19,255		307		300		(10,000)	9,862
B&G - Capital	43,930		1,178		5,064		-	50,173
LRCA/Seniors - Capital	302,546		1,425		2,480		(755)	305,697
TOTAL	\$ 442,190	\$	5,200	\$	37,844	\$	(10,755)	\$ 474,480

Note 10 - Development Cost Charges Reserve

Restricted reserves include Development Cost Charges (DCC's) which are charged to developers and utilized for infrastructure development.

Description	Balance Dec. 31, 2018 Interest		Interest	Co	ntributions	Expenditures		Balance Dec. 31, 2019		
DCC - Water	\$	693,763	\$	18,447	\$	128,599	\$	-	\$	840,809
DCC - Parks		719,041		18,824		123,950		-		861,816
DCC - Roads		775,834		20,060		121,222		(67,000)		850,116
DCC - Sewer		589,375		15,986		150,521		-		755,882
DCC - Storm		385,658		9,890		10,216		-		405,765
TOTAL	\$	3,163,671	\$	83,208	\$	534,508	\$	(67,000)	\$	3,714,388

Developers may be entitled to DCC credits in certain circumstances. There were no DCC credits in 2019 (\$15,000 – 2018).

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 11 - Federal Gas Tax Reserve

Gas Tax funding is provided by the Government of Canada. The use of the funding is established by a funding agreement between the Town and the Union of British Columbia Municipalities. Gas Tax funding may be used towards designated public transit, community energy, water, wastewater, solid waste and capacity building projects, as specified in the funding agreements. A one-time payment of \$405,121 was received in 2019. The funds are recorded on the consolidated financial statements as a restricted reserve.

	 2019	 2018
Opening balance of unspent funds	\$ 1,506,769	\$ 1,481,511
Add: Amounts received during the year Interest earned	819,763 40,747	405,121 18,208
Less: Gas tax funds utilized	(893,245)	(398,071)
Closing balance of unspent funds	\$ 1,474,035	\$ 1,506,769

Note 12 - Obligations under Equipment Financing

The total equipment financing outstanding with the Municipal Finance Authority of British Columbia as at December 31, 2019 was \$915,645 (\$986,306 - 2018).

The Town has entered into equipment loans for the following purchases:

1) A five year equipment loan agreement with the Municipal Finance Authority of British Columbia which commenced May 2017 for the purchase of a 2012 Spartan fire truck. This was formerly a capital lease. The remaining obligation will be repaid with monthly loan payments in the amount of \$3,291 including interest at a daily varying rate (December 31, 2019 was 2.53875). The balance of the loan at December 31, 2019, which is included in equipment financing, is \$254,960 (\$287,634 - 2018). Loan to expire May 2022.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 12 - Obligations under Equipment Financing (continued)

2) A five year equipment loan agreement with the Municipal Finance Authority of British Columbia which commenced September 2018 for the purchase of a 2018 Spartan fire truck. The remaining obligation will be repaid with monthly loan payments in the amount of \$2,835 including interest at a daily varying rate (December 31, 2019 was 2.53875). The balance of the loan at December 31, 2019, which is included in equipment financing, is \$660,685 (\$677,945 – 2018). Loan to expire September 2023.

There are two equipment loans payable to the Municipal Finance Authority. The future minimum loan payments under the equipment loan obligation are as follows:

2020	\$ 50,442
2021	51,824
2022	32,616
2023	186,867
2024	593,896

Interest in the consolidated statement of operations is calculated as \$23,829 (\$12,208 - 2018).

The total equipment financing issued and outstanding with the MFA as at December 31, 2019 was \$915,645 (\$986,306 as at December 31, 2018). This balance is made up of:

	Balance	Principal	Balance	
	Dec 31, 2018	Payments	Dec 31, 2019	Interest
Spartan Fire Truck	\$ 16,505	\$ 16,505	\$ -	\$ 224
Spartan Fire Truck	287,634	32,674	254,960	6,822
Fitness Equip - FJCC	4,222	4,222	-	28
Pumper Truck	677,945	17,260	660,685	16,755
	\$ 986,306	\$ 70,661	\$ 915,645	\$ 23,829

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 13 - Short-term Financing

The total short-term financing outstanding with the Municipal Finance Authority of British Columbia as at December 31, 2019 was \$952,700 (\$952,700 – 2018). The Town entered into a short- term financing agreement which commenced September 2018 to borrow up to \$1,000,000 to purchase 1260 Churchill Place. As of December 31, 2019 \$952,700 in short-term financing was executed. Interest is charged at a daily varying rate. The full amount borrowed must be repaid by 2023.

Short-term interest in the consolidated statement of operations is calculated at \$23,824 (\$5,912 – 2018).

Note 14 - Debenture Debt

The Town of Ladysmith secures its long-term borrowing through the Municipal Finance Authority of BC (MFA). As a condition of each borrowing, a portion of the debenture proceeds is retained by the MFA as a debt reserve fund. As at December 31, 2019, the cash balance of the Town's debt reserve funds was \$ 223,515 (\$158,762 - 2018). Debt reserve funds are not recorded elsewhere in the financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

The total long-term debt issued and outstanding with the MFA as at December 31, 2019 was \$16,962,428 (\$11,598,532 as at December 31, 2018). This balance is made up of:

	Original Amount	Balance Dec 31, 2018	Principal Payments	Balance Dec 31, 2019 Interest		Actuarial Adjustment	Interest Rate	
General Capital Fund RCMP Building Issue #97 Term 2006-2031	\$ 2,750,000	\$ 1,757,803	\$ 105,721	\$ 1,652,082	\$ 48,125	\$ (39,688)	1.75%	
Water Capital Fund Water Improvements Issue #118 Term 2012-2037	1,000,000	840,729	30,383	810,346	34,000	(6,371)	3.40%	
Water Filtration Plant Issue #147 Term 2019-2044	6,000,000	-	-	6,000,000	79,800	-	2.66%	
Sewer Capital Fund Sewer Treatment Plant Issue #138 Term 2016-2036	10,000,000	9,000,000	500,000	8,500,000	173,823	-	1.88%	
	\$ 19,750,000	\$11,598,532	\$ 636,104	\$16,962,428	\$ 335,748	\$ (46,059)		

The following principal payments are payable over the next five years:

	General		Water		Se	Total	
	Principal Repayment	Actuarial Sinking Fund Earnings	Principal Repayment	Actuarial Sinking Fund Earnings	Principal Repayment	Actuarial Sinking Fund Earnings	Net
2020	\$ 66,033	43,917	\$ 188,579	7,586	\$ 500,000	-	\$ 806,115
2021	66,033	48,315	188,579	13,787	500,000	-	816,714
2022	66,033	52,889	188,579	20,187	500,000	-	827,687
2023	66,033	57,645	188,579	26,791	500,000	-	839,049
2024	66,033	62,593	188,579	33,608	500,000	-	850,813
Thereafter	462,230	594,328	3,603,500	2,161,991	6,000,000	-	12,822,049

Debt interest, net of actuarial adjustment included in the consolidated statement of operations, is calculated at \$339,425 (\$223,759 - 2018).

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 15 - Commitments and Contingencies

(a) Contingent Liabilities

- i) The Town, as a member of the Cowichan Valley Regional District, is jointly and severally liable for operational deficits or long term debt related to functions in which it participates.
- ii) The loan agreements with the Municipal Finance Authority provide that if the Authority does not have sufficient funds to meet payments on its obligations it shall make payments from the Debt Reserve Fund which in turn is established by a similar Debt Reserve Fund in the Town and all other borrowing participants. If the Debt Reserve Fund is deficient the Authority's obligations become a liability of the regional district and may become a liability of the participating municipalities.
- that arose in the ordinary course of operations. In the opinion of management and legal counsel, the outcomes of the lawsuits, now pending, are not determinable. As the outcomes are not determinable at this time, no amount has been accrued in the financial statements. Should any loss result from the resolution of these claims, such loss will be charged to operations in the year of resolution.

(b) Pension Liability

The Town and its employees contribute to the Municipal Pension Plan (a jointly trusteed pension plan). The board of trustees, representing plan members and employers, is responsible for administering the plan, including investment of assets and administration of benefits. The plan is a multi-employer defined benefit pension plan. Basic pension benefits are based on a formula. As at December 31, 2018, the Plan has about 205,000 active members and approximately 101,000 retired members. Active members include approximately 40,000 contributors from local governments.

Every three years, an actuarial valuation is performed to assess the financial position of the plan and adequacy of plan funding. The actuary determines an appropriate combined employer and member contribution rate to fund the plan. The actuary's calculated contribution rate is based on the entry-age normal cost method, which produces the long-term rate of member and employer contributions sufficient to provide benefits for average future entrants to the plan. This rate may be adjusted for the amortization of any actuarial funding surplus and will be adjusted for the amortization of any unfunded actuarial liability.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 15 - Commitments and Contingencies - (b) Pension Liability (continued)

The most recent valuation for the Municipal Pension Plan as of December 31, 2018, indicated a \$2.866 billion funding surplus for basic pension benefits on a going concern basis.

The Town of Ladysmith paid \$483,383 (2018 - \$464,390) for employer contributions to the Plan in fiscal 2019.

The next valuation will be as at December 31, 2021, with results available in 2022.

Employers participating in the plan record their pension expense as the amount of employer contributions made during the fiscal year (defined contribution pension plan accounting). This is because the plan records accrued liabilities and accrued assets for the plan in aggregate, resulting in no consistent and reliable basis for allocating the obligation, assets and cost to individual employers participating in the plan.

(c) Reciprocal Insurance Exchange Agreement

The Town is a subscribed member of the Municipal Insurance Association of British Columbia (The "Exchange") as provided by Section 3.02 of the Insurance Act of the Province of British Columbia. The main purpose of the Exchange is to pool the risks of liability so as to lessen the impact upon any subscriber. Under the Reciprocal Insurance Exchange Agreement the Town is assessed a premium and specific deductible for its claims based on population. The obligation of the Town with respect to the Exchange and/or contracts and obligations entered into by the Exchange on behalf of its subscribers in connection with the Exchange are in every case several, and not joint and several. The Town irrevocably and unconditionally undertakes and agrees to indemnify and save harmless the other subscribers against liability losses and costs which the other subscriber may suffer.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 15 - Commitments and Contingencies (continued)

(d) Service Agreements & Rental Payments

Rental payments under operating leases are expensed as incurred.

Service Agreements

		2018
\$ 42,550	\$	23,970
42,137		41,310
 43,400		43,400
\$ 128,087	\$	108,680
\$	42,137 43,400	42,137 43,400

In 2017, the Town entered into a 5-year Service Agreement with the Ladysmith & District Historical Society (LDHS) for the occupancy, operation and management of the museum and archives. The Town provided a one-time additional payment of \$18,100 in 2019. The future payments are expected to be \$28,038 – 2020, \$28,537 – 2021, and \$29,046 – 2022.

Also in 2017, the Town entered into a 5-year Service Agreement with the Ladysmith Resources Centre Association (LRCA). The future payments are expected to be \$42,978 – 2020, and \$43,838 – 2021.

The Town provides the Ladysmith Chamber of Commerce & Visitor Centre annual funding to operate the visitor centre and provide support services for local businesses. The agreement is year-to-year.

Rental Payments

	 2019	2018		
132c Roberts Street - office space 17 & 25 Roberts Street - parking lot	\$ 27,998 8,400	\$	27,796 8,100	
	\$ 36,398	\$	35,896	

The Town entered into a 3-year lease with Ivory Tower Investments Ltd for the use of office space at 132c Roberts Street. The future monthly payments are \$2,388 for 2020, 2021 and 2022.

In 2017, the Town entered into a 3-year lease agreement with Paul Jorjorian for the rental of the 17 & 25 Roberts Street Parking Lot. The future monthly payment is \$725 for 2020.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 16 - Significant Taxpayers

The Town is reliant upon 10 taxpayers for approximately 12.88% (13.52% - 2018) of the total property tax revenue which includes Western Forest Products at approximately 6.72% (6.78% - 2018) of the total property tax revenue.

Note 17 - Funds Held in Trust

These funds account for assets which must be administered as directed by agreement or statute for certain beneficiaries; in particular, these funds are for the Cemetery Trust Fund. In accordance with PSAB recommendations on financial statement presentation, trust funds are not included in the Town's Financial Statements. A summary of trust fund activities by the Town is as follows:

	2019		2018	
Assets				
Cash and short term investment	\$	161,557	\$	159,737
Equity				
Opening balance Interest Transfer interest to fund cemetery costs Contributions Refunds	\$	159,737 4,065 (4,065) 1,820	\$	155,937 2,461 (2,461) 4,130 (330)
Balance, end of year	\$	161,557	\$	159,737

Note 18 - Comparative Figures

Certain comparative figures have been reclassified to conform to the current year's presentation.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 19 - Accumulated Surplus

The Town segregates its accumulated surplus in the following categories:

	2019	2018
Unappropriated equity Appropriated equity (Note 26)	\$ 4,110,986 13,151,741 17,262,727	\$ 5,346,507 8,980,174 14,326,682
Capital Funds General capital fund Sewer capital fund Water capital fund	233,910 14,942 446,073 694,925	182,120 14,942 14,073 211,135
Reserve Funds Reserve funds (Note 26)	1,591,351_	1,928,713
Equity in Tangible Capital Assets	91,775,023	84,154,605
Total Accumulated Surplus	\$ 111,324,025	\$ 100,621,134

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 20 - Annual Budget

Fiscal plan amounts represent the Financial Plan Bylaw adopted by Council on May 13th, 2019.

The Financial Plan anticipated the use of surpluses accumulated in previous years to balance against current year expenses in excess of current year revenues. In addition, the Financial Plan anticipated capital expenses rather than amortization expense.

The following shows how these amounts were combined:

Financial Plan Balance for the year	\$ -
Add back:	
Amortization	(3,436,284)
Proceeds from new debt	(8,911,952)
Transfers to/from own funds	(7,112,509)
Less:	
Principal payments on debt	824,187
Capital expenditures per budget	42,518,786
Capital Expenditures expensed according to Tangible Capital Asset Policy	(160,106)
Adjusted Annual Surplus	\$ 23,722,122

Note 21 - DL 2016 Holdings Corporation ("DL 2016")

The Town of Ladysmith has an investment in DL 2016 Holdings Corporation, a wholly owned subsidiary company of the Town.

The Town of Ladysmith leases portions of its waterfront from the Province of British Columbia parts of which are subleased to DL 2016 for use as a marina.

DL 2016 has entered into operation and maintenance agreement and a license agreement with the Ladysmith Maritime Society (LMS) for the operation and management of the lease area. A portion of the moorage revenues from LMS are owed to DL 2016.

Pursuant to these agreements DL 2016 could provide security for debt financing in order for LMS to implement capital improvements to the lease area.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 22 - Taxation

Taxation revenue comprises the following amounts less transfer to other governments:

	Actuals 2019			Actuals 2018		
Taxes Collected:						
General municipal purposes	\$	8,450,342	\$	7,953,731		
Grants in lieu and 1% utility tax		172,097		167,917		
Water and sewer parcel tax		2,977,916		2,570,196		
School district		3,124,607		2,999,577		
Regional hospital district		971,645		891,070		
Regional district		1,480,883		1,332,669		
BCAA and MFA		81,817		77,486		
Library		414,149		386,677		
	\$	17,673,457	\$	16,379,323		
Less transfer to other govenments						
Province of BC (school taxes)		3,124,607		2,999,577		
Cowichan Valley Regional Hospital District		971,645		891,070		
Cowichan Valley Regional District		1,480,883		1,332,669		
BC Assessment & Municipal Finance Authority		81,817		77,486		
Vancouver Island Regional Library		414,149		386,677		
		6,073,103		5,687,479		
Net taxation for municipal purposes	\$	11,600,354	\$	10,691,844		

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 23 - Sale of Services

	Actuals			Actuals 2018		
Administration recoveries	\$	75,809	\$	48,504		
Cemetery services		21,580		32,250		
Fire service agreements		88,504		82,152		
Public Works recoveries		24,947		41,481		
Recreation services		565,681		582,075		
Sewer utility fees		1,466,705		1,296,801		
Solid waste fees		664,979		642,413		
Water utility fees		1,067,908		1,006,296		
	\$	3,976,114	\$	3,731,971		

Note 24 - Licences, Permits, Rentals & Penalties

	Actuals 2019			Actuals 2018		
Facility Rentals & Leases	\$	470,925	\$	378,360		
Fines		3,990		3,620		
Licences		89,586		90,029		
Penalties and interest		124,404		148,572		
Permits, Licences & Fees		329,247		344,843		
	\$	1,018,152	\$	965,424		

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 25 - Grants

	_	Actuals 2019	_	Budget 2019		Actuals 2018
Operating Grants		_	_		_	
Traffic Fines Revenue	\$	55,613	\$	45,684	\$	45,684
Small Communities		463,119		465,515		465,515
CVRD Recreation		150,818		135,075		135,075
Other		34,882		15,164		29,672
		704,432		661,438		675,946
Capital Grants						
Age Friendly Walkability	\$	-	\$	-	\$	9,000
Arts & Heritage Hub (Phase I)		-		3,874,500		-
Asset Management		-		-		9,152
Derelict Vessels		-		-		59,880
Holland Dam Construction		-		9,430,238		-
Machine Shop		742,051		1,716,585		35,968
Golf Course Trail & Net		3,386		-		7,846
Public Washroom		-		109,500		-
Stz'uminus First Nation Cooperation Protocol/C2	С	-		-		610
Tree Replacements		4,000		4,800		6,100
Water Filtration Plant		5,388,626		5,388,626		2,853,538
		6,138,063		20,524,249		2,982,094
Total Grants	\$	6,842,495	\$	21,185,687	\$	3,658,040

${\bf Notes\, To\, The\, Consolidated\, Financial\, Statements}$

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 26 - Reserves & Appropriated Equity

	De	Balance ec. 31, 2018	Interest Allocated	Co	ontributions	Funding	De	Balance ec. 31, 2019
RESERVES Tax Sale Perpetual Safety Fund Sale Real Property Municipal Office Building Amenity Funds TOTAL RESERVES	\$	26,555 13,214 1,436,956 355,000 96,989 1,928,713	\$ 679 338 30,074 - 2,482 33,573	\$	60,000	\$ 430,935 - 430,935	\$	27,234 13,552 1,036,094 415,000 99,470 1,591,351
APPROPRIATED EQUITY - OPERATIONS General Operating Fund Future Projects Equipment Land & Building Tax Contingency Snow & Ice Removal Infrastructure Deficit Multi-Materials BC Rebate		3,195,984 768,357 90,719 7,986 50,000 691,331 380,325 5,184,702	- - - - - -		2,479,108 181,308 127,565 - 38,100 216,262 102,200 3,144,543	1,350,827 80,000 - 38,100 495,703 - 1,964,631		4,324,264 869,665 218,284 7,986 50,000 411,890 482,525 6,364,614
Water Operating Fund Future Projects Capital Expenditures MFA Surplus Refunds Total Water Operating Fund Sewer Operating Fund Future Projects Capital Expenditures Total Sewer Operating Fund		893,757 1,307,858 524,076 2,725,690 638,494 431,289 1,069,783	- - - - -		2,533,515 1,450,513 - 3,984,027 296,771 583,107 879,878	893,757 259,999 - 1,153,756 638,494 80,000 718,494		2,533,515 2,498,371 524,076 5,555,961 296,771 934,395 1,231,166
TOTAL APPROPRIATED EQUITY TOTAL RESERVES AND APPROPRIATED EQUITY	\$	8,980,175 10,908,888	\$ 33,573	\$	8,008,448 8,068,448	\$ 3,836,882 4,267,817		13,151,741 14,743,092

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 27 - Segmented Information

The Town is a diversified municipal government institution that provides a wide range of services to its citizens such as roads, water, sewer and drainage infrastructure, fire protection, police protection (RCMP), cemetery, recreation centre, garbage collection and parkland. Distinguishable functional segments have been separately disclosed in the segmented information. The nature of the segments and the activities they encompass are as follows:

General Government Services

The City Manager is the liaison between Council and the Town departments and staff. The Corporate Services Department supports the legislated activities of Council, and provides information to citizens with respect to Council/Committee processes, reporting procedures and decisions, and Town activities. Also included in General Government Services is the Finance Department, Information Technology, Human Resources, and Waterfront Area Plan Implementation.

Protective Services

Protection is comprised of fire protection, policing, and bylaw enforcement:

- Bylaw enforcement administers, monitors, and seeks compliance with the bylaws enacted by the Mayor and Council to regulate the conduct of affairs in the Town of Ladysmith.
- Fire protection is provided by the fire department, whose volunteer members receive compensation for each callout in which they take part.
- Policing is provided under contract with the RCMP operating from a detachment building located in and owned by the Town of Ladysmith.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 27 - Segmented Information (continued)

Transportation, Solid Waste and Cemetery

The Transportation (Public Works) Department is responsible for the infrastructure of the Town. Public works provides and maintains Town's roads, sidewalks, street lights, signage and line markings, storm drainage and hydrants.

Solid Waste (Public Works) is responsible for the garbage collection, kitchen organics and recycling programs operating in the Town of Ladysmith. Solid waste collection is performed by a contractor.

Cemetery (Public Works) Department provides cemetery services including the maintenance of the cemetery grounds.

Development

The Development Services Department provides short-term and long-term land use planning services. Long-term Planning includes work with the community on reviewing the Town's Official Community Plan, developing new Neighbourhood Plans, the Trail Plan and the review of relevant bylaws. Short term Planning includes the processing of development applications.

The Town of Ladysmith's Development Services and Public Works Departments work together to regulate all construction within the Town. This is achieved through the use of the Town of Ladysmith's Building and Plumbing Bylaw, the British Columbia Building Code, the British Columbia Fire Code and other related bylaws and enactments with the Town of Ladysmith.

Recreation and Culture

The Parks, Recreation and Culture Department contribute to the quality of life and personal wellness of the community through the provision of a variety of special events, programs, services and facilities. The Frank Jameson Community Centre is the location where the majority of the programs are offered.

Parks

Parks includes and provides maintenance of beach area, trails, golf course, spray-park, ball parks, and any other civic grounds.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR ENDED DECEMBER 31, 2019

Note 27 - Segmented Information (continued)

Water

Water includes all of the operating activities related to the treatment and distribution of water throughout the Town as well as ensuring clean and safe water to the Town, supplied through underground pipes and reservoirs,

Sewer

Sewer includes all of the operating activities related to the collection and treatment of waste water (sewage) and bio-solids composting throughout the Town as well as maintaining a separate system of underground pipes to collect sewer or waste water for proper treatment prior to discharging it.

Note 28 - Subsequent Events

- (a) On February 18, 2020, the electors approved an additional \$6 million dollars in long-term debt to increase the Town's water supply. This new debt has not been executed.
- (b) Subsequent to year-end, there was a global outbreak of COVID-19 (coronavirus), which has had a significant impact on municipalities through the restrictions put in place by the Canadian, provincial and municipal governments regarding travel, municipal operations and isolation/quarantine orders. At this time, it is unknown the extent of the impact the COVID-19 outbreak may have on the Town of Ladysmith as this will depend on future developments that are highly uncertain and that cannot be predicted with confidence. These uncertainties arise from the inability to predict the ultimate geographic spread of the disease, and the duration of the outbreak, including the duration of travel restrictions, office closures and disruptions, and quarantine/isolation measures that are currently, or may be put, in place by Canada and other countries to fight the virus.

TOWN OF LADYSMITH STATEMENT OF OPERATIONS BY SEGMENT FOR THE YEAR ENDED DECEMBER 31, 2019

SCHEDULE I

							Transpo	rtat	ion,			
	Gen	eral		Protec	ctiv	re	Garbage &	Cer	netery	Develop	ome	nt
	Govern	nme	nt	Servi	ices	i	Serv	ices		Servi	ces	
	2019		2018	2019		2018	 2019		2018	2019		2018
REVENUE												
Tax	\$ 8,622,439	\$	8,121,648	\$ -	\$	-	\$ -	\$	-	\$ -	\$	-
Sale of services	75,809		48,504	93,554		84,976	685,985		679,009	-		-
Investment income & MFA Refunds	528,984		263,939	-		-				-		-
Licence, Permits, Rentals & Penalties	88,413		110,919	186,137		210,118	129,362		181,597	259,422		227,508
Grants	463,119		535,157	55,613		45,684	2,630		-	-		-
Donations & contributed property	-		16,000	200		-	1,476,165		229,490	-		-
Loss on foreign exchange	(15,931)		(51,120)	-		-	-		-	-		-
Gain (loss) on disposal	(47,138)		(1,205)	-		-	50,552		-	-		-
Development fees	-		-	-		-	67,000		-	-		-
Gas tax fund utilized	 -		60,000	 -			 870,028		214,157	 -		
Total revenue	 9,715,695		9,103,841	 335,504		340,778	 3,281,723		1,304,253	 259,422		227,508
EXPENSES												
Contracted Services	507,875		625,463	747,895		1,078,113	682,000		796,183	62,575		66,582
Service Agreements/Grants In Aid	185,263		166,647	-		-	-		-	-		-
Insurance	56,798		75,556	25,302		21,523	-		5,035	-		-
Interest	23,824		5,912	32,185		24,501	-		-	-		-
Materials & Supplies	51,052		93,460	83,522		87,550	95,310		113,422	7,349		11,539
Utilities & Telephone	14,451		20,035	26,797		26,241	153,689		151,099	4,608		5,662
Wages & Benefits	1,735,904		1,662,778	302,391		299,033	916,015		939,000	475,630		471,407
Other	(33,525)		(183,413)	44,048		38,361	92,599		55,328	19,332		19,353
Amortization	 238,370		232,555	 180,881		167,589	 867,385		818,927	 4,128		4,128
Total expenses	 2,780,011		2,698,993	 1,443,022		1,742,911	 2,806,999		2,878,994	 573,622		578,671
Surplus (Deficit)	\$ 6,935,683	\$	6,404,848	\$ (1,107,518)	\$	(1,402,133)	\$ 474,724	\$	(1,574,741)	\$ (314,199)	\$	(351,163)

TOWN OF LADYSMITH STATEMENT OF OPERATIONS BY SEGMENT FOR THE YEAR ENDED DECEMBER 31, 2019

SCHEDULE I - CONTINUED

 Recreation Serv		P	arks Opei Servic		 Sewer O		 Water Op Servi		Total Actual	Total Actual
2019	2018	20	019	2018	2019	2018	 2019	2018	2019	2018
\$ -	\$ -	\$	- :	\$ -	\$ 1,219,735	\$ 1,093,742	\$ 1,758,181	\$ 1,476,454	\$ 11,600,354	\$ 10,691,844
565,681 -	582,075 -		20,057	34,310	1,466,705 -	1,296,801	1,068,323	1,006,296	3,976,114 528,984	3,731,971 263,939
319,430	201,741		-	-	20,534	17,546	14,854	15,996	1,018,152	965.424
921,240	206,676		11,267	16,984	.,.	-	5,388,626	2,853,538	6,842,495	3,658,040
137,000	35,144		50	6,000	357,191	32,540	144,343	29,040	2,114,949	348,214
_	-		-	-	-	-	-	-	(15,931)	(51,120)
-	-		-	-	(105,889)	-	(2,429)	-	(104,904)	(1,205)
-	-		10,000	-	-	43,000	-	-	77,000	43,000
 6,085	123,914		2,902		 14,229	-	-		893,245	398,071
 1,949,436	1,149,550		44,276	57,295	 2,972,504	2,483,628	 8,371,898	5,381,323	26,930,458	20,048,178
365,151	338,806	1	182,667	70,461	226,401	241,093	235,867	133,276	3,010,431	3,349,977
363,131	330,000	_	102,007	70,461	220,401	241,073	233,007	133,276	185,263	166,647
46,852	39,772		4,304	4,180	39.425	17.297	11,220	11.210	183,263	174,573
40,032	210		4,304	4,160	173,823	182.458	143,780	28.798	373.639	241,880
132,637	151,321	1	120,573	95,350	175,023	170,104	139,235	117,907	804,693	840,653
206,542	217.964	-	7,612	7,345	153.428	144.441	14.755	11.086	581.882	583.872
1,869,742	1,881,723	_	159,391	443,250	540.003	559,911	618,386	462,277	6,917,463	6,719,378
41,547	27,927		83,809	76,555	217.479	212,236	215,089	206,923	680,377	453,270
 235,038	230,257	2	235,611	233,732	 1,328,429	1,260,213	 400,075	388,631	3,489,917	3,336,032
 2,897,536	2,887,980	1,0	93,968	930,872	 2,854,002	2,787,753	 1,778,406	1,360,108	16,227,567	15,866,282
\$ (948,101)	\$ (1,738,430)	\$ (1,0	049,691)	\$ (873,578)	\$ 118,502	\$ (304,124)	\$ 6,593,492	\$ 4,021,215	\$ 10,702,891	\$ 4,181,896

TOWN OF LADYSMITH CONSOLIDATED STATEMENT OF TANGIBLE CAPITAL ASSETS FOR THE YEAR ENDED DECEMBER 31, 2019

SCHEDULE II

		Land		Land Impro	ovements	Buil	dings	Veh	nicle Furnitur	e & Equipment	Transportation
	2019		2018	2019	2018	2019	2018		2019	2018	2019
COST											
Opening Balance	\$ 9,911,	216 \$	9,451,806	\$ 8,957,453	\$ 8,617,422	\$ 23,673,513	\$ 21,215,517	\$	9,117,960	\$ 7,615,385	\$ 27,091,211
Add: Additions	581,	000	459,410	316,082	340,031	148,941	2,457,996		195,898	1,503,780	2,175,360
Less: Disposals		-	-	14,150	-	108,246	-		382,112	1,205	19,346
Less: Write-downs		-			-		-		-	-	
Closing Balance	10,492,	216	9,911,216	9,259,385	8,957,453	23,714,208	23,673,513		8,931,746	9,117,960	29,247,225
ACCUMULATED AMOR	TIZATION	-	-	3,467,017	3,225,903	6,722,614	6,101,426		4,503,637	4,040,969	15,984,274
Add: Amortization Less: Write-downs		-	-	253,398	241,114	667,338	621,188		513,123	462,668	626,464
Less: Write-downs Less: Disposals		-	-	11.452	-	2.723	-		337,681	-	19,337
Closing Balance		_		3,708,963	3,467,017	7,387,229	6,722,614		4,679,079	4,503,637	16,591,401

TOWN OF LADYSMITH CONSOLIDATED STATEMENT OF TANGIBLE CAPITAL ASSETS FOR THE YEAR ENDED DECEMBER 31, 2019

SCHEDULE II (CONTINUED)

L	inear	Infr	astr	uct	tur	e

Transportation	Sanitar	y Sewer	Stor	m	Wa	ter	Assets Under Co	onstruction	To	tal
2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
\$ 26,843,386 247,825 -	\$ 35,946,824 347,413 1,933	\$ 35,914,284 32,540 -	\$ 8,708,158 554,482 444	\$ 8,607,481 100,677	\$ 16,937,080 909,647 11,360	\$ 16,713,617 223,463	\$ 4,786,319 \$ 11,735,065 404,868	5 2,997,471 4,017,206 2,228,358	\$ 145,129,734 16,963,887 942,459	\$ 137,976,369 9,382,928 2,229,563
27,091,211	36,292,304	35,946,824	9,262,196	8,708,158	17,835,367	16,937,080	16,116,516	4,786,319	161,151,162	145,129,734
15,385,190	8,811,591	7,822,993	2,430,628	2,312,727	5,517,832	5,212,353	_	_	47,437,593	44,101,561
599,084	991,814	988,598	123,385	117,901	314,395	305,479	-	-	3,489,917	3,336,032
-	-	-	-	-	-	-	-	-	· · · -	-
	1,567	-	444.00	-	8,931	-		-	382,135	-
15,984,274	9,801,838	8,811,591	2,553,569	2,430,628	5,823,296	5,517,832	-	-	50,545,375	47,437,593
\$ 11,106,937	\$ 26,490,466	\$ 27,135,233	\$ 6,708,627	\$ 6,277,530	\$ 12,012,071	\$ 11,419,248	\$ 16,116,516	5 4,786,319 ₋	_\$ 110,605,787	\$ 97,692,141

STATEMENT OF FINANCIAL INFORMATION

YEAR ENDED DECEMBER 31, 2019

SCHEDULE OF DEBTS

Information on all long-term debts for this organization is included in Notes 12, 13, and 14 to the financial statements.

Prepared under the Financial Information Regulation, Schedule 1, subsection 6(7)

STATEMENT OF FINANCIAL INFORMATION

YEAR ENDED DECEMBER 31, 2019

SCHEDULE OF GUARANTEE AND INDEMNITY AGREEMENTS

The Town of Ladysmith has not given any guarantees or indemnities under the Guarantees and Indemnities Regulation.

Prepared under the Financial Information Regulation, Schedule 1, subsection 6(7)

STATEMENT OF FINANCIAL INFORMATION

YEAR ENDED DECEMBER 31, 2019

SCHEDULE OF RENUMERATION AND EXPENSES

Elected Officials, as per Sec. 168 of the *Community Charter*As per Section 2 - *Financial Information Act* and *Financial Information Regulation* 371/93:

NAME	POSITION	REMUNERATION	EXPENSES
Stone, Aaron	Mayor	\$34,320	\$5,326
Jacobson, Amanda	Councillor	14,940	5,114
Johnson, Robert	Councillor	14,940	3,036
McKay, Patricia	Councillor	14,940	5,334
Paterson, Donald	Councillor	14,940	3,278
Stevens, Andrew	Councillor	14,940	6,310
Virtanen, Jeffrey	Councillor	14,940	790
Total Elected Officials		\$123,960	\$29,187

EmployeesAs per Section 2 - Financial Information Act and Financial Information Regulation 371/93:

NAME	POSITION	REMUNERATION	EXPENSES
Adams, Felicity	Director of Development Services	\$83,723	\$2,065
Anderson, Erin	Director of Financial Services	133,485	2,513
Baker, Curtis	Utilities III/Chief Operator	94,076	948
Barney, Martin	Certified Utilities Operator I	80,248	1,457
Bollinger, Colin	Senior Building Inspector	85,192	2,637
Bouma, Ryan	Sr Engineer Tech/Approving Officer	90,997	4,044
Brown, Michael	Certified Utilities Operator III	106,453	1,245
Ferrero, Guillermo	Chief Administrative Officer	158,253	7,878
Fukakusa, Gerald	Manager of Accounting Services	109,029	2,297
Ganderton, Mike	Streets Supervisor	86,641	-
Goldfuss, Kevin	Manager of Operations	115,608	24
Goodall, Geoff	Director of Infrastructure Services	141,348	1,543
Grueber, Gregory	Certified Utility Operator III	91,634	1,118
Jack, Isaac	Certified Utility Operator II (Backhoe)	78,165	77
Lassam, Shane	Equipment and Compost Operator IV	75,268	239
Manuel, Leonard	Facilities Maintenance Supervisor	79,507	-
McLeod, Robert	Certified Utility Operator II	84,432	70
McNeill, Andrew	Certified Utility Op IV-Chief Operator	104,356	169
Paydli, Ian	Manager of Human Resources	106,410	3,699
Postings, Clayton	Director of Parks, Recreation & Culture	135,504	1,571
Smith, Donna	Executive Liasion	80,267	302
Vaux, Ronald	Certified Mechanic	78,315	1,939
Winter, Joanna	Manager of Legislative Services	109,059	505
Winter, Wolf	Certified Wastewater Trmt Utility Op II	77,503	2,773
Total: Employees with renume	eration greater than \$75,000	\$2,385,473	\$39,111
Add: Employees with renumer	ration less than \$75,000	3,154,198	93,963
Total: All employees		\$5,539,671	\$133,074

STATEMENT OF FINANCIAL INFORMATION

YEAR ENDED DECEMBER 31, 2019

SCHEDULE OF SEVERANCE AGREEMENTS

There were **no** severance agreements made between the Town of Ladysmith and its non-unionized employees during fiscal year 2019.

Prepared under the Financial Information Regulation, Schedule 1, subsection 6(7)

STATEMENT OF FINANCIAL INFORMATION

YEAR ENDED DECEMBER 31, 2019

SCHEDULE OF PAYMENTS FOR GOODS AND SERVICES

Payee	Total Payments
1089765 BC LTD NORTH LADYSMITH JOINT VENTURE	\$ 44,430
ACME SUPPLIES	30,071
ALL OUT FENCING INC	44,342
ARTS COUNCIL OF LADYSMITH & DISTRICT	26,414
ASSOCIATED ENGINEERING (BC) LTD	909,898
BC ASSESSMENT AUTHORITY	81,299
BC HYDRO	470,932
BLACK PRESS GROUP LTD	35,679
CLEARTECH INDUSTRIES INC	132,939
COAST ENVIRONMENTAL LTD	25,203
COASTAL ANIMAL CONTROL SERVICES OF BC LTD.	38,297
COLUMBIA FUELS A DIV OF PARKLAND FUEL CORP	107,391
COMMUNICATION CONNECTION BC INC (THE)	32,936
CORNERSTONE TILE	27,689
COWICHAN VALLEY REGIONAL DISTRICT	2,445,568
COWICHAN VALLEY REGIONAL HOSPITAL DISTRICT	970,540
DAVID STALKER EXCAVATING LTD	1,038,692
DISTRICT OF NORTH COWICHAN	91,048
DYNAMIC HYDRAULICS INC	37,022
FINNING (CANADA)	33,451
FMI DEVELOPMENTS LTD	158,628
GOODMAN PLUMBING LTD	25,615
HEROLD ENGINEERING LTD	187,143
HOLLAND CREEK LIMITED PARTNERSHIP 0963984 BC	164,238
HOTSON ARCHITECTURE INC	278,737
HUB CITY PAVING LTD	63,651
ICBC	59,805
IVORY TOWER INVESTMENTS LTD	29,385
IWC EXCAVATION LTD	31,679
KOERS & ASSOCIATES ENGINEERING LTD	307,705
KTI LIMITED	58,235
LAFARGE ASPHALT TEHCNOLOGIES A DIV OF	42,512
LAWSON LANDS LTD	41,300
LIDSTONE & CO IN TRUST	292,000
LIDSTONE & COMPANY	42,308
MEDICAL SERVICES PLAN	45,900
METRO MOTORS LTD	131,419
MID-ISLAND FENCE PRODUCTS LTD	57,731
MILESTONE EQUIPMENT CONTRACTING INC	665,441
MINISTER OF FINANCE	122,911
MINISTRY OF SMALL BUSINESS AND REVENUE	351,189
MUNICIPAL FINANCE AUTHORITY	116,666

STATEMENT OF FINANCIAL INFORMATION

YEAR ENDED DECEMBER 31, 2019

SCHEDULE OF PAYMENTS FOR GOODS AND SERVICES

MUNICIPAL INSURANCE ASSOCIATION OF BC	\$	194,498
MUNICIPAL PENSION FUND	•	483,383
NAC CONSTRUCTORS LTD		9,890,979
NALCO WATER		27,488
PACIFIC BLUE CROSS		221,924
PROFAB MANUFACTURING LTD		31,935
RECEIVER GENERAL (Payroll only)		630,962
RECEIVER GENERAL FOR CANADA		731,440
RT INDUSTRIES		27,029
RUSHWORTH ELECTRICAL SERVICES INC		57,042
SOFTCHOICE CORP		60,411
STEWART MCDANNOLD STUART		115,917
SUMMIT MECHANICAL SYSTEMS LTD		52,105
TELUS MOBILITY		29,424
TETRA TECH CANADA INC		25,785
TURNER LAND SURVEYING INC		44,538
US BANK		216,470
VADIM COMPUTER MANAGEMENT GROUP LTD		28,683
VANCOUVER ISLAND REGIONAL LIBRARY		414,052
VANCOUVER ISLAND TREE SERVICE LTD		115,069
VEER HOLDINGS INC		37,255
WASTE CONNECTIONS OF CANADA INC		524,999
WATERHOUSE ENVIRONMENTAL SERVICES CORPORATION		42,074
WHOLESALE FIRE & RESCUE LTD		31,172
WINDLEY CONTRACTING LTD		459,022
WORKSAFE BC		132,041
WORLD WATER WORKS INC		42,153
WSP CANADA GROUP LTD		118,594
		24,684,478
Grants and contributions over \$25,000:		
LADYSMITH & DISTRICT HISTORICAL SOCIETY		49,550
LADYSMITH CHAMBER OF COMMERCE		45,612
LADYSMITH RESOURCES CENTRE ASSOCIATION		42,392
Total payments over \$25,000		24,822,031
Payments under \$25,000		1,942,328
Grants under \$25,000		56,850
Total payments made	\$	26,821,209

Prepared under the Financial Information Regulation, Schedule 1, subsection 6(7)

STATEMENT OF FINANCIAL INFORMATION

YEAR ENDED DECEMBER 31, 2019

STATEMENT OF FINANCIAL INFORMATION APPROVAL

The undersigned, as authorized by the Financial Information Regulation, Section 1, subsection 9(2), approves all the statements and schedules included in this Statement of Financial Information, produced under the *Financial Information Act*.

Erin Anderson Director of Financial Services August 18, 2020 Aaron Stone Mayor August 18, 2020

Prepared under the Financial Information Regulation, Schedule 1, section 9.

BYLAW NO. 2043

A bylaw to defer the 2020 annual tax sale until September 27, 2021

WHEREAS the British Columbia government has declared a provincial state of emergency to support the province wide response to the novel coronavirus (COVID-19) pandemic;

AND WHEREAS Ministerial Order No. M159/2020 under the Emergency Program Act permits a municipal council to adopt a bylaw to defer the annual tax sale for 2020 until September 27, 2021;

NOW THEREFORE the Municipal Council of the Town of Ladysmith in open meeting assembled enacts as follows:

2020 Tax Sale Deferment

1. The Town of Ladysmith's annual Tax Sale, as prescribed in the *Community Charter*, for 2020 is hereby deferred until Monday, September 27, 2021.

Citation

2. This bylaw may be cited as "Town of Ladysmith Tax Sale Deferment Bylaw, 2020, No. 2043".

		Corporate	e Officer (D. Smith)
			Mayor (A. Stone)
ADOPTED	on the	day of	, 2020
READ A THIRD TIME	on the 4 th	day of August	, 2020
READ A SECOND TIME	on the 4 th	day of August	, 2020
READ A FIRST TIME	on the 4 th	day of August	, 2020

AJ's Corner on Health 531 1st Ave.

Ladysmith, BC

250-245-2123 lshfs@outlook.com

To the Mayor and Council Members of Ladysmith,

This letter has been written to address the issue of *the placement of the public toilet* next to the entrance of the Ladysmith Health Food Store. The toilet was placed there without notification or discussion with the store owners, manager, or landlord. No consideration or inquiry was offered to the effect that such a distasteful facility could or would have on our business.

With only a few moments consideration of some the negative effects this issue presents, you may come up with the following:

- 1. The visual of a toilet next to the sidewalk and the entrance of a food store. Not to mention the proximity to other food related businesses.
- 2. Garbage and dirty clothing being left around the toilet and in front of our store including dirty toilet paper which we have already experienced. It is unsightly and far from helping with any said COVID concerns.
- 3. The stench that inevitably emanates from these types of facilities mobile or not will and has already found its way into our store.
- 4. Customers have and are expressing their repulsion to our store manager and staff. We are well aware that these customers have other options where they can shop.
- 5. Ladysmith Administrator of Parks, Recreation and Culture, suggested it would be monitored and cleaned twice daily. In these COVID times shouldn't it be cleaned after each use?

As owners, manager, staff, and landlord we have discussed and reviewed, doing our best to try and figure out how this placement was a good idea. After much consideration we have come up empty. We can only make comparisons that other towns and cities have implemented and facilitated tasteful, civilized washroom facilitates to encourage clean and safe access during shopping, celebrations, and downtown functions. We have referred to Chemainus, Nanaimo, Victoria, Parksville, and other larger and smaller cities with how they took on an old concern in the marketplace. We are sure there are at least a couple appropriate locations in Ladysmith for toilet facilities that won't affect a single business like ours, and would still provide convenience to public toilets and a little more privacy for them to do their business.

AJ's Corner on Health 531 1st Ave.

Ladysmith, BC

250-245-2123 lshfs@outlook.com

Over the past twenty years of facilitating washroom privileges to our customers and party guests during "Light up" Car Shows, Ladysmith Days etc... we have managed "a wash your hands" policy to everyone all the time. We have spent considerable time and money on extremely effective disinfectant practices on all doorknobs, tills, bulk bins, cooler handles, and counter tops. We consider that a huge community service. We have gone to the expense during big Ladysmith celebrations of appointed a staff person to be a key holder to the washroom and inspect and clean after each use, long before COVID. This should be, especially now more than ever, be the standard of cleanliness regarding public washrooms.

During the recent shut down of business in Ladysmith our store has remained cautiously available to do business, with much respect to protocol in a very deliberate manner. After surviving the last four months as a small business during COVID, an unsightly porta potty being placed beside our store is **not** being received by anyone as a congratulation, a thank you for your efforts or a show of support. Our observation is that the decision to place a toilet next to the sidewalk and the entrance to our store needed more thought and conversation which we would have liked to have been involved in. We cannot help but feel insulted by this decision but, we are confident this was not the intention. We would like to open a constructive dialogue with you about how we can work together to find a new home for the porta potty. We have started a petition at the store for our customers and residence of Ladysmith to sign and offer some suggestion that might help. If you are not familiar with our store we want to invite you to pay us a visit in person to help give you a better understanding of what our business is about and how this toilet detracts from our business.

We earnestly request your empathy, understanding, compassion and leadership at this time by offering us a better solution to this issue.

Sincerely,

The Owners and Management of Ladysmith Health Food Store Ltd.

531st Ave Ladysmith, BC V9G 1A1

250-245-2123

Ladysmith Health Food Store is petitioning the Town of Ladysmith to have the newly installed port-a-potty moved from beside our store. We feel it is unsanitary and unsightly to put a public toilet beside a food store and we need your help to convince the Mayor and City Council that it must be relocated. Thank you for supporting our petition to have the port-a-potty moved to a more discreet location.

NAME

COMMENTS

Kelly Perrin		July 15/20
Kolyr		July 15/20
Klair Strom	Put it between 631 and 621 137 Ave Not by a Food Store!	July 15/20
Timothy Poters	^	1. 01 16/20
Lim Peters		July 16/20
Sauger Strom GS-Cg	~	July 16/20
BRENTA MEKUTLIE	Should be of main street.	July 18/20
Glann Cossely	behind Royal Bank not beside Good Stoke.	Suley 18/28
Magle Natalie. Sagle		July 18/28
Hanyer Tina Hanyer	I agree with a toiled in the downtown area	July 18/20
	or food stores	uants

Page 199 of 205

531st Ave Ladysmith, BC V9G 1A1

250-245-2123

Ladysmith Health Food Store is petitioning the Town of Ladysmith to have the newly installed port-apotty moved from beside our store. We feel it is unsanitary and unsightly to put a public toilet beside a food store and we need your help to convince the Mayor and City Council that it must be relocated. Thank you for supporting our petition to have the port-a-potty moved to a more discreet location.

NAME

Eragno.	nat seur where to go best clearenis & safety an essui	July 19/20
L. Dean	I'm sure there 13 a petter spot downtown, away from the food stores.	July 19/20
lfbampone	a reduculous decision to put a toilet liese a foodstore a lane au a foodstore a lane au	de John Miller
Hyhie Chielnick.	to put a toilet liese a foodstore a lane au a lane au le more appropriate NOT SUNTAY OF OUT OUT TO POSE TO POSE	ssition
Aldrom,	Affor a pandemic dowe not want to support our local businesses or LOSE THEM ALL!	July 19/2
Affine)	FINA A BETTER PLACE.	July 20/20
My Bak	Aware from besixes some foreight	July 20/21
BMMM	away from food strul pleas	July 20/20

531st Ave Ladysmith, BC V9G 1A1

250-245-2123

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NAME

AM)	Unsonfory and Ogly ow our Beautiful Sheet I Put. Behind Flu Royal Berk!	July 20/20
Vika Strant	Yuck!	July 22/20
Candylerelow	there is a better selection? when cleaning form for	d. Service
Bonnee Welvszczak	Maybe not on mainoli	1 VI W
Mary C	U	July 22/20
Aune Baker	No Thanks to Location yes to having one!	July 22/20
Narmony Dalass	No thanks. What is 1977	July 22/20
Melanie Sorensen-	Bad Location. Find new one.	July 24/20

531st Ave Ladysmith, BC V9G 1A1 250-245-2123

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NAME

Locatto a recepción		July 23/20
Houter fount	reterre wastesthin hands, then goes in ford sto	Jelysk,
Helm M. Linnan	,	July rep
L'Roues		2 mayor
Deal		Julyativ
Valarer		JUN 18/12
- AM Naylor		n n nalp
1000		1) 1),) '), V

531st Ave Ladysmith, BC V9G 1A1

250-245-2123

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NAME	COMMENTS	29 JULY.
BRIDN KERSUP MELSON B.C.	PLEASE RÉMOUE ME PORTA POTTY = STIVICS.	1//
	THIS IS AN AREA OF COM	MERCE.
PAUL LYCANG	A BETTER POSITION IS PROBABLY STA A GOOD IDAGA	July 29/20
Lynda/Galmer	Porta Pottys should not be close to food we	Joly 19th
Shirtey Tremault	Put it on a side street away from . W	4/20
Denne Rosebruft	away from Food Store	July 29/20
to bloke		Aug 30/20
from they		Aug 3420

531st Ave Ladysmith, BC V9G 1A1

250-245-2123

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NAME	COMMENTS
Randy Ross	Please more the todet to a min appropriets place [
(

531st Ave Ladysmith, BC V9G 1A1

250-245-2123

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NAME

Barbara May 250-668-8748 Joy Reeves. 250-668-5542	Deflinitely Port Polly Should be moved! Me Not be food.	T SAFE
Jane Avis 250-245-5966 Delo Tonn		awy4/ Aug4
250 722 3768	Ma (leg. 5/26	Augs
•	,	